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Department of Energy
Ohio Field Office
Fernald Area Office
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

JUN 3 0 1997

DOE-1140-97

Mr. James A. Saric, Remedial project Director
U.S. Environmental Protection Agency
Region V -SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF AREA 1, PHASE I CERTIFICATION REPORT, INCLUDING WASTE ACCEPTANCE CRITERIA ATTAINMENT COMPLETION REPORTS FOR THE EAST AND WEST SOIL STOCKPILES GENERATED DURING AREA 1 PHASE I ACTIVITIES

The purpose of this letter is to transmit, for your review, the Area 1, Phase I (A1PI) Certification Report, including Waste Acceptance Criteria (WAC) Completion Reports for east and west soil stockpiles, which were generated during the A1PI construction activities.

The enclosed report represents the compilation of the certification sampling and analysis data from the identified certification units within A1PI, including the Onsite Disposal Facility (OSDF) Support Areas. The enclosed A1PI Certification Report does not include the certification results for the two sediment traps, east of the North Access Road and North of the OSDF, nor the A1PI identified soils borrow area, labeled Area "C" in the A1PI Remedial Action Work Plan (RAWP). The sediment traps will be removed and certified through the Area 1, Phase II construction activities along with the certification of the Area "C" soils.

The Fernald Environmental Management Project (FEMP) has completed the excavation associated with the soil cleanup in A1PI, with the exception of the removal of the North Access Road and Sediment Trap Number 1 (Certification Unit P18-40). As you are aware, the road and adjacent ditches will be excavated to the pre-established grades by Petro Environmental as part of the OSDF construction effort. As the impacted material, asphalt debris representing approximately the top six inches, is generated it will be placed, given the available space, on the debris stockpile east of the North Access Road. Once the existing eastern debris stockpile is full, given the space available, a second debris stockpile will be initiated south of the A1PI soils stockpile. The WAC attainment and certification completion

process for the North Access Road detailed taking three samples beneath the roadway composed of (1) two WAC attainment samples across the 6 to 17 inch section and, (2) a certification sample from the 17 to 21 inch section. As shown in the enclosed report, the entire 6 to 21 inch section passed certification. Similarly, the pre-qualified WAC and certification samples taken from Sediment Trap Number 1 and subsequently analyzed showed no concerns for either WAC attainment or certification. Sediment Trap Number 1 will also be removed to the pre-established elevations identified in the OSDF Support Areas Project Specific Sampling Plan.

The enclosed A1PI WAC Attainment Completion Reports for the east and west soil stockpiles provide the historical descriptions of the radiological sampling and analyses (both physical and real-time radiological) which were conducted, along with the associated excavation activities, in the A1PI and Waste Pit Area Rail Improvements areas which lead to the generation of the soil stockpiles. Due to a number of different factors, such as the lack of some physical soil sample results targeted to the highest RTRAK readings, the WAC Attainment Completion Report for the west soil stockpile does not certify that its associated soils are below WAC concentrations for uranium. As a result, the WAC report for the west soil stockpile includes a sampling and analysis plan in order to ensure that these impacted soils are suitable, below WAC concentrations for uranium, prior to their disposition into the OSDF. Separate from these WAC attainment completion reports, the FEMP is in the process of developing a comprehensive WAC Attainment Plan which will detail the identification and procedural process which is to be followed prior to the transport of soils and waste materials to the OSDF. This document will be submitted for EPA review prior to the disposal of any soils or debris (including A1PI generated materials) in the OSDF.

If you should have any questions, please contact Robert Janke at (513) 648-3124.

Sincerely,

Johnny Reising

FEMP:R.J. Janke

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosures: As Stated

cc w/encs:

N. Hallein, EM-42/CLOV
K. Miller, DOE-EML
G. Jablonowski, USEPA-V, 5HRE-8J
R. Beaumier, TPSS/DERR, OEPA-Columbus
M. Rochotte, OEPA-Columbus
T. Schneider, OEPA-Dayton
F. Bell, ATSDR
D. S. Ward, GeoTrans
R. Vandegrift, ODOH
R. Geiger, PRC
D. Carr, FDF/9
J. D. Chiou, FDF/52-5
T. Hagen, FDF/65-2
J. Harmon, FDF/90
A. Hunt, FDF/52-5
G. Jones, FDF/52-5
AR Coordinator/78

cc w/o encs:

C. Little, FDF/2
EDC, FDF/52-7

WASTE ACCEPTANCE CRITERIA ATTAINMENT REPORT
AREA 1, PHASE I EASTERN PORTION

SECTION 1.0 INTRODUCTION AND SCOPE

The Area 1, Phase I (A1PI) Waste Acceptance Criteria (WAC) Attainment Report will consist of two letter reports: one for the eastern portion of the A1PI area including the North Access Road, and one for the western portion of the A1PI area (see Attachment A). Soil stockpiled from excavation of each portion of A1PI is needed for 1997 construction (i.e., protective soil cover over the liner system) of the On-Site Disposal Facility (OSDF); by separating the report, potential delays to OSDF construction will be minimized.

This letter report addresses the eastern portion of the A1PI area only; the western portion of the A1PI area will be discussed under separate cover. Details of the certification program are not included in this report; a separate A1PI Certification Report has been prepared. The eastern portion of the A1PI area, including the North Access Road (NAR) and associated ditches, consists of 27 certification units (CUs), as shown in Attachment A. The sediment traps A1PI-2, and -3 are not included in the scope of this report.

The purpose of the A1PI WAC attainment program was:

- to ensure excavated material from A1PI to be placed in the OSDF does not exceed the total uranium WAC of 1,030 parts per million (ppm).
- to ensure any material identified to exceed the total uranium WAC is excavated and segregated for eventual off-site disposition.

This report is presented in five sections with supporting documentation included in the attachments. These sections are as follows:

1.0 Introduction and Scope
2.0 Excavation Activities, Stockpile Volumes, and Impacted Material Management
3.0 Description of the WAC Attainment Data Set
4.0 Data Summary
5.0 Summary and Conclusions

SECTION 2. 0 EXCAVATION ACTIVITIES, STOCKPILE VOLUMES, AND IMPACTED MATERIAL MANAGEMENT

In order to meet the final remediation levels (FRLs) for certification, approximately 54 acres were excavated in the eastern portion of A1PI. This included 46 acres within the certification area, and approximately 8 acres outside the certification area for sediment basin and stockpile area. All the excavated soil was placed in the east impacted stockpile as shown in Attachment B, Area 1, Phase I Eastern Portion Limits of Excavations and Impacted Material Stockpile Location. As of April 30, 1997, approximately 30,300 cubic yards (yd^3) of excavated soil has been staged in the A1PI eastern stockpile. Material placed into the stockpile consists of:

- Approximately 29,000 yd^3 was generated from excavation of the top six inches of soil from 17 CUs in the eastern portion of A1PI. These 17 CUs are as follows: (P17-22, P17-40, P18-20, P18-40, P19-20, Q16-33, Q16-34, Q17-10, Q17-30, Q18-10, Q18-30, Q18-40, Q19-10, Q19-20, Q19-30, Q19-40, and Q20-20. Also included in this volume is the additional soil that will be excavated from the sediment trap A1PI-1. Note that for CU Q20-40 no excavation was required. Therefore, WAC attainment is not an issue. WAC attainment samples will be collected from the sediment trap CUs, A1PIST-2 and A1PIST-3 prior to their excavation as part of Area 1 Phase II.

- Approximately an additional 1,300 yd^3 were excavated from Q18-40 as a result of the initial certification failure for radium-226.

When the North Access Road is excavated, the macadam (road base) beneath the pavement will also be placed into the eastern stockpile. In CU NAR-4 the compacted fill beneath the road has been certified for reuse. Additonally, soil from the sediment trap CU A1PIST-1 will be placed in the east stockpile during the initial excavation phase of OSDF construction.

A debris pile from the A1PI eastern field activities contains approximately 225 yd^3 of impacted material. This stockpile consists of concrete, (generated from demolition of an at-grade concrete pad formerly used to feed cows by the farmer leasing the pasture, rubble from concrete pads of plugged and abandoned wells within the excavation footprint), shrubs, tree stumps and roots, and asphalt (generated from borings on the North Access Road and the stormwater management project in the east and west parking lots). Analytical data for surrounding soils were used to characterize at- and below-grade debris.

SECTION 3. 0 DESCRIPTION OF THE WAC ATTAINMENT DATA SET

For the purposes of this letter report, WAC attainment data consists of a combination of:

- existing data, i.e., Remedial Investigation/Feasibility Study (RI/FS) analytical results,
- process knowledge,

- real-time measurements with a sodium iodide (NaI) system (RTRAK) and/or a high purity Germanium (HPGe) system (to measure gamma-discernible radiological constituents of concern), and
- physical sample collection and analysis.

That is, the WAC sampling data universe is comprised of all Fernald Environmental Management Project (FEMP) preremedial excavation data associated with A1PI. Real-time measurements and physical sampling were conducted under five Project-Specific Plans (PSPs):

1. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan Precertification Soil Sampling for Waste Acceptance Criteria, Project Number 50.03.40.02, September 24, 1996
2. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Project Number 50.03.40.01, Revision 1, October 30, 1996
3. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Certification Sampling, Project Number 50.03.40.01, Revision 2, December 13, 1996
4. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Certification Sampling, Project Number 50.03.40.01, Revision 3, February 10, 1997
5. Project-Specific Plan for OSDF Support Areas Certification Sampling, Rev. 0, March 4, 1997.

Samples collected for the A1PI WAC attainment program were conducted under several PSPs. Although sampling requirements varied, the basic programmatic premise remained constant: to collect and analyze soil samples prior to excavation to determine the existence of material above the OSDF total uranium WAC of 1,030 ppm. This information, in combination with RI/FS data and subsequent sampling, was used to evaluate WAC attainment.

Characterization of the A1PI eastern portion was conducted in one or more of the following ways:

- RTRAK scans
- High Purity Germanium (HPGe) measurements
- Physical soil sample collection.

Each of these methods are described briefly below; specific details are contained in the PSPs as listed above.

RTRAK

The RTRAK system is a gamma-ray measurement system mounted on a tractor. The measurement system consists of a 4x4x16 inch NaI detector and associated electonics that provide high-speed pulse height analysis. This system allows the collection of a gamma ray energy spectrum, which can be analyzed to identify and quantify radioactive materials that may be present within the detector's viewing area. The tractor is also equipped with a global positioning system (GPS), operated in a real-time differential mode to provide location coordinates. Each energy spectrum is tagged with the location coordinates provided by the GPS. All energy and location data are stored on magnetic media by an on-board computer system. This information is used to accurately locate and subsequently map radiological data within the measurement area.

The detector is positioned on the tractor at a height of approximately 31 cm above the ground. The normal operation of the RTRAK consists of driving a tractor over the measurement area at a predetermined speed. Spectra are continuously collected at regular intervals, typically a few seconds. The viewing area size is a function of the tractor speed, the acquisition time, and the detector's geometrical configuration. As an example, for the 4x6x16 inch detector at the 31cm height, the viewing area is approximately 15 m^2. The RTRAK collects data which are used to generate an energy spectrum. This spectrum may be processed to generate gross counts or radionuclide-specific activities.

HPGe Measurements

The HPGe system is an in-situ gamma-ray measurement system that can provide quantitative data related to gamma emitting radionuclides in the environment without the need for discrete sampling. The detector is coupled to a multi-channel analyzer system that processes the detector signals to produce a spectrum of detected gamma rays. The gamma rays in the spectrum can be used to identify and quantify radionuclides of interest within its field of view. The detectors have the capability of resolving gamma rays associated with uranium, thorium-232, radium-226. Typically, these nuclides are quantified using gamma rays from members of their decay chains. When used in the field, the detector is mounted on a tripod and connected to a portable electronics package which stores the spectra for later processing. The detector height may be set at either 31 cm or 1 meter to vary the field of view. The field of view increases as the detector height is increased.

Physical Soil Sampling

Samples were collected and analyzed by the protocols as established in the Sitewide CERCLA Quality Assurance Project Plan (SCQ). A soil sampling location determination was made with the objective of collecting a minimum of one surface soil sample, 0 to 6 inches from surface grade, from each certification unit (CU) and analyzed for total uranium. Specific sampling details are given in the PSPs as noted above.

The North Access Road (NAR) CU WAC soil sampling differed from sampling of other A1PI eastern portion CUs. The NAR road surface and ditches were certified in place pending subsequent construction activities. The WAC soil samples and the certification soil samples were collected concurrently from the same locations.

SECTION 4. 0 DATA SUMMARY

Evaluation of the data set as described in Section 3.0 show that the excavated material from A1PI, which is to be placed in the OSDF, does not exceed the total uranium WAC of 1,030 parts per million (ppm). Data generated from the A1PI eastern portion including: existing RI/FS data and Process Knowledge, RTRAK, HPGe measurements, and soil sample collection are discussed below.

RI/FS DATA / PROCESS KNOWLEDGE

Within the eastern portion of the excavation footprint of A1PI, there are 37 RI/FS data points as shown in Attachment C, Area 1 Phase I, Remedial Investigation Sampling Map. These results, which are evenly distributed within the excavation area, range from 2 ppm to 89 ppm with an average of 22 ppm. Furthermore, this data supports process knowledge that contamination seen in this area is a result of aerial deposition. Both RI/FS data and process knowledge demonstrate that the impacted material is well below the WAC limit.

RTRAK DATA

The results of the RTRAK measurements indicate that all of the soils from the excavation areas are below the WAC. RTRAK uranium results were mapped as individual measurements within ranges of concentrations that were observed within the excavation footprint. RTRAK coverage of the excavation areas is shown in Attachment D. Coverage in the area was extensive, except for the northern portion of P18-20 and the southern portion of P18-40. A portion of Q18-40 was also excluded. Individual uranium measurements from the RTRAK are shown in Attachment E, (measurements above 200 ppm), and Attachment F (measurements above 300 ppm). The threshold for mapping the data was selected as 200 ppm because this is near the minimum detectable concentration for individual RTRAK measurements collected under the operating parameters in use at the time of the data collection. The ranges were selected to illustrate the pattern of activity observed. For areas in the A1PI eastern portion, the RTRAK data set consisted of 35,243 individual measurements. Of these, 34,861 were below 200 ppm, 373 were between 200 and 300 ppm, and 9 were above 300 ppm. The highest measurement was 361 ppm.

Each RTRAC measurement has an associated uncertainty. The uncertainty is the result of a number of factors, including the activities of uranium, radium, and thorium present within the measurement area; the background within each of these areas; and the presence of any other naturally occurring or man-made radionuclides. Because of this, each measurement will have a unique uncertainty. However,

uncertainty can be estimated for activities within each activity range and an upper confidence level calculated. The uranium concentrations and associated upper confidence levels listed below are representative of data acquired within the excavation areas:

Uranium Concentration (ppm)	Approximate Upper 95 % Confidence Level (ppm)
200	340
300	480
600	840

For example, the highest RTRAK reading in the eastern area of A1PI was 361 for total uranium; the upper 95% confidence level for this measurement is 501 ppm total uranium (wet weight basis). In summary, the RTRAK results also support the conclusion that uranium concentrations in the A1PI eastern portion soils were all well below WAC.

HPGe Data

A total of 101 HPGe measurements were taken at 69 different locations. At some locations measurements were taken at both the 0.31 meter height and at the 1.0 meter height. The HPGe measurements locations are shown in Attachment G; the readings reported in Attachment H are reported on a wet weight basis.

The pre-excavation total uranium HPGe measurements taken in the A1PI eastern portion consisted of the following measurements:

CERTIFICATION UNIT	NUMBER OF MEASUREMENTS	NUMBER OF LOCATIONS	RESULTS RANGE (ppm wet)
A1PIST-1	6	6	0 - 11
A1PIST-2	16	13	0.06 - 17
A1PIST-3	17	16	0.06 - 18
NAR-2	3	6	0.7 - 14
NAR-4	2	1	10 - 12
NAR-6	8	4	8 - 16
P18-20	2	1	9 -11
P19-20	2	1	10 - 12
Q16-33	2	2	18 - 32
Q17-10	7	5	29 -46
Q17-30	4	2	7 - 10
Q18-10	2	2	11 - 17
Q18-30	10	5	8 -13
Q19-10	5	3	0.0 - 23
Q20-20	13	7	0.06 - 22

For the following CUs no pre-excavation measurements were made: NAR-1, NAR-3, NAR-5, P17-22, P17-40, P18-40, Q16-34, Q18-40, Q19-20, Q19-30, Q19-40. While the sediment traps A1PIST-2 and -3 are not part of this report since soil excavation will not take place unit Area 1 Phase II, HPGe measurement from these areas were collected prior to soil movement in the area. The data was included in this report, as it provides insight into the general contamination levels in adjacent areas. The HPGe data indicate no readings approached or exceeded the total uranium WAC of 1030 ppm for the A1PI eastern portion.

Physical Soil Samples

Attachments I and Attachment J list the sample locations and the soil sample results (dry weight), respectively. A total of 143 soil samples (including 3 duplicate samples and 1 sample taken from the same location but a different depth interval) were collected from 24 CUs and analyzed for total uranium: 80 from the NAR area, 13 from drain tiles, 12 from the sediment traps, and 38 from other CU areas in the eastern portion of A1PI. Overall, A1PI total uranium analytical results ranged from 3 to 63 ppm, well below the 1030 ppm WAC concentration. The following table summarizes the results.

CERTIFICATION UNIT	NUMBER OF SAMPLES	RESULTS RANGE (ppm dry)
A1PIST-1	10	3 - 18
A1PIST-2	1	19
A1PIST-3	2	42 - 47
NAR-1	16	5 - 31
NAR-2	16	3 - 20
NAR-3	15	3 - 10
NAR-4	2	3 - 4
NAR-5	15	8 - 38
NAR-6	17	3 - 28
P17-22	16	6 - 22
P17-40	4	3 - 13
P18-20	2	52 - 63
P18-40	1	43
P19-20	1	44
Q16-33	2	46 -58
Q16-34	1	63
Q17-10	1	23
Q17-30	2	49 -61
Q18-10	1	62
Q18-30	3	29 -45
Q18-40	0	N/A
Q19-10	5	32 -57
Q19-20	0	N/A
Q19-30	2	27 -33
Q19-40	1	33
Q20-20	6	35 -46

Total uranium concentration ranges for various areas are discussed below.

No pre-excavation soil samples were collected specifically from sediment trap CUs A1PIST-2 and A1PIST-3; however, pre-excavation soil samples collected from the CU(s) in which the sediment traps are located fell within the reconfigured A1PIST-2 and A1PIST-3 CUs. Prior to the excavation and placement into the OSDF WAC attainment samples will be collected from these CUs. Additionally, soil / sediment samples were collected from agricultural (vitrified clay) field tiles in six CUs: A1PIST-2, A1PIST-3, P17-22, Q17-10, Q19-10, and Q20-20. Samples were collected from field tile in six CUs to determine if sediment and soil contained within the tiles exceeded the total uranium WAC. A total of 13 samples were collected from the drain tiles; analytical results for total uranium ranged from 19 ppm (in A1PIST-2) to 57 ppm (in Q19-10).

No WAC-specific soil sample was collected from CUs P17-22 or P17-40. However, WAC attainment can be determined from the initial certification soil samples collected for each CU. For these two CUs, soil certification sampling was conducted prior to excavation; when it was determined complete excavation had not taken place in these CUs, equipment was mobilized to remove the top 6 inches of material from the CUs. The initial certification samples were deemed obsolete for certification purposes but relevant for WAC attainment purposes since the samples were collected prior to excavation at the 0- to 6-inch (from surface grade) interval. Therefore, more than one soil sample location and result for P17-22 and P17-40 is shown and listed in Attachments I and J.

The NAR consists of six CUs: NAR-1 (the southern portion of the west ditch), NAR-2 (the northern portion of the west ditch), NAR-3 (the southern portion of the road), NAR-4 (the northern portion of the road), NAR-5 (the southern portion of the east ditch), and NAR-6 (the northern portion of the east ditch). Sixteen soil samples were planned to be collected from each of the six NAR CUs. However, due to the variability of fill thickness (fill was absent in some areas), it was not possible to collect all 16 planned WAC samples for each NAR CU. The NAR CUs with partial sample collection include NAR-3, NAR-4 and NAR-5. A total of 80 soil samples were collected from the NAR area; analytical results for total uranium ranged from 3 ppm (in NAR-2, NAR-3, NAR-4, and NAR-6) to 38 ppm (in NAR-5).

No physical soil samples were collected in CUs Q18-40 or in Q19-20. However, one pre-excavation sample is located in A1PIST-3 and within Q19-20, which is well below the WAC limit. For Q18-40 no soil sample was collected from CU Q18-40; in addition, no HPGe measurements were collected. Although no RI samples fall within Q18-40, RI samples collected to the west of Q18-40 indicate total

uranium concentrations well below the 1030 ppm WAC (Attachment B). RTRAK coverage in this area was less than 100 percent but indicated no total uranium counts greater than WAC.

5.0 SUMMARY AND CONCLUSIONS

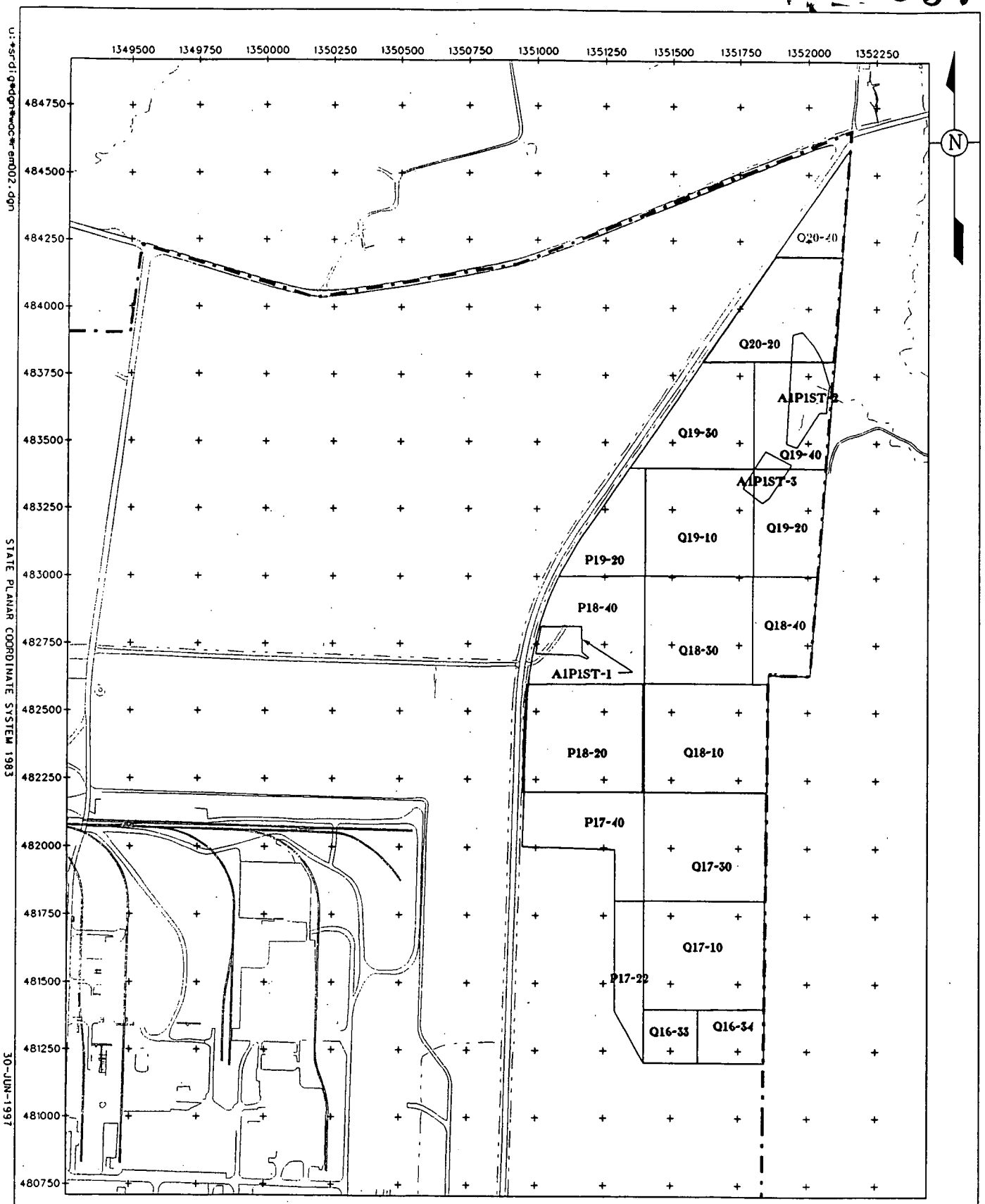
As can be ascertained from evaluating existing data RI/FS data and process knowledge, RTRAK data, HPGe measurements, and the physical soil sampling conducted specifically for the A1PI project; no CU in the eastern portion of A1PI was determined to contain material above the OSDF total uranium WAC. On the basis of the available data, DOE concludes the appropriate level of certainty exists to determine that the soil and debris contained in the eastern A1PI stockpile is significantly less than the WAC as defined in the Operable Unit 5 Record of Decision and the OSDF Impacted Material Placement Plan.

All soil from the eastern portion of A1PI is stockpiled together, pending OSDF disposition. Since data collected for the A1PI project indicates no concentration exceeded the OSDF total uranium WAC, the soil contained in the eastern stockpile will be used during 1997 to provide protective soil cover over the liner system for OSDF cell No. 1.

Debris is stockpiled separate from, but adjacent to, the eastern soil stockpile. The debris will be placed into the OSDF during calendar year 1998.

ATTACHMENTS

ATTACHMENT A	Area 1, Phase I and Certification Unit Location Map
ATTACHMENT B	Area 1, Phase I Eastern Impacted Soil Stockpile Location and Limits of Excavation
ATTACHMENT C	Area 1, Phase I Remedial Investigation Sampling Map
ATTACHMENT D	Area 1, Phase I Eastern Portion RTRAK Coverage Map
ATTACHMENT E	Area 1, Phase I Eastern Portion RTRAK Counts Above 200 Parts per Million
ATTACHMENT F	Area 1, Phase I Eastern Portion RTRAK Counts Above 300 Parts per Million
ATTACHMENT G	Area 1, Phase I Eastern Portion HPGe Measurement Locations
ATTACHMENT H	Area 1, Phase I Eastern Portion HPGe Results
ATTACHMENT I	Area 1, Phase I Eastern Portion WAC Sample Locations
ATTACHMENT J	Area 1, Phase I Eastern Portion WAC Attainment Sampling Results



LEGEND:

AREA BOUNDARY

FEMP BOUNDARY

SCALE

500 250 0 500 FEET

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ATTACHMENT A. AREA 1, PHASE I EASTERN PORTION

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1349000 1349200 1349400 1349600 1349800 1350000 1350200 1350400 1350600 1350800 1351000 1351200 1351400 1351600 1351800 1352000 1352200 1352400

484800 484600 484400 484200 484000 483800 483600 483400 483200 483000 482800 482600 482400 482200 482000 481800 481600 481400 481200 481000 480800 480600 480400 480200 480000 479800 479600 479400

STATE PLANAR COORDINATE SYSTEM 1927

N

Q20-20
A1PIST-2
Q19-30
Q19-40
A1PIST-3
Q19-20
Q19-10
P19-20
P18-40
Q18-40
Q18-30
A1PIST-1
P18-20
Q18-10
P17-40
DEBRIS PILE
Q17-30
Q17-10
SOIL STOCK PILE
P17-22
Q16-33
Q16-34

LEGEND:

EXCAVATED SOIL FROM THIS AREA PLACED IN EASTERN SOIL STOCKPILE

FEMP BOUNDARY

SCALE

400 200 0 200 FEET

30-JUN-1997

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000015

ATTACHMENT B. AREA 1, PHASE I EASTERN PORTION LIMITS OF EXCAVATION AND IMPACTED MATERIAL STOCKPILE LOCATION

832

u:\esrd\gsdgn\emu\ut-rifs.dgn

1349000 1349500 1350000 1350500 1351000 1351500 1352000

484500 484000 483500 483000 482500 482000 481500 481000 480500 480000 479500

STATE PLANAR COORDINATE SYSTEM 1983

30-JUN-1997

CERTIFICATION UNIT BOUNDARY

O18 O19 O20 P18 P19 N19

P18-40 P19-40 P20-30 Q18-30 Q19-30 Q20-30 Q18-40 Q19-40 Q20-40 Q18-10 Q19-10 Q20-10 Q18-20 Q19-20 Q20-20

P18-11 P18-12 P18-20 P19-20 P19-23 P17-33 P17-31 P17-32 P17-40 Q17-30 Q17-10 Q16-33 Q16-34 P17-22

NAR-1 NAR-2 NAR-3 NAR-4 NAR-5 NAR-6

A1P18T-1 A1P18T-2 A1P18T-3

DEBRIS PILE

SOIL STOCK PILE

SOIL STOCKPILE

OSDF SEDIMENT BASIN SUPPORT AREA

OSB-1 OSB-2 OSB-3 OSB-4 OSB-5

PUMP PUMP-1

LEGEND:

- FEMP BOUNDARY
- AREA 1, PHASE I EXCAVATION BOUNDARY
- TOTAL URANIUM RESULTS LESS THAN 1030 PPM
- TOTAL URANIUM RESULTS GREATER THAN 1030 PPM

NOTE : SAMPLE LOCATIONS ANNOTATED WITH TOTAL URANIUM RESULT MEASURED IN PPM

SCALE

400 200 0 400 FEET

000016

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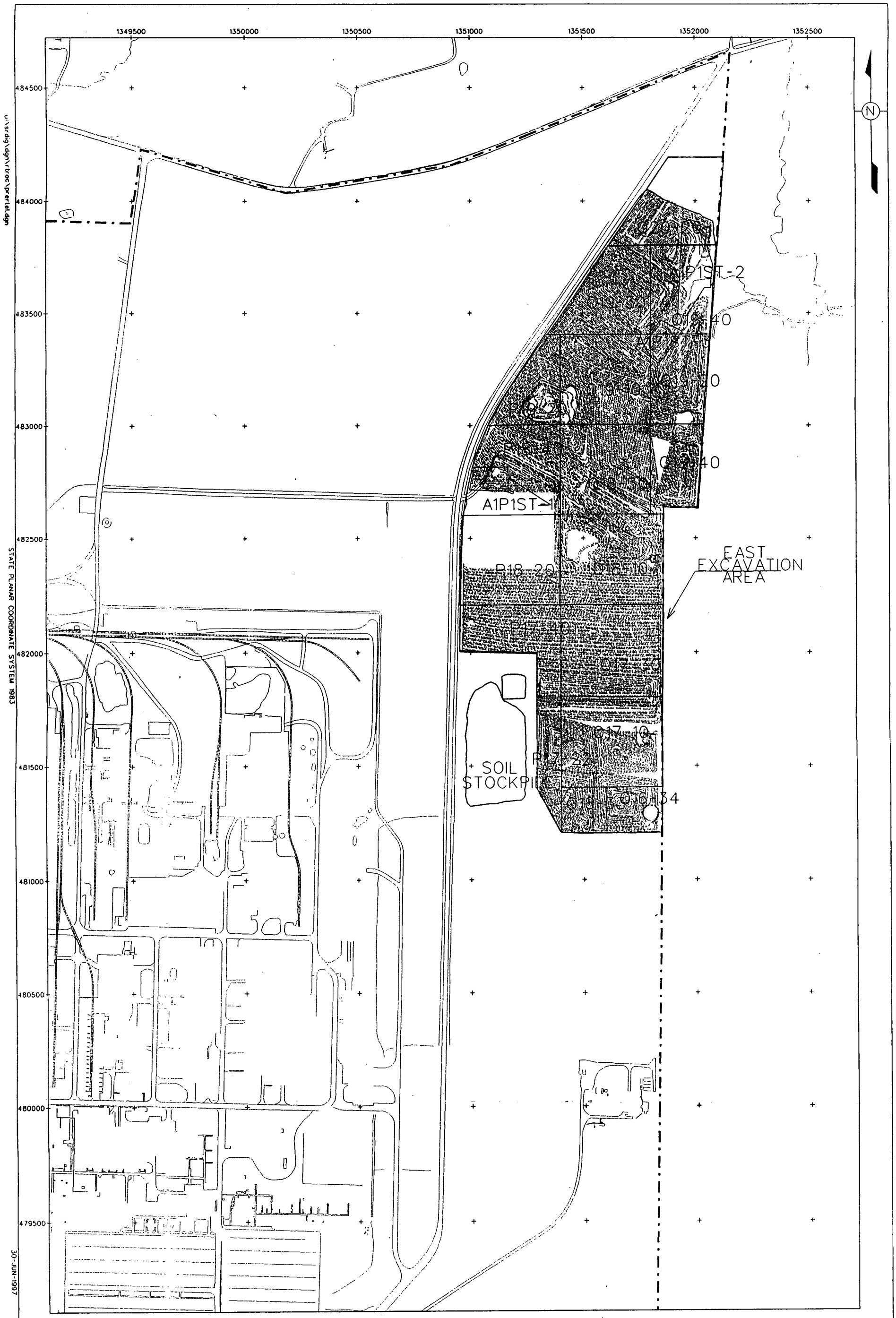
ATTACHMENT C. AREA 1, PHASE I REMEDIAL INVESTIGATION SAMPLING MAP

A-837



LEGEND:

FEMP BOUNDARY
EXCAVATION BOUNDARY
URANIUM RESULT LOCATION

SCALE
400 200 0 400 FEET

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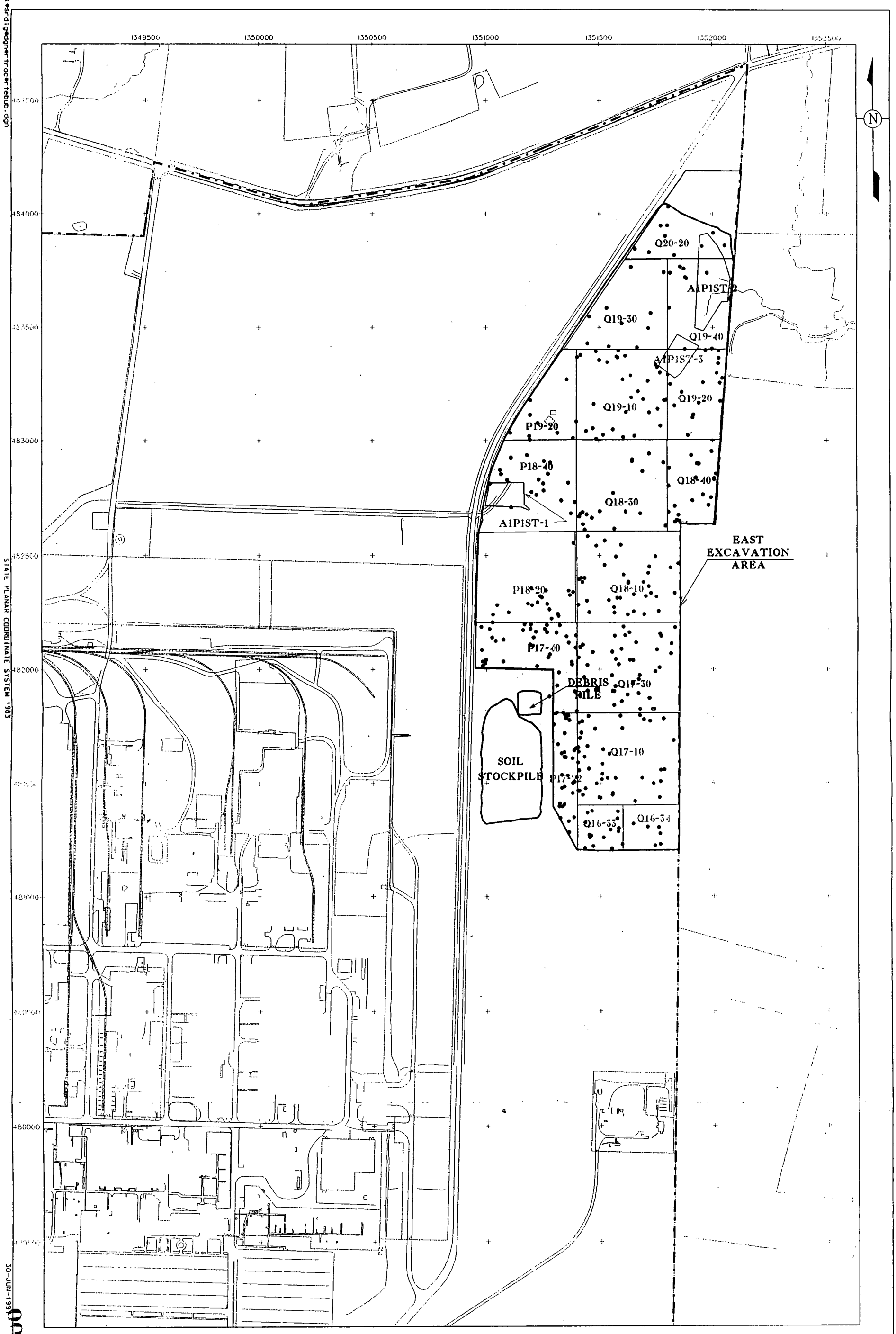
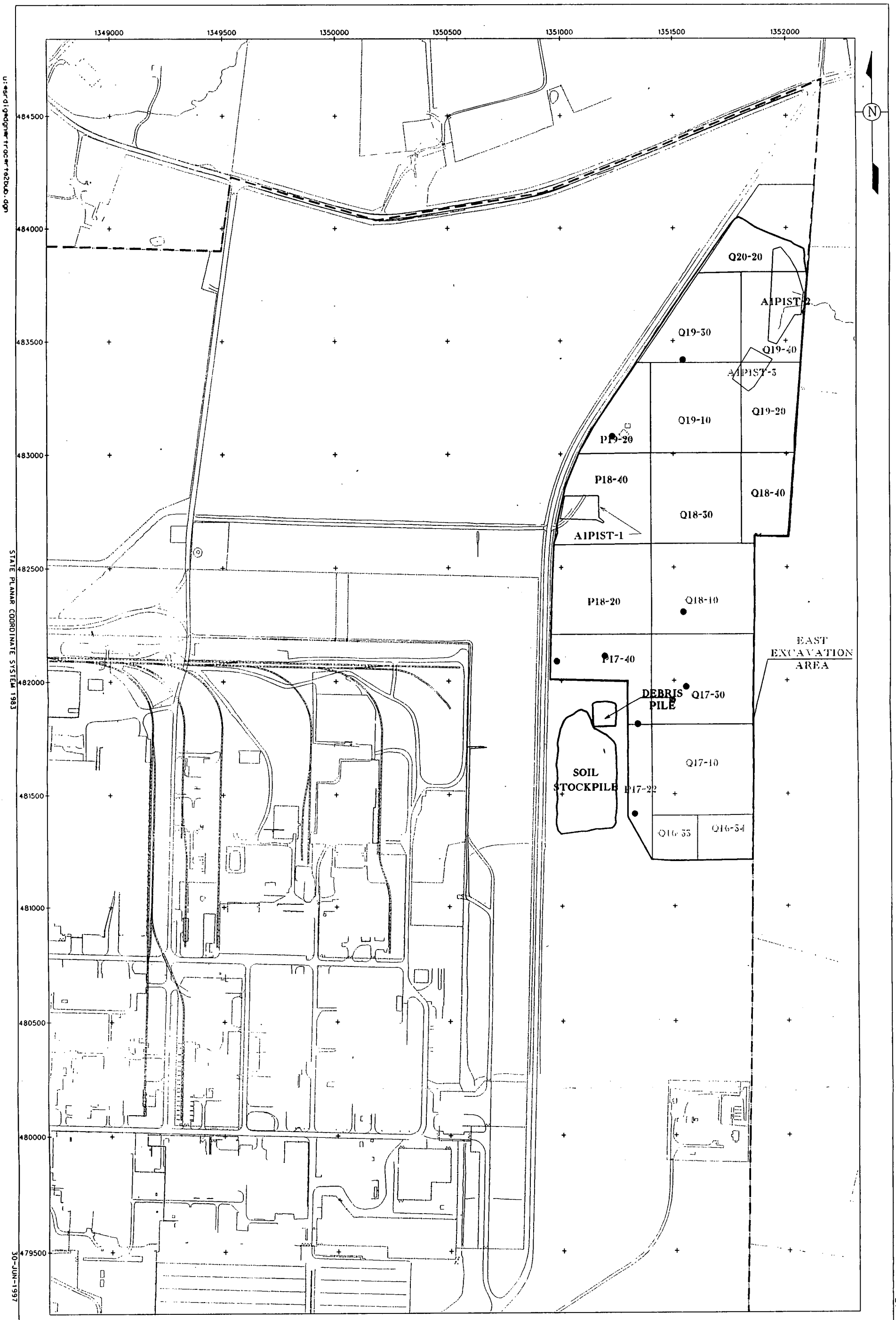
000027

ATTACHMENT D. RTRAK URANIUM COVERAGE MAP - AREA1, PHASE IEAST

1-0832



ATTACHMENT E. RTRAK URANIUM RESULTS GREATER THAN 200 PPM - AREA1, PHASE I EAST



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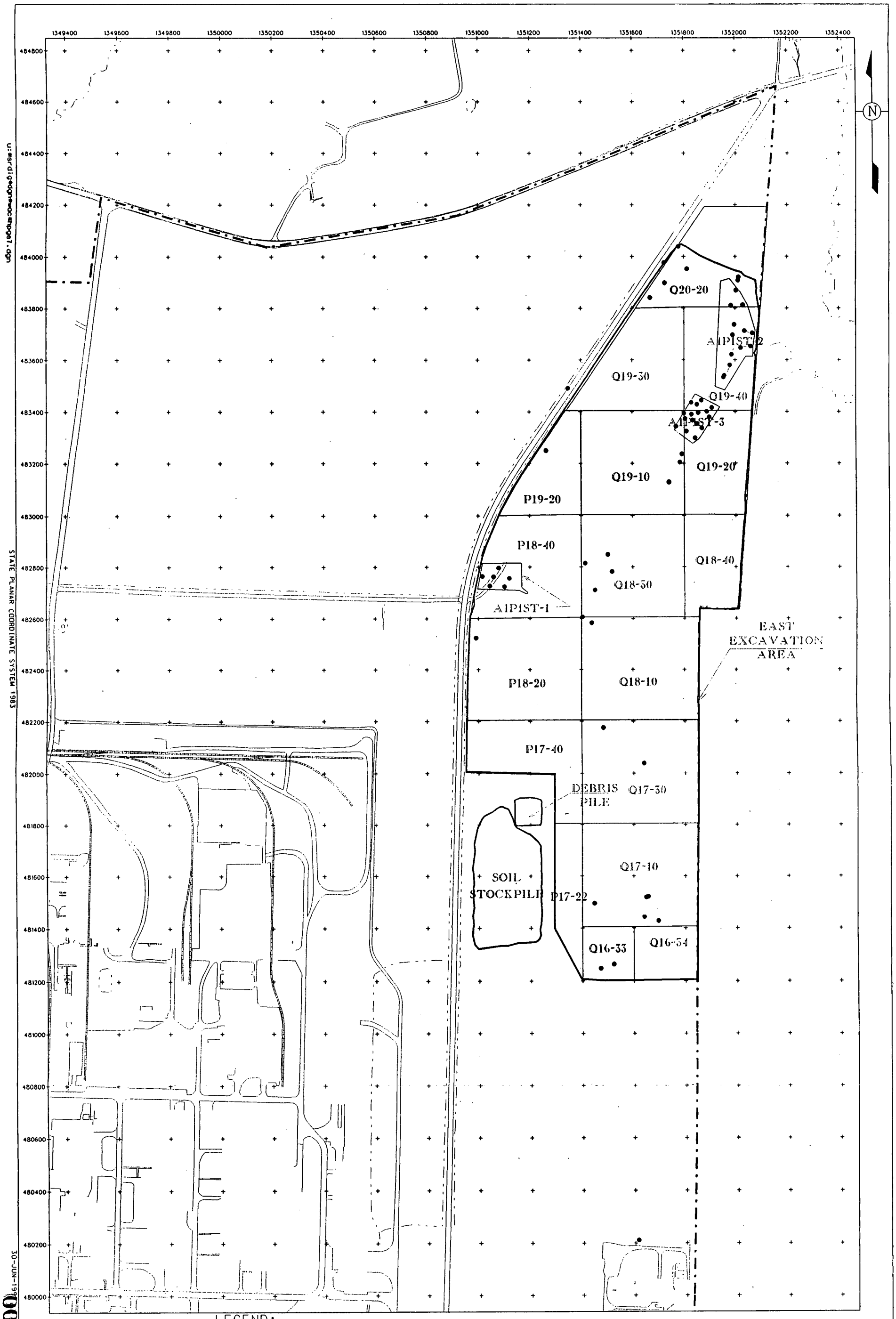
ATTACHMENT F. RTRAK RESULTS GREATER THAN 300 ppm - AREA1, PHASE I EAST

F-832



LEGEND:

- • HPGe TOTAL URANIUM MEASUREMENT LOCATIONS
- -·-·- FEMP BOUNDARY

SCALE

350 175 0 350 FEET

DRAFT

ATTACHMENT G. AREA 1, PHASE I EASTERN PORTION HPGE MEASUREMENT LOCATIONS

ATTACHMENT H
A1P1 WAC ATTAINMENT HPGE EAST RESULTS

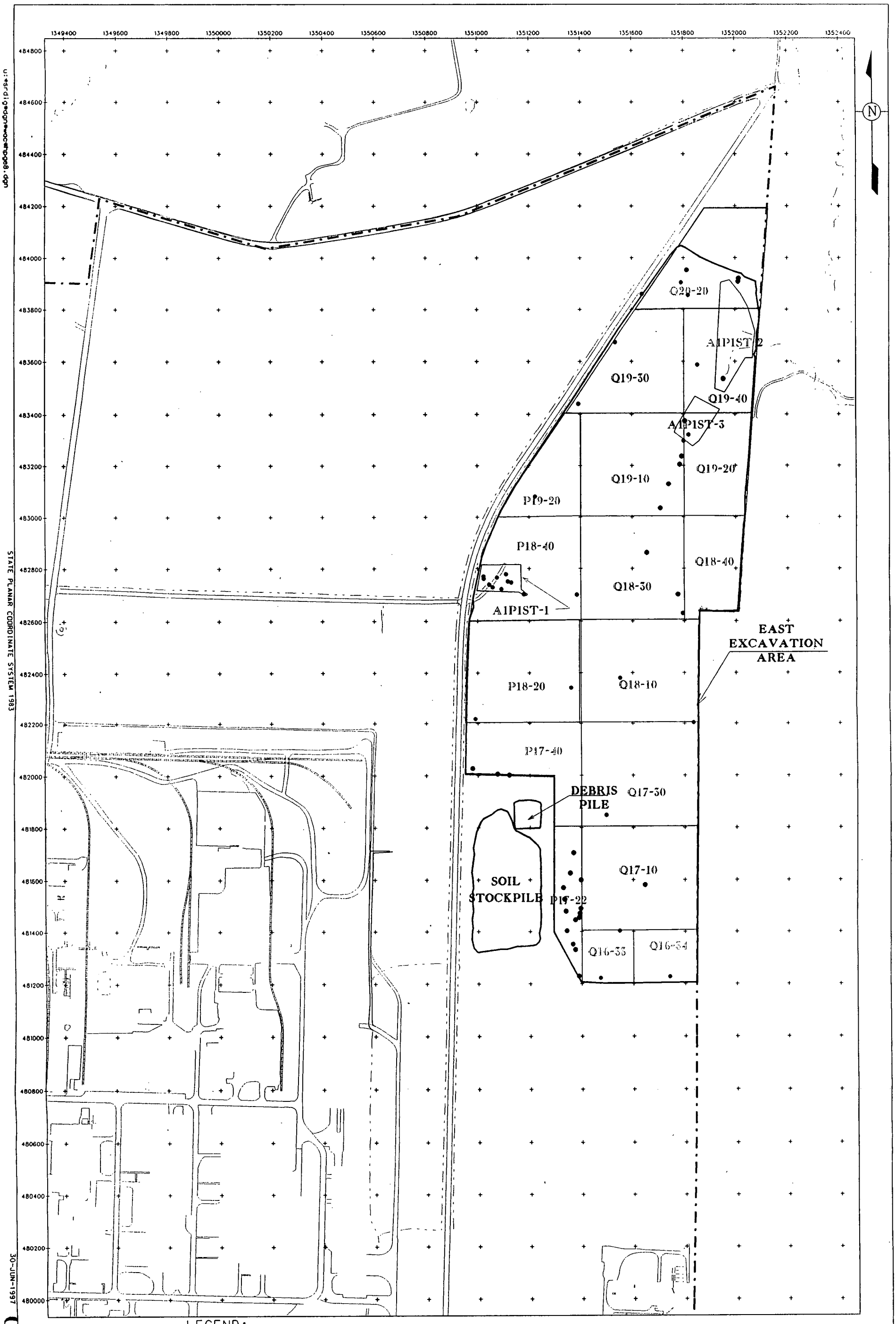
CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	etector Ht. (m
A1P1ST-1	ST3-B1	11.39	482723.902	1351101.37	10/29/96	1
	ST3-B2	7.82	482726.765	1351044.81	10/29/96	1
	ST3-B3	9.52	482764.071	1351015.49	10/29/96	1
	ST3-B5	9.52	482797.296	1351079.13	10/29/96	1
	ST3-B7	0.00	482762.112	1351059.58	10/29/96	1
	ST3-B8	0.07	482756.745	1351120.61	10/29/96	1
A1P1ST-2	SB1-1	0.12	483541.142	1351957.36	9/18/96	1
	SB1-2	10.10	483580.321	1351978.83	9/18/96	1
	SB1-3	10.65	483621.565	1351985.53	9/18/96	1
	SB1-4	11.00	483647.361	1352020.91	9/18/96	1
	SB1-5	13.12	483653.486	1352059.25	9/18/96	1
	SB1-6	11.11	483704.307	1352065.67	9/18/96	1
	SB1-7	12.20	483713.357	1352035.48	9/18/96	1
	SB1-8	5.94	483737.269	1351995.78	9/18/96	1
	SS-6	16.98	483534.571	1351954.3	10/18/96	1
		16.98	483534.571	1351954.3	9/23/96	1
	ST2-B4	17.10	483812.161	1352029.11	10/29/96	1
		0.06	483812.161	1352029.11	10/30/96	1
		10.18	483812.161	1352029.11	10/29/96	1
	ST2-B5	9.28	483869.041	1352002.59	10/29/96	1
	ST2-B6	0.07	483810.259	1351983.36	10/29/96	1
		9.52	483697.242	1351989.54	10/29/96	1
A1P1ST-3	SS-7	16.30	483374.097	1351804.76	10/18/96	1
		16.30	483374.097	1351804.76	9/23/96	1
	ST1-B1	14.84	483299.305	1351843.48	10/30/96	1
	ST1-B10	0.09	483367.757	1351834.41	10/30/96	1
	ST1-B11	0.06	483396.251	1351856.04	10/30/96	1
	ST1-B2	14.30	483337.47	1351870.19	10/30/96	1
	ST1-B3	0.06	483379.581	1351898.71	10/30/96	1
	ST1-B4	0.07	483415.838	1351909.08	10/30/96	1
	ST1-B5	0.06	483444.508	1351868.66	10/30/96	1
	ST1-B6	14.54	483436.412	1351828.66	10/30/96	1
	ST1-B7	13.97	483393.305	1351800.54	10/30/96	1
	ST1-B8	12.93	483344.091	1351770.31	10/30/96	1
	ST1-B9	0.09	483325.428	1351810.34	10/30/96	1
	ST2-3	17.98	483354.898	1351852.41	9/18/96	1
	ST2-4	19.01	483400.769	1351889.57	9/18/96	1
	ST2-5	15.81	483428.432	1351851.01	9/18/96	1
	ST2-6	17.10	483389.943	1351829.87	9/18/96	1
NAR-2	Q20-10-16-G	12.27	484156	1351797	3/4/97	0.31
		11.97	484156	1351797	3/4/97	1
	Q20-40-1-G	13.96	484218	1351831.36	3/4/97	1
		9.82	484218	1351831.36	3/4/97	0.31
	Q20-40-15-G	8.24	484510	1352041	3/4/97	0.31
		0.07	484510	1352041	3/4/97	1
NAR-4	P19-40-4	11.79	483491.55	1351350.31	1/29/97	0.31
		9.84	483491.55	1351350.31	1/29/97	1

ATTACHMENT H
A1P1 WAC ATTAINMENT HPGE EAST RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	etector Ht. (m
NAR-6	Q20-10-8	8.65	483976.307	1351723.44	11/1/96	1
		11.98	483976.307	1351723.44	11/1/96	0.31
	Q20-40-2	10.98	484251	1351911	10/31/96	0.31
	Q20-40-2-G	8.04	484251	1351911	3/6/97	1
		10.46	484251	1351911	3/6/97	0.31
		9.66	484251	1351911	10/31/96	1
	SS-4	15.87	484049.635	1351770.48	10/18/96	1
		15.87	484049.635	1351770.48	9/23/96	1
P18-20	P18-4	11.20	482524.79	1350990.8	12/11/96	1
		8.86	482524.79	1350990.8	12/11/96	0.31
P19-20	P19-20-10-G	11.85	483250	1351265	4/24/97	1
		9.71	483250	1351265	4/24/97	0.31
Q16-33	DT-7	18.23	481247.694	1351470.67	9/23/96	1
	DT-8	31.78	481263.904	1351521.38	9/23/96	1
Q17-10	DT-10	45.52	481443.061	1351640.7	9/23/96	1
	DT-11	34.10	481520.046	1351656.3	9/23/96	1
	DT-12	28.83	481517.78	1351648.13	9/23/96	1
	DT-13	29.71	481494.56	1351447.34	9/23/96	1
		29.71	481494.56	1351447.34	9/23/96	1
	DT-9	38.35	481427.854	1351695.24	9/23/96	1
Q17-30	Q17-30-11-G	7.97	482038.85	1351640.16	2/13/97	0.31
		10.25	482038.85	1351640.16	2/13/97	1
	Q17-30-13-G	9.81	482175.42	1351483.61	2/13/97	1
		7.34	482175.42	1351483.61	2/13/97	0.31
Q18-10	Q18-10-13	17.19	482583.34	1351439.58	12/5/96	1
		10.91	482583.34	1351439.58	12/5/96	0.31
Q18-30	Q18-30-1	11.25	482606.39	1351403.82	12/5/96	1
		10.91	482606.39	1351403.82	12/5/96	0.31
	Q18-30-10	11.24	482849.63	1351502.8	12/5/96	1
		10.98	482849.63	1351502.8	12/5/96	0.31
	Q18-30-5	9.16	482711.33	1351452.39	12/5/96	1
		7.52	482711.33	1351452.39	12/5/96	0.31
	Q18-30-6	13.36	482782.52	1351518.75	12/5/96	1
		12.56	482782.52	1351518.75	12/5/96	0.31
	Q18-30-9	10.18	482815.19	1351414.86	12/5/96	1
		13.28	482815.19	1351414.86	12/5/96	0.31
Q19-10	SS-10	0.00	483128.436	1351741.35	10/18/96	1
	SS-8	23.36	483236.667	1351791.79	10/18/96	1
		23.36	483236.667	1351791.79	9/23/96	1
	SS-9	0.00	483204.824	1351784.28	10/18/96	1
		0.00	483204.824	1351784.28	9/23/96	1
Q20-20	Q20-10-12	9.46	484039.251	1351779.48	11/1/96	1
		9.74	484039.251	1351779.48	11/1/96	0.31

ATTACHMENT H
A1P1 WAC ATTAINMENT HPGE EAST RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	etector Ht. (m
	Q20-10-3	5.16	483841.154	1351669.78	11/1/96	1
	Q20-10-4	0.06	483898.165	1351726.59	11/1/96	1
		8.21	483898.165	1351726.59	11/1/96	0.31
	SS-1	22.10	483959.2	1352018.14	10/18/96	1
		22.10	483959.2	1352018.14	9/23/96	1
	SS-2	16.52	483920.232	1352012.61	10/18/96	1
		16.52	483920.232	1352012.61	9/23/96	1
	SS-3	22.22	483907.839	1352010.63	10/18/96	1
		22.22	483907.839	1352010.63	9/23/96	1
	SS-5	11.17	483952.386	1351812.51	10/18/96	1
		11.17	483952.386	1351812.51	9/23/96	1



ATTACHMENT I. AREA 1, PHASE I EASTERN PORTION WAC SAMPLE LOCATIONS

ATTACHMENT J
A1PI WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
A1PIST-1	A1P1ST1-11W-R	3/11/97	482779	1351110	5
	A1P1ST1-2W-R	3/12/97	482729	1351058	4
	A1P1ST1-3W-R	3/12/97	482722	1351092	3
	A1P1ST1-4W-R	3/12/97	482702	1351179	18
	A1P1ST1-5W-R	3/11/97	482761	1351024	3
	A1P1ST1-6W-R	3/11/97	482739	1351045	3
	A1P1ST1-7W-R	3/11/97	482751	1351117	4
	A1P1ST1-8W-R	3/11/97	482747	1351130	6
	A1P1ST1-9W-R	3/13/97	482770	1351023	4
	A1P1ST1-9W2-R	3/13/97	482770	1351023	4
A1P1ST-2	Q19-41DT-954534	10/15/96	483534.571	1351954.3	19
A1P1ST-3	Q19-20W-819320	10/14/96	483320.889	1351819.19	42
	Q19-23DT-804374	10/15/96	483374.097	1351804.76	47
NAR-1	NAR-1-10W-R	3/10/97	482365.402	1350915.09	8
	NAR-1-11W-R	3/9/97	482445.451	1350914.06	5.1
	NAR-1-12W-R	3/9/97	482465.371	1350917.55	7.7
	NAR-1-13W-R	3/8/97	482537.991	1350907.43	29
	NAR-1-14W-R	3/8/97	482571.558	1350911.2	34
	NAR-1-15W-R	3/8/97	482628.046	1350911.32	21
	NAR-1-16W-R	3/11/97	482683.784	1350932.28	8
	NAR-1-1W-R	3/8/97	481949.601	1350901.88	15.7
	NAR-1-2W-R	3/8/97	481957.721	1350897.07	15.6
	NAR-1-3W-R	3/8/97	482035.697	1350898.99	15
	NAR-1-4W-R	3/10/97	482060.543	1350905.6	20
	NAR-1-5W-R	3/8/97	482142.788	1350896.62	7
	NAR-1-6W-R	3/8/97	482154.784	1350896.91	12
	NAR-1-7W-R	3/8/97	482221.813	1350896.56	13
	NAR-1-8W-R	3/25/97	482264.555	1350907.61	31
	NAR-1-9W-R	3/9/97	482343.555	1350908.55	12
NAR-2	NAR-2-10W-R	3/11/97	483799.563	1351553.22	12
	NAR-2-11W-R	3/12/97	483938.194	1351639.17	4
	NAR-2-12W-R	3/12/97	484123.234	1351774.38	4
	NAR-2-13W-R	3/12/97	484215.387	1351829.08	3
	NAR-2-14W-R	3/8/97	484369.787	1351925.63	8
	NAR-2-15W-R	3/8/97	484408.768	1351959.06	20
	NAR-2-16W-R	3/8/97	484539.33	1352051.63	5
	NAR-2-1W-R	3/11/97	482786.461	1350954.27	7
	NAR-2-2W-R	3/10/97	482960.44	1351017.59	9
	NAR-2-3W-R	3/10/97	483053.932	1351061.36	4
	NAR-2-4W-R	3/10/97	483202.49	1351147.75	5
	NAR-2-5W-R	3/11/97	483266.47	1351190.11	8
	NAR-2-6W-R	3/11/97	483414.747	1351292.17	9
	NAR-2-7W-R	3/11/97	483498.35	1351348.32	7
	NAR-2-8W-R	3/11/97	483614.2	1351429.66	6
	NAR-2-9W-R	3/11/97	483748.364	1351523.63	6

ATTACHMENT J
A1PI WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
NAR-3	NAR-3-10W-R	3/9/97	482394.95	1350933.82	4
	NAR-3-11W-R	3/9/97	482424.892	1350936.56	4
	NAR-3-12W-R	3/11/97	482499.189	1350925.38	6
	NAR-3-13W-R	3/11/97	482542.694	1350940.65	10
	NAR-3-14W-R	3/11/97	482597.052	1350935.27	8
	NAR-3-16W-R	3/11/97	482677.376	1350946.43	3
	NAR-3-1W-R	3/8/97	481901.503	1350911.32	4
	NAR-3-2W-R	3/8/97	481998.34	1350913.08	3.6
	NAR-3-3W-R	3/9/97	482018.064	1350924.56	3.8
	NAR-3-4W-R	3/8/97	482082.995	1350928.16	4.5
	NAR-3-5W-R	3/8/97	482129.006	1350928.29	4
	NAR-3-6W-R	3/8/97	482194.31	1350929.88	3
	NAR-3-7W-R	3/8/97	482208.957	1350931.25	3
	NAR-3-8W-R	3/8/97	482283.132	1350925.07	3
	NAR-3-9W-R	3/9/97	482303.076	1350927.56	3
NAR-4	NAR-4-3W-R	3/12/97	483002.356	1351049.19	3
	NAR-4-6W-R	3/11/97	483392.556	1351292.92	4
NAR-5	NAR-5-10W-R	3/17/97	482398.36	1350957.91	19
	NAR-5-11W-R	3/17/97	482410.577	1350949.21	14
	NAR-5-12W-R	3/17/97	482492.454	1350955.22	16
	NAR-5-13W-R	3/17/97	482512.448	1350955.71	14
	NAR-5-14W-R	3/17/97	482557.547	1350959.42	18
	NAR-5-15W-R	3/13/97	482627.448	1350967.64	12
	NAR-5-1W-R	3/19/97	481905.558	1350943.81	8
	NAR-5-2W-R	3/19/97	481949.765	1350935.89	38
	NAR-5-3W-R	3/19/97	482019.622	1350942.61	22
	NAR-5-4W-R	3/19/97	482096.549	1350946.5	15
	NAR-5-5W-R	3/19/97	482108.521	1350947.79	18
	NAR-5-6W-R	3/19/97	482194.814	1350936.91	25
	NAR-5-7W-R	3/19/97	482211.49	1350950.32	11
	NAR-5-8W-R	3/19/97	482258.574	1350947.48	28
	NAR-5-9W-R	3/17/97	482337.55	1350949.42	24
NAR-6	NAR-6-10W-R	3/25/97	483859.702	1351639.43	7
	NAR-6-11W-R	3/12/97	483949.365	1351692.46	8
	NAR-6-12W-R	3/12/97	484086.812	1351798.09	11
	NAR-6-13W-R	3/12/97	484216.884	1351873.47	8
	NAR-6-14W-R	3/12/97	484359.624	1351973.02	10
	NAR-6-15W-R	3/20/97	484487.397	1352069.74	6
	NAR-6-16W-R	3/20/97	484508.16	1352080.08	5
	NAR-6-1W-R	3/19/97	482702.327	1350979.53	6
	NAR-6-2W-R	3/13/97	482893.382	1351029.09	14
	NAR-6-3W-R	3/13/97	483013.78	1351075.1	7
	NAR-6-4W-R	3/17/97	483122.707	1351144.09	5
	NAR-6-5W-R	3/17/97	483294.771	1351260.94	3
	NAR-6-6W-R	3/13/97	483337.956	1351282.73	11
	NAR-6-7W-R	3/17/97	483465.199	1351373.07	3
	NAR-6-8W-R	3/12/97	483606.319	1351460.69	8

ATTACHMENT J
A1PI WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
	NAR-6-9W-R	3/13/97	483695.955	1351520.94	13
	Q20-14DT-770049	10/15/96	484049.635	1351770.48	28
P17-22	P17-22C-328569	12/6/96	481569.86	1351328.71	10
	P17-22C-328569-D	12/6/96	481569.86	1351328.71	9.90
	P17-22C-333523	12/6/96	481523.79	1351333.21	6
	P17-22C-338477	12/6/96	481477.66	1351338.86	21.89
	P17-22C-342402	12/6/96	481402.76	1351342.11	8.10
	P17-22C-365351	12/6/96	481351.74	1351365.25	7.20
	P17-22C-374331	12/6/96	481331.39	1351374.82	18.89
	P17-22C-375444	12/6/96	481444.588	1351375	10.20
	P17-22C-388229	12/6/96	481229.54	1351388.53	2.70
	P17-22C-390453	12/6/96	481453.87	1351390.29	20.39
	P17-22C-392469	12/6/96	481469.69	1351392.76	20.69
	P17-22C-397599	12/6/96	481599.7	1351397.29	9.30
	P17-22DT-396488	10/15/96	481488.383	1351396.11	44
	P17-40C-355625	12/4/96	481625.84	1351355.39	18.29
	P17-40C-368702	12/6/96	481702.5	1351368.44	18.29
	P17-40C-368702-D	12/6/96	481702.5	1351368.44	5.70
P17-40	P17-34C-978027	12/3/96	482027.6	1350978.72	3.45
	P17-34C-978027-D	12/4/96	482027.6	1350978.72	7.50
	P17-40C-074005	12/4/96	482005.62	1351074.84	13.19
	P17-40C-120001	12/4/96	482001.85	1351120.47	9
P18-20	P18-12W-990217	10/14/96	482217.59	1350990.52	63
	P18-20W-361342	10/14/96	482342.493	1351361.43	52
P18-40	P18-40W-384700	10/14/96	482700.156	1351384.31	43
P19-20	P19-20W-223080	10/14/96	483080.09	1351223.72	44
Q16-33	Q16-33W-471222	10/14/96	481222.481	1351471.9	46
	Q17-10W-546402	10/14/96	481402.75	1351546.43	58
Q16-34	Q16-34W-740227	10/14/96	481227.873	1351740.32	63
Q17-10	Q17-12DT-645580	10/15/96	481580.56	1351645.43	23
Q17-30	Q17-30W-495847	10/14/96	481847.364	1351495.87	61
	Q18-40W-834203	10/14/96	482203.486	1351834.53	49
Q18-10	Q18-10W-551380	10/14/96	482380.115	1351551.27	62
Q18-30	P17-30W-656861	11/20/96	482861	1351656	45
	P17-30W-775701	11/20/96	482701	1351775	29
	Q18-30W-793629	10/14/96	482629.265	1351793.08	38
Q19-10	Q19-10W-799297	10/14/96	483297.249	1351799.77	45
	Q19-12DT-708034	10/15/96	483034.621	1351708.86	50

ATTACHMENT J
A1PI WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
	Q19-12DT-741128	10/15/96	483128.436	1351741.35	32
	Q19-14DT-784204	10/15/96	483204.824	1351784.28	57
	Q19-14DT-791236	10/15/96	483236.667	1351791.79	45
Q19-30	P19-40W-392440	10/14/96	483440.506	1351392.75	33
	Q19-30W-535673	10/14/96	483673.808	1351535.37	27
Q19-40	Q19-40W-853587	10/14/96	483587.431	1351853.74	33
Q20-20	Q20-10W-790904	10/14/96	483904.46	1351790.78	35
	Q20-20W-817855	10/14/96	483855.33	1351817.73	42
	Q20-21DT-812952	10/15/96	483952.386	1351812.51	44
	Q20-22DT-010907	10/15/96	483907.839	1352010.63	37
	Q20-22DT-012920	10/15/96	483920.232	1352012.61	45
	Q20-22DT-018959	10/15/96	483959.2	1352018.14	46

000028

WASTE ACCEPTANCE CRITERIA ATTAINMENT REPORT
AREA 1, PHASE I WESTERN PORTION

SECTION 1.0 INTRODUCTION AND SCOPE

This report presents a compilation of the available data collected to demonstrate that the material placed in a stockpile located west of the existing North Access Road are less than the concentration-based waste acceptance criteria of 1030 ppm total uranium and would therefore be suitable for placement in the On-site Disposal Facility (OSDF). This soil was generated during planned soil excavation activities conducted in Area 1 Phase I (A1PI). This soil was excavated for purposes of removing site introduced contaminants from the area so as to attain contaminant specific cleanup levels. A companion report presents a similar data compilation for the remainder of the soil excavated from A1PI which was placed in a stockpile located on the east side of the same access road. Materials from the east stockpile are planned to be placed into the OSDF in the fall of 1997 with the west stockpiled material placed into the facility during 1998.

During the process of excavating the material placed in the west stockpile, numerous changes were being made to the characterization program aimed at demonstrating attainment of the waste acceptance criteria (WAC). Additionally, in some cases the planned characterization approach was not consistently followed. As a result some data limitations and gaps exist in the data set. While DOE considers that the probability of materials exceeding the WAC being placed in the west stockpile was extremely remote based on the location of the excavation and a review of the available data, DOE has developed a sampling plan to collect additional data to supplement the existing information base and validate that no soil exceeding the WAC were received into the west stockpile. This sampling plan is provided as an attachment to this report.

This report addresses the western portion of the A1PI area only. Details of the certification program are not included in this report; a separate A1PI Certification Report has been prepared. The western portion of the A1PI area, including the OSDF support areas, consists of 22 certification units (CUs) and Area D, as shown in Attachment A. Twelve of these CUs (P18, P18-11, P18-12, P17-31, P-17-32, P17-33, OSB-1, OSB-2, OSB-3, OSB-4, OSB-5, and PUMP-1) were excavated with removed soil placed in the west stockpile. Nine CUs (Q20-30, O18, Q20-10, P19-40, P19-23, P20-30, N19, O19, and P19) were not excavated and, therefore, no WAC samples or other measurements were collected. During certification, a localized area of elevated uranium concentration was identified in certification unit O20. This localized area was excavated with removed soil placed in a stockpile for above-WAC materials located in the FEMP waste storage area.

Additionally, soil from an area north of the existing production area, termed Area D, were excavated during the construction of a new railyard. Excess materials from this excavation were placed in the west stockpile.

This report is presented in five sections with supporting documentation included in the attachments. These sections are as follows:

1.0 Introduction and Scope
2.0 Excavation Activities, Stockpile Volumes, and Impacted Material Management
3.0 Description of the WAC Attainment Data Set
4.0 Data Summary
5.0 Summary and Conclusions

SECTION 2. 0 EXCAVATION ACTIVITIES, STOCKPILE VOLUMES, AND IMPACTED MATERIAL MANAGEMENT

In order to meet the final remediation levels (FRLs) for certification, approximately 6 acres were excavated in the western portion of A1PI. Additionally, approximately 19 acres were excavated in Area D to support the railyard construction. All the excavated soil from A1PI and the excess soil from Area D was placed in the west stockpile as shown in Attachment B, Area 1, Phase I Western Portion Limits of Excavations and Impacted Material Stockpile Location. As of April 30, 1997, approximately 24,550 cubic yards (yd^3) of excavated soil has been staged in the A1PI west stockpile. Material placed into the stockpile consists of:

- Approximately 5,700 yd^3 was generated from excavation of the top six inches of soil from 6 CUs in the Western portion of A1PI. These 6 CUs are as follows: P18, P18-11, P18-12, P17-31, P17-32, and P17-33.
- Approximately an additional 16,000 yd^3 were excavated from Area D for the railroad expansion. Note that approximately 1000 yd^3 from this area was placed in the above-WAC stockpile in the waste storage area
- Approximately 1,900 yd^3 from the excavation of the OSDF sedimentation basin (CUs OSB 1-5) and the OSDF Pump Station (CU Pump-1).
- Approximately 950 yd^3 from the re-excavation of CU P17-32 for arsenic contamination.

The excavation of the OSDF sedimentation basin certification units occurred in multiple stages. First, a layer of gravel which covered a portion of the OSB area was excavated and stored for future use. Second, approximately 6 inches of soil was excavated from the entire footprint of the sedimentation basin (CU OSB1-5). After this excavation was completed, additional WAC and certification samples were taken in the OSB in accordance with a Project Specific Plan for the OSDF Support Areas. Following receipt of this data, additional soil was excavated from the footprint of the OSDF sedimentation basin. This excavated soil was placed in a separate stockpile located south of the basin area. This smaller stockpile is considered within the scope of this report.

As previously indicated, approximately 16,000 yd^3 of soil were placed in the west stockpile during excavations in Area D. Prior to and during excavation, direct radiation measurements or physical samples were collected from Area D for purposes of ensuring the material being removed and placed in the west stockpile attained the WAC. Prior to excavation in Area D, RTRAK measurements were collected from the planned excavation area. These measurements are discussed in Section 3.0. During the process of excavation in Area D, continuous radiological technician support was provided. The technician completed pre-excavation walkover surveys of the affected area and marked all areas exceeding 1000 disintegrations per minute (dpm) on a hand held beta-gamma detector. The coverage continued during excavation to help segregate any material exceeding 1000 dpm encountered during excavation. Those materials exceeding this level were transported to the above-WAC stockpile located in the FEMP waste storage area. Those excavated materials exhibiting beta-gamma measurements less than this level were placed in the stockpile west of the access road. Soil and concrete culverts exceeding 1000 dpm were identified in a localized area west of Area D along the west side of the old site north entrance road. These materials were transferred to the above-WAC stockpile in the FEMP waste storage area.

A debris pile adjacent to the west soil stockpile contains approximately 680 yd^3 of impacted material. This stockpile consists of concrete, trees, fencing, broken culvert piping, etc., primarily from the excavation of Area D for the site railroad improvement.

SECTION 3. 0 DESCRIPTION OF THE WAC ATTAINMENT DATA SET

For the purposes of this letter report, WAC attainment data consists of a combination of:

- existing data, i.e., Remedial Investigation/Feasibility Study (RI/FS) analytical results,
- process knowledge,
- real-time measurements with a sodium iodide (NaI) system (RTRAK) and/or a high purity Germanium (HPGe) system (to measure gamma-discernible radiological constituents of concern), and
- physical sample collection and analysis.

That is, the WAC sampling data universe is comprised of all Fernald Environmental Management Project (FEMP) preremedial excavation data associated with A1PI and relevant portions of Area D.

Real-time measurements and physical sampling were conducted under five Project-Specific Plans (PSPs):

1. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan Precertification Soil Sampling for Waste Acceptance Criteria, Project Number 50.03.40.02, September 24, 1996

2. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Project Number 50.03.40.01, Revision 1, October 30, 1996

3. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Certification Sampling, Project Number 50.03.40.01, Revision 2, December 13, 1996

4. Project-Specific Plan for Area 1, Phase I Remedial Action Work Plan, Certification Sampling, Project Number 50.03.40.01, Revision 3, February 10, 1997

5. Project-Specific Plan for OSDF Support Areas Certification Sampling, Rev. 0, March 4, 1997.

Samples collected for the A1PI WAC attainment program were conducted under several PSPs. Although sampling requirements varied, the basic programmatic premise remained constant: to collect and analyze soil samples prior to excavation to determine the existence of material above the OSDF total uranium WAC of 1,030 ppm. This information, in combination with RI/FS data and subsequent sampling, was used to evaluate WAC attainment.

Characterization of the A1PI western portion was conducted in one or more of the following ways:

- RTRAK scans
- High Purity Germanium (HPGe) measurements
- Physical soil sample collection.

Each of these methods are described briefly below; specific details are contained in the PSPs as listed above.

RTRAK

The RTRAK system is a gamma-ray measurement system mounted on a tractor. The measurement system consists of a 4x4x16 inch NaI detector and associated electronics that provide high-speed pulse height analysis. This system allows the collection of a gamma ray energy spectrum, which can be analyzed to identify and quantify radioactive materials that may be present within the detector's viewing area. The tractor is also equipped with a global positioning system (GPS), operated in a real-time differential mode to provide location coordinates. Each energy spectrum is tagged with the location coordinates provided by the GPS. All energy and location data are stored on magnetic media by an on-board computer system. This information is used to accurately locate and subsequently map radiological data within the measurement area.

The detector is positioned on the tractor at a height of approximately 31 cm above the ground. The normal operation of the RTRAK consists of driving a tractor over the measurement area at a predetermined speed. Spectra are continuously collected at regular intervals, typically a few seconds. The viewing area size is a function of the tractor speed, the acquisition time, and the detector's geometrical configuration. As an example, for the 4x6x16 inch detector at the 31cm height, the viewing area is approximately 15 m^2 . The RTRAK collects data which are used to generate an energy spectrum. This spectrum may be processed to generate gross counts or radionuclide-specific activities.

HPGe Measurements

The HPGe system is an in-situ gamma-ray measurement system that can provide quantitative data related to gamma emitting radionuclides in the environment without the need for discrete sampling. The detector is coupled to a multi-channel analyzer system that process the detector signals to produce a spectrum of detected gamma rays. The gamma rays in the spectrum can be used to identify and quantify radionuclides of interest within its field of view. The detectors have the capability of resolving gamma rays associated with uranium, thorium-232, radium-226. Typically, these nuclides are quantified using gamma rays from

members of their decay chains. When used in the field, the detector is mounted on a tripod and connected to a portable electronics package which stores the spectra for later processing. The detector height may be set at either 31 cm or 1 meter to vary the field of view. The field of view increases as the detector height is increased.

Physical Soil Sampling

Samples were collected and analyzed by the protocols as established in the Sitewide CERCLA Quality Assurance Project Plan (SCQ). A soil sampling location determination was made with the intention of collecting a minimum of one surface soil sample, 0 to 6 inches from surface grade, from six of the A1PI certification units (CU) with analysis for total uranium. These 6 CUs are as follows: P18, P18-11, P18-12, P17-31, P17-32, and P17-33. For the OSDF Support Area certification units including the OSDF sedimentation basin (CU OSB1-5) and the pumping station (CU PUMP-1), sixteen soil samples were collected from each CU. Specific sampling details are given in the PSPs as noted above.

Additionally, a number of soil samples were collected from Area D prior to excavation. These samples were collected in a manner consistent with A1PI collection protocols (i.e. 0 to 6 inch sampling interval).

SECTION 4. 0 DATA SUMMARY

The following discussion is an identification and evaluation of the available data set regarding the total uranium concentrations in the soil placed into the west stockpile. This data set includes: existing RI/FS data, RTRAK results, HPGe measurements, and soil sample analytical results.

RI/FS DATA

Within the excavation footprint of A1PI and Area D, there are 30 RI/FS data points, as shown in Attachment C, Area 1 Phase I, Remedial Investigation Sampling Map. These results, which are evenly distributed within the excavation area, range from 9 ppm to 362 ppm total uranium (dry weight). One sample, as indicated on Attachment C, located south of the west stockpile and north of the OSDF sedimentation basin indicated a total uranium concentration of 5526 ppm. This location was within the

footprint of soil movement for the construction of a sediment trap located on the western side of the existing North Access Road. No soil from this area was placed on the west stockpile. The soil in the vicinity of this elevated result were excavated and transferred to the above-WAC stockpile in the waste storage area.

RTRAK DATA

The RTRAK system was used to map the in-situ uranium concentration prior to soil excavation. RTRAK measurements were converted to uranium concentrations on a wet weight basis. RTRAK uranium results were mapped as individual measurements within ranges of concentrations that were observed within the excavation footprint. RTRAK coverage of the excavation areas is shown in Attachment D. Coverage in the area was extensive, and the individual uranium measurements from the RTRAK are shown in Attachment E, (measurements above 200 ppm), and Attachment F (measurements above 300 ppm).

Note that for the OSDF sedimentation basin area, multiple runs with the RTRAK were performed. The RTRAK was initially run over the area prior to the movement of any soil or gravel. The data from this initial RTRAK run was included in the data set evaluated for this report. Additionally, the RTRAK was run across the OSDF sedimentation basin area following the removal of the gravel, but prior to soil removal. The data from this run is also included in the data set evaluated for this report.

The threshold for mapping the data was selected as 200 ppm because this is near the minimum detectable concentration for individual RTRAK measurements collected under the operating parameters in use at the time of the data collection. Within the area of excavation, 57 RTRAK measurements were above 300 ppm, with the highest reading being approximately 783 ppm, which was in the OSDF sedimentation basin area.

Each RTRAK measurement has an associated uncertainty. The uncertainty is the result of a number of factors, including the activities of uranium, radium, and thorium present within the measurement area; the background within each of these areas; and the presence of any other naturally occurring or man-made radionuclides. Because of this, each measurement will have a unique uncertainty. However, uncertainty

can be estimated for activities within each activity range and an upper confidence level calculated. The uranium concentrations and associated upper confidence levels listed below are representative of data acquired within the excavation areas:

Uranium Concentration (ppm)	Approximate Upper 95 % Confidence Level (ppm)
200	340
300	480
600	840

For example, the highest reading in west excavation area 783 ppm has a 95% upper confidence limit of 1048 ppm, which is above the WAC criteria.

Since the RTRAK data showed elevated uranium results, spectra and raw data files were reviewed for all RTRAK uranium results near the WAC limit to identify potential interferences that might invalidate the data. The spectra of six RTRAK measurements, which were taken outside the footprint of excavation for the materials contributing to the west stockpile in an area immediately west of Area D, showed significantly elevated thorium-232 activity. This location is adjacent to a thorium storage facility (i.e. quonset huts) and gamma rays from that facility were detected by the RTRAK. When the RTRAK system is in the presence of a high gamma radiation field, interfering gamma rays can lead to incorrect uranium results. This occurs because the detector in the RTRAK system is not capable of discerning between uranium gamma rays and gamma rays of comparable energies. In such cases, the algorithm used to quantify RTRAK uranium results will treat the interfering gamma rays as if they are uranium and result in an anomalously high uranium result. With the current algorithm used to process the RTRAK data, such interferences will always lead to false high results or significantly increased standard deviations; the interferences will not cause false negative results. High thorium results will cause significant interference because the thorium gamma rays is very close in energy to the gamma rays used to quantify uranium. Examination of the raw spectra revealed that the thorium gamma rays were sufficiently intense to completely mask any uranium gamma rays that might be present and that it would not be possible to separate thorium gammas from uranium gammas using the RTRAK detector system. In addition, an

apparent instrument malfunction made three of these results even more questionable. Because a meaningful uranium result could not be obtained from these spectra, the data were rejected and not used in the mapping. Other RTRAK measurements in this area, which were within the footprint of excavation, also had thorium interference that may have resulted in a falsely high bias, but the effect was less and the data were retained.

Within the footprint of excavation of soil being sent to the west stockpile, the highest observed RTRAK uranium results were 783 and 756 ppm in the excavation location at the OSDF sedimentation basin area. The 95% upper confidence level (UCL) for these results are 1048 ppm and 1015 ppm, respectively. This location is in an area of an elevated radiation field because of a nearby uranium storage facility, and it is probable that gamma rays from this facility resulted in incorrectly high uranium readings. The nearby facility would cause an increased field of uranium-associated gamma rays in the OSDF sedimentation basin area. These gamma rays would be detected by the RTRAK system as if uranium were present in the soils. The resolution of the RTRAK detector is not sufficient to allow the spectra to be evaluated to determine whether the elevated uranium results are a result of actual soil concentrations or the radiation field from the storage facility. Because of this, the data were not rejected and all RTRAK results from this area were mapped. Only limited HPGe spectra and soil sample results are available from this portion of the OSDF sedimentation basin area. While these results do not support the presence of soil exceeding the WAC in this area, DOE considers this to present a data gap which can only be filled through sample and analysis of the material in the existing west stockpile.

HPGe Data

A total of 268 HPGe measurements were taken at 227 different locations. At some locations measurements were taken at both the 0.31 meter height and at the 1.0 meter height. The HPGe measurements locations are shown in Attachment G; the readings reported in Attachment H are reported as wet weight.

The pre-excavation total uranium HPGe measurements taken in the A1PI western portion consisted of the following measurements:

CERTIFICATION UNIT / AREA	NUMBER OF MEASUREMENTS	NUMBER OF LOCATIONS	RESULTS RANGE (ppm)
AREA D	178	158	0 - 109
P17-31	3	3	37 - 42
P17-32	1	1	46
P18-12	2	2	0 - 39
P18	54	44	22 - 108
O18	24	12	17.6 - 25
OSB-3	4	2	2.4 - 7
OSB-5	2	1	1.8 - 2.1

For the following CUs no pre-excavation measurements were made: OSB-1, OSB-2, OSB-4, P18-11, P17-33, and Pump-1.

The HPGe data indicate no readings approached or exceeded the total uranium WAC of 1030 ppm for the A1PI Western portion.

Physical Soil Samples

A total of 122 soil samples were collected from 8 CUs and analyzed for total uranium: 20 in Area D (N18), 1 in O18, 20 in OSB-1, 21 in OSB-2, 22 in OSB-3, 17 in OSB-4, 19 in OSB-5, and 2 in PUMP-1. Overall, the western portion of A1PI total uranium soil analytical results ranged from 1 ppm (in OSB-2, OSB-4, and OSB-5) to 350 ppm [in Area D (N18)], well below the 1030 ppm WAC concentration. The following table summarizes the concentration ranges, and a discussion of the results in the various areas follows.

CERTIFICATION UNIT	NUMBER OF SAMPLES	RESULTS RANGE (ppm)
AREA D	20	8 - 350
P18	3	3 - 20
OSB-1	20	3 - 88
OSB-2	21	1 - 45
OSB-3	22	2 - 62
OSB-4	17	1 - 45
OSB-5	19	1 - 50
PUMP-1	2	6 - 20

The area comprising the northwestern corner of the proposed OSDF consists of five CUs (P18-11, P18-12, P17-31, P17-32, and P17-33). No WAC soil samples were collected for this area. A total of 20 WAC soil samples were collected in Area D (N18): 3 in the ditch line and 17 across the CU (see Attachment I).

A limited number (9) of soil samples were collected from the OSDF sedimentation basin area following gravel removal, but prior to the excavation of the six inch soil layer. These samples are identified in Attachment J with sample collection dates of January 27, 1997, January 30, 1997 and January 31, 1997. These results range from 1 ppm total uranium to 88 ppm total uranium. All remaining soil samples from the OSDF sedimentation basin area, which are identified in Attachment J, were collected following the removal of the six inch soil layer from the entire footprint of the basin excavation. Samples were collected from each of the five OSDF sedimentation basin CUs following removal of the gravel and initial 6 inch layer of soil. A total of 90 soil samples were collected from these CUs (see Attachments I and J); analytical results for total uranium ranged from 1 ppm (in OSB-2, OSB-4, and OSB-5) to 62 ppm (in OSB-3).

The proposed OSDF pump station consists of one CU (PUMP-1). A total of two soil samples were collected in this CU (see Attachment I); concentrations were 6.3 ppm and 20 ppm.

While no soil samples results indicate an exceedance of the WAC, DOE considers the available sampling data set to contain gaps which when reviewed in conjunction with other available data provide an insufficient basis for making a final determination on the acceptability of the stockpiled materials for receipt at the OSDF.

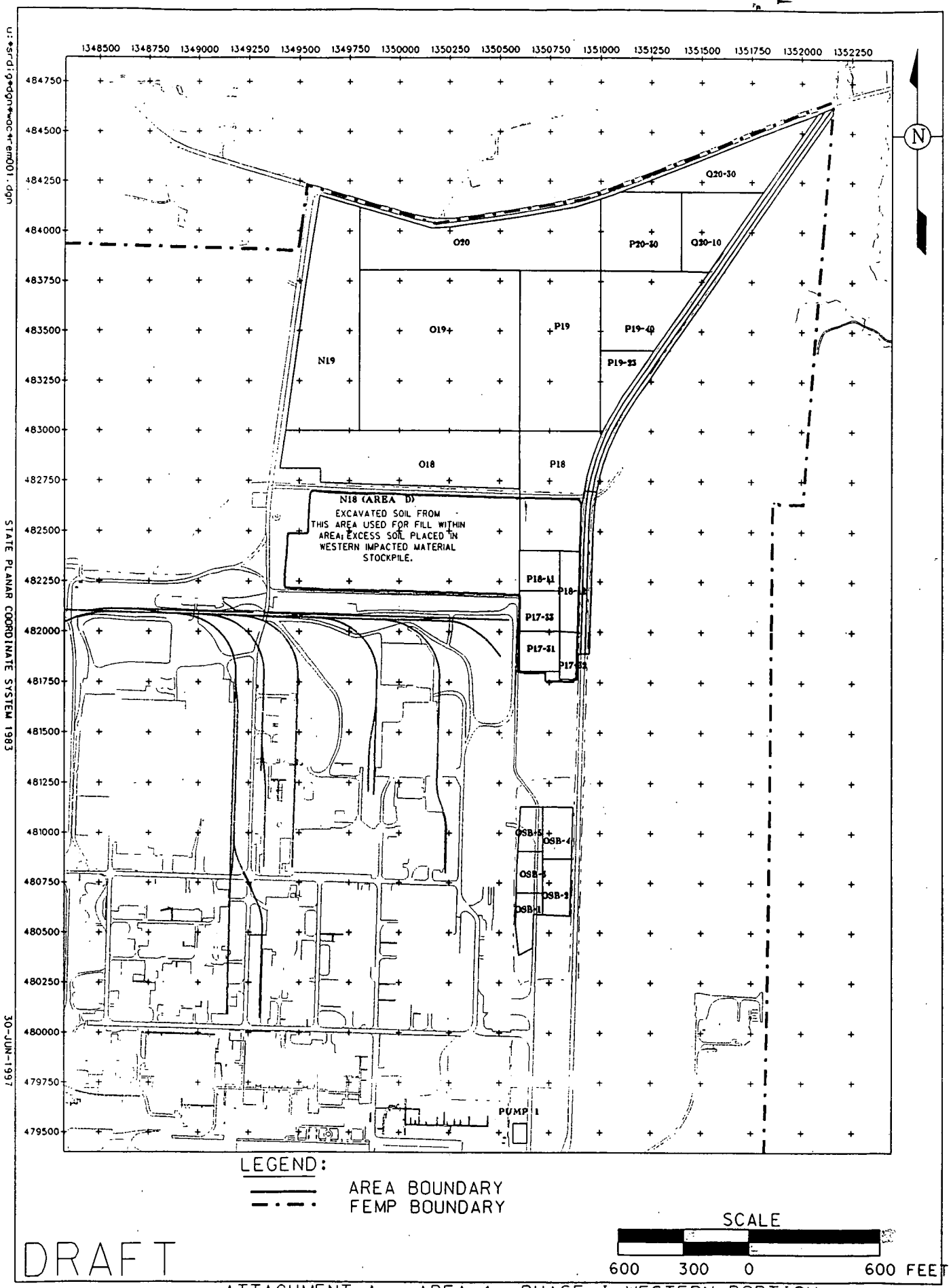
5.0 SUMMARY AND CONCLUSIONS

As can be ascertained from evaluating the available RI/FS data, RTRAK data, HPGe measurements, and the physical soil sampling conducted specifically for the A1PI project and for Area D, the data results

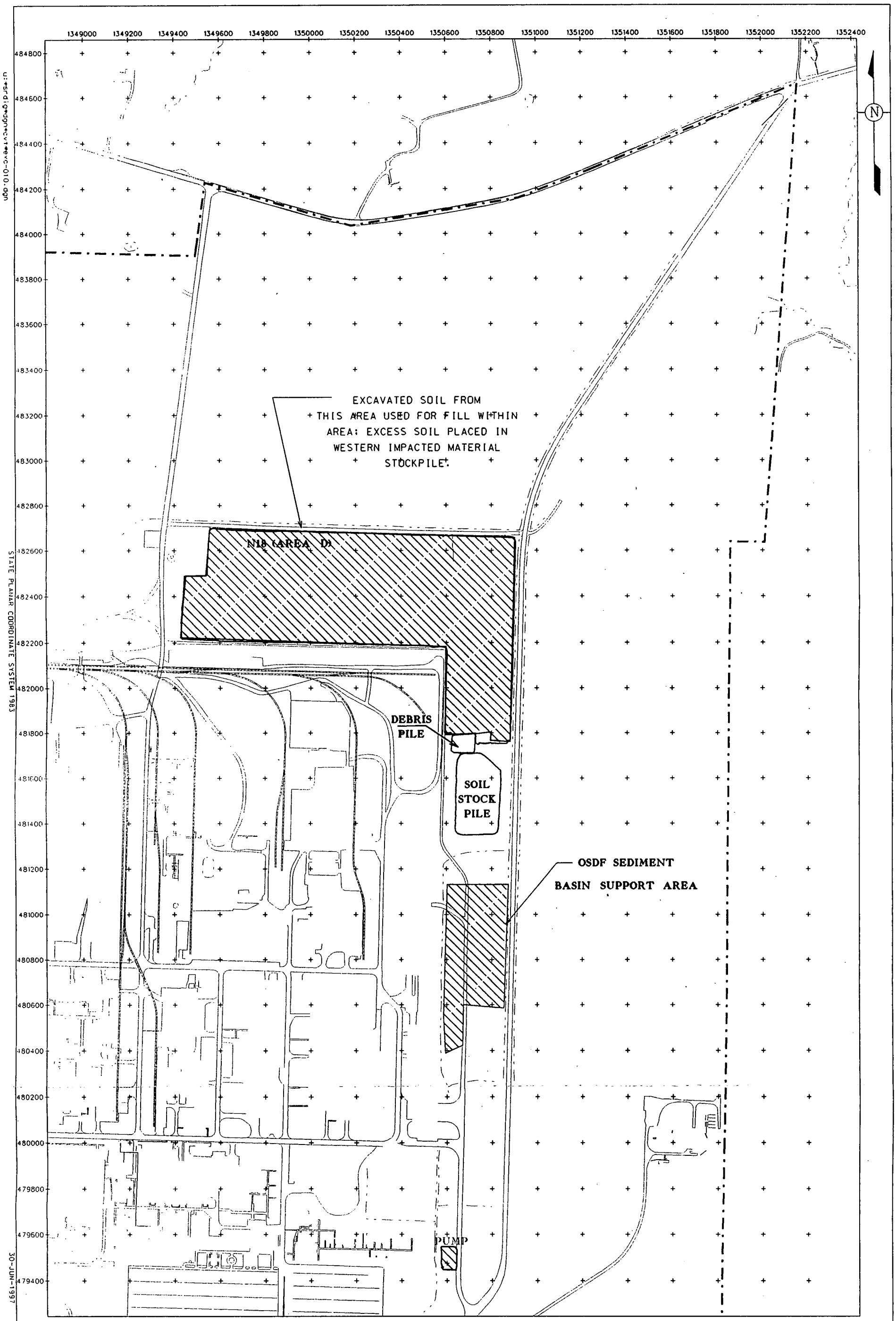
compiled in this report indicate no exceedance of total uranium WAC is present in the west stockpile. However, as a result of no physical soil samples being collected in 5 of the certification units and other sampling data gaps, and suspect and inconclusive RTRAK and HPGe results, the DOE has determined that an insufficient information base exists upon which to base a final determination on the acceptability of the stockpiled materials for receipt at the OSDF. On this basis, the DOE has determined the need to collect additional samples from the stockpiled materials to provide supplemental data to facilitate a final determination. To support the collection of this supplemental data, a sampling plan for the west stockpile is provided as Attachment K to this report. Following collection of this data, this report will be updated and a final determination issued on the acceptability of the stockpiled materials for receipt at the OSDF.

ATTACHMENTS

ATTACHMENT A	Area 1, Phase I and Certification Unit Location Map
ATTACHMENT B	Area 1, Phase I Western Impacted Soil Stockpile Location and Limits of Excavation
ATTACHMENT C	Area 1, Phase I Remedial Investigation Sampling Map
ATTACHMENT D	Area 1, Phase I Western Portion RTRAK Coverage Map
ATTACHMENT E	Area 1, Phase I Western Portion RTRAK Counts Above 200 Parts per Million
ATTACHMENT F	Area 1, Phase I Western Portion RTRAK Counts Above 300 Parts per Million
ATTACHMENT G	Area 1, Phase I Western Portion HPGe Measurement Locations
ATTACHMENT H	Area 1, Phase I Western Portion HPGe Results
ATTACHMENT I	Area 1, Phase I Western Portion WAC Sample Locations
ATTACHMENT J	Area 1, Phase I Western Portion WAC Attainment Sampling Results
ATTACHMENT K	Project Specific Plan Sampling of Area 1, Phase I West Impacted Soil Stockpile for WAC Attainment



ATTACHMENT A. AREA 1, PHASE I WESTERN PORTION



ATTACHMENT B. AREA 1 PHASE I WESTERN PORTION LIMITS OF EXCAVATION AND IMPACTED MATERIAL STOCKPILE LOCATION

u:\esrdi\geo\mbmisc\r_ifs.dgn

STATE PLANAR COORDINATE SYSTEM 1983

30-JUN-1997

1349000 1349500 1350000 1350500 1351000 1351500 1352000

484500 484000 483500 483000 482500 482000 481500 481000 480500 480000 479500

N

CERTIFICATION UNIT BOUNDARY

O18

O19

O20

P18

P19

N19

P20-30

Q20-10

Q20-20

Q20-30

Q20-40

NAR-4

NAR-2

NAR-6

P19-40

Q19-30

Q19-40

A1P1ST-2

P19-22

Q19-10

Q19-20

A1P1ST-3

P19-20

A1P1ST-1

Q18-30

Q18-40

NAR-1

NAR-5

P18-20

Q18-10

P18-11

P18-12

P17-33

P17-40

Q17-30

NAR-3

P17-31

P17-32

DEBRIS PILE

SOIL STOCK PILE

SOIL STOCKPILE

P17-22

Q17-10

Q16-33

Q16-34

OSDF SEDIMENT BASIN SUPPORT AREA

OSB-5

OSB-4

OSB-3

OSB-2

OSB-1

PUMP

PUMP-1

LEGEND:

- FEMP BOUNDARY
- AREA 1, PHASE I EXCAVATION BOUNDARY
- TOTAL URANIUM RESULTS LESS THAN 1030 PPM
- TOTAL URANIUM RESULTS GREATER THAN 1030 PPM

NOTE : SAMPLE LOCATIONS ANNOTATED WITH TOTAL URANIUM RESULT MEASURED IN PPM

SCALE

400 200 0 400 FEET

DRAFT

000013

ATTACHMENT C. AREA 1, PHASE I REMEDIAL INVESTIGATION SAMPLING MAP

8 3 7

LEGEND:

FEMP BOUNDARY

URANIUM RESULT LOCATION

EXCAVATION BOUNDARY

SCALE

400 200 0 400 FEET

DRAFT

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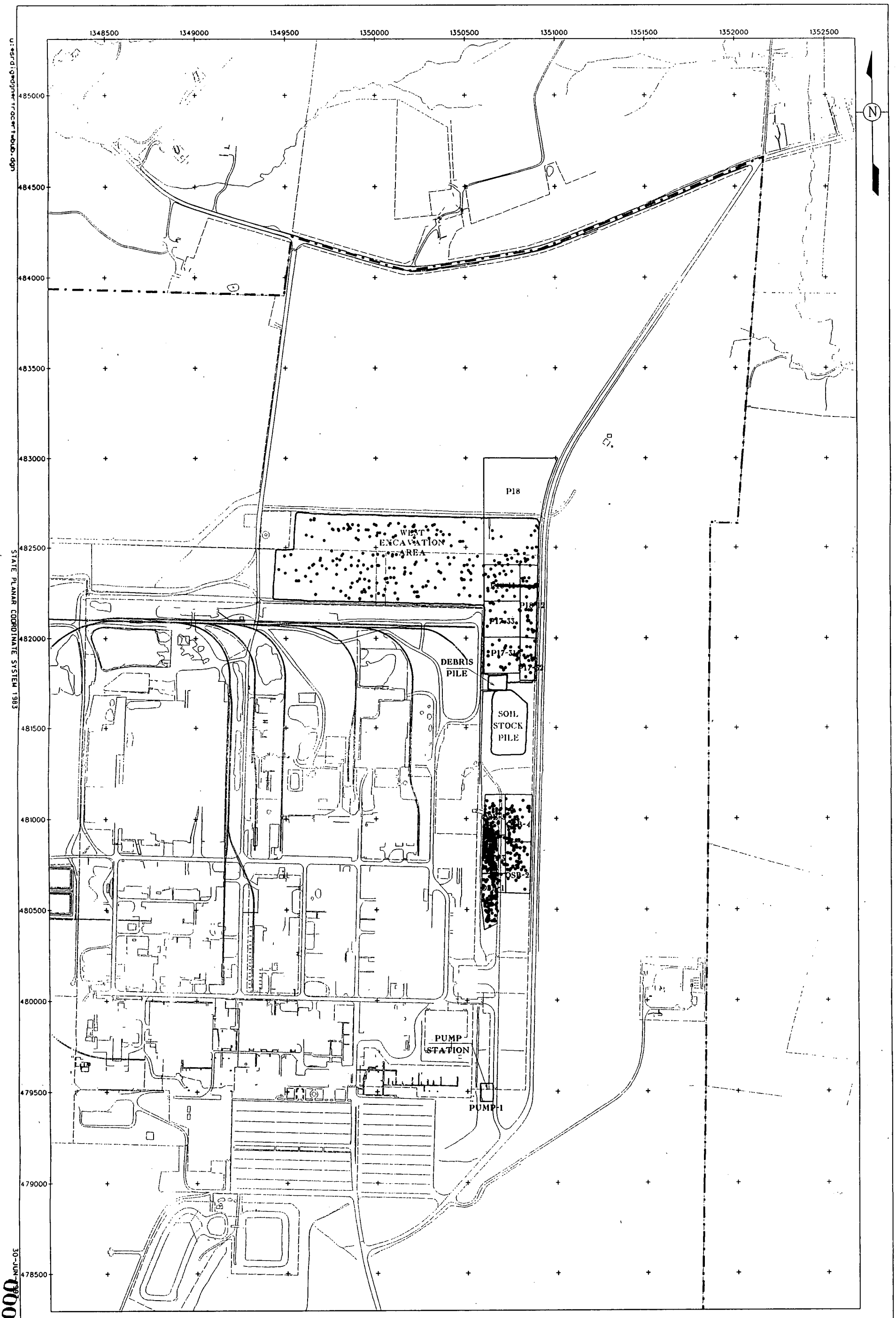
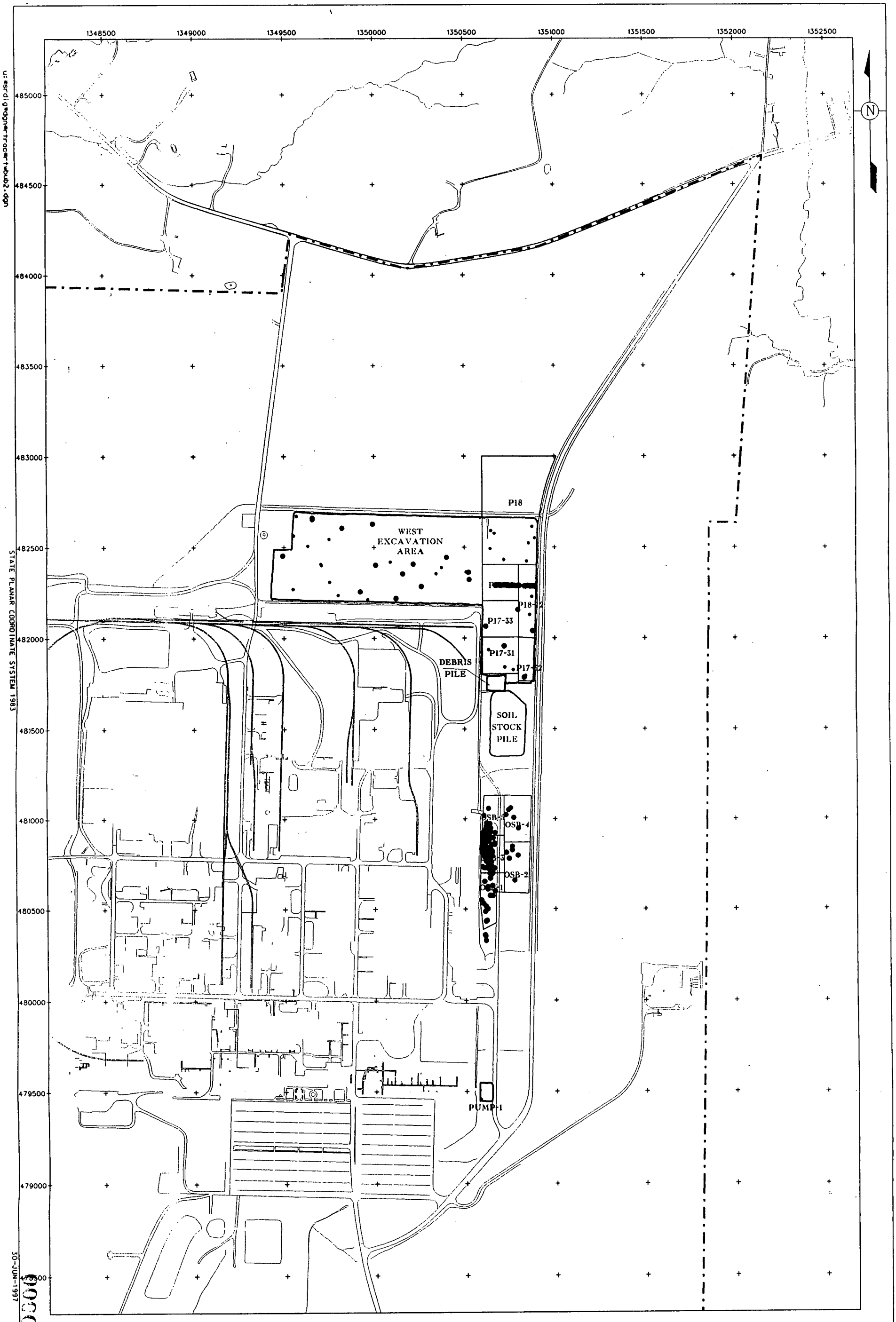
ATTACHMENT D. RTRAK URANIUM COVERAGE MAP - AREA 1, PHASE I WEST

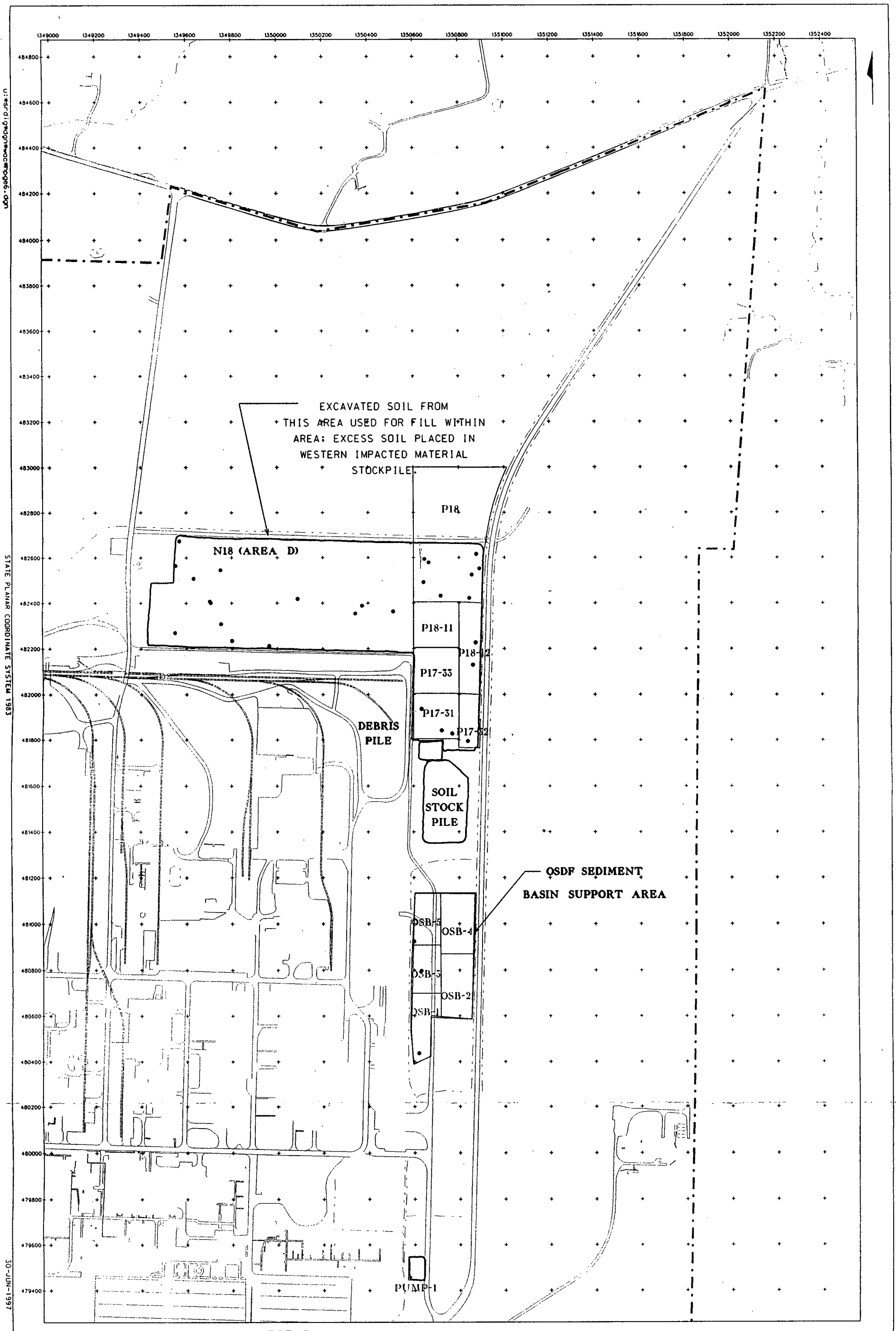


ATTACHMENT E. RTRAK URANIUM RESULTS GREATER THAN 200 ppm - AREA 1, PHASE I WEST

30-JUN-93 0000435



ATTACHMENT F. RTRAK URANIUM RESULTS GREATER THAN 300 ppm – ARERA 1, PHASE I WEST



LEGEND:

- • HPGe TOTAL URANIUM MEASUREMENT LOCATION
- — · — · — FEMP BOUNDARY

SCALE

400 200 0 400 FEET

DRAFT

ATTACHMENT G. AREA1, PHASE I WESTERN PORTION HPGE MEASUREMENT LOCATIONS

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ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
AREA-D	PBC-2-1	27.93	482683.723	1349396.32	10/25/96	1
		24.03	482683.723	1349396.32	10/25/96	1
		32.62	482683.723	1349396.32	10/25/96	0.31
		29.92	482683.723	1349396.32	10/25/96	0.31
	RS1-100	42.17	482299.136	1349382.58	7/24/96	0.31
		0.00	482299.136	1349382.58	7/12/96	1
	RS1-102	68.98	482296.056	1349293.46	7/25/96	0.31
	RS1-103	31.52	482294.156	1349309.28	7/25/96	0.31
	RS1-104	20.16	482292.085	1349325.2	7/25/96	0.31
	RS1-105	19.89	482290.2	1349340.98	7/25/96	0.31
	RS1-106	22.93	482288.142	1349356.99	7/25/96	0.31
	RS1-107	58.67	482286.244	1349372.83	7/25/96	0.31
	RS1-108	42.90	482284.514	1349388.55	7/25/96	0.31
	RS1-11	24.34	482486.597	1349349.57	7/26/96	0.31
		25.31	482486.597	1349349.57	7/15/96	0.31
	RS1-110	60.47	482279.3	1349315.55	7/25/96	0.31
	RS1-111	43.32	482277.286	1349331.45	7/25/96	0.31
	RS1-112	27.36	482275.432	1349347.29	7/25/96	0.31
	RS1-113	51.78	482273.269	1349363.17	7/25/96	0.31
	RS1-114	46.30	482271.389	1349379.04	7/25/96	0.31
	RS1-116	43.71	482262.463	1349337.62	7/26/96	0.31
	RS1-117	24.44	482260.375	1349353.51	7/26/96	0.31
	RS1-118	58.04	482258.435	1349369.33	7/26/96	0.31
	RS1-119	36.85	482256.432	1349385.31	7/26/96	0.31
	RS1-12	109.45	482484.718	1349365.46	7/15/96	0.31
	RS1-120	46.72	482249.505	1349327.87	7/26/96	0.31
	RS1-121	46.72	482247.465	1349343.77	7/26/96	0.31
	RS1-122	30.63	482245.635	1349359.72	7/26/96	0.31
	RS1-123	40.37	482243.573	1349375.59	7/26/96	0.31
	RS1-124	46.99	482232.701	1349350.09	7/26/96	0.31
	RS1-125	46.99	482230.704	1349365.95	7/26/96	0.31
	RS1-13	24.08	482482.781	1349381.2	7/15/96	0.31
	RS1-14	37.11	482480.67	1349397.13	7/15/96	0.31
	RS1-15	37.08	482478.711	1349412.94	7/15/96	0.31
	RS1-16	87.65	482475.718	1349323.87	7/15/96	0.31
	RS1-17	0.00	482473.71	1349339.9	7/15/96	0.31
	RS1-18	23.25	482471.721	1349355.62	7/15/96	0.31
	RS1-19	25.32	482469.843	1349371.51	7/15/96	0.31
	RS1-20	44.21	482467.754	1349387.39	7/15/96	0.31
	RS1-21	81.77	482465.81	1349403.33	7/15/96	0.31
	RS1-23	24.53	482460.894	1349330.14	7/15/96	0.31
	RS1-24	22.76	482458.833	1349346.1	7/15/96	0.31
	RS1-25	60.47	482456.902	1349361.96	7/15/96	0.31
	RS1-26	21.68	482454.953	1349377.74	7/15/96	0.31
	RS1-27	43.34	482452.963	1349393.57	7/15/96	0.31
	RS1-28	31.70	482447.996	1349320.4	7/16/96	0.31
	RS1-29	42.15	482445.981	1349336.32	7/16/96	0.31
	RS1-30	39.85	482443.904	1349352.2	7/15/96	0.31
	RS1-31	0.27	482442.098	1349368.15	7/15/96	0.31
	RS1-32	34.15	482440.009	1349384.05	7/15/96	0.31

ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
	RS1-33	48.52	482435.105	1349310.88	7/16/96	0.31
	RS1-34	60.83	482433.15	1349326.66	7/16/96	0.31
	RS1-35	26.70	482431.098	1349342.54	7/16/96	0.31
	RS1-36	28.89	482429.157	1349358.45	7/16/96	0.31
	RS1-37	28.37	482427.117	1349374.34	7/24/96	0.31
		31.45	482427.117	1349374.34	7/24/96	0.31
	RS1-38	37.45	482425.113	1349390.23	7/16/96	0.31
	RS1-39	52.11	482420.243	1349316.89	7/16/96	0.31
	RS1-40	42.43	482418.211	1349332.79	7/16/96	0.31
	RS1-41	28.19	482416.203	1349348.66	7/16/96	0.31
	RS1-42	51.78	482414.221	1349364.67	7/17/96	0.31
	RS1-43	26.00	482412.218	1349380.54	7/16/96	0.31
	RS1-45	83.09	482407.178	1349307.41	7/16/96	0.31
	RS1-46	35.02	482405.332	1349323.29	7/17/96	0.31
	RS1-47	25.48	482403.344	1349339.02	7/17/96	0.31
	RS1-48	26.01	482401.33	1349355.01	7/17/96	0.31
	RS1-49	28.71	482399.302	1349370.86	7/17/96	0.31
	RS1-50	37.99	482397.457	1349386.67	7/17/96	0.31
	RS1-51	77.66	482394.321	1349297.66	7/17/96	0.31
	RS1-52	34.13	482392.411	1349313.55	7/17/96	0.31
	RS1-53	31.97	482390.44	1349329.47	7/17/96	0.31
	RS1-54	30.03	482388.535	1349345.32	7/17/96	0.31
	RS1-55	44.84	482386.524	1349361.19	7/17/96	0.31
		53.23	482386.524	1349361.19	8/16/96	1
	RS1-56	46.22	482384.468	1349377.12	7/17/96	0.31
	RS1-57	83.81	482381.558	1349287.96	7/17/96	0.31
	RS1-58	25.31	482379.44	1349303.89	7/17/96	0.31
	RS1-59	43.12	482377.458	1349319.72	7/17/96	0.31
	RS1-60	14.72	482375.475	1349335.59	7/17/96	0.31
	RS1-61	20.99	482373.587	1349351.57	7/17/96	0.31
	RS1-62	80.53	482371.559	1349367.35	7/17/96	0.31
	RS1-63	38.41	482369.588	1349383.28	7/17/96	0.31
	RS1-64	49.34	482368.677	1349278.33	7/26/96	0.31
	RS1-65	34.20	482366.608	1349294.05	7/17/96	0.31
		24.77	482366.608	1349294.05	7/24/96	0.31
	RS1-66	36.58	482364.688	1349309.99	7/17/96	0.31
		22.93	482364.688	1349309.99	7/24/96	0.31
	RS1-67	0.17	482362.722	1349325.86	7/17/96	0.31
		15.11	482362.722	1349325.86	7/24/96	0.31
	RS1-68	19.57	482360.636	1349341.76	7/17/96	0.31
		16.83	482360.636	1349341.76	7/24/96	0.31
	RS1-69	29.70	482358.676	1349357.73	7/17/96	0.31
		23.58	482358.676	1349357.73	7/24/96	0.31
	RS1-70	48.44	482356.677	1349373.63	7/17/96	0.31
		42.57	482356.677	1349373.63	7/24/96	0.31
	RS1-71	30.93	482353.663	1349284.41	8/16/96	1
		39.20	482353.663	1349284.41	7/26/96	0.31
	RS1-72	24.92	482351.646	1349300.42	7/24/96	0.31
	RS1-73	32.12	482349.757	1349316.24	8/16/96	1
		20.18	482349.757	1349316.24	7/24/96	0.31

ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
	RS1-74	33.90	482347.708	1349332.21	7/24/96	0.31
	RS1-75	0.00	482345.793	1349347.89	7/24/96	0.31
	RS1-76	76.46	482343.718	1349363.89	7/24/96	0.31
	RS1-77	34.82	482341.731	1349379.75	7/24/96	0.31
	RS1-78	38.03	482340.866	1349274.89	7/26/96	0.31
	RS1-79	23.46	482338.82	1349290.74	7/24/96	0.31
	RS1-80	24.03	482336.902	1349306.54	7/24/96	0.31
	RS1-81	16.41	482334.852	1349322.49	7/24/96	0.31
	RS1-82	14.75	482332.902	1349338.35	7/24/96	0.31
	RS1-83	24.62	482330.981	1349354.22	7/24/96	0.31
	RS1-84	55.02	482328.982	1349370.07	7/24/96	0.31
	RS1-85	38.84	482326.961	1349385.92	7/24/96	0.31
	RS1-86	26.11	482325.975	1349281.09	7/24/96	0.31
	RS1-87	0.00	482323.892	1349296.94	7/24/96	0.31
	RS1-88	23.94	482321.903	1349312.84	7/24/96	0.31
	RS1-89	17.78	482320.066	1349328.67	7/24/96	0.31
	RS1-90	0.00	482317.989	1349344.49	7/24/96	0.31
	RS1-91	38.00	482316.044	1349360.32	7/24/96	0.31
	RS1-92	41.02	482313.656	1349378.95	7/24/96	0.31
	RS1-93	33.25	482313.076	1349271.37	7/24/96	0.31
	RS1-94	40.48	482310.965	1349287.19	7/24/96	0.31
	RS1-95	27.18	482309.078	1349303.02	7/24/96	0.31
	RS1-96	30.63	482307.081	1349319	7/24/96	0.31
	RS1-97	0.00	482305.137	1349334.73	7/24/96	0.31
	RS1-98	22.12	482303.098	1349350.72	7/24/96	0.31
	RS1-99	88.26	482301.114	1349366.61	7/24/96	0.31
	RS1-A-12	46.62	482449.981	1349417.5	7/12/96	1
	RS1-A-13	66.75	482426.254	1349308.65	7/12/96	1
	RS1-A-14	35.00	482421.04	1349350.3	7/12/96	1
	RS1-A-15	38.00	482415.888	1349392.04	7/12/96	1
	RS1-A-16	72.87	482392.168	1349283.32	7/12/96	1
	RS1-A-17	37.67	482386.986	1349324.91	7/12/96	1
	RS1-A-18	81.28	482381.75	1349366.65	7/12/96	1
	RS1-A-19	41.90	482376.526	1349408.33	7/12/96	1
	RS1-A-20	74.01	482358.09	1349257.81	7/12/96	1
	RS1-A-21	30.02	482352.832	1349299.53	7/12/96	1
	RS1-A-22	0.00	482347.655	1349341.16	7/12/96	1
	RS1-A-23	35.10	482342.359	1349382.9	7/12/96	1
	RS1-A-24	29.54	482318.766	1349274.11	7/12/96	1
	RS1-A-25	20.31	482313.536	1349315.79	7/12/96	1
	RS1-A-26	18.23	482308.319	1349357.44	7/12/96	1
	RS1-A-27	52.65	482303.068	1349399.14	7/12/96	1
	RS1-A-29	41.80	482274.289	1349331.99	7/12/96	1
	RS1-A-30	54.45	482268.945	1349373.76	7/12/96	1
	RS1-A-31	52.38	482263.84	1349415.26	7/12/96	1
	RS1-A-32	51.96	482234.867	1349348.16	7/12/96	1
	RS2-A-13	66.08	482258.34	1349160.65	8/1/96	1
	RS2-A-14	39.25	482253.234	1349202.39	8/1/96	1
		43.42	482253.234	1349202.39	8/5/96	1
	RS2-A-15	35.68	482247.863	1349244.06	8/1/96	1

ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
	RS2-A-16	46.69	482242.754	1349285.71	8/1/96	1
	RS2-A-17	58.88	482237.506	1349327.39	8/1/96	1
	RS2-A-18	57.69	482297.571	1349144.53	8/7/96	1
	RS2-A-19	35.68	482292.683	1349186.24	8/1/96	1
		32.41	482292.683	1349186.24	8/5/96	1
	RS2-A-20	28.99	482287.237	1349227.89	8/1/96	1
		23.25	482287.237	1349227.89	8/7/96	1
	RS2-A-21	23.31	482281.938	1349269.44	8/1/96	1
	RS2-A-22	76.50	482276.782	1349311.24	8/1/96	1
	RS2-A-23	67.73	482331.888	1349169.92	8/1/96	1
	RS2-A-24	108.17	482326.53	1349211.66	8/1/96	1
		94.15	482326.53	1349211.66	8/5/96	1
	RT-10	39.85	482242.568	1349402.51	8/19/96	1
	RT-11	48.85	482268.7	1349550.79	8/19/96	1
	RT-12	44.13	482307.278	1349753.41	8/19/96	1
	RT-13	45.29	482234.406	1349800.63	8/19/96	1
	RT-14	30.83	482211.768	1349963.81	8/19/96	1
	RT-15	32.62	482673.873	1349569.3	8/23/96	1
	RT-16	24.02	482545.566	1349750.43	8/23/96	1
	RT-18	35.68	482508.204	1349632.16	8/23/96	1
	RT-21	25.21	482564.852	1349553.01	8/23/96	1
	RT-26	34.49	482407.084	1349703.76	9/11/96	1
		53.25	482407.084	1349703.76	9/12/96	1
	RT-28	48.41	482401.496	1349707.62	9/12/96	1
	RT-29	37.15	482418.442	1350089.6	9/12/96	1
	RT-30	48.54	482353.658	1350343.35	9/12/96	1
	RT-33	33.30	482388.034	1350373.06	9/12/96	1
	RT-34	52.13	482362.586	1350509.89	9/12/96	1
O18	O18-00-1-G	18.13	482796	1349725	2/23/97	1
		20.77	482796	1349725	2/23/97	0.31
	O18-00-10-G	22.05	482908	1350021	2/23/97	1
		24.54	482908	1350021	2/23/97	0.31
	O18-00-11-G	24.92	482914	1350111	2/23/97	1
		21.48	482914	1350111	2/23/97	0.31
	O18-00-12-G	24.40	482897	1350200	2/23/97	1
		21.01	482897	1350200	2/23/97	0.31
	O18-00-15-G	17.63	482878	1349501	2/23/97	1
		18.42	482878	1349501	2/23/97	0.31
	O18-00-2-G	21.72	482844	1349801	2/23/97	1
		21.33	482844	1349801	2/23/97	0.31
	O18-00-3-G	21.42	482806	1349981	2/23/97	0.31
		24.67	482806	1349981	2/23/97	1
	O18-00-4-G	20.61	482779	1350091	2/23/97	1
		20.38	482779	1350091	2/23/97	0.31
	O18-00-5-G	19.85	482747	1350230	2/23/97	1
		19.94	482747	1350230	2/23/97	0.31
	O18-00-7-G	21.90	482775	1350547	2/23/97	1
		26.01	482775	1350547	2/23/97	0.31
	O18-00-8-G	21.01	482949	1349616	2/23/97	0.31

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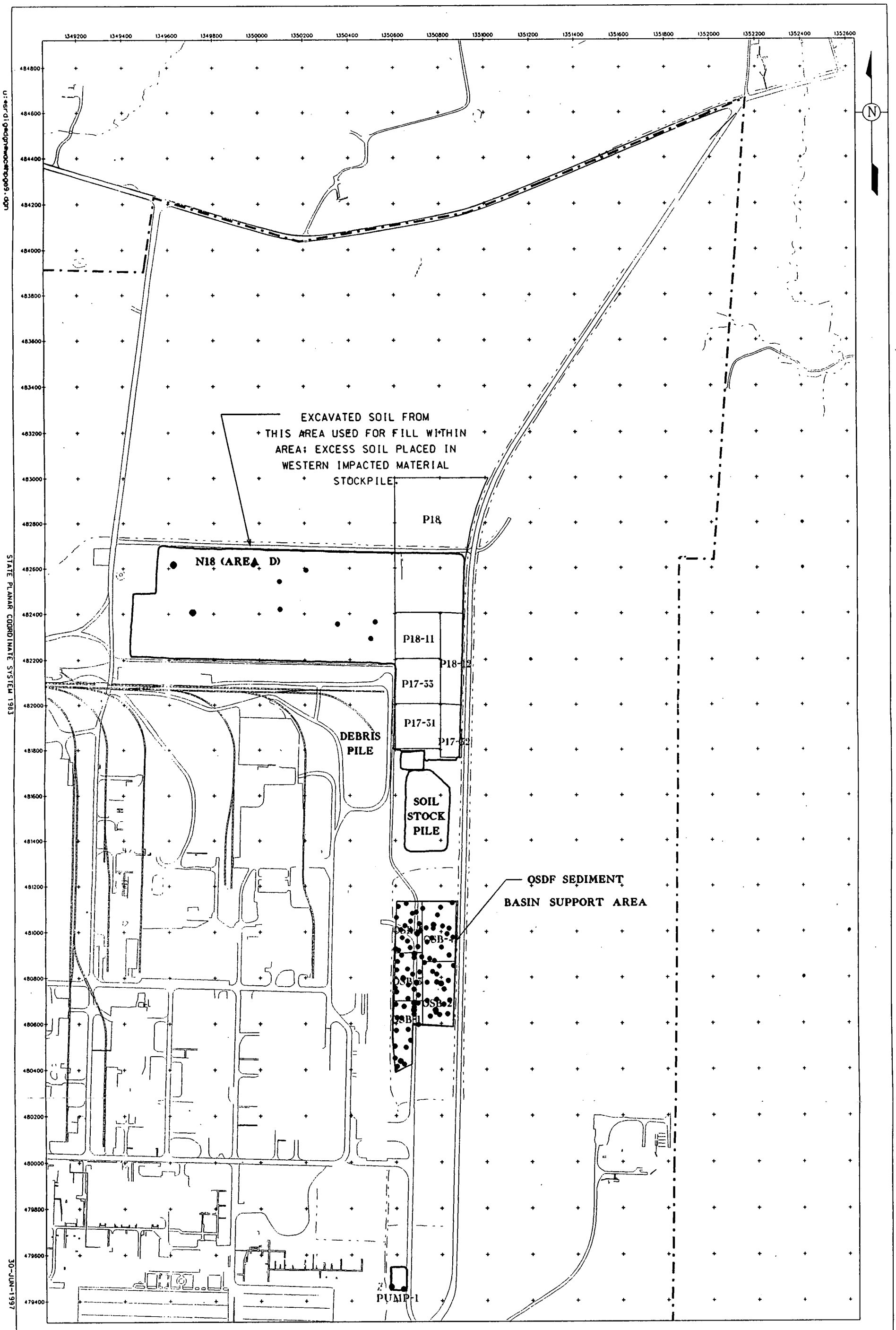
ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
		22.20	482949	1349616	2/23/97	1
	O18-00-9-G	20.51	482896	1349804	2/23/97	1
		18.17	482896	1349804	2/23/97	0.31
OSB-3	OSB-03W-B-G	2.80	480797.13	1350631.24	3/4/97	1
		2.43	480797.13	1350631.24	3/4/97	0.31
	OSB-03W-C-R	5.63	480797.13	1350631.24	3/4/97	1
		7.13	480797.13	1350631.24	3/4/97	0.31
OSB-5	OSB-05W-B-G	2.14	480924.34	1350598.93	3/4/97	0.31
		1.80	480924.34	1350598.93	3/4/97	1
P17-31	RT-38	39.53	481826.94	1350769.92	9/13/96	1
	RT-39	36.59	481840.931	1350723.83	9/13/96	1
	RT-40	42.16	481936.767	1350634.04	9/13/96	1
P17-32	RT-37	46.15	481794.03	1350838.9	9/13/96	1
P18	IS-08	25.78	482829.024	1350610.61	10/16/96	1
	IS-09	22.80	482830.846	1350657.67	10/16/96	1
	IS-1	21.44	482703.666	1350916.98	10/16/96	1
	IS-10	32.62	482830.887	1350706.12	10/16/96	1
P18	IS-11	29.70	482828.178	1350751.47	10/16/96	1
	IS-12	30.88	482826.571	1350799.68	10/16/96	1
	IS-13	30.24	482824.58	1350843.64	10/16/96	1
	IS-14	29.53	482823.807	1350891.91	10/16/96	1
	IS-15	24.28	482822.857	1350940.15	10/16/96	1
	IS-16	23.39	482943.198	1350968.34	10/17/96	0.31
		26.50	482943.198	1350968.34	10/17/96	1
	IS-17	35.32	482945.209	1350917.33	10/17/96	0.31
		32.06	482945.209	1350917.33	10/17/96	1
	IS-18	32.07	482946.274	1350861.89	10/17/96	0.31
		27.24	482946.274	1350861.89	10/17/96	1
	IS-19	36.56	482948.262	1350812.84	10/17/96	0.31
		32.03	482948.262	1350812.84	10/17/96	1
	IS-2	25.01	482700.92	1350869	10/16/96	1
	IS-20	34.13	482948.817	1350761.78	10/17/96	0.31
		32.97	482948.817	1350761.78	10/17/96	1
	IS-21	29.87	482950.281	1350714.43	10/17/96	1
		35.95	482950.281	1350714.43	10/17/96	0.31
	IS-22	29.23	482951.413	1350667.69	10/17/96	1
		32.72	482951.413	1350667.69	10/17/96	0.31
	IS-23	32.40	482955.38	1350621.85	10/17/96	1
		35.38	482955.38	1350621.85	10/17/96	0.31
	IS-3	24.53	482702.185	1350819.16	10/16/96	1
	IS-4	25.98	482703.197	1350770.39	10/16/96	1
	IS-5	25.40	482704.551	1350721.96	10/16/96	1
	IS-6	28.52	482708.895	1350673.21	10/16/96	1
	IS-7	21.82	482708.921	1350619.51	10/16/96	1

ATTACHMENT H
A1PI WEST HPGe RESULTS

CU Name	Station Number	Result (ppm)	Northing '83	Easting '83	Result Date	Detector Ht. (m)
	P18-10	25.01	482810.5	1350723.23	12/31/96	1
		26.62	482810.5	1350723.23	12/31/96	0.31
	P18-11	26.96	482800.22	1350839.11	12/31/96	1
		26.97	482800.22	1350839.11	12/31/96	0.31
	P18-13	21.70	482882.14	1350601.42	12/31/96	1
		22.83	482882.14	1350601.42	12/31/96	0.31
	P18-14	25.24	482858.82	1350750.37	12/31/96	1
		26.00	482858.82	1350750.37	12/31/96	0.31
	P18-16	23.88	482939	1350906.06	12/31/96	1
		23.34	482939	1350906.06	12/31/96	0.31
	P18-2	4.85	482431.614	1350719.21	1/6/97	0.31
		0.04	482431.614	1350719.21	1/6/97	1
	P18-4B-G	6.47	482524	1350856	5/21/97	1
		7.73	482524	1350856	5/21/97	0.31
	P18-5	8.39	482578.412	1350666.4	1/6/97	1
		9.45	482578.412	1350666.4	1/6/97	0.31
	P18-7-G	7.55	482616	1350876	5/21/97	0.31
		8.88	482616	1350876	5/21/97	1
	P18-8-G	12.57	482552	1350890	5/21/97	0.31
		9.20	482552	1350890	5/21/97	1
	P18-9	21.86	482849.43	1350631.61	12/31/96	1
		24.81	482849.43	1350631.61	12/31/96	0.31
	RT-31	37.45	482422.259	1350845.48	9/13/96	1
	RT-45	29.45	482491.805	1350643.8	9/12/96	1
	RT-46	23.36	482593.645	1350647.38	9/12/96	1
P18-12	RT-42	38.65	482128.666	1350860.83	9/13/96	1
	RT-43	29.69	482226.593	1350872.91	9/13/96	1

000053



ATTACHMENT I. AREA 1, PHASE I WESTERN PORTION WAC SAMPLE LOCATIONS

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ATTACHMENT J
A1PI WEST WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
AREA-D	N18-24W-704406	9/30/96	482406.485	1349704.43	45
	N18-24W-706407	9/25/96	482407.878	1349706.51	170
	N18-24W-707403	9/30/96	482403.876	1349707.19	47
	N18-24W-710406	9/30/96	482406.744	1349710.09	55
	N18-41DL-538729	10/15/96	482729	1349538	8
	N18-42W-618615	10/1/96	482615.624	1349618.41	30
	N18-42W-620615	9/25/96	482615.487	1349621	350
	N18-42W-621612	10/1/96	482612.559	1349621.46	34
	N18-42W-621618	10/1/96	482618.453	1349621.62	36
	N18-42W-624615	10/1/96	482615.595	1349624.42	32
	O18-14W-092419	9/25/96	482419.471	1350092.3	26
	O18-22W-492292	9/25/96	482292.174	1350492.22	39
	O18-23W-346354	9/25/96	482354.524	1350346.09	44
	O18-24W-512363	9/25/96	482363.304	1350512.75	49
	O18-31W-974616	9/25/96	482616.519	1349974.39	40
	O18-32DL-005716	10/15/96	482716	1350005	10
	O18-32W-089541	9/25/96	482541.001	1350089.66	30
	O18-41W-206591	9/25/96	482591.486	1350206.93	29
	O18-42DL-486700	10/15/96	482700	1350486	10
	P17-30W-635935	11/20/96	482701	1349775	36
O18	P17-10W-642773	11/20/96	482773	1349642	52
OSB-1	OSB-01W-A-R	1/30/97	480437.46	1350619.71	88
	OSB-01W-B-R	3/4/97	480437.46	1350619.71	10
	OSB-1W-10B-R	4/15/97	480624	1350624	15.1
	OSB-1W-11B-R	4/15/97	480641	1350679	12.4
	OSB-1W-12B-R	4/15/97	480596	1350699	11.4
	OSB-1W-13B-R	4/15/97	480684	1350598	12.8
	OSB-1W-14B-R	4/15/97	480675	1350635	13.1
	OSB-1W-15B-R	4/15/97	480671	1350680	12.8
	OSB-1W-16B-R	4/15/97	480689	1350697	2.2
	OSB-1W-1B-R	4/15/97	480414	1350605	14
	OSB-1W-2B-R	4/15/97	480424	1350636	3
	OSB-1W-3B-R	4/15/97	480451	1350595	9
	OSB-1W-4B-R	4/15/97	480497	1350644	31
	OSB-1W-5B-R	4/15/97	480502	1350595	8.5
	OSB-1W-6B-R	4/15/97	480527	1350664	8.6
	OSB-1W-7B-R	4/15/97	480570	1350601	11.4
	OSB-1W-8B-R	4/15/97	480574	1350653	33.1
	OSB-1W-9B-R	4/15/97	480626	1350604	14.6
	SDBSN-W-1	2/18/97	480690	1350680.03	12
	SDBSN-W-5	2/18/97	480659.5	1350678.5	8
OSB-2	OSB-02W-A-R	1/27/97	480659.23	1350774.54	1
	OSB-02W-B-R	1/31/97	480659.23	1350774.54	13
	OSB-04W-A-R	1/27/97	480773.59	1350799.1	1
	OSB-04W-B-R	1/31/97	480826.78	1350761.32	38
	OSB-06W-B-R	1/31/97	480779.5	1350779.5	45
	OSB-2W-10B-R	4/2/97	480781	1350780	4

ATTACHMENT J
A1PI WEST WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
	OSB-2W-11B-R	4/2/97	480750	1350812	4
	OSB-2W-12B-R	4/2/97	480787	1350831	4
	OSB-2W-13B-R	4/17/97	480866	1350726	26.7
	OSB-2W-14B-R	4/2/97	480815	1350780	15
	OSB-2W-15B-R	4/2/97	480851	1350791	15
	OSB-2W-16B-R	4/2/97	480853	1350854	20
	OSB-2W-1B-R	4/1/97	480632	1350751	4
	OSB-2W-2B-R	4/1/97	480649	1350776	3
	OSB-2W-3B-R	4/1/97	480639	1350792	3
	OSB-2W-4B-R	4/1/97	480642	1350828	3
	OSB-2W-5B-R	4/1/97	480700	1350737	10
	OSB-2W-6B-R	4/1/97	480705	1350779	3
	OSB-2W-7B-R	4/1/97	480684	1350811	7
	OSB-2W-8B-R	4/1/97	480702	1350837	4
	OSB-2W-9B-R	4/2/97	480779	1350737	4
OSB-3	OSB-03W-A-R	1/30/97	480797.13	1350631.24	44
	OSB-03W-B-R	3/4/97	480797.13	1350631.24	12
	OSB-03W-C-R	3/4/97	480797.13	1350631.24	3
	OSB-03W-D-R	3/4/97	480797.13	1350631.24	4
	OSB-3W-10B-R	4/14/97	480838	1350651	62
	OSB-3W-11B-R	4/14/97	480815	1350673	18
	OSB-3W-12B-R	4/15/97	480825	1350704	2
	OSB-3W-13B-R	4/14/97	480871	1350607	12
	OSB-3W-14B-R	4/14/97	480898	1350625	19
	OSB-3W-15B-R	4/14/97	480888	1350680	6
	OSB-3W-16B-R	4/14/97	480891	1350714	7
	OSB-3W-1B-R	4/15/97	480738	1350602	11
	OSB-3W-2B-R	4/15/97	480709	1350652	2
	OSB-3W-3B-R	4/15/97	480749	1350679	12
	OSB-3W-4B-R	4/15/97	480724	1350698	3
	OSB-3W-5B-R	4/15/97	480755	1350596	12
	OSB-3W-6B-R	4/14/97	480800	1350631	16
	OSB-3W-7B-R	4/14/97	480768	1350654	14
	OSB-3W-8B-R	4/15/97	480779	1350689	2
	OSB-3W-9B-R	4/14/97	480834	1350603	11
	SDBSN-W-2	2/18/97	480904.12	1350681.7	11
	SDBSN-W-3	2/18/97	480777.86	1350690.2	13
OSB-4	OSB-06W-A-R	1/27/97	481030.32	1350766.24	1
	OSB-4W-10B-R	4/7/97	481015	1350765	11
	OSB-4W-11B-R	3/7/97	481025	1350806	11
	OSB-4W-12B-R	4/7/97	481015	1350835	13
	OSB-4W-13B-R	4/7/97	481101	1350719	20
	OSB-4W-14B-R	4/7/97	481073	1350784	21
	OSB-4W-15B-R	4/7/97	481106	1350798	11
	OSB-4W-16B-R	4/7/97	481126	1350850	5
	OSB-4W-1B-R	4/3/97	480884	1350749	19.1
	OSB-4W-2B-R	4/3/97	480875	1350770	6
	OSB-4W-3B-R	4/7/97	480933	1350801	9

ATTACHMENT J
A1PI WEST WAC SAMPLE RESULTS

CU NAME	SAMPLE ID	SAMPLE DATE	NORTHING '83	EASTING '83	LAB RESULT (ppm)
	OSB-4W-4B-R	4/7/97	480898	1350835	7
	OSB-4W-5B-R	4/7/97	480955	1350738	16
	OSB-4W-6B-R	4/7/97	480973	1350759	14
	OSB-4W-7B-R	4/7/97	480991	1350826	14
	OSB-4W-8B-R	4/7/97	480976	1350852	35
	OSB-4W-9B-R	4/3/97	481017	1350734	14.00
OSB-5	OSB-05W-A-R	1/30/97	480924.34	1350598.93	50
	OSB-05W-B-R	3/4/97	480924.34	1350598.93	39.00
	OSB-5W-10B-R	4/8/97	481027	1350640	19.60
	OSB-5W-11B-R	4/8/97	481046	1350665	15.10
	OSB-5W-12B-R	4/8/97	481035	1350703	1.70
	OSB-5W-13B-R	4/8/97	481110	1350611	8.30
	OSB-5W-14B-R	4/8/97	481123	1350646	6.30
OSB-5	OSB-5W-15B-R	4/8/97	481080	1350673	22.30
	OSB-5W-16B-R	4/8/97	481085	1350690	1.00
	OSB-5W-1B-R	4/9/97	480920	1350612	9.40
	OSB-5W-2B-R	4/9/97	480959	1350651	24
	OSB-5W-3B-R	4/9/97	480931	1350663	50.40
	OSB-5W-4B-R	4/9/97	480935	1350697	1.70
	OSB-5W-5B-R	4/9/97	481009	1350622	7.80
	OSB-5W-6B-R	4/9/97	480974	1350628	21.90
	OSB-5W-7B-R	4/8/97	481007	1350666	19.10
	OSB-5W-8B-R	4/8/97	481006	1350709	3.10
	OSB-5W-9B-R	4/8/97	481062	1350602	12.90
	SDBSN-W-4	2/18/97	480992.72	1350694	10
PUMP-1	PUMP-W-1-R	1/21/97	479461	1350576	20
	PUMP-W-4-R	1/21/97	479451	1350629	6

ATTACHMENT K

PROJECT SPECIFIC PLAN SAMPLING OF AREA 1, PHASE I WEST IMPACTED SOIL STOCKPILE FOR WAC ATTAINMENT

PROJECT SPECIFIC PLAN

SAMPLING OF AREA 1, PHASE I WEST IMPACTED SOIL STOCKPILE FOR WAC ATTAINMENT

Project Number: 50.03.40.10

Revision: 0

Date: June 24, 1997

Prepared by: Fluor Daniel Fernald

Prepared for: U.S. Department of Energy
Fernald Field Office

Under Contract DE-AC05-92OR21972

APPROVAL:

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Harold Swiger, Quality Assurance — Date
Environmental Monitoring Project

Mike Frank 6-27-97

Mike Frank, Team Coach — Date
Soil and Miscellaneous Media Project

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A	Data Quality Objective SL-028, Soils Waste Acceptance Criteria (WAC) Sampling for Total Uranium
B	Sample Locations and Identification Numbers

1.0 INTRODUCTION

1.1 PURPOSE

This project specific plan (PSP) has been developed to provide data representative of the range of total uranium concentrations in soils stored in the West Impacted Soil Stockpile (referred to hereafter as the west stockpile). This data will be used to supplement the existing waste acceptance criteria (WAC) attainment data for total uranium in soils that comprise the west stockpile. The existing WAC attainment data includes a combination of RI/FS data, process knowledge, real-time measurements (utilizing sodium iodine detectors and/or high purity germanium detectors) and pre-excavation physical sampling results. The existing data set, as presented in the Waste Acceptance Criteria Attainment Report Area 1 Phase I (A1PI) Western Portion, indicates that no material exceeding the WAC for total uranium (1030 mg/kg) was placed in the west stockpile. This position is consistent with the process knowledge and historical data associated with areas excavated and deposited in the west stockpile, however, DOE believes additional data from physical sampling is necessary to fully support a final determination. The data collected under the sampling program described in this PSP, in conjunction with the existing WAC attainment data, will serve to validate the conclusion that soils contained in the west stockpile do not exceed the WAC for total uranium and may be placed in the On-Site Disposal Facility (OSDF).

1.2 SCOPE

This PSP presents a strategy for collecting supplemental total uranium WAC attainment data from the west stockpile utilizing a statistically based approach for determining the number of samples and a systematic/random strategy for selecting sample locations. This sampling strategy provides a reasonable approach for ensuring that the data collected is representative of the range of total uranium concentrations in the stockpile and sufficient to support a final determination for the disposition of the stockpiled soils. The scope of this PSP is limited to sampling and analyzing for total uranium since it is the only WAC constituent of concern from the excavated areas which comprise the west stockpile.

Sample collection will be accomplished utilizing GeoProbe® core sampling and manual auguring methods. The samples will be analyzed for total uranium via the Bromopadap method at an analytical support level (ASL) B by the on-site FEMP laboratory. Selected samples will be split with the Ohio Environmental Protection Agency to support the agencies oversight role at the FEMP. All sampling and analysis activities performed by DOE shall be consistent with the requirements of the Sitewide CERCLA Quality Assurance Project Plan (SCQ). The sampling strategy is described in detail beginning in Section 2.2.

This plan has been developed in consideration of the existing data and process knowledge available for the soils which comprise the west stockpile. As such, the sampling strategy and technical approach described herein has been designed to address this unique circumstance. In the future, the data requirements associated with the disposition of soils and stockpiles will be defined through the Sitewide Excavation Plan or Waste Acceptance Criteria (WAC) Attainment Plan as appropriate. These plans will be submitted to the agencies for approval in the near future.

1.3 KEY PROJECT PERSONNEL

The personnel listed in Table 1-1, are key personnel to the performance of this project.

TABLE 1-1
KEY PROJECT PERSONNEL

TITLE	PRIMARY	ALTERNATE
Project Lead	Mark Cherry	Sue Lorenz
Field Sampling Lead	Mike Frank	Tom Buhrlage
Quality Assurance Contact	Harold Swiger	Keith Payne
Data Management Contact	Susan Marsh	Kym Lockard
Analytical Lead	Bill Westerman	Alex Duarte
Health and Safety	Jack Patrick	Kevin Tschaenn

2.0 SAMPLING PROGRAM

2.1 STOCKPILE DESCRIPTION

The stockpile is located southwest of A1PI and west of the North Access Road. The stockpile consists of soils excavated from certification units located west of the north access road associated with A1PI and OSDF support areas. In addition, a portion of soils excavated during construction of the new rail yard were deposited in the stockpile. A more detailed description of the origin of the soils which comprise the stockpile and associated characterization data can be found in the, "Waste Acceptance Criteria Attainment Report Area 1 Phase I (A1PI) Western Portion."

Information describing the approximate physical dimensions of the stockpile are provided in Figure 2-1 and summarized below.

- Approximate state planar coordinates for the base of the west stockpile are as follows:
  Northwest corner: North 481,700; East 1,350,671
  Northeast corner: North 481,637; East 1,350,811
  Southwest corner: North 481,388; East 1,350,674
  Southeast corner: North 481,386; East 1,350,795

- Height measurements:
  North end on Centerline -12 ft..
  South end on Centerline - 15 ft.

- Volume:
  Approximately 25,000 yd^3

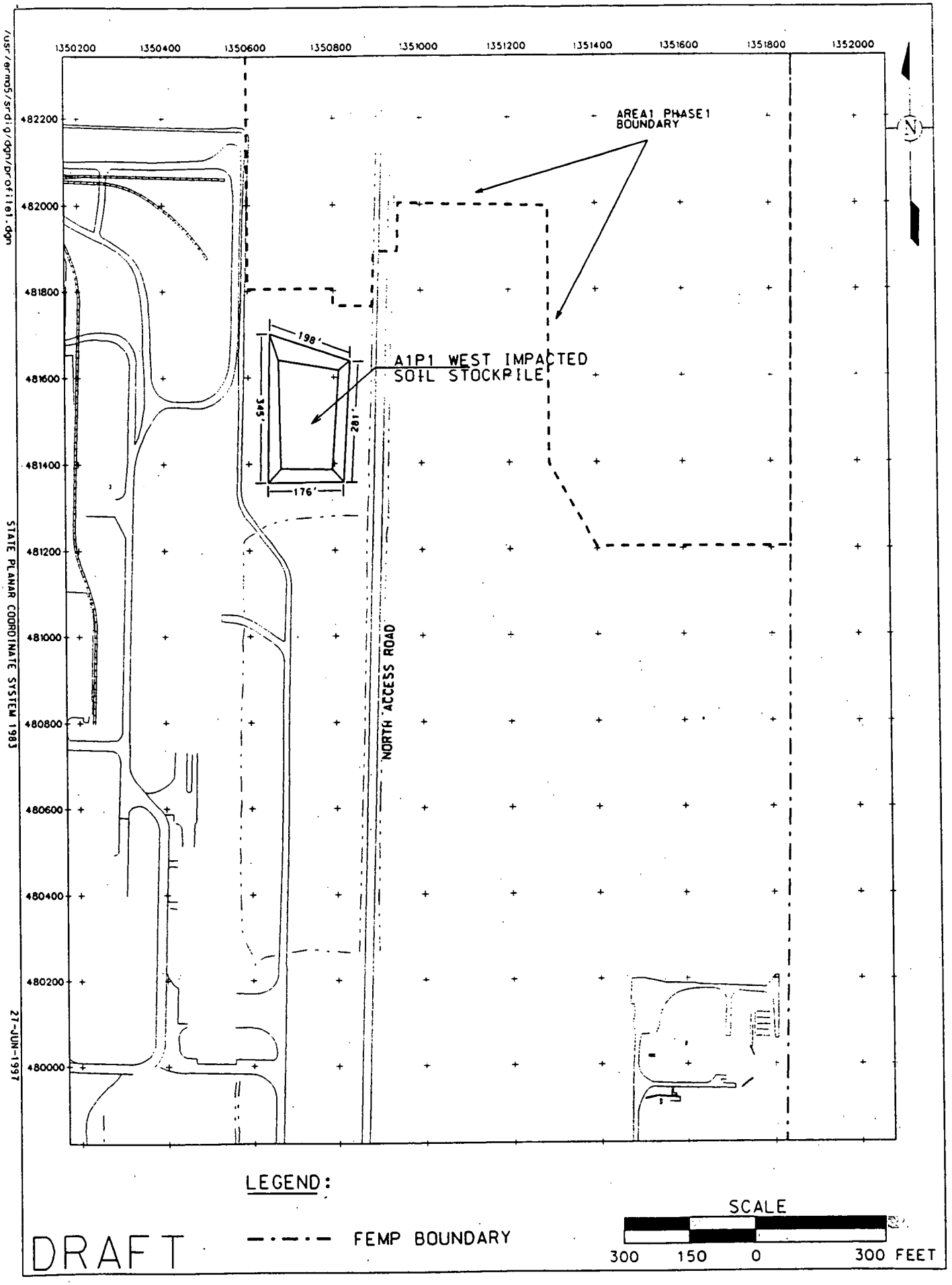

FIGURE 2-1. A1P1 WEST IMPACTED SOIL STOCKPILE

The stockpile is roughly rectangular in shape with the east, west and south faces steeply sloped (approximately 24 degrees). In addition, these faces support a sparse vegetative cover. The north face is graded to provide an access ramp to the top of the stockpile which is generally level.

2.2 STATISTICAL DETERMINATION OF NUMBER OF SAMPLES

2.2.1 Statistical Approach

During A1PI excavation activities, total uranium WAC attainment data was collected from the soils deposited into the west stockpile. Additionally, there is an RI/FS data set from the western portion of A1PI. The WAC attainment data comprise approximately 122 samples while the RI/FS data add an additional 22 samples. It is believed that this data adequately characterizes the stock pile concentration distribution. The data also indicates that the chance of an exceedance of the WAC is remote. The maximum reasonable total uranium concentration expected of any sample drawn from the stockpile can be defined as the upper 95th percent confidence bound on the 99th percentile of the data. This is also known as an Upper Tolerance Level (UTL). If it can be demonstrated that the data collected from an additional sampling effort can be shown to be not statistically different from the current set, then it follows that the UTLs will be statistically comparable.

The first step is to determine the UTL of the sample distribution of the existing WAC and RI/FS samples. The data are assumed to be lognormally distributed. This assumption was verified as being reasonable by the use of the Kolmogorov-Smirnov and Shapiro-Wilk procedures to test for normality of the log-transformed data. The UTL can then be calculated from the log-transformed data with the following equation:

$$\hat{x}_p = \exp(\bar{y} + S_y K_{1\alpha,p})$$

where

$\bar{y}$ = *the mean of the* log-*transformed values*
= 2.4753

p = *percentile level*
= 0.99

α = *confidence level*
= 0.95

K = *tabled factor for estimating UCL of a normal distribution* (*Owen*, 1962)
≈. 2.618

S_y = *the standard deviation of the* log-*transformed values*
=1.0696

The calculated UTL from the existing WAC attainment and RI/FS data set is 195.5 mg/kg, well below the WAC level for total uranium of 1030 mg/kg.

The second step to verifying that the west stockpile attains the WAC for total uranium is to demonstrate that there are no significant differences between the current WAC attainment data set and characteristics of the west stockpile. To demonstrate this, it must be shown that the mean and variance of the current data set and the mean and variance of the data set generated from sampling the stockpile are comparable. A t-test will be performed to test for significant differences between the means while an F-test will be used to compare the variances. If these test procedures show agreement between parameters of the distributions then it can be concluded that the distributions are similar and therefore the UTLs would be similar. The UTL from the newly collected data will be calculated to demonstrate compliance. Note that all calculations were performed on the log-transformed data.

2.2.2 Sample Number

In order to adequately demonstrate the similarity between the data sets, sufficient samples from the west stockpile must be collected. To estimate the required minimum sample size, the following equation was used assuming an acceptable difference between means of 20 percent and that the variance term can be estimated by the current data set variance:

$$n = \frac{2S^2(Z_{1\alpha} + Z_{1\beta})^2}{(0.20 * \textit{estimated mean})^2}$$

The calculated minimum sample size (n) to demonstrate comparability between the current WAC attainment data set and the soil stockpile based on these assumptions is 54. To ensure adequate data recovery, a total of 60 samples will be collected from the west stockpile.

2.3 SELECTION OF SAMPLE LOCATIONS

A systematic approach was used to establish a sample grid over the stockpile surface. A 3 block x 6 block grid pattern was selected for a total of 18 grid blocks of approximately equal size. A random sample location (northing and easting coordinate) was selected within each block as shown on Figure 2-2. At each of the 18 randomly selected sampling locations, three depth intervals were randomly selected for sampling (3 x 18 = 54 samples). In addition, six of the 18 sample locations were randomly selected and a fourth randomly selected depth interval was chosen for sampling. Thus, the total number of samples to be collected equals 60 (18 surface locations x 3 depth intervals at each location + 6 additional depth intervals = 60 samples). The random sample depth intervals are presented in Table B.1 of Appendix B and are expressed as a fraction of the total pile depth at each sample location.

Due to the stockpile's rough surface, including uneven terrain and rocks, the final sample location may be positioned within a four-foot radius of the sample locations included in Table B.1. The final locations will be re-surveyed to document the final coordinates.

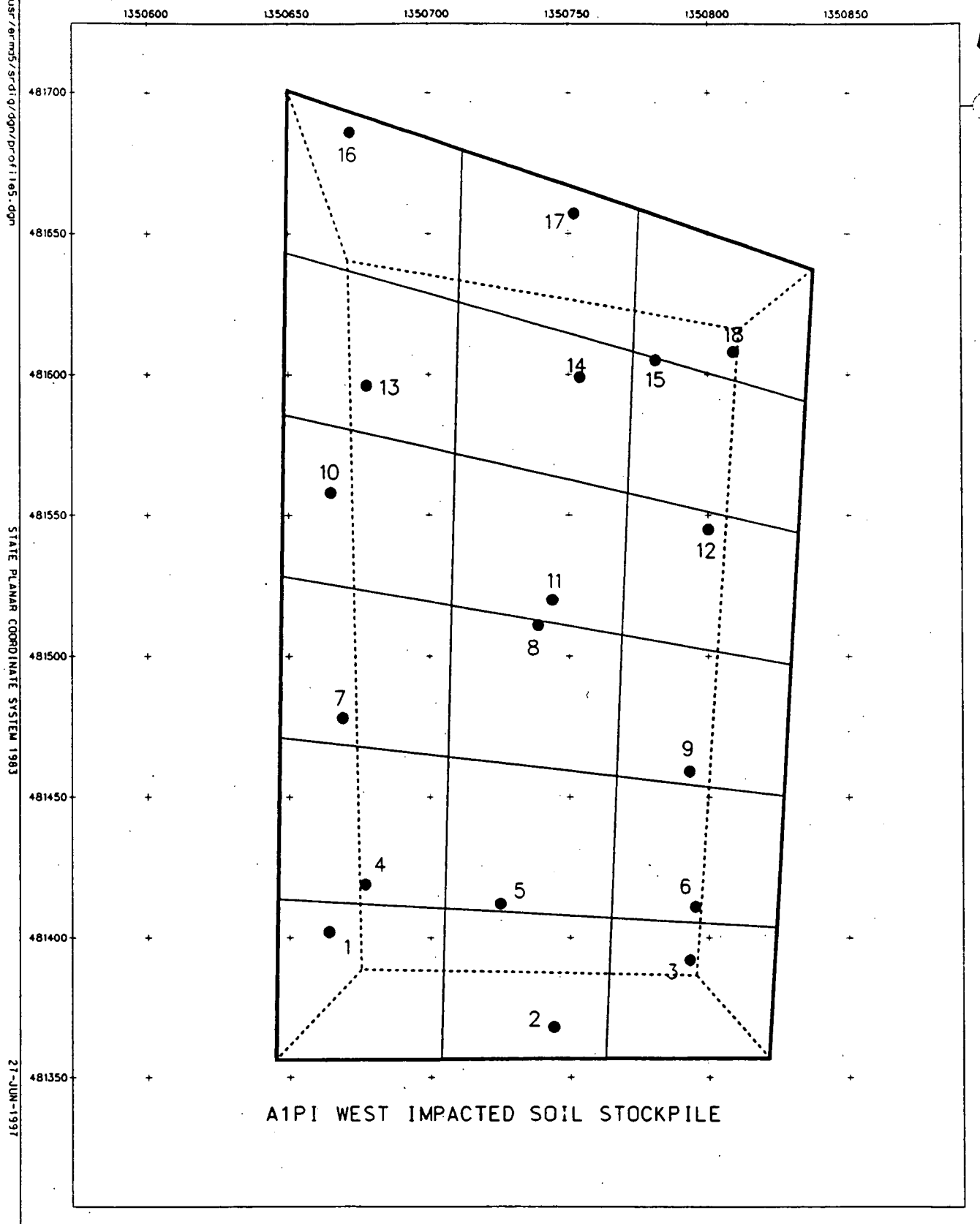

FIGURE 2-2. A1PI WEST IMPACTED SOIL STOCKPILE SAMPLING LOCATIONS

2.4 SAMPLE COLLECTION METHODS

Samples will be collected using the GeoProbe® Model 5400 in accordance with procedure EQT-06, *GeoProbe® Model 5400-Operation and Maintenance* or using hand augering as specified in procedure SMPL-01, *Solids Sampling*. The GeoProbe® sampling system will be used for sample locations that will support the safe operation of the GeoProbe® vehicle (primarily on the top of the stockpile). Hand augering will be conducted in all other areas (e.g., side slopes). At each sampling location, the surface vegetation within a 6-inch radius of the sample point will be removed using a stainless steel trowel or clean nitrile gloves while taking care to minimize the removal of any soil.

2.4.1 GeoProbe® Methods

A GeoProbe® open-tube core sampler will be advanced in approximately 48-inch increments down to the target depth intervals for the soil samples specified in Appendix B. Multiple cores may be collected at each sampling location (not to exceed one foot apart) to obtain sufficient sample volume for analysis if complete sample recovery is not obtained. Borehole collapse will be monitored during core sampling to ensure minor sidewall slough is accounted for during coring and sample collection. If significant borehole collapse occurs, a closed tube piston-type core sampler will be employed which is closed during advancement to the sample interval, then opened to collect the discrete interval of interest. Both core sampling methods will utilize an expendable plastic liner insert in which the soil core is recovered.

2.4.2 Manual Augering Methods

If GeoProbe® accessibility is not possible (e.g., side slopes), soil samples will be collected using a hand auger in accordance with SMPL-01, *Solids Sampling*. The hand auger will be advanced in approximately six-inch increments down to the target depth intervals for the soil samples specified in Appendix B. As with core sampling, multiple holes at one sampling location (not to exceed one foot apart) may have to be augered to obtain sufficient volume for laboratory analyses, particularly for split sampling intervals. Borehole collapse will be monitored during core sampling to ensure sidewall slough is accounted for during augering and sample collection. The borehole will be manually collapsed following sample collection to eliminate the possibility of injury to workers.

2.4.3 Soil Sample Processing

The GeoProbe® soil core(s) will be laid on clean plastic and the appropriate 12-inch sample increments, as defined in Appendix B, will be separated from the core to obtain the necessary samples. If one core provides the volume of soil necessary for the on-site laboratory analysis, the sample will be placed directly into a sample container and sealed. For manual augering locations, the soil cuttings collected from the target sample interval will be placed in a clean tray prior to transfer to the sample container. Sample volume and analysis information is summarized in Table 2-1.

If the sample is selected to be split with the OEPA, then the soil core(s) or cuttings will be homogenized and split according to Section 6.6 of SMPL-21, *Collection of Field Quality Control Samples*, one portion for on-site analysis, the other for OEPA analysis. If the OEPA plans to submit samples for additional analytes (e.g., technicium-99) beyond total uranium, then an additional split sample will be collected for FEMP archival.

Table 2-1
Sampling and Analytical Requirements

Analyte	Sample Matrix	Sample Type	Prefer-votive	Lab	ASL	Holding Time	Container
Total Uranium[a]	Solid	Grab	None	On-site	B	6 Months	0.5 Liter - 1 Liter glass or plastic container

[a] Bromopadap Method
Note: Additional sample volume will be required at select locations to provide split samples for the OEPA.

2.5 SAMPLE IDENTIFICATION

All physical soil samples collected for laboratory analysis will be assigned a unique sample identifier (customer number), as listed in Appendix B. The field team will record the sample identifiers used by the EPA and correlate them to the split sample submitted to the onsite laboratory. Fernald Analytical Customer Tracking System (FACTS) identification numbers will be utilized by the laboratory to track the sample through the analytical and data review process.

All FEMP soil samples collected for laboratory analysis will be assigned a unique sample identifier, as follows:

A1PIWISS-x-y-R

Where:

A1PIWISS = Sample collected from the Area 1, Phase I West Impacted Soil Stockpile

x = Location of sample in the stockpile (e.g., 1, 2, 3, etc.)(see Figure 2-2)

y = Depth of sample collected. A "1" represents the first random interval, "2" represents the second interval, and so on.

R = Radiological Analyte

Therefore, sample identification number A1PIWISS-12-4-R is from sample location 12 on the A1PI West Impacted Soil Stockpile, collected at the fourth random depth interval and will be analyzed for radiological constituents. All sample identification numbers are shown in Appendix B, Table B.1.

2.6 EQUIPMENT DECONTAMINATION

Sampling equipment will be decontaminated before transport to the sampling site. Additionally, equipment that comes into contact with sample media at the target sample interval must be decontaminated. The decontamination of equipment that comes into contact with the sample will include the core sampler cutting shoe, hand auger buckets, and other sample collection tools. All decontamination will be a Level II decontamination as specified in SMPL-01, *Solids Sampling*. The core barrel portion of the core sampler will be wiped down between sample intervals and locations to remove visible soil or material. Decontamination of the core barrel will not be necessary because the core barrel will not come into contact with the sample when using a liner insert.

2.7 SAMPLE HANDLING AND SHIPPING

Samples will be processed in accordance with SMPL-01, *Solids Sampling*, for ensuring that samples are documented properly and custody and sample integrity are maintained. All samples will be transported from the field to the sample processing laboratory within the on-site laboratory.

3.0 LABORATORY SAMPLE PREPARATION

Physical samples collected for laboratory analysis will be prepared in a consistent manner. For the radiological analysis, the on-site laboratory will, at a minimum, meet the following guidelines for sample preparation:

1) All sample material (including any organic matter) will be removed from the sample container, weighed, and recorded. The analyst performing this step will describe the appearance of the sample.
2) All sample material will be dried at 105° to 112° C for a minimum of 8 hours to constant weight.
3) The percent moisture content of the sample will be calculated and recorded.
4) The entire sample will then be ground until all the material passes through a 1 millimeter sieve.
5) The sample will then be mixed by hand or machine.
6) The necessary aliquot will be removed for analysis and the remaining sampled material archived.

4.0 QUALITY ASSURANCE/QUALITY CONTROL REQUIREMENTS

Sampling events will follow Quality Assurance/Quality Control (QA/QC) protocol as established in Section 4 of the SCQ.

4.1 DATA QUALITY OBJECTIVES

The following DQO has been identified as applicable to this project, SL-028, Rev. 0, "Soils Waste Acceptance Criteria (WAC) Sampling for Total Uranium." The sections pertaining to insitu sampling with real-time monitoring equipment will not be utilized and sampling for moisture content will not be required. However, the decision criteria and associated data quality are applicable to this PSP.
An uncontrolled copy of the supporting DQO is located in Appendix A.

4.2 PROJECT-SPECIFIC PROCEDURES AND MANUALS

To assure consistency and data integrity, field activities in support of the PSP will follow the requirements and responsibilities outlined in controlled procedures and manufacturers' operational manuals. Applicable procedures and manuals include:

SMPL-01, *Solids Sampling*
SMPL-21, *Collection of Field Quality Control* 766-S-1000
EQT-06, *GeoProbe® Model 5400 - Operation, Maintenance, and Calibration*
EQT-05, *Geodimeter® 4000 Survey System - Operation, Maintenance, and Calibration.*
Sitewide CERCLA Quality Assurance Plan (SCQ)

4.3 PROJECT REQUIREMENTS FOR INDEPENDENT ASSESSMENTS

Project management has ultimate responsibility for the quality of the work processes and the results of the sampling activities covered by this PSP. The FEMP QA organization will conduct independent assessments of the work process and operations to assure the quality of performance. Assessment will encompass technical and procedural requirements of this PSP and the SCQ. Independent assessment will be performed by conducting surveillance. As a minimum, one surveillance will be conducted during implementation of this PSP, consisting of monitoring/observing on-going project activity and work areas to verify conformance to specified requirements. Surveillance will be planned and documented according to Section 12.3 of the SCQ.

4.4 IMPLEMENTATION OF FIELD CHANGES

If field conditions require changes or variances, the Field Sampling Lead must obtain written approval (electronic mail is acceptable) from the Project Lead and QA before the changes may be implemented. Changes to the PSP will be noted in the applicable field activity logs and on a Variance Request/Field Change Notice Form (VR/FCN). QA must receive the completed VR/FCN, which includes the signatures of the Project Sampling Lead, Project Lead, and the QA Representative, within 7 working days of the granting of the verbal approval.

5.0 DISPOSITION OF WASTES

During completion of sampling activities, technicians will generate contact and decontamination waste. Following completion of sampling, the technicians will place contact wastes into properly labeled bags and dispose of it according to appropriate FEMP waste management policies. Excess soil and debris generated from the soil pile will be placed back into the borehole it originated from. Decontamination water will be discharged to the Stormwater Retention Basin following completion of the FEMP Wastewater Discharge Request Form.

6.0 HEALTH AND SAFETY

A detailed health and safety review was performed on the west stockpile by a health and safety professional and the Field Sampling Lead. Observations include the following:

- When operating on the top planar surface of the stockpile, the GeoProbe® vehicle and personnel will not be positioned within three feet of the edge of the east, south and west slopes.

- During sampling operations, a warning rope or chain will be posted at least 3 feet from the edges of the east, south and west facing slopes at a height of approximately 36 inches.

- During sampling on the side slopes, the health and safety lead will determine if fall protection is necessary during field implementation. If necessary, fall protection equipment (harness and rope) will be utilized and tied off to a secure post at the top.

Technicians will conform to precautionary surveys performed by personnel representing the Radiological Control, Safety, and Industrial Hygiene organizations. Concurrence with applicable safety permits (indicated by the signature of each field team member assigned to this project) is expected by each team member in the performance of their assigned duties.

The Field Sampling Lead will ensure that each technician performing sampling related to this project has read the related Project-Specific Health Safety Matrix (PSHSM) or the applicable project specific health and safety matrix for the west stockpile work area. Technicians who do not sign these documents will not participate in the execution of sampling activities related to the completion of assigned project responsibilities. A copy of applicable safety permits/surveys issued for worker safety and health will be posted at each sample location area.

7.0 DATA MANAGEMENT

A data management process will be implemented so information collected during the investigation will be properly managed following completion of the field activities. As specified in Section 5.1 of the SCQ, sampling teams will describe daily activities on the Field Activity Log sufficient for the sampling team to reconstruct a particular situation without reliance on memory. Sample Collection Logs will be completed according to instructions specified in Appendix B of the SCQ.

All field measurements, observations, and sample collection information will be recorded as applicable on the Sample Collection Log, the Field Activity Log, and the Chain of Custody/Request for Analysis Form as required. The method of sample collection will be specified in the Field Activity Log. Samples will be assigned a unique sample identifier, as listed in Appendix B. Refer to Section 2.5 for a description of the sample identifiers to be used. This unique sample identifier will appear on the Chain of Custody/Request for Analysis and will be used to identify the sample during analysis, data entry, and data management.

Technicians will review all field data for completeness and accuracy and then forward the data package to the Data Quality organization for final review. The field data package will be filed in the records of the Environmental Monitoring project under project number 50.03.40.10.

The Data Management organization will perform data entry into the Site-wide Environmental Database. Field logs will maintained in loose-leaf form during the field recording activities. Analytical data from the on-site laboratory will be reviewed by the Project Lead prior to entry or transfer of the data into the SED from the FACTS database.

APPENDIX A

DATA QUALITY OBJECTIVE
SL-028

**Note: The attached DQOs are for informational purposes only.
Refer to controlled copies for most current revision.**

Control Number _____

Fernald Environmental Management Project

Data Quality Objectives

Title: Soils Waste Acceptance Criteria (WAC) Sampling for Total Uranium

Number: SL-028

Revision: 0

Effective Date: 3/4/97

Contact Name: Keith A. Nelson

Approval: _____ **Date:** March 4, 1997

DQO Coordinator
William D. Kelley

Approval: _____ **Date:** 3/4/97

Project Lead
Chris Sutton

Rev. #	0				
Date:	3/4/97				

Data Quality Objectives

Soils Waste Acceptance Criteria (WAC) Sampling for Total Uranium

Members of Data Quality Objectives (DQO) Scoping Team

The members of the scoping team included individuals with expertise in Quality Assurance (QA), analytical methods, field sampling, statistics and risk assessment.

Conceptual Model of the Site

Soil is considered contaminated if the average soil concentration of an area-specific constituent(s) of concern (ASCOCs) in a certification unit (CU) exceeds the final remediation levels (FRLs)(See the Area 1 Phase 1 (A1P1) Remedial Action Work Plan, Draft, Rev. date 11/96). Additionally, soil can be identified as exceeding the waste acceptance criteria (WAC) for the On Site Disposal Facility(OSDF).

FEMP remediation includes the construction of an OSDF to be used for the disposal and permanent safekeeping of materials above the site FRLs, but below the WAC. The WAC for total uranium must be met in locations where soils are to be identified for potential use in OSDF cell construction, or for placement in the cell as fill material, concurrent with construction material emplacement. For construction purposes, the soils must have contaminant levels below the FRL (for cell construction) or below the OSDF WAC (for material dispositioned into the OSDF).

The primary source of contamination in peripheral or boundary areas is airborne deposition from the former production area of the FEMP. The extent of soil contamination was estimated and published in the Operable Unit 5 Feasibility Study (FS). These estimates were based on kriging analysis of available uranium data for soil collected during the Remedial Investigation (RI) effort and from other FEMP environmental studies. Maps outlining contaminated soil boundaries were generated for the Operable Unit 5 FS by overlaying the results of the kriging analysis of uranium data with isoconcentration maps of the other constituents of concern (COCs), as presented in the Operable Unit 5 RI report, and further modified by spatial analysis of maps reflecting the most current soil characterization data. For WAC, historical data have demonstrated that only total uranium has a probability of being present in certain areas. In these areas where only total uranium is demonstrated, or suspected of being the only WAC concern, this DQO approach will be used. Total uranium has extensive distribution over the site and is the major concern for soils dispositioned in the OSDF.

1.0 Statement of Problem

Physical sampling needs to be performed on site soils to demonstrate whether the soils are acceptable or unacceptable for disposal in the OSDF based on their compliance with WAC for total uranium.

Exposure to Soils

The WAC concentration for total uranium was developed using fate and transport modeling, and was designed to prevent a breakthrough to the environment no greater than a specified Maximum Contaminant Level (MCL) over a 1,000 year period (see Table 1).

Available Resources

Time: WAC sampling and analysis must be completed before excavation and disposition of excavated soils.

Project Constraints: WAC sampling and analysis must be performed with existing manpower and materials to support the remediation and certification schedule. Remediation, construction activities and regrading of the site to meet final land use commitments is dependent on successful completion of this work.

Summary of Contamination Problem

Site remediation, commencing with Area 1, Phase I, began in the summer of 1996. Soil will be classified as either:

1. Contaminated above WAC level for total uranium and unacceptable for disposal in the OSDF.

2. Contaminated and acceptable for disposal in the OSDF (below WAC).

2.0 Identify the Decision

Decision

The decision process that will be reached as a result of WAC physical sampling and analytical testing is the identification of soils for compliance with WAC. For soils below the WAC, the total uranium level is not to exceed (NTE) 1,030 ppm.

Possible Results

1. Soil is contaminated above the WAC for total uranium. This material will be excavated and segregated for eventual off-site disposition.

2. Soil is contaminated at or below the WAC for total uranium. The total uranium WAC level of 1,030 ppm has not been exceeded for soils to be dispositioned in the OSDF.

3.0 Identify Inputs That Affect the Decision

Required Information

WAC are determined by physical sampling analyses. In-situ readings for total uranium can be used to bias locations for WAC physical sampling.

Source of Informational Input

Information will be required from various sources:

1. Historical data from the Sitewide Environmental Database (SED).

2. In-situ readings using the mobile NaI system and the stationary HPGe system.

3. Physical samples for laboratory analysis.

Contaminant-Specific Action Levels

The WAC for total uranium was published in the Operable Unit 5 Record of Decision [ROD] (see Table 1). The WAC were developed using fate and transport modeling, and were designed to prevent a breakthrough to the environment no greater than a specified Maximum Contaminant Level (MCL) over a 1,000 year period.

Methods of Sampling and Analysis

Physical samples will be collected at a depth of six inches for total uranium analysis. WAC decisions will be based only on the analysis results of the physical samples.

Physical samples can be randomly located or biased. Randomly located WAC samples can be collected concurrently with the randomly located certification samples. Physical samples will be analyzed at ASL B.

When accessible, field instrumentation and analytical methods will be employed to bias WAC physical sample locations towards hot spots. A mobile NaI system may be utilized for complete coverage of the areas of concern, and information may be obtained from strategic stationary readings from HPGe systems. Analysis and data management for the NaI and HPGe systems will be conducted at ASL E and performed according to applicable site procedures. The NaI system may be utilized to establish general screening radiological concentrations and detect hot spots. Daily source checks will be conducted as directed in the systems' operational procedures. Screening readings data will be reviewed at least daily by the Field Lead.

ASL E protocols have not been developed for NaI and HPGe systems. These protocols are in the process of development. This demonstration technology will only be utilized to provide screening information to support WAC attainment activities.

4.0 The Boundaries of the Situation

Spatial Boundaries

Domain of the Decision: The boundaries of WAC sampling are limited to soils in the designated CUs. The depth boundary is 6 inches, which determines each 6 inch excavation lift.

Population of Soils: The affected soils include all surface and subsurface soils.

Scale of Decision Making

Based on considerations of the final certification units and output from the COC evaluation process, the areas undergoing excavation will be evaluated as to whether the soils meet or exceed WAC. WAC sampling will be conducted within the established CU boundaries as referenced in the applicable Project Specific Plans (PSPs) (see Table 2). Additional information on CUs is provided in Sections 7.4 and 7.5 of the Draft A1P1 RAWP, Rev. E, dated 11/96.

Temporal Boundaries

Time frame: WAC sampling efforts will be conducted both before and during excavation. Analytical results and screening information must be processed in time for the information to be useful within the current remediation schedule.

Time Constraints on Sampling: The scheduling of WAC sampling is closely associated with the excavation and certification schedule. WAC sampling will be performed before and during excavation and prior to certification sampling.

Practical Considerations: In cases where an area is being certified in place for later excavation (the WAC interval is below-grade level), WAC sampling can occur concurrently with certification sampling.

In-situ gamma spectrometry readings cannot be made during snow coverage or standing water conditions or during precipitation. Field analytical methods should also be limited to unsaturated soils. Most areas of concern are flat open terrain and are readily accessible. Some areas may require preparation, such as cutting of grass or removal of undergrowth, fencing and other obstacles. In-situ measurements will require coordination with appropriate maintenance personnel for site preparation. Physical and environmental parameters will be recorded and considered during data collection. When certification is being conducted below grade level (such as with the North Access Road), WAC sampling will be performed concurrent with certification.

Weather, moisture and ambient conditions affect sampling and schedule.

5.0 Develop a Logic Statement

Parameters of Interest

The only identified COC for WAC is total uranium.

Decision Rules

In areas inaccessible to the NaI and HPGe systems, such as a buried WAC interval, or in areas exhibiting topographic or environmental restrictions, WAC locations will be randomly generated. Randomly generated WAC points can be taken concurrently with certification samples. Biased sample locations may be identified by using in-situ systems. WAC sampling locations will be randomly generated when not using biased sampling.

Where in-situ screenings are utilized, relative radiological readings will be used to identify biased areas in the CU above the total uranium WAC in any 12 square meter (m^2) area as identified by the NaI system. The HPGe system will be used at a high-biased area in the CU to further delineate the physical sample location. Where multiple high biased readings occur, multiple HPGe readings will be obtained. At least one physical sample will be taken at the highest HPGe reading location per CU. All HPGe biased locations with readings above WAC will receive physical samples.

When only random generated points are used for physical sampling points, each CU will be subdivided into 16 equal subunits. One physical sample will be taken randomly within each subunit. When biased sampling is not used, homogeneity of total uranium distribution is assumed for each subunit.

If the physical sample results for surface soil in any given subunit within a CU is greater than the WAC, the Project Lead will initiate one of the following:

- Perform physical sampling to further delineate the area of WAC exceedence and define additional removal efforts to be performed prior to resampling the area under WAC.

- The soils in each individual subunit that exceed WAC will be excavated, segregated for eventual off-site disposition and resampled.

6.0 Limits on Decision Errors

Range of Parameter Limits

The range of soil concentrations anticipated after excavation of the top 6 inches of soil in peripheral areas for total uranium will be from background to greater than the maximum subsurface value indicated in the RI database.

Types of Decision Errors and Consequences

Definition

Decision Error 1: This decision error occurs when the decision maker decides a CU is below WAC when the average soil concentration in a CU is still above WAC. This would allow soil above the WAC to be allowed into the OSDF.

Decision Error 2: This decision error occurs when the decision maker continues excavation or directs soils to off-site disposition when soils are actually below the WAC. This would result in added costs due to the excavation of soils below WAC, increased volume in off-site facilities and increased cost of off-site disposition. This is not as severe as Decision Error 1.

True State of Nature for the Decision Errors

The true state of nature for Decision Error 1 is that the actual concentration of total uranium is greater than the WAC. The true state of nature for Decision Error 2 is that the true concentration of total uranium is below the WAC.

Null Hypothesis

H_0: Surface soil concentration for total uranium in the CU is greater than the WAC

H_1: Surface soil concentration or total uranium in the CU is less than or equal to WAC.

False Positive and False Negative Errors

A false positive is Decision Error 1: Since the WAC for total uranium is a NTE level, this is unacceptable.

A false negative is Decision Error 2: less than or equal to 20 percent confidence level is considered the acceptable decision error.

7.0 Design for Obtaining Quality Data

The areas that are to be excavated will be sampled in accordance with the appropriate PSP.

Radiological Soil Sampling

A minimum of one physical sample will be collected and analyzed for WAC attainment of total uranium, at locations potentially biased based on the reported in-situ system readings. Factors such as topography and historical data may also be considered. All physical sampling activities will meet requirements as outlined in the FEMP SCQ for ASL B. Physical samples will be analyzed at the on-site FEMP lab using the Bromo PDAP method for total uranium. Rinsates will be collected of field sampling equipment if field equipment is to be reused.

When necessary, the Project Lead will have the flexibility to collect additional biased samples. Sample collection and QA/QC will follow the FEMP SCQ protocols and the PSP.

Gamma Discernible COC

Based on topography, soil saturation and other factors, radiological information may be generated by two complementary gamma detection methods employed to determine relative radiological activity in areas in preparation for WAC attainment. When used, the two methods will consist of the mobile sodium iodide (NaI) detection system currently mounted on the NaI system, which will provide screening for uranium, and the high purity germanium (HPGe) systems that will provide stationary screening of all total uranium. When field gamma readings are required, a field moisture analysis or sample for lab moisture analysis will be obtained.

Sodium Iodide (NaI) System

Prior to excavation or certification the mobile NaI system may be used to cover up to 100 percent of an area to determine relative uranium levels above WAC. The NaI detector(s) is coupled to a multichannel analyzer (MCA) and calibrated to detect uranium. The system will be used in a roving mode at a nominal speed of 2 miles per hour (mph) and minimum count times of 2 seconds. At this speed and count time, a gamma reading will be made and recorded every 12 m^2. The mobile system incorporates a global positioning system (GPS) rover and base unit to record the location of every reading. Counting and positioning information will be recorded continuously on a field personal computer (PC) and stored on disk or hard drive for future downloading on the site soil database and Geographical Information System (GIS) system.

If areas are identified with readings exceeding the WAC, they will be further evaluated using the HPGe detector.

HPGe Detectors

The HPGe system(s) will be used to further bias sampling areas that potentially exceed WAC. Based on the appearance of the mapped NaI system radiological contours, additional HPGe readings will be obtained for locations exceeding WAC. HPGe readings will be downloaded nightly to the FEMP local area network for review and evaluation by the project management team. HPGE field duplicates will be collected at a minimum frequency of one per CU (a more stringent criterion for this project than the SCQ specification of one per twenty).

Interpretation of WAC Results

WAC decisions will be made based on physical sample data only. At the discretion of the Project Lead, this decision may be supported with additional physical sample data or in-situ readings.

8.0 Data Management

Physical sample field logs will be reviewed by the Field Lead. Physical sample data packages will be independently reviewed to SCQ ASL B requirements. Qualified data packages will be forwarded to the Project Data Management Team for review and will be stored in the SED. NaI system and HPGe screening data will be forwarded to the Project Data Management Team for review, and will be stored in the Soils Remediation Data Integrated GIS (SRDIG).

Data Quality Objectives

Area 1 Phase 1
Waste Acceptance Criteria Sampling

1A Task/Description: Waste Acceptance Criteria Sampling and Analysis

1.B. Project Phase: (Put an X in the appropriate selection.)

RI ☐ FS ☐ RD ☐ RA ☒ R,A ☐ OTHER

1.C. DQO No.: SL-028 DQO Reference No.: N/A

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2. Media Characterization: (Put an X in the appropriate selection.)

Air ☐ Biological ☐ Groundwater ☐ Sediment ☒ Soil ☒

Waste ☐ Wastewater ☐ Surface water ☐ Other (specify) _____

---

3. Data Use with Analytical Support Level (A-E): (Put an X in the appropriate Analytical Support Level selection(s) beside each applicable Data Use.)

Site Characterization
A ☐ B ☐ C ☐ D ☐ E ☐

Risk Assessment
A ☐ B ☐ C ☐ D ☐ E ☐

Evaluation of Alternatives
A ☐ B ☐ C ☐ D ☐ E ☐

Engineering Design
A ☐ B ☐ C ☐ D ☐ E ☐

Monitoring during remediation activities
A ☐ B ☐ C ☐ D ☐ E ☐

Other Waste Acceptance Criteria
A ☐ B ☒ C ☐ D ☐ E ☒

4.A. Drivers: Area 1 Phase 1 Remedial Action Work Plan (RAWP), Applicable or Relevant and Appropriate Requirements (ARARs) and Operable Unit 5 Record of Decision (ROD)

4.B. Objective: To provide data for identification of soils for compliance with Waste Acceptance Criteria.

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5. Site Information (Description):

The OU2 and OU5 RODs have identified areas at the FEMP requiring soil remediation. The RODs specify that FEMP soils will be below the WAC for disposal in the OSDF. Waste Acceptance Criteria analyses will be necessary for areas of the site with soils that are scheduled for certification.

6.A: Data Types with appropriate Analytical Support Level Equipment Selection and SCQ Reference: (Place an "X" to the right of the appropriate box or boxes selecting the type of analysis or analyses required. Then select the type of equipment to perform the analysis if appropriate. Please include a reference to the SCQ Section.)

1. pH	☐	2. Uranium	☒*	3. BTX	☐
Temperature	☐	Full Radiologic	☐	TPH	☐
Specific Conductance	☐	Metals	☐	Oil/Grease	☐
Dissolved Oxygen	☐	Cyanide	☐		
Technetium-99	☐	Silica	☐		
4. Cations	☐	5. VOA	☐	6. Other(specify)	☒**
Anions	☐	BNA	☐		
TOC	☐	Pesticides	☐		
TCLP	☐	PCB	☐		
CEC	☐				
COD	☐				

* Total uranium

** Moisture

6.B: Equipment Selection and SCQ Reference:

Equipment Selection		Refer to SCQ Section	
ASL A	Moisture	SCQ Section:	Appendix G
ASL B	Bromo PDAP	SCQ Section:	Appendix G
ASL C		SCQ Section:	
ASL D		SCQ Section:	
ASL E	NaI Detector, HPGe Detector	SCQ Section:	

7.A. Sampling Methods: (Put an X in the appropriate selection.)

Biased	[X]	Composite	[ ]	Environmental	[ ]	Grab	[X]	Grid	[X]
Intrusive	[X]	Non-Intrusive	[X]	Phased	[ ]	Source	[ ]		

DQO Number: SL-028

7.B. Sample Work Plan Reference: The DQO is being established prior to completion of the work plan.

Background samples: OU5 RI

7.C. Sample Collection Reference:

Sample Collection Reference: PSP # 50.03.40.01, SMPL-01

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8. Quality Control Samples: (Place an "X" in the appropriate selection box.)

8.A. Field Quality Control Samples:

Trip Blanks	[ ]	Container Blanks	[ ]
Field Blanks	[ ] *	Duplicate Samples	[X]
Equipment Rinsate Samples	[X] **	Split Samples	[ ]
Preservative Blanks	[ ]	Performance Evaluation samples	[ ]

Other (specify) _____

* Traditional field blanks will not be collected.

** Traditional rinsates applicable to this type of sampling will not be collected, unless sampling equipment or shipping containers are reused.

8.B. Laboratory Quality Control Samples:

Method Blank	[X]	Matrix Duplicate/Replicate	[ ]
Matrix Spike	[X]	Surrogate Spikes	[ ]

Other (specify) Per method

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9. Other: Please provide any other germane information that may impact the data quality or gathering of this particular objective, task or data use.

TABLE 1
WAC CONSTITUENT OF CONCERN*

Analytical Suites	WAC Constituent of Concern	WAC*
Gamma discernable radiological or Bromo PDAP	Total uranium	1030 mg/kg

* total uranium for physical samples will be determined based on the sum of individual isotopes.

TABLE 2
SUMMARY OF CERTIFICATION UNITS

Classification*	Justification for Designation	Scale
Class I	Areas representing pre-remediation known or suspected ASCOC contamination	Not to exceed 1 acre
Class II	Areas representing inconsistent radiological contamination	Not to exceed 4 acres
Class III	Areas with no analytical data indicating site-introduced contamination and no production history of potential contamination	Not to exceed 16 acres

NOTE: **Modification to dimensions of CUs will be necessary in some instances to "fit" irregularities of areas undergoing certification.**

APPENDIX B

SAMPLE LOCATIONS AND IDENTIFICATION NUMBERS

TABLE B.1 - SAMPLE LOCATIONS AND IDENTIFIERS

Sample Identifier	Easing Coordinate	Northing Coordinate	Relative Sample Depth[A]
A1PIWISS-1-1-R	1350663	481402	0.13
A1PIWISS-1-1-R	1350663	481402	0.39
A1PIWISS-1-1-R	1350663	481402	0.65
A1PIWISS-2-1-R	1350743	481368	0.32
A1PIWISS-2-1-R	1350743	481368	0.53
A1PIWISS-2-1-R	1350743	481368	0.81
A1PIWISS-3-1-R	1350792	481392	0.31
A1PIWISS-3-1-R	1350792	481392	0.48
A1PIWISS-3-1-R	1350792	481392	0.68
A1PIWISS-3-1-R	1350792	481392	0.93
A1PIWISS-4-1-R	1350676	481419	0.17
A1PIWISS-4-1-R	1350676	481419	0.39
A1PIWISS-4-1-R	1350676	481419	0.8
A1PIWISS-5-1-R	1350724	481412	0.02
A1PIWISS-5-1-R	1350724	481412	0.24
A1PIWISS-5-1-R	1350724	481412	0.8
A1PIWISS-6-1-R	1350794	481411	0.18
A1PIWISS-6-1-R	1350794	481411	0.43
A1PIWISS-6-1-R	1350794	481411	0.86
A1PIWISS-7-1-R	1350668	481478	0.07
A1PIWISS-7-1-R	1350668	481478	0.36
A1PIWISS-7-1-R	1350668	481478	0.52
A1PIWISS-7-1-R	1350668	481478	0.96
A1PIWISS-8-1-R	1350738	481511	0.03
A1PIWISS-8-1-R	1350738	481511	0.14
A1PIWISS-8-1-R	1350738	481511	0.29
A1PIWISS-8-1-R	1350738	481511	0.73
A1PIWISS-9-1-R	1350818	481485	0.15
A1PIWISS-9-1-R	1350818	481485	0.63
A1PIWISS-9-1-R	1350818	481485	0.82
A1PIWISS-10-1-R	1350664	481558	0.04
A1PIWISS-10-1-R	1350664	481558	0.45

Sample Identifier	Easing Coordinate	Northing Coordinate	Relative Sample Depth[A]
A1PIWISS-10-1-R	1350664	481558	0.74
A1PIWISS-11-1-R	1350743	481520	0.04
A1PIWISS-11-1-R	1350743	481520	0.43
A1PIWISS-11-1-R	1350743	481520	0.66
A1PIWISS-11-1-R	1350743	481520	0.91
A1PIWISS-12-1-R	1350799	481545	0.24
A1PIWISS-12-1-R	1350799	481545	0.66
A1PIWISS-12-1-R	1350799	481545	0.79
A1PIWISS-13-1-R	1350677	481596	0.1
A1PIWISS-13-1-R	1350677	481596	0.26
A1PIWISS-13-1-R	1350677	481596	0.38
A1PIWISS-13-1-R	1350677	481596	0.87
A1PIWISS-14-1-R	1350753	481599	0.28
A1PIWISS-14-1-R	1350753	481599	0.48
A1PIWISS-14-1-R	1350753	481599	0.86
A1PIWISS-15-1-R	1350780	481605	0.03
A1PIWISS-15-1-R	1350780	481605	0.33
A1PIWISS-15-1-R	1350780	481605	0.63
A1PIWISS-15-1-R	1350780	481605	0.98
A1PIWISS-16-1-R	1350671	481686	0.16
A1PIWISS-16-1-R	1350671	481686	0.38
A1PIWISS-16-1-R	1350671	481686	0.98
A1PIWISS-17-1-R	1350751	481657	0.12
A1PIWISS-17-1-R	1350751	481657	0.59
A1PIWISS-17-1-R	1350751	481657	0.83
A1PIWISS-18-1-R	1350808	481608	0.08
A1PIWISS-18-1-R	1350808	481608	0.21
A1PIWISS-18-1-R	1350808	481608	0.94

[A] The relative depth is expressed as a fraction of the total pile height at each sampling location. This depth represents the top of the 12-inch sample interval. The actual depth interval will be recorded in the field logs.

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AREA 1 PHASE I CERTIFICATION REPORT

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

INFORMATION ONLY

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JUNE 1997

U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

20701-RP-0002
Revision 0

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EXECUTIVE SUMMARY

This Certification Report presents the plan and results for certification of soils within Area 1 Phase I (A1PI) at the Fernald Environmental Management Project (FEMP). The A1PI soil remediation project complies with requirements of the Operable Unit 5 (OU5) Record of Decision (ROD), which established a Department of Energy (DOE) commitment to execute remedial actions to excavate contaminated soil that exceed the health-based final remediation levels (FRLs). A1PI consists of 123 acres in the northeast corner of the site and includes the footprint of the two initial On-Site Disposal Facility (OSDF) cells, a portion of the existing North Access Road (NAR), 63 acres of open field and wooded areas west of the NAR and north of the former production area, adjacent areas needed for construction, and other areas appropriately addressed as part of this action. The main objectives of this report are to document what remedial actions occurred in A1PI, describe the certification process, present the data supporting the certification that the Area Specific Contaminants of Concern (ASCOCs) do not exceed the FRLs specified in the OU5 ROD, and describe access controls implemented to prevent recontamination.

The Operable Unit 5 Feasibility Study identified areas in A1PI that required excavation to meet the FRLs. Once stormwater controls and stockpile areas were established, approximately 59 acres of within A1PI were excavated. This excavation was divided into two subareas, east of the NAR and west of the NAR. Contaminated soils were excavated and stockpiled on the same side of the NAR so as to reduce the safety concerns of transversing the active roadway. As part of the excavation process, underground drain tiles near the proposed On-Site Disposal Facility (OSDF) were removed to eliminate potential drainage pathways for leachate.

Once the initial excavation was completed, the area was divided into 79 certification units (CUs) on the basis of a number of factors including: results of spatial analysis, homogeneity of contamination, topography, limits of the designed excavation, and process knowledge. Two additional CUs were created, bringing the total to 81, when the initial certification for one CU failed necessitating follow on corrective actions. The certification process consisted of sampling and analysis of physical samples in each CU, and a statistical analysis of the data to determine if the CU met the certification criteria. In A1PI, the CUs were analyzed for five primary ASCOCs (total uranium, radium-226, radium-228, thorium-228, and thorium-232); and for three secondary COCs: metals (arsenic and beryllium), PCB (aroclor-1260), and radiological (cesium-137 and thorium-230) as required. Certification sampling consisted of sampling each CU for the known contaminants at a minimum density of 12 samples per CU for primary COCs, and of 9

samples per CU for secondary COCs, at randomly selected locations. The certification samples were then submitted to FEMP approved laboratories, analyzed, and reported to analytical support level (ASL) D. The data were then validated with ninety percent (90%) of sample results validated at ASL B, and the remaining 10% at ASL D. The data were then analyzed statistically to determine if the certification criteria was met. These criteria required that the average soil concentration within the CU be below the FRLs, with a minimum statistical confidence of 95% for primary COCs, and a minimum 90% for secondary COCs. The certification criteria also specified a "hot spot" criteria, which requires that no primary COCs be present in the certification samples at levels exceeding 2 x FRL. When statistical analyses demonstrated that the criteria was not met, corrective actions were taken until all the ASCOCs passed the FRL and "hot spot" criteria.

All except three CUs attained the certification criteria on the first attempt. Based upon statistical analysis of the certification samples collected following initial remedial actions it was determined that CU P17-32 failed the average concentration criteria for arsenic, Q18-40 failed for radium-226, and O20 failed for radium-228. CU O20 also failed the "hot spot" criterion with one sample for total uranium exceeding 2 x FRL. Corrective actions were taken for each CU in order to meet the certification criteria. For P17-32, an additional 6-inch layer of soil was excavated from the CU in order to attain certification. In Q18-40, the CU was divided into two new CUs (Q18-40A and Q18-40B) to certify for radium-226. Since the initial certification results showed that most of the contamination was in Q18-40B, six inches of soil was excavated from this CU. New certification samples were taken in Q18-40A and Q18-40B, and both CUs attained the certification critiria without further corrective actions. For CU O20, two corrective actions were necessary. For the total uranium "hot spot" the area of contamination was delineated and excavated. A new certification sample was taken and the sample result (12.8 mg/kg) was well below the FRL. For the O20 radium-228 concentration, the failure was a result of statistical variation within the CU. The corrective action was to collect additional random physical samples to increase the confidence limit. With the expanded data set statistical analysis demonstrated that the certification criteria was attained.

Since all the CUs discussed in this report have passed certification, DOE certifies that A1PI can be released for final land use. In order to protect the integrity of certified areas from recontamination after certification has been completed, access restrictions to certified areas are maintained by DOE. A procedure has been developed to control access to certified areas.

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LIST OF ACRONYMS AND ABBREVIATIONS

A1PI	Area 1 Phase I
ASCOC	Area-Specific Contaminant of Concern
ASL	Analytical Support Level
BTV	Benchmark Toxicity Value
CLP	Contract Laboratory Program
COC	Contaminant of Concern
CU	Certification Unit
DOE	US Department of Energy
FEMP	Fernald Environmental Management Project
FDF	Fluor Daniel Fernald
FRL	Final Remediation Level
ft	foot
GFAA	Graphite Furnace Atomic Absorption
GIS	Graphical Information System
HAMDC	highest allowable minimum detectable concentration
ICP	inductively coupled plasma
keV	kiloelectron volts
kg	kilograms
mg	milligrams
NAR	North Access Road
NPDES	National Pollutant Discharge Elimination System
OEPA	State of Ohio Environmental Protection Agency
OSDF	On-Site Disposal Facility
OU	Operable Unit
PCB	polychlorinated biphenyl
pCi/g	picocuries per gram
ppm	parts per million
PSP	Project Specific Plan
RAWP	Remedial Action Work Plan
RER	Relative Error Ratio
RI/FS	Remedial Investigation/feasibility Study
ROD	Record of Decision
RPD	Relative Percent Difference
SCEP	Soils Characterization and Excavation Project
SCQ	Sitewide CERCLA Quality Assurance Project Plan
SED	Sitewide Environmental Database
SEP	Sitewide Excavation Plan
SWRB	Stormwater Retention Basin
UCL	Upper Confidence Level
US EPA	United States Environmental Protection Agency
V&V	verification and validation
WAC	Waste Acceptance Criteria
yd^3	cubic yards

SECTION 1.0
INTRODUCTION

1.1 PURPOSE

This Certification Report presents the information used by the United States Department of Energy (DOE) to determine that contaminated soil cleanup objectives were successfully achieved in Area 1 Phase I (A1PI) at the FEMP. On the basis of this reported information and supporting project files, DOE considers remedial actions complete for all 81 certification units (CUs) in this area of the site, and has approved follow-up regrading and reseeding operations and construction of the On-Site Disposal Facility (OSDF).

1.2 BACKGROUND

The Operable Unit 5 (OU5) Record of Decision (ROD), issued in 1996, established a DOE commitment to execute remedial actions to excavate contaminated soil that exceeds health-based final remediation levels (FRLs) with final disposition of the excavated material in the OSDF. The OU5 Remedial Investigation Report defined the extent of soil contamination exceeding the FRLs, and in general, indicated widespread contamination occurring in approximately 430 acres of the 1050-acre FEMP site. Approximately 2.4 million cubic yards (yd^3) of contaminated soil are anticipated to be excavated and placed within the OSDF.

The OU5 Remedial Action Work Plan (RAWP) established a commitment on the part of DOE to prepare a design document, the Sitewide Excavation Plan (SEP), defining the overall approach to implementing the soil cleanup obligations in the OU5 ROD. Discussions between DOE, the US Environmental Protection Agency (US EPA) and the State of Ohio EPA (OEPA) identified the desire to proceed with soil cleanup activities in A1PI prior to finalizing the sitewide strategies defined in the SEP. The soil remediation project was accelerated to facilitate removal of soil exceeding the FRLs in the northeast corner of the site. This included the area comprising the footprint of the initial two OSDF cells, adjacent areas needed to facilitate the construction effort, and other areas appropriately addressed as part of this action. This area, A1PI, and is shown in Figure 1-1, General Remediation Areas 1 Through 7. In general, A1PI is comprised of approximately 123 acres located on federal property at the northeast corner of the site. Following remedial action, cells 1 and 2 of the OSDF and a relocated North Access Road will be constructed in this area.

To support soil remediation activities, two types of documents were prepared to describe and guide planned activities in A1PI:

- A1PI Remedial Action Work Plan (RAWP);
- Project Specific Plans (PSPs) (Refer to Appendix D for a summary of A1PI PSPs).

Appendix E includes responses to comments on these documents that were applicable to this certification report. The development of these documents established the constituents of concern (COCs) relative to A1PI remediation activities. Available characterization data from the OU5 RI Report were used to estimate the limits of required excavation in A1PI to attain the FRLs defined in the OU5 ROD for the individual COCs. Excavation activities were completed based upon this initial estimate. In general, a six-inch layer of soil was excavated and sampled from 59 acres of A1PI, these areas are depicted in Figure 1-2. The large, non-impacted forested area west of the North Access Road, north of the former production area, was not excavated; whereas the area east of the production area was excavated. Soil samples were collected from randomly selected locations within segmented areas, Certification Units, that encompassed the entire A1PI area. These samples, termed certification samples, were analyzed to determine the concentration of area-specific COCs remaining in the individual CUs.

The results of these analyses were statistically evaluated on an individual CU basis to determine if the FRLs were attained. When the statistical tests identified that the FRLs were not attained, additional corrective actions were taken. These actions included additional excavation of affected areas or collecting additional samples to increase the statistical confidence. Corrective actions continued until the post-excavation sampling results indicated that all areas in A1PI attained the FRLs. This report documents the sampling and analysis performed, the statistical evaluation conducted, applicable corrective actions, and the decisions reached regarding the attainment of the FRLs in A1PI.

1.3 SCOPE

The scope of this Certification Report includes the presentation and discussion of the certification results of the approximately 123 acres in A1PI. This area in the northeast portion of the site includes the location of the initial two OSDF cells, the northern portion of the existing North Access Road (NAR), the 63 acres of open field and wooded areas between the existing NAR and the old NAR, and the Pump Station. This area was originally divided into 79 CUs, and 2 CUs were added as a result of corrective actions. As discussed with the regulatory agencies, the scope of this report includes these 81 CUs only. Section 2.0 provides further detail regarding the CUs within A1PI. This report also includes the certification results for the five OSDF Sediment Basin CUs, which are presented in Appendix F. The certification results for the A1PI Sediment Traps 2 and 3 are not presented in this report, nor is borrow Area C which was originlly part of

the A1PI RAWP. The certification of these areas will be discussed in the Area 1 Phase II Certification Report.

Certification for A1PI consists of demonstrating that the individual CUs attained the FRLs based on statistical analysis. The certification criteria requires that the average COC concentration within the CU to be below the FRL, with a minimum statistical confidence of 95% for primary COCs, and a minimum of 90% for secondary COCs. Furthermore, for primary COCs, no single sample result within a CU can be at or above two times its corresponding FRL. The CU is considered certified when these criteria are met.

Within A1PI, different COCs are present in different areas because of varying production and waste storage activities. Area-specific COCs (ASCOCs) are defined as those COCs detected at concentrations above the FRLs, and/or where process knowledge indicated that COCs are likely to be present at levels above the FRLs. The A1PI ASCOCs presented in the A1PI RAWP are the analytes for which soil certification was determined. These ASCOCs include:

- Primary COCs
  Radiological: total uranium, radium-226, radium-228, thorium-228, and thorium-232
- Secondary COCs
  Metals: arsenic and beryllium;
  Polychlorinated Biphenyl (PCB): Aroclor-1260;
  Radiological: cesium-137 and thorium-230.

The strategy for identifying primary and secondary ASCOCs for A1PI is discussed in Section 2.1.2. Certification sampling for A1PI consisted of systematically sampling each CU for the known primary and secondary COCs.

1.4 OBJECTIVES

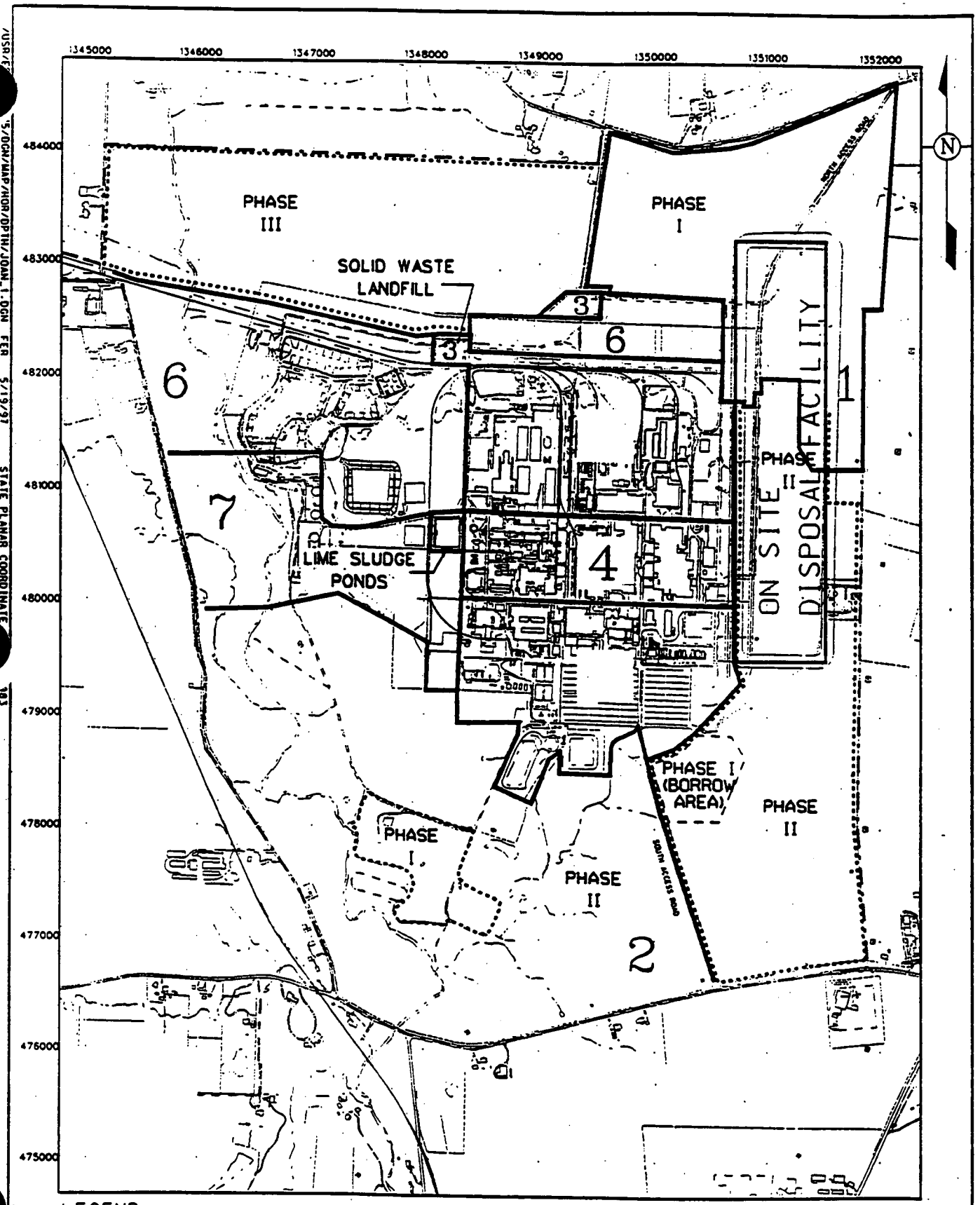
The objectives of the A1PI Certification Report are:

- Describe the remediation strategy and excavation results;
- Describe the physical sampling process, analytical methods, data validation processes, data reduction and statistical processes used to support certification;
- Present certification sampling results for the original 42 radiological, 30 metal, and 7 PCB CUs, plus two additional CUs created for corrective action following CU failure;
- Determine whether the CU had passed or failed certification criteria;
- Describe access controls implemented to prevent recontamination; and
- Identify relevant ecological COCs and report relevant data.

1.5 REPORT FORMAT

This certification report is presented in six sections with supporting documentation and data in the appendices. These sections are as follows:

Section 1.0	Introduction: Purpose, Background, Scope, and Objectives of the report
Section 2.0	Certification Approach: The approach to sampling and analysis used for A1PI certification
Section 3.0	Overview of Field Activities: Area preparation, excavation, changes to work scope, and stockpile volumes and contents
Section 4.0	Analytical Methods, Data Validation Processes and Data Reduction
Section 5.0	Certification Results and Conclusions
Section 6.0	Access to Certified Areas
Appendix A	CU Maps and Statistics Tables
Appendix B	Certification Data Summary Tables
Appendix C	Ecological COCs Data Summary Tables
Appendix D	Summary of A1PI Certification PSPs
Appendix E	A1PI Certification Comment Responses
Appendix F	OSDF Sediment Basin Certification Results.



LEGEND:

..... PHASE BOUNDARIES

—·—·— FEMP BOUNDARY

1 REMEDIATION AREA

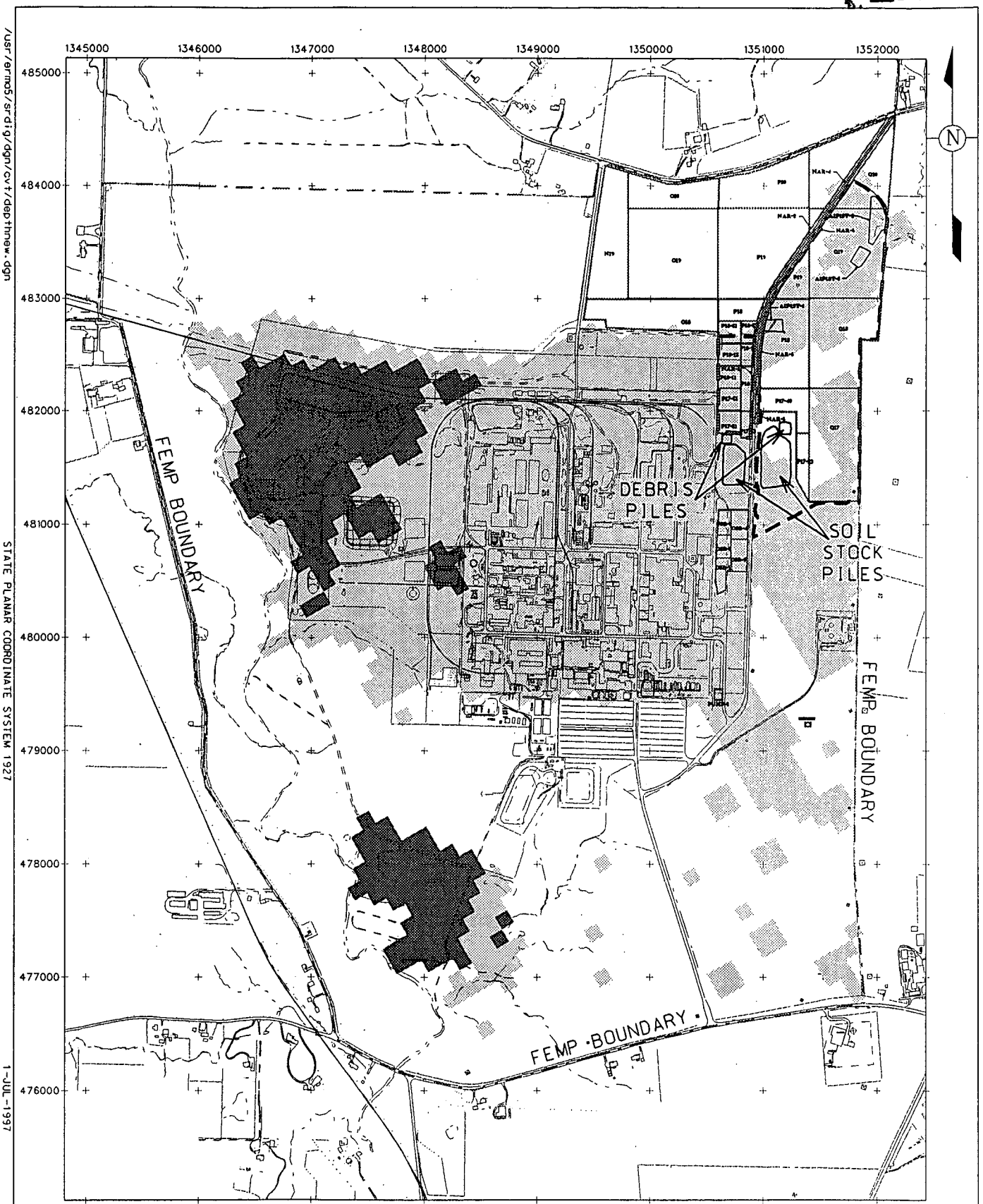
SCALE

1200 600 0 1200 FEET

DRAFT

000104

FIGURE 1-1. GENERAL REMEDIATION AREAS 1 THROUGH 7



/usr/ermd5/sr dig/dgn/cvt/depthnew.dgn

STATE PLANAR COORDINATE SYSTEM 1927

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FIGURE 1-2. A1P1 EXCAVATION FOOTPRINT

SECTION 2.0
CERTIFICATION APPROACH

2.1 CERTIFICATION STRATEGY

The purpose of certification sampling is to verify that the mean concentrations or activities for ASCOCs remaining in the soil of a CU following remedial activities are less than the FRLs at the appropriate confidence level. If the mean residual concentrations or activities are below the FRLs within the respective confidence bounds, the remedial objectives have been achieved for the CU and it can be released for regrading, reseeding and development of a final land use. Where FRLs for a given constituent were exceeded in a CU as determined by the appropriate statistical test, corrective actions were taken until all FRL criteria were attained. An overview of the soil remediation process is depicted in Figure 2-1, A1PI Soil Remediation Process Flow Diagram.

Certification was demonstrated by collecting and analyzing physical soil samples in each CU, and evaluating the data based on statistical analysis. The A1PI remediation area was divided into CUs prior to excavation, as discussed in Section 2.2. Additionally, required waste acceptance criteria (WAC) evaluation, including Remedial Investigation/Feasibility Study (RI/FS) data assessment and process knowledge review, was completed prior to excavation to establish confidence that all soil designated for final disposal in the OSDF meets the WAC. A separate A1PI WAC Report, discussing the strategy and approach for WAC attainment and documenting the WAC sampling results will be provided separately from this Certification Report.

2.1.1 Sitewide Soil COCs

The OU5 ROD established FRLs for soil for 80 COCs. These COCs were identified through examination of the OU5 remedial investigation data set, which included the results from the laboratory analysis of thousands of soil samples obtained both on and off the FEMP property. To properly focus remedial activities and certification sampling on the key COCs, a COC evaluation matrix was developed to

1) identify those COCs with the greatest potential impact on human health and the environment, and
2) eliminate those COCs with negligible value to the remediation requirements. This evaluation matrix considered five variables:

- The frequency of detections above FRLs for each of the 80 COCs in soil in the OU5 remedial investigation data set,
- The relative significance of the contribution to potential human health risk posed by post-remedial residual soil concentrations for each COC,
- The ratio of exposure point concentrations for each COC to the FRL,
- A comparison of the FRL for each COC to established soil background concentrations, and
- Process knowledge.

This evaluation process resulted in the selection of 30 COCs to drive sitewide soil remedial activities. These COCs are listed in Table 2-1, Summary of Sitewide COCs. COCs were assigned based on the frequency of detections above the FRLs. These 30 sitewide COCs account for 99% of potential risk to the hypothetical future undeveloped park land user. The undeveloped park land user was the exposure scenario for the derivation of the risk based FRLs in the OU5 ROD.

These 30 sitewide COCs were further evaluated by examining the spatial distribution of their sample results in the OU5 remedial investigation data set. The COCs were classified as primary or secondary based on an examination of this spatial distribution with consideration of the results of the COC evaluation matrix. Primary COCs are those contaminants which represent 90% of the potential risk to human health from exposure through the soil pathways, and for which available data indicated widespread distribution of the COCs across the study area. Five sitewide primary COCs were identified by this process: total uranium, radium-226 and -228, and thorium-228 and -232. The spatial distribution of above-FRL detections of these primary COCs approximate the total expected soil excavation footprint. The remediation of the primary COCs is driven by their respective FRLs.

The 25 secondary COCs, which were associated with more localized areas of contamination above the FRL, are identified in Table 2-1. COCs are classified as secondary if the extent of contamination is limited to localized areas, or if the COCs have been infrequently detected in concentrations marginally above the FRL over large areas (e.g., metals). Secondary COCs typically, but not exclusively, reside within the footprint of the primary COCs.

2.1.2 A1PI Soil COCs

The sitewide COCs were examined for their appropriateness for application to A1PI. The identification of ASCOCs for A1PI was completed based upon an analysis of available data which indicated the existence of above-FRL concentrations or activities within the A1PI area. In order to make this determination, spatial analyses relative to the FRLs were conducted on all existing soils data within A1PI. The purpose of these area-specific spatial analyses was to review the actual distribution of contamination for each COC, and to estimate the extent of contamination exceeding the FRL. The conclusions of these analyses were used to initially design the CU configurations for the COCs to ensure remediation activities in the area were successful in complying with applicable FRLs.

The spatial analyses resulted in the identification of the five primary COCs and five secondary COCs specific to A1PI. These COCs were identified as being present or having a high probability of presence at or above the FRLs, as shown in Table 2-2, Summary of Area 1 Phase I Area-Specific Constituents of Concern. Additionally, three ecological COCs (aluminum, manganese, molybdenum) were identified as being present or having a high probability of presence at or above corresponding Benchmark Toxicity Values (BTVs). Analytical data for these ecological COCs were collected in A1PI during certification sampling. However, these ecological COCs were not considered in the certification determination. Appendix C presents the BTV data.

The primary and secondary COCs, as listed in Table 2-2, represent the demonstrated or likely contaminants in A1PI. The spatial distribution of these COCs in A1PI does not indicate that any one contaminant completely envelops other COCs in both horizontal and vertical extent. Thus, sampling and analysis were performed for all 10 COCs during certification to demonstrate that the post-remediation residual soil levels comply with the applicable standards.

2.1.3 Certification Sampling

Certification sampling was conducted by randomly collecting samples from the systematic grid within each CU. Section 2.4 includes a discussion of the sample point assignment process for A1PI. Each CU was divided into approximately 16 equal sized grid sub-CUs. At a minimum, a discrete primary COC sample location was randomly selected from 12 of the 16 sub-CUs. For secondary COCs, a minimum of 9 sample locations was randomly selected for secondary COC analyses, when applicable.

Laboratory and data validation methods are described in Section 4.0. Appendix D provides a summary of the A1PI PSPs.

2.2 CERTIFICATION UNIT ASSIGNMENT

A CU is a predefined area which was sampled at a specified density during certification to demonstrate that the average residual COC soil concentrations were less than the soil FRLs. Table 2-3, Summary of Certification Unit Criteria, identifies three classes of CUs: Class I, Class II and Class III. The assignment of the class of CU applicable to a given area is based on three factors: 1) interpretation of the spatial analysis of existing characterization data for COCs having analytical detections above their FRL,
2) process knowledge, and 3) topography (including surface hydrology) of an area. A 200' X 200' sitewide grid system was established across the FEMP as the foundation for CU determination. This grid was also used to identify CUs in unique alpha-numeric labeling system. In A1PI, there were some circumstances, such as ditches, roads and sediment traps, which prompted the designation of irregular shaped CUs. Examples of these instances are discussed below.

Similar certification testing protocols were used for all CUs, regardless of size or shape. For example, a minimum of 12 samples for primary COCs and, when applicable, a minimum of 9 samples for secondary COCs, were collected within the boundaries of each CU. However, to gain additional confidence for certification purposes, 16 or more samples were collected from several CUs. Section 2.3 includes a discussion of the justification for the number of samples necessary to determine certification.

2.2.1 Classes of CUs

The design of CUs is based primarily upon the demonstrated impact a constituent or group of constituents had on a specific geographic area relative to their soil FRLs. During the RI/FS process, sampling programs were designed to identify soil contamination based upon process knowledge (areas where possible releases may have occurred), and topographic areas of likely deposition (such as air deposition areas, surface runoff, etc.) The CU designations are primarily based upon the spatial analysis of these data and the geographic proximity to impacted areas.

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Where applicable in A1PI, consideration of topography such as ditches or areas of likely deposition, and process knowledge were used to conservatively assign certification units. An example of this process is the designation of Class I CUs for PCBs along the former production area. A release of oil from a PCB-containing transformer occurred near this area. This area demonstrated no PCBs above soil FRLs; however, to ensure that the area was not affected by this event, Class I PCB CUs were designated in the area that had potential for impact by the release. This same logic was applied when assigning other PCB CUs, such as O18 and NAR-1.

Descriptions of the three classes of CUs follow.

Class I - Demonstrated Contamination

CUs within sections of A1PI that demonstrated pre-remedial contiguous contamination, or a high probability of contamination above FRLs, are designated as Class I CUs (CU-I). A default CU-I consists of one (1) 200' X 200' grid (0.92 acres). The shape and size of a CU-I varied due to topography, physical obstacles, and engineering considerations. By definition, however, the size of a CU-I did not exceed one acre.

Class II - Marginal Contamination

CUs in sections of A1PI demonstrating marginal or scattered detections above the FRLs, which are relatively homogeneous, and are not adjacent to contaminated areas, were designated as Class II CUs (CU-II). A default CU-II consists of four 200' X 200' grids (e.g., 400' X 400'), or 3.7 acres. The shape and size of a CU-II varied due to topography, physical obstacles, and engineering considerations. By definition, however, the size of the CU-II does not exceed four acres.

Class III - Improbable Contamination

Class III CUs (CU-IIIs) were designated in peripheral sections of A1PI for soil exhibiting no indication of contamination as a result of spatial analysis of existing data and process knowledge. A default Class III CU consists of (16) 200' X 200' grids (e.g., 800' X 800'). The shape and size of a Class III CU varied due to topography, physical obstacles, and engineering considerations. By definition, however, the size of a CU-III did not exceed 16 acres.

Special Certification Units

Some areas requiring certification in A1PI could not be classified using these classification criteria. For example, CUs assigned to certify the existing roadway prior to excavation (NAR-1 through 6), a sediment trap requiring certification in place (A1PIST-1), and CUs that were created for facilities and other long-term infrastructure needs (e.g., Pump 1) were designated as special CUs. The PSP for OSDF Support Areas Certification Sampling (Rev. 0) included a discussion of these special CUs, and the approach and sampling strategy used. These CUs exhibited homogeneity of known or probable contamination based on process knowledge. In A1PI, each of these specific CUs was treated as a Class I CU for certification purposes.

For various reasons, the CUs in A1PI were reconfigured or created as compared to the to the original CU designs that were presented in the original A1PI PSPs and the A1PI RAWP. All changes made to the configuration of the CUs considered the homogeneity of probable contamination and the spatial analysis of existing data. The reasons for the reconfigurations or additions of affected CUs are summarized in Table 2-4, Area 1 Phase I Certification Unit Reconfigurations and Additions.

2.3 DETERMINATION OF NUMBER OF SAMPLES FOR CERTIFICATION

In order to certify a CU as meeting the FRL clean-up criteria, it was demonstrated that the average concentration or activity level for each COC was below its respective FRL with an acceptable confidence level. To determine the number of samples needed to certify the CU as having achieved the FRLs, the following formula was used:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{\left(\frac{RG - x_{target}}{S_{CA}}\right)^2}$$

where

α = *probability of a Type I Error* (.05)
β = *probability of a Type II Error* (.20)
Z = *critical level (the designated probability for normal distribution)*
RG = *the Remedial Goal (i.e. FRL for the given analyte)*
$\bar{x}_{target}$ = *target clean-up level mean*
= *75% of the FRL*
S_{CA} = *standard deviation estimated for post-remedial conditions*

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2.3.1 Assumptions

To meet the target confidence levels for certification (95% for primary COCs and 90% for secondary COCs), three assumptions were required. The first assumption was to establish the false negative error rate (Type I Error) and the false positive rate (Type II Error). The acceptable false negative rate, i.e., the probability of declaring that a CU meets the FRL when, in fact, the average exceeds the FRL, was set to correspond with the more conservative of the two confidence levels at 5 percent. The false positive error rate, i.e., the probability of declaring a CU as not meeting the FRL when, in fact, the average is below the FRL, was set at 20%.

A second assumption was that, when certification sampling was implemented for a CU in A1PI, the maximum expected average concentration or activity level is no greater than 75% of the FRL, or the target cleanup level. The 75% level was chosen based on a cost-benefit analysis. It was considered more cost-effective to establish a conservative target level and recognize the possibility that a CU could be sampled, fail certification and require resampling rather than implement a more intensive certification readiness program, especially in light of the many unaffected areas within A1PI.

The third assumption was that the variability demonstrated in non-impacted areas would be similar to post-remedial conditions in impacted areas. Operating on this assumption, an estimate of the data variability (standard deviation) for post-remedial conditions was calculated from existing data in non-impacted areas as defined by levels of all ASCOCs being below their respective FRLs. The method used to estimate the standard deviation for each analyte in the non-impacted area was as follows:

1. The site was divided into 100 ft. by 100 ft. blocks. This was accomplished by dividing the Northing and Easting coordinates by 100 since these coordinates are presented in feet.

2. Block averages were calculated for each 100 x 100 ft block.

3. Blocks were categorized as either impacted (average greater than or equal to the FRL) or un-impacted (average less than the FRL).

4. All sample locations in impacted blocks were eliminated from consideration.

5. The final screening was to remove any sample in excess of 3 x FRL since these sample values would immediately trigger a localized remedial effort. This model was developed based on 3 x FRL hot spot criteria. However, based on subsequent discussion with US EPA and OEPA, the criteria was revised to 2 x FRL.

6. Standard deviations were calculated for each individual analyte from data from unaffected areas.

7. For ease of sampling and analysis, it was decided that the number of samples to be collected and analyzed for primary ASCOCs will be based on the maximum calculated sample size for all primary and secondary ASCOCs.

Under these assumptions and methods, the minimum estimated number of samples required for each CU was determined to be 12 for primary ASCOCs and 9 for secondary ASCOCs. The minimum number of samples per CU necessary to demonstrate certification was determined by the analytes requiring the greatest number of samples. The calculations, radium-226 and thorium-232 for the primary ASCOCs, and the sampling requirement for arsenic, established the CU sampling frequency driver for the secondary ASCOCs. Table 2-5, Summary of Estimated Number of Samples per Certification Unit in Area 1 Phase I to Achieve Acceptable Confidence Levels, summarizes the sample size results. For simplicity of sampling and analysis, the two secondary radiological ASCOCs (cesium-137 and thorium-230) were included in the analytical suite for primary ASCOCs, since the primary ASCOCs are all radiological analytes.

An example calculation of the sample size for thorium-232, estimated by applying this method, is provided below. Starting with the initial equation:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{\left(\frac{RG - \bar{x}_{target}}{S_{CA}}\right)^2}$$

Then, substituting in the values for

α = *probability of a Type I Error* = 0.05
$Z_{(1-0.05)} = Z_{0.95}$ = 1.645
β = *probability of a Type II Error* = 0.20
$Z_{(1-0.20)} = Z_{0.80}$ = 0.842
RG = *the Remedial Goal, FRL* = 1.5 *pCi/g*
$\bar{x}_{target}$ = *target clean-up level mean*
= 75% *of the FRL* = 1.125 *pCi/g*
S_{CA} = *standard deviation estimated non-impacted areas* = 0.503 (*from Table* 2-5)

gives

$$n = \frac{(1.645 + 0.842)^2}{\left(\frac{1.5 - 1.125}{0.503}\right)^2} = 11.128$$

To ensure that the alpha and beta error rates are satisfied under the given assumptions, the calculated number was rounded up to the next highest integer. In this case, the calculated value of 11.128 was rounded up to 12. Therefore, under the given assumptions, a minimum of 12 samples per CU was required for thorium-232 analysis in order to establish the appropriate confidence level to certify the CU.

2.4 SAMPLE DESIGN

A sampling plan strategy was designed after the minimum number of samples for certification was determined. In A1PI, the CUs for primary and secondary ASCOCs are not necessarily the same CUs. If the CU was not the same for both primary and secondary ASCOCs, the sample locations were generated independently. During the initial stages of A1PI, the sample locations were generated independently, even if the primary and secondary CUs were coexistent. Later, to improve efficiency, the primary and secondary samples were drawn from the same location if the primary and secondary CUs were coexistent.

A systematic random sampling plan was used to maintain the assumptions of random sampling for the certification determination analysis. In general, each CU was subdivided into 16 sub-CUs. The layout of the sub-CUs was arbitrary; the only stipulation was that each sub-CU represents approximately one sixteenth of the total area for the CU. The "one-sixteenth" stipulation was included in order to drop the "weighting factor," i.e., the percentage of total area represented by the data point, from the subsequent statistical calculations. This action simplified calculations and interpretation of results. A minimum of 12 of the 16 sub-CUs were sampled for primary ASCOCs, and 9 for secondary ASCOCs. These variations are outlined in the following summary of the procedure for generating the random sampling locations. As discussed in the OSDF Support Areas PSP, 16 samples were collected in the CUs for all ASCOCs for these areas.

2.4.1 Procedure for Generating Random Sample Locations

The procedure used to generate random sample locations for each CU is summarized as follows.

1. Sub-divide the CU into 16 approximately equal (area-wise) sub-CUs.
   A. For CUs approximating rectangular shapes, the CU was subdivided into 16 equal sub-CUs by griding the area four across the east-west direction, and four across the north-south direction.

   B. For CUs approximating triangular shapes, the area was divided into 16 equal sub-CUs. These CUs were formed when an originally planned CU is divided by a newly imposed diagonal boundary. An example of this occurrence was CU Q20-30 which was a remnant area after the North Access Road was redesignated as a series of CUs.

   C. For irregular shaped CUs, maps were generated by GIS personnel for each CU. The CU was divided visually into 16 equal sized sub-CUs, and these maps were given to the GIS personnel to overlay onto the electronic GIS-based CU map. Each CU size was calculated and resized until all sub-CU areas were approximately equal.

2. Generate sample locations.

   A. For rectangular CUs: A random northing coordinate was generated between the minimum and maximum northing coordinates of the sub-CU, and a random easting coordinate was generated between the minimum and maximum easting coordinates. These random coordinates were rounded to the nearest foot for the surveyors to locate the sample.

   B. For non-rectangular CUs: A "bounding box" was overlaid around the CU defined by the minimum and maximum northing and easting coordinates of the CU boundary. Sequential random locations were generated within the box limits, and the locations were plotted on the CU map. Coordinates were rounded to the nearest foot. Locations that fell outside of the CU boundary were discarded. Locations in a sub-CU were retained. This process was repeated until each sub-CU contained only one sample location.

   NOTE: A list of 50 - 150 sets of three random numbers were generated. The first number was the easting coordinate within the box. The second was the northing coordinate within the box. The third was a random number. This list was sorted by random numbers and indexed by their position in the list. The entire list was plotted on the sub-CU map, with each location labeled with the index value. The location with the smallest index was selected, and the others were discarded. This method was identical to the one-point-at-a-time-method and generated random and unbiased locations.

   C. Sub-CUs were chosen for sampling for the 12 primary ASCOCs or the 9 secondary ASCOCs. A random number was assigned to each of the 16 sub-

CUs, with the 12 or 9 sub-CUs with the lowest assigned numbers selected. The remaining four primary sub-CUs were generally designated primary archive samples, with three of the four as secondary archive samples. When the primary and secondary CUs did not co-exist, the 12 primary and 9 secondary samples were chosen independently.

2.5 CERTIFICATION UNIT ANALYSIS

Certification sampling consisted of systematically sampling each CU for the known contaminants at the predetermined sample density. The certification of a CU within A1PI required the average soil concentration of COCs within the CU to be below the FRLs, with a minimum statistical confidence of 95% for primary COCs, and at least 90% for secondary COCs.

Statistical analysis, specifically hypothesis testing, was performed on the analytical results of the certification samples. The statistical analysis determined whether the average ASCOC levels in a given CU met their respective FRL; i.e., were less than the respective FRL, at the desired level of confidence. Consistent with the conservative approach used to assess COC levels, the null hypothesis for this analyte was defined to presume the average level of a specific ASCOC in a CU is greater than or equal to the FRL. The determination was made by applying the following equation:

$$t = \frac{RG - \bar{x}_i}{\sqrt{S^2/n}}$$

Where:

RG = remedial goal (i.e., FRL)

$\bar{x}^i$ = mean of samples from the i_{th} CU.

S^2 = sample variance

n = number of samples from the ith CU.

If the statistical analysis indicated that the average level of a specific ASCOC in a CU did not exceed the FRL, the null hypothesis was rejected. The ASCOC level did not exceed the FRL if the computed value (t) exceeded the critical value of a t-distribution for alpha = 0.05 for primary ASCOCs and for alpha = 0.10 for secondary ASCOCs at the appropriate degrees of freedom. If this was the case for

all ASCOCs within a CU, and if no single sample exceeded 2 x the FRL for primary COCs, the entire CU was certified as meeting the FRLs.

If the average detected result in a CU was not statistically less than the FRL at the minimum confidence level, one of two actions was taken:

- The CU was subjected to corrective actions, i.e., additional excavation, and resampled for certification, or
- If the average level in a CU was less than the FRL but the required statistical confidence was not achieved, additional samples were collected or available archived samples were submitted for analysis to increase the confidence level.

2.5.1 Statistical Quality Control

Quality control measures taken for the statistical data analysis were as follows:

- Algorithm accuracy was checked using Systat for Windows, a PC-based statistical package.
- Spot checks for accuracy were performed on individual spreadsheets to check for accuracy.
- All sample data results were checked for completeness and accuracy.

2.6 CERTIFICATION UNITS

The A1PI CUs are summarized in Table 2-6, A1PI Certification Units. Figure 2-2, A1PI Radiological Certification Units, Figure 2-3, A1PI Metals Certification Units, and Figure 2-4, A1PI PCB Certification Units, depict the certifications for radiological, metals, and PCB CU types, respectively. Detailed maps of each CU and all of the certification sample points for each suite of analyses are included in Appendix A.

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TABLE 2-1

SUMMARY OF SITEWIDE CONSTITUENTS OF CONCERN

Constituent of Concern	OU5 FRL	Constituent of Concern	OU5 FRL
Primary COCs			
Uranium, total (K_l = 325[a])	82/50 mg/kg	Thorium-228	1.7 pCi/g
Uranium, total (K_l = 15)	20 mg/kg	Thorium-232	1.5 pCi/g
Radium-226	1.7 pCi/g		
Radium-228	1.8 pCi/g		
Secondary COCs			
Aroclor-1254	0.13 mg/kg	Heptachlorodibenzo-p-dioxin	0.00088 mg/kg
Aroclor-1260	0.13 mg/kg	Indeno(1,2,3-cd)pyrene	20 mg/kg
Arsenic	12 mg/kg	Lead	400 mg/kg
Benzo(a)anthracene	20 mg/kg	Lead-210	38 pCi/g
Benzo(a)pyrene	2 mg/kg	Manganese	4600 mg/kg
Benzo(b)fluoranthene	20 mg/kg	Neptunium-237	3.2 pCi/g
Beryllium	1.5 mg/kg	Octachlorodibenzo-p-dioxin	0.0088 mg/kg
Carbazole	12 mg/kg	Plutonium-238	78 pCi/g
Cesium-137	1.4 pCi/g	Strontium-90	1.4 pCi/g
Dibenzo(a,h)anthracene	2 mg/kg	Technetium-99	30 pCi/g
1,1-dichloroethene	0.41 mg/kg	Tetrachloroethene	3.6 mg/kg
Dieldrin	0.015 mg/kg	Thorium-230	280 pCi/g
		Trichloroethene	25 mg/kg

a K_l = leaching coefficient. The FRL for total uranium in site soils outside the former production area, sewage treatment plant and the fire training area is 82 mg/kg with an ALARA goal for residual soil concentrations of 50 mg/kg. Within the production area, sewage treatment plant, and the fire training area the FRL for total uranium is 20 mg/kg.

TABLE 2-2

SUMMARY OF AREA 1 PHASE I AREA-SPECIFIC CONSTITUENTS OF CONCERN

COCs	FRL
Primary COCs	FRL
Uranium, total	82 mg/kg, with an ALARA goal of 50 mg/kg
Radium-226	1.7 pCi/g
Radium-228	1.8 pCi/g
Thorium-228	1.7 pCi/g
Thorium-232	1.5 pCi/g
Secondary COCs	FRL
Arsenic	12.0 mg/kg
Thorium-230	280 pCi/g
Aroclor-1260	0.13 mg/kg
Beryllium	1.5 mg/kg
Cesium-137	1.4 pCi/g

TABLE 2-3

SUMMARY OF CERTIFICATION UNIT CRITERIA

	CU-I	CU-II	CU-III
Maximum Certification Unit size	approx. 200' x 200' but not to exceed 1 acre	approx. 400' x 400' but not to exceed 4 acres	approx. 800' x 800' but not to exceed 16 acres
Criteria	Demonstrated Contamination above the FRL, or likely presence	Marginal Contamination	Considered to be Non-impacted
Sampling density	A minimum of 12 random discrete soil samples for primary COCs, and a minimum of 9 random discrete soil samples for secondary COCs	Same as Class I	Same as Class I

TABLE 2-4

AREA 1, PHASE I CERTIFICATION UNIT RECONFIGURATIONS AND ADDITIONS

Justification for CU Reconfiguration	CU	Suite	Result
1) Certification units were reduced in size or eliminated because the limits of soil excavation did not encompass the areas of the originally designed certification units. In cases such as these, the limit of the area being excavated is used as the basis for the designation of the boundaries of certification units.	Q16-31	Primary	eliminated - will be addressed in A1PII
	Q16-32	Primary	
	P17-32	Primary	reduced in size, because primary P17-14 was not excavated entirely, the portion of primary P17-14 that was excavated was consolidated to primary P17-32
	Q17	Metals	reduced in size
2) Certification units were created to account for excavation of soil in an area that was not originally accounted for by the designation of a CU. Areas excavated were not originally planned to be certified.	P17-22	Primary	CU created for area excavated between the A1PI impacted soil pile and CUs primary Q17-10 and primary Q16-33.
	P17-22	Metals	CU created for area excavated between the A1PI impacted soil pile and CUs metals Q17
3) Certification Units were reconfigured to account for the placement of the A1PI impacted soil pile. CUs could not be placed on or beneath the impacted stockpile.	P17-40	Primary	reduced in size
	P17-40	Metals	
	P17-20	Primary	eliminated - will be addressed in A1PII

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TABLE 2-4
(continued)

Justification for CU Reconfiguration	CU	Suite	Result
4) Numerous CUs were reconfigured to account for the approach being used to certify the existing North Access Road. Within A1PI, six additional CUs were designed for the certification of the northern part of the existing North Access Road. Within A1PI, two CUs were created for the road, two for the ditch west of the road, and two for the ditch east of the road. The CUs encompass the road and its ditches. The CUs adjacent to the existing North Access Road were reconfigured in shape and size to accommodate the incorporation of the existing North Access Road CUs.	NAR-1 through NAR-6	Primary Metals	created
	NAR-1	PCBs	created
	Q20-30	Primary	reconfigured
	Q20-20	Primary	
	P19-40	Primary	
	Q20-40	Primary	reduced in size
	Q20-10	Primary	
	Q19-30	Primary	
	P19-20	Primary	reduced in size, area west of the road was incorporated into newly created primary P19-23
	P19-23	Primary	created to incorporate area of primary P19-20 west of road
	P18	Primary	reduced in size, areas east of road were incorporated into primary P18-40 and primary P18-20
	P18-40	Primary	reconfigured, incorporated part of primary P18
	P18-20	Primary	reconfigured, incorporated part of primary P18 and primary P18-12
	P17-40	Primary	reconfigured, incorporated part of the former primary P17-34
	P17-34	Primary	eliminated, areas incorporated into primary P18-12 and primary P17-40, west and east of the road, respectively
	P18-12	Primary	reduced in size, area east of road was incorporated into primary P18-20. However, did incorporate western portion of primary P17-34
	P17-32	Primary	reduced in size, area east of the road is eliminated because it is beneath the A1PI impacted soil stockpile
	P18	Metals	reconfigured, areas of metals P18-32, P18-14, and P18-12 east of road

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TABLE 2-4
(continued)

Justification for CU Reconfiguration	CU	Suite	Result
5) Certification Units were changed to reflect the elimination of Area D from the scope of A1PI. Remediation and subsequent certification of Area D will be conducted with Area 6. Originally, CUs in areas west of the old North Access Road were designated so that the area could be certified, and to prevent potentially contaminated run-on from impacting Area D. Since Area D will no longer be remediated and certified with A1PI, it is no longer necessary to remediate and certify the areas west of the old north access road with A1PI. These areas will be certified with A1PIII.	N19 N19 O18 O18 N18 N18 M18-40 M18-40	Primary Metals Primary Metals/PCB Primary Metals Primary Metals	reduced in size, incorporated areas east of old north access road only reconfigured, eliminated areas within Area D, incorporated area of primary N-18 east of the old north access road eliminated, portion east of old north access road was incorporated into primary O-18 and metals O-18 eliminated
6) Additional certification units were created to allow certification of the sediment traps of A1PI.	A1PIST-1 A1PIST-2 A1PIST-3	Primary, Metals Primary, Metals Primary, Metals	created created created
7) Certification units associated with the excavation of the OSDF sediment basin and the Pump Station (PS) were reconfigured to accurately reflect the limits of excavation.	PUMP-1 O14-42 P14-31	Primary/Sec Metals/PCB Primary, Metals Primary, Metals	created eliminated
8) Due to certification failure of CU Q18-40 for radium-226, the CU was separated into northern (Q18-40A) and southern (Q18-40B) halves, both of which were certified for radium-226 only.	Q18-40A Q18-40B	Radium-226 Radium-226	created

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TABLE 2-5

SUMMARY OF ESTIMATED NUMBER OF SAMPLES PER CERTIFICATION UNIT IN AREA 1 PHASE 1 TO ACHIEVE ACCEPTABLE CONFIDENCE LEVELS

ASCOC	FRL	Number of Samples Used in Model	Standard Deviation of Data from Unimpacted Areas	Target Clean-up Mean Soil Concentration (75% of FRL)	Calculated Number of Samples Required
PRIMARY ASCOCs					
Uranium, Total	82 mg/Kg	4211	23.166	50*	4
Radium-226	1.7 pCi/g	2224	0.574	1.275	12
Radium-228	1.8 pCi/g	1508	0.441	1.35	6
Thorium-228	1.7 pCi/g	1514	0.471	1.275	8
Thorium-232	1.5 pCi/g	2258	0.503	1.125	12
SECONDARY ASCOCs					
Aroclor-1254	0.13 mg/Kg	1036	0.034	0.0975	7
Aroclor-1260	0.13 mg/Kg	641	0.035	0.0975	8
Arsenic	12 mg/Kg	983	3.475	9	9
Beryllium	1.5 mg/Kg	999	0.397	1.125	7
Lead	400 mg/Kg	1149	43.478	300	2
Cesium-137	1.4 pCi/g	2595	0.381	1.05	8
Thorium-230	280 pCi/g	2034	29.472	210	2

* Total Uranium Target Level is based on As Low As Reasonably Achievable (ALARA) goals. 75% of the FRL for total uranium is 61.5 mg/Kg.

TABLE 2-6

AREA 1 PHASE I CERTIFICATION UNITS

	CU Name	CU Type	CU Class
1	A1P1ST-1	Primary Radiological	Special
2	N19	Primary/Secondary Radiological	CU-III
3	NAR1	Primary Radiological	Special
4	NAR2	Primary Radiological	Special
5	NAR3	Primary Radiological	Special
6	NAR4	Primary Radiological	Special
7	NAR5	Primary Radiological	Special
8	NAR6	Primary Radiological	Special
9	O18	Primary Radiological	CU-III
10	O19	Primary Radiological	CU-III
11	O20	Primary Radiological	CU-III
12	P17-22	Primary Radiological	CU-I
13	P17-31	Primary Radiological	CU-I
14	P17-32	Primary Radiological	CU-I
15	P17-33	Primary Radiological	CU-I
16	P17-40	Primary Radiological	CU-II
17	P18	Primary Radiological	CU-III
18	P18-11	Primary Radiological	CU-I
19	P18-12	Primary Radiological	CU-I
20	P18-20	Primary Radiological	CU-II
21	P18-40	Primary Radiological	CU-II
22	P19	Primary Radiological	CU-III
23	P19-20	Primary Radiological	CU-II
24	P19-23	Primary Radiological	CU-II
25	P19-40	Primary Radiological	CU-II
26	P20-30	Primary Radiological	CU-II
27	PUMP-1	Primary and Secondary Radiological	Special
28	Q16-33	Primary Radiological	CU-I
29	Q16-34	Primary Radiological	CU-I
30	Q17-10	Primary and Secondary Radiological	CU-II
31	Q17-30	Primary and Secondary Radiological	CU-II
32	Q18-10	Primary and Secondary Radiological	CU-II
33	Q18-30	Primary Radiological	CU-II
34	Q18-40	Primary Radiological	CU-II
35	Q19-10	Primary Radiological	CU-II
36	Q19-20	Primary Radiological	CU-II
37	Q19-30	Primary Radiological	CU-II
38	Q19-40	Primary Radiological	CU-II
39	Q20-10	Primary Radiological	CU-II
40	Q20-20	Primary Radiological	CU-II
41	Q20-30	Primary Radiological	CU-II
42	Q20-40	Primary Radiological	CU-II
43	Q18-40a	Radium-226	special
44	Q18-40b	Radium-226	special

TABLE 2-6
(continued)

CU Name		CU Type	CU Class
45	A1P1ST-1	Metals	Special
46	N19	Metals	CU-III
47	NAR-1	Metals	Special
48	NAR-2	Metals	Special
49	NAR-3	Metals	Special
50	NAR-4	Metals	Special
51	NAR-5	Metals	Special
52	NAR-6	Metals	Special
53	O18	Metals	CU-III
54	O19	Metals	CU-III
55	O20	Metals	CU-III
56	P17-22	Metals	CU-I
57	P17-31	Metals	CH-I
58	P17-32	Metals	CU-I
59	P17-33	Metals	CU-I
60	P17-40	Metals	CU-II
61	P18	Metals	CU-III
62	P18-11	Metals	CU-I
63	P18-12	Metals	CU-I
64	P18-13	Metals	CU-I
65	P18-14	Metals	CU-I
66	P18-31	Metals	CU-I
67	P18-32	Metals	CU-I
68	P19	Metals	CU-III
69	P20	Metals	CU-III
70	PUMP-1	Metals	Special
71	Q17	Metals	CU-III
72	Q18	Metals	CU-III
73	Q19	Metals	CU-III
74	Q20	Metals	CU-III
75	NAR1	PCB	CU-I
76	O18	PCB	CU-III
77	P17-31	PCB	CU-I
78	P17-33	PCB	CU-I
79	P18-11	PCB	CU-I
80	P18-13	PCB	CU-I
81	PUMP-1	PCB	Special

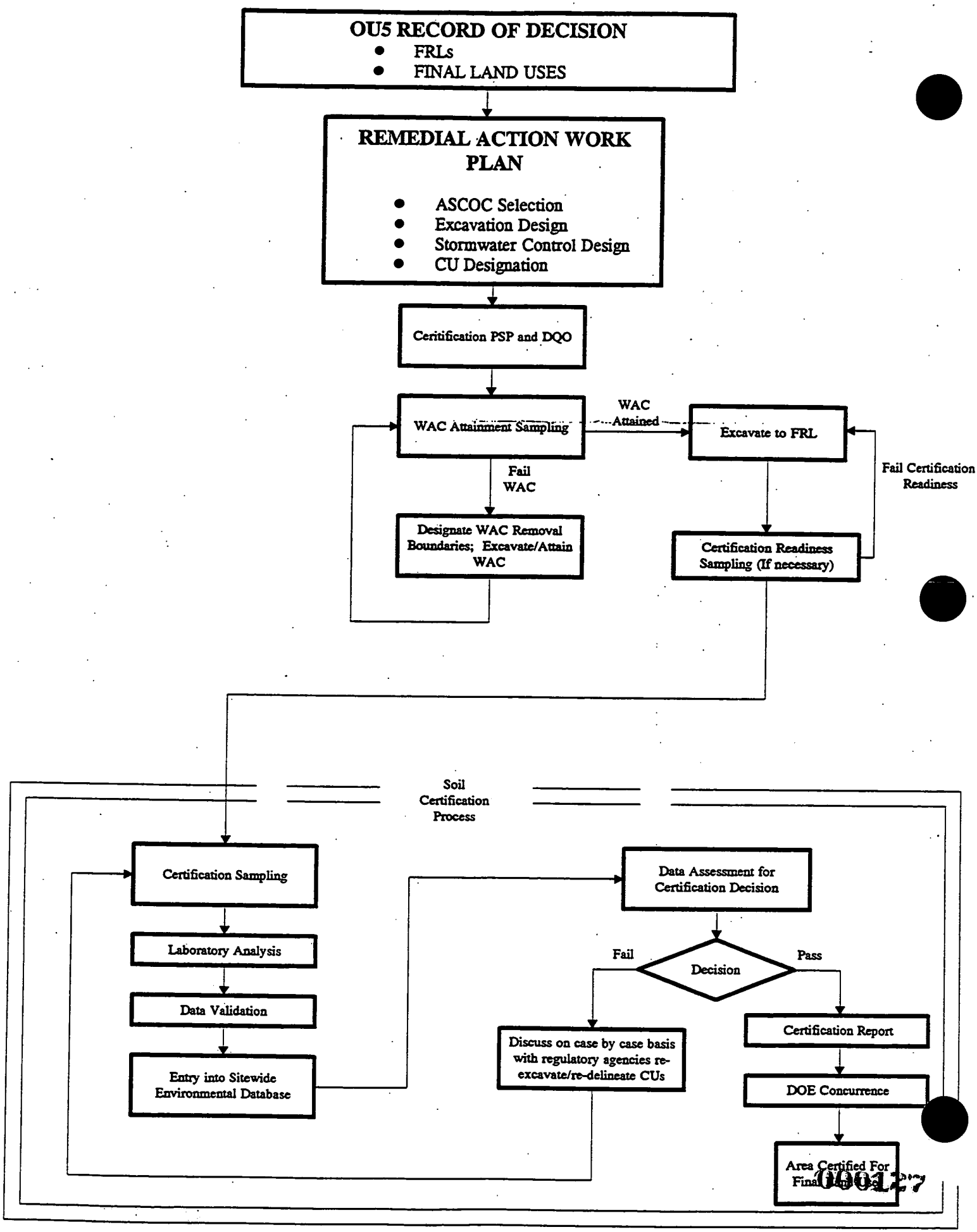
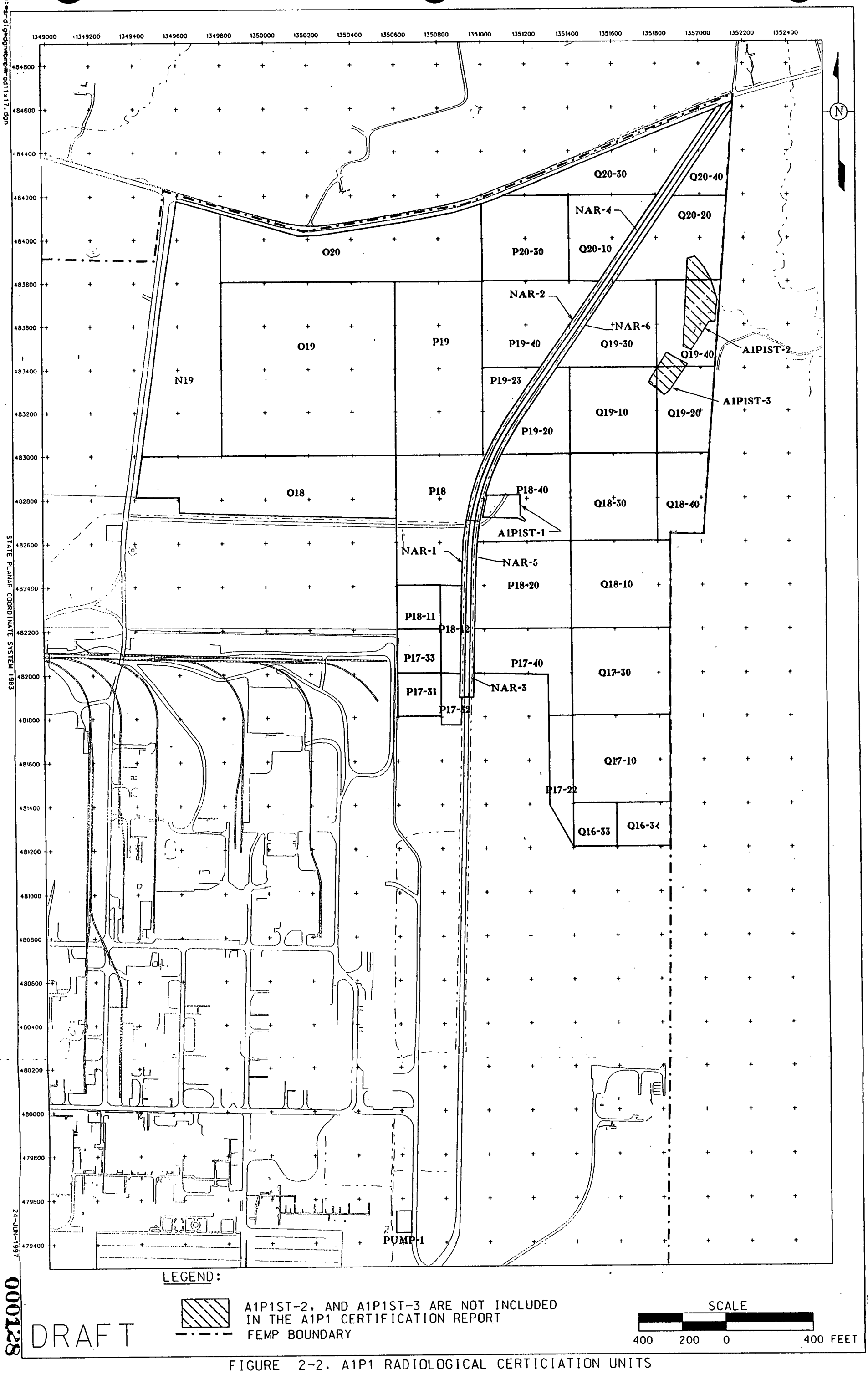


Figure 2-1 A1PI SOIL REMEDIATION PROCESS FLOW DIAGRAM



LEGEND:

A1P1ST-2, AND A1P1ST-3 ARE NOT INCLUDED IN THE A1P1 CERTIFICATION REPORT

FEMP BOUNDARY

SCALE

400 200 0 400 FEET

DRAFT

000128

FIGURE 2-2. A1P1 RADIOLOGICAL CERTICIATION UNITS

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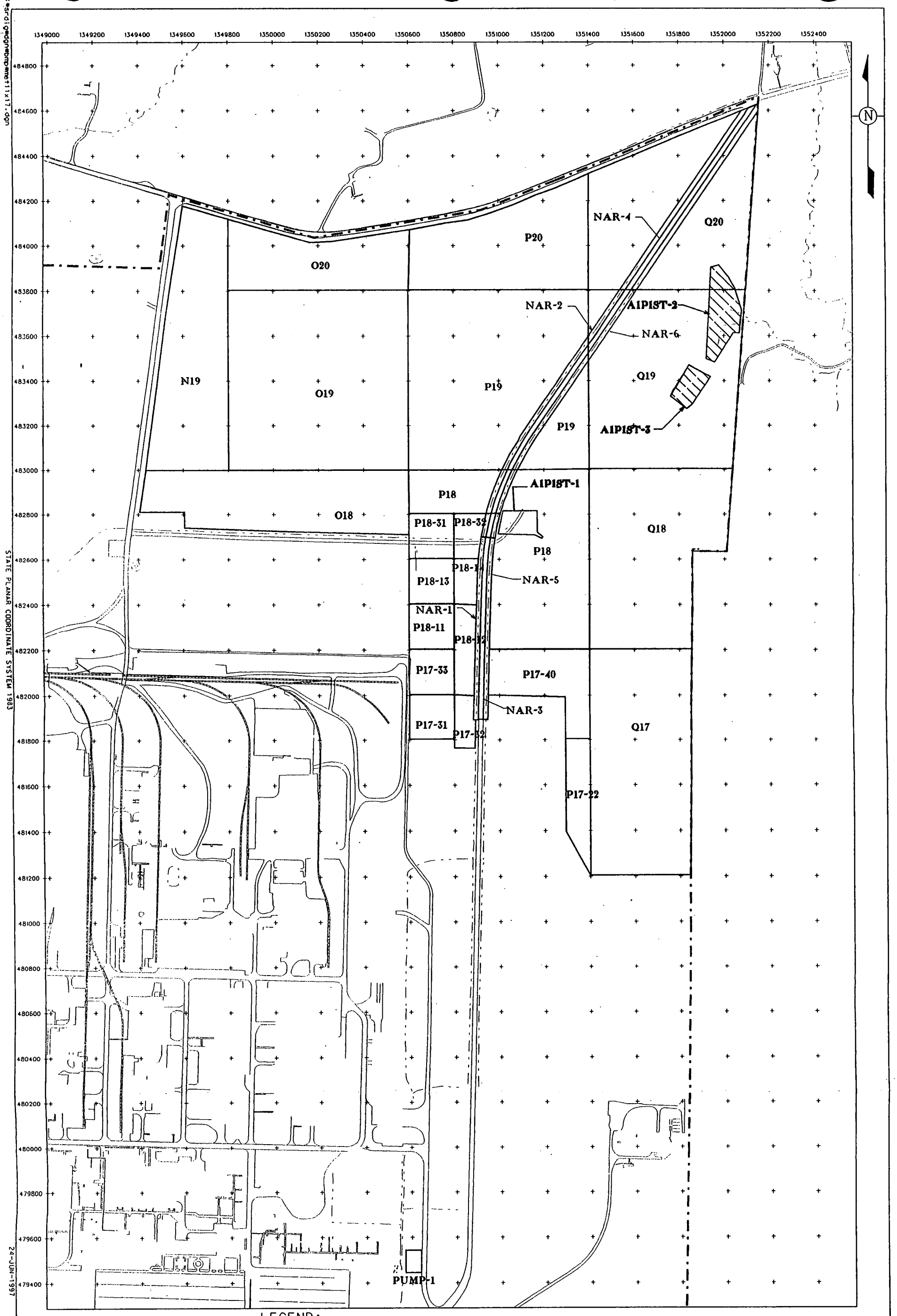

LEGEND:

FEMP BOUNDARY

A1P1ST-2, AND A1P1ST-3 ARE NOT INCLUDED IN THE A1P1 CERTIFICATION REPORT

SCALE

400 200 0 400 FEET

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FIGURE 2-3. A1P1 METALS CERTIFICATIION UNITS

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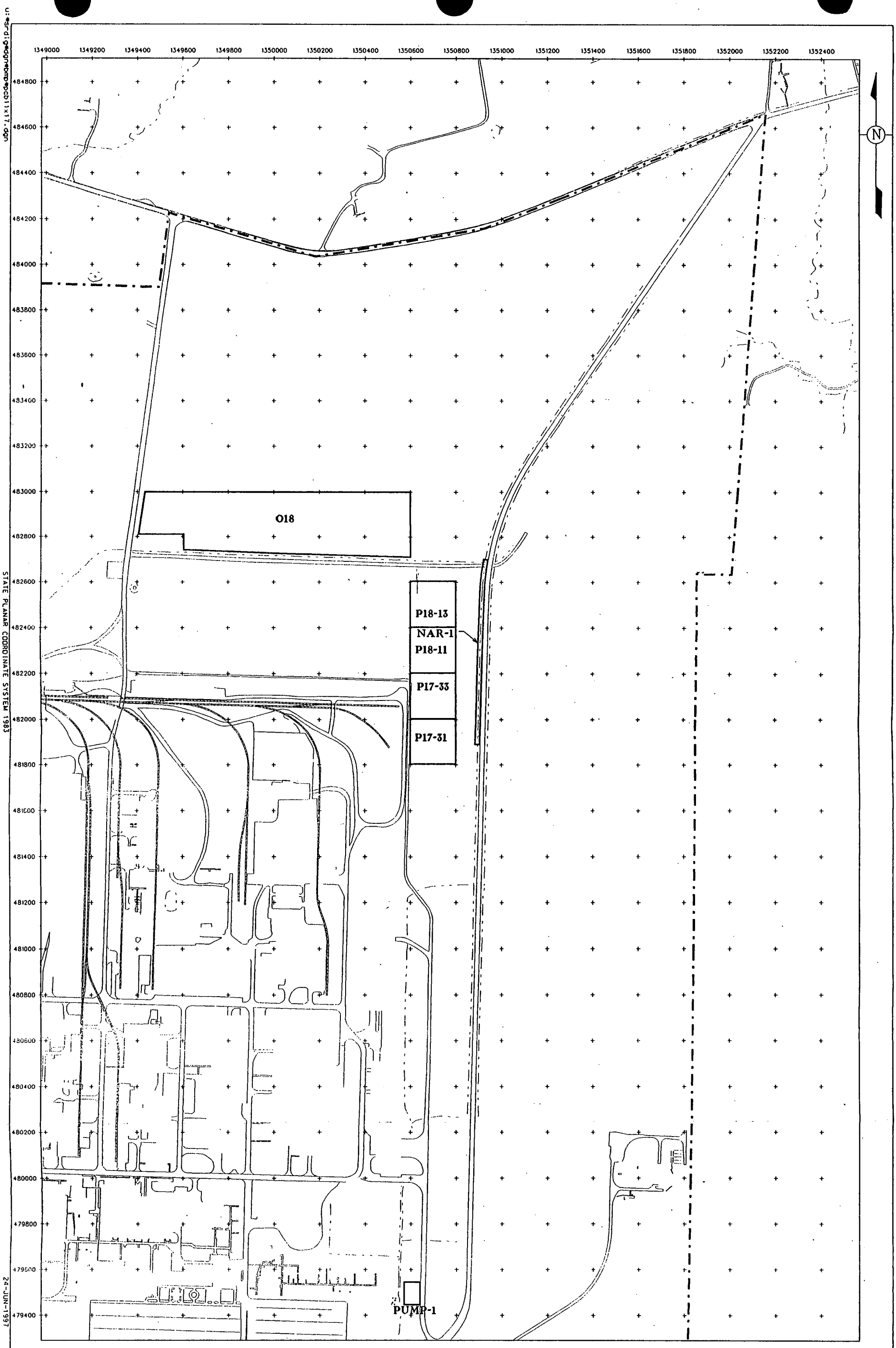

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FIGURE 2-4. A1P1 PCB CERTIFICATIION UNITS

SECTION 3.0
OVERVIEW OF FIELD ACTIVITIES

3.1 AREA PREPARATION

A1PI remedial activities consisted of the implementation of site preparation activities, including establishing stormwater controls, defining stockpile areas, and instituting access controls. Surface water and stockpile controls were established before any significant remedial activities occurred. Three sediment traps and two sedimentation basins (one on each side of the North Access Road) were constructed. In addition, diversion ditches, berms and silt fences were installed to prevent sediment in non-remediated areas from entering remediated areas (including non-remediated areas both on- and off-property). Silt fencing was also installed to prevent sediment from entering or leaving the remediation area. Boundaries were established for both debris and impacted soil stockpiles. Perimeter fencing and signs were installed to control access into the project work area; the procedure used to control access to the area is summarized in Section 6.0.

Three sediment traps and one sediment basin were constructed to collect runoff from remediated areas, to capture sediment, and to release water to flow across the existing drainage features without additional treatment. An additional sediment basin was constructed west of the North Access Road to collect runoff from the debris and soil stockpiles. This basin releases water to the Stormwater Retention Basin (SWRB). A timed release design allows the SWRB to accommodate the additional load. Treatment and discharge of water entering the SWRB is in accordance with the FEMP National Pollutant Discharge Elimination System (NPDES) permit and OU5 ROD requirements.

3.2 SOIL EXCAVATION

Soil excavation began after the project surface water and waste placement controls were established. The A1PI Soil Remediation Project was divided into two functional subareas. The A1PI (East) Soil Remediation and Support Facilities Project included all remedial excavations east of the North Access Road. The Site Rail Improvement Project included all remedial excavations west of the North Access Road. Excavating and stockpiling soils on the same side of the North Access Road eliminated the potential for cross-contamination by avoiding hauling soils across the road. An approximate six-inch layer of soil was excavated from most of A1PI (East) and placed in the east impacted soil stockpile. Approximately 54 acres were excavated in A1PI (East) (approximately 46 acres within the certification area, approximately 8

acres outside the certification area for a sediment basin and stockpile area) and approximately 6 acres were excavated west of the North Access Road, as shown in Figure 3-1, Excavation Limits of A1PI.

3.3 CHANGES TO SCOPE OF WORK

Underground drain tiles within the remediation area located near, but outside, the OSDF footprint were removed to eliminate potential unplanned drainage pathways for OSDF leachate, as shown in Figure 3-2, A1PI Drain Tile Locations. The drain tiles were removed during A1PI activities using a backhoe and placed in the east debris stockpile. Other drain tiles found within the OSDF footprint will be removed during the construction of the OSDF.

After analysis of certification samples, certain areas were targeted for corrective action due to certification failure as discussed in Section 2.5. The additional volumes derived and a decription of the corrective action are as follows:

- Approximately 1300 yd^3 from CU Q18-40B. This material resulted from the excavation of an additional six inches from the southern portion of the original CU which was divided into two new CUs (Q18-40a and Q18-40b) in the surface layer CU following the determination that radium-226 exceeded the FRL following the initial excavation. This was placed in the A1PI East Stockpile.
- Approximately 950 yd^3 from CU P17-32. This material resulted from the excavation of an additional six inches from the CU following the determination that arsenic exceeded the FRL following the initial excavation. This soil was placed in the west stockpile.
- Approximately 50 yd^3 of soil in CU O20. This material resulted from the excavation of a "hot spot" from the CU following the determination that uranium exceeded the pre-established criterion of 2 x FRL. This soil was placed in the OU1 blending pile.

Following certification, one portion of A1PI will be excavated as part of OSDF construction activities. The soil underlying the North Access Road was certified in place as part of the A1PI activities. Samples were collected from the soil at a depth representing the top of the native clays underlying the road bed and adjacent drainage ditches. The soil, macadam (gravel bedding material), and asphalt residing above the certified native clay layer will be excavated during the initial phase of OSDF construction. The soil will be placed in the east soil and debris stockpiles for eventual placement in the OSDF. The certification data presented in this report for the North Access Road CUs represent samples from the native clay soil. This sequence of activities allows the North Access Road to be used as long as possible.

3.4 A1PI SOIL AND DEBRIS VOLUMES

The estimated A1PI soil volumes from the OU5 Feasibility Study, estimated volume from the

A1PI Excavation Design, and the actual volume of soil excavated in A1PI are summarized in Table 3-1, A1PI Soil Volumes. The volumes and contents of the soil and debris stockpiles associated with the project are discussed in Section 3.4.1, A1PI Stockpiles.

The difference between the OU5 FS Excavation Model and the A1PI Design volumes, approximately 5,124 yd^3, is a result of additional soil being excavated east of the North Access Road. In the OU5 FS Excavation Model, a portion of A1PI east of the existing North Access Road was identified as non-impacted, the non-shaded areas as depicted in Figure 3-3, A1PI Excavation Footprint. The designed area of excavation in A1PI is depicted in Figure 3-1. The additional soil excavated during A1PI East Excavation activities was for the following reasons:

- In order to segment the areas effectively and to design the excavation of the segmented areas, the areas would have to be separated by levels of COCs within the soils. At the time of the A1PI excavation design, a viable real-time monitoring process to detect radiological COCs was not available to attempt to segment the non-impacted areas from the impacted areas, as designated by the OU5 FS. The collection of analytical data from physical laboratory samples could not be completed within the A1PI excavation Design schedule.
- The design would have required excavation of small isolated segments around the non-impacted area. The topography and established drainage patterns within and adjacent to the non-impacted area were such that excessive surface water controls would have been necessary in order to segment the excavation into two to three more parts.

Given the above factors the conservative approach to excavate the additional area was adopted. Although the OU5 FS Excavation Model designated the area as non-impacted, A1PI certification analyses determined that at least one portion of the area was impacted (Q18-40 was located within the non-impacted area). Due to the fact that the A1PI certification analyses conducted were more stringent than the parameters used in the development of the OU5 FS Excavation Model. Nonetheless, the excavation of non-impacted materials as designated by the OU5 FS Model will be minimized in the future.

The excavation of this area and other areas similar to it are not anticipated to cause the OSDF designed soil volume to be exceeded. An extremely small percentage of the soil to be disposed in the OSDF will be generated from shallow excavations such as A1PI. Approximately 2 million yd^3 of the soil destined for the OSDF will be generated during the remediation of areas requiring deep excavation, such as the Former Production Area (Areas 3, 4, and 5), Southern Waste Units (Area 2, Phase I), etc.

000133

3.4.1 A1PI Stockpiles

A1PI East Soil Stockpile

Contents:
- 29,000 yd^3 from initial excavation of A1PI East
- 1,300 yd^3 from re-excavation of Q18-40b for radium-226 contamination

Total Volume: 30,300 yd^3

A1PI East Debris Stockpile

Contents:
- Debris such as trees, concrete rubble, drain tiles, etc., from excavation of A1PI East

Total Volume: 225 yd^3

A1PI West Soil Stockpile

Contents:
- 16,000 yd^3 from excavation of Area D for railroad expansion
- 5,700 yd^3 of A1PI West CUs
- 1,900 yd^3 from excavation of the areas necessary to construct the OSDF sediment basin (OSB-1 through - 5) and the OSDF permanent lift station (PUMP-1)
- 950 yd^3 from the re-excavation of P17-32 for arsenic contamination

Total Volume: 24,550 yd^3

A1PI West Debris Stockpile

Contents:
- Debris such as trees, concrete rubble, fencing, broken culvert piping, etc., from excavation of A1PI West and Area D for site railroad improvement

Total Volume: 680 yd^3

TABLE 3-1
A1PI SOIL VOLUMES

A1PI Area	FS Volumes (yd^3)	A1PI Designed Volumes (yd^3)	A1PI Actual Volumes (yd^3)
East*	24,880	30,000	30,300
West	4,760	4,760	5,700
Totals (without area of A1PIST-1, -2 and -3)	na	34,760	36,000
Totals (with area of A1PIST-1, -2 and -3 - 1440 yd^3)	31,080	36,200	37,440

* The sediment traps installed within areas certified under A1PI have not been excavated at this time. The CUs associated with these sediment traps will be certified when the sediment traps are removed. All the material associated with each sediment trap will be placed in the OSDF. The volumes for the A1PI sediment traps do not include soil in the berms.

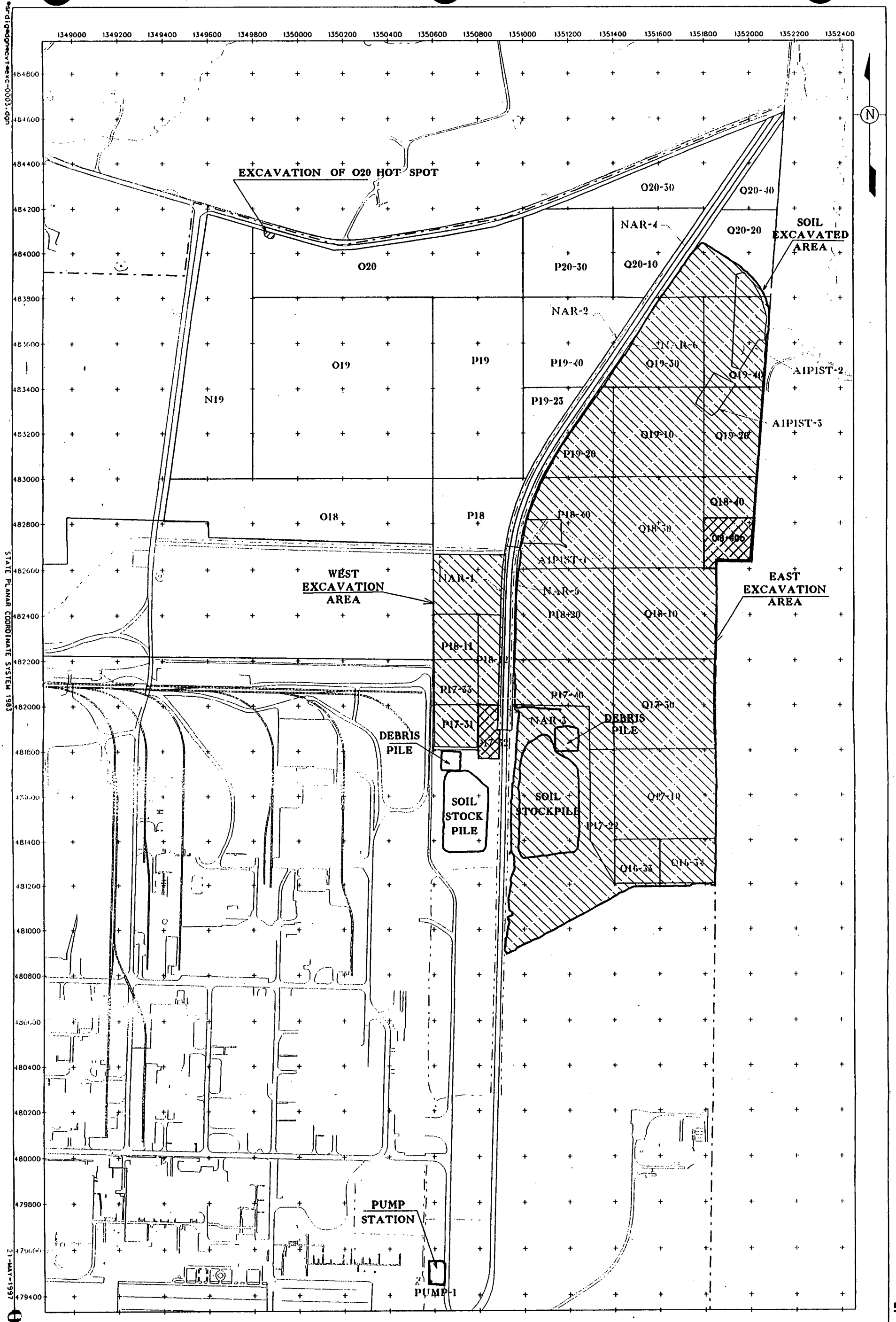


FIGURE 3-1. EXCAVATION LIMITS OF A1PI

FIGURE 3-2. AREA1 PHASE I DRAIN TILE LOCATIONS

000137

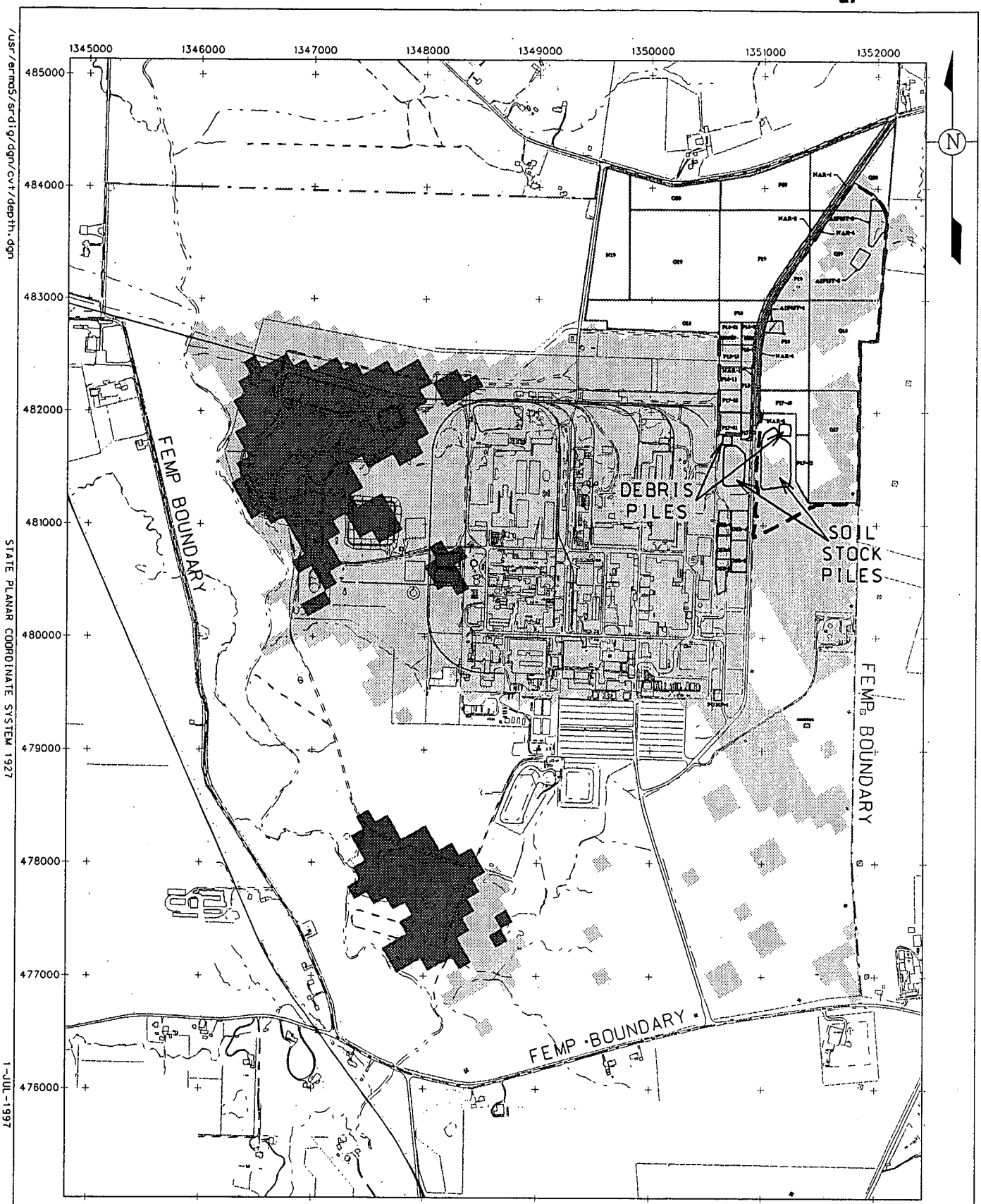


FIGURE 3-3. A1P1 EXCAVATION FOOTPRINT

SECTION 4.0
ANALYTICAL METHODOLOGIES, DATA VALIDATION PROCESSES, AND DATA REDUCTION

4.1 ANALYTICAL METHODOLOGIES

The samples for A1PI were analyzed at laboratories on the FEMP Approved Laboratories List per the Sitewide Quality Assurance Project Plan (SCQ). A laboratory must comply with SCQ requirements to be on the list. Furthermore, each laboratory was audited within one year of the analysis of A1PI samples. The SCQ is also the source for analytical methodologies, data validation and verification, and analytical and field quality assurance/quality control (QA/QC) requirements. All the samples in A1PI were analyzed and reported at Analytical Support Level (ASL) D. (Refer to the SCQ for more information on ASLs.) The reported data packages included sample results, associated QA/QC data, and all applicable raw data. A summary of the analytical methods follows.

4.1.1 Chemical Methods

Standard sample analytical methodologies were used. Samples were analyzed for inorganic ASCOCs using the EPA's Contract Laboratory Program (CLP) method ILMO3.1 or ILMO4.1, depending on the specific analytical task order requirements. Both methods are essentially the same in terms of analytical methodology; ILMO4.1 is the recently promulgated EPA method available for use by laboratories.

Samples were analyzed for PCBs using SW-846 method 8080 or CLP method OLMO3.1, depending on specific laboratory task order requirements. Both methods are equivalent regarding analytical quality methodologies and QA/QC requirements.

4.1.2 Radiochemical Methods

The radiological analytical methods depended on the specific nuclide of interest. Specific performance criteria were specified for each analyte in A1PI. This criteria included: Highest Allowable Minimum Detectable Concentrations (HAMDCs), percent overall tracer / chemical recovery, percent matrix spike recovery, method blank contamination, percent recovery for laboratory control samples, and percent recovery for duplicate samples. In order to meet these criteria the laboratories used to support A1PI used primarily two methodologies, alpha spectroscopy and gamma spectroscopy.

The alpha spectroscopy method consists of a chemical separation for the radionuclide of interest followed by alpha spectrometry counting. The measured values from this method were used for thorium-228, thorium 230, and thorium-232.

Gamma spectroscopy is a more direct method of analysis, in which the gamma radiation is measured from each sample. The presence of a radionuclide is based on the gamma radiation energies measured. This method was used for radium-226, radium-228, and cesium-137. This method was used to calculate the total uranium value, using the reported uranium-238 measurement. The calculation used was as follows:

Total Uranium (mg/kg) = (2.998544) x uranium-238 gamma spectroscopy result (pCi/g)

The validation qualifier assigned to the uranium-238 value was carried over to the total uranium value.

A1PI certification samples were analyzed for thorium-232 by two different methods; alpha spectrometry and gamma-ray spectrometry. Both are industry accepted methods for the analysis of Thorium-232 in soil. Alpha spectrometry analysis provides for the direct analysis of Thorium isotopes without the use of equilibrium assumptions. Gamma spectrometry, which is significantly less costly, uses the measurement of the gamma photons emitted by one or more Thorium-232 daughters to calculate an activity concentration based on an equilibrium assumption.

Comparison of the individual results from A1PI indicates that those produced by gamma-ray spectrometry are generally higher than corresponding results generated by alpha spectrometry. Furthermore, statistical evaluation of the data sets for A1PI certification results identified 8 units that would slightly exceed the FRL for Thorium-232 at the 95% upper confidence limit on the mean based upon the gamma-ray spectrometry results. The FRL was exceeded in 7 of these units by less than 0.07 and by 0.36 in CU O20. Statistical analysis of the alpha spectrometry data for Thorium-232, however, identified that all certification units were less than the FRL at the 95% upper confidence limit. It was recognized that the source of the high bias associated with the gamma-ray spectrometry results relative to the alpha spectrometry results could be due to a number of factors. The potential possibilities for the gamma-ray versus alpha spectrometry descrepancy included laboratory variability in gamma-ray spectrometry analyses (three contract laboratories were performing the analyses), a general high bias trend with gamma-ray spectrometry as compared to alpha spectrometry, or a laboratory-specific high bias due to the particular gamma-ray spectrometry approach (abundancies, photons and computational methods) which was being used. As a result of this descrepancy,

its potential sources, and the FEMP's and, generally, contract laboratories familarity with alpha spectrometry, DOE made the decision to (1) report the A1PI certification results for thorium-232 in terms of alpha spectrometry and (2) continue to investigate the causes of the gamma-ray versus alpha spectrometry descrepancy. As a result of this descrepancy, DOE proposes to issue a letter report detailing the ongoing investigation into the causes of the descrepancy and describe a path forward which would describe the roles of gamma-ray and alpha spectrometry in future certification efforts. DOE proposes to issue this letter report in conjunction with the submittal of the upcoming Site-wide Excavation Plan.

The general trend toward higher results yielded by gamma-ray spectrometry versus alpha spectrometry for Thorium-232 was identified during the compilation of the A1PI results and the development of a companion report evaluating the comparability of HPGe gamma-ray spectrometry measurements versus more traditional laboratory based gamma-ray measurements. An analysis was undertaken by the FEMP to attempt to understand the basis for this analytical phenomenon. While this analysis continues, recent evaluations have has highlighted the significance of the inherent variability in laboratory data, and methods, which is even more pronounced as the measured concentrations decrease toward the detection limit. Evaluation of individual samples measured for Thorium-232 by both analytical methods at three commercial laboratories used to support A1PI certification indicated that gamma-ray spectroscopy results ranged from 13 to 17 percent higher than corresponding alpha measurements on the same samples. The FEMP attributes this variability to the uncertainty in the methods and to differences in analytical procedures and techniques between the three laboratories.

To begin to examine the origin of the variability, samples from CU O20 were submitted to a different lab for re-analysis by gamma spectrometry, in order to compare laboratory variability. The re-analysis indicated that the second laboratory's results varied by approximately 20% for the same samples using the same measurement techniques (gamma spectrometry). Further analysis indicated that each laboratory used different gamma photons, abundancies, and computational methods to quantify the thorium-232 results. While one method is not necessarily any better than another, the difference did lead to variability.

While evaluations continue to determine the necessary actions to minimize future variability in results, some preliminary lessons learned have been identified. First, a set of site-specific radiological standards will be developed by DOE's Environmental Measurements Laboratory for use as calibration standards or check standards to be continually analyzed along with FEMP soil samples. Analysis of these standards will highlight future analytical variabilities or discrepancies. Second, analytical detection limits are being re-evaluated and

specifications for more prescriptive analytical methods are being developed to be used consistently by all support or contract laboratories. The prescriptive methods will specify abundancies, which gamma photons are to be used for quantification, and specific computational methods.

4.2 DATA VERIFICATION AND VALIDATION

This section discusses the data verification and validation process (V&V) to examine field and laboratory data. Data were qualified to indicate the level of data usability, or level of confidence in the reported analytical results. The EPA's National Functional Guidelines for Data Review (Organic Data) and the National Functional Guidelines for Data Review (Inorganic Data) (EPA 1994), as adapted and approved by EPA Region V, were used for this process.

Specific parameters associated with the data were evaluated during V&V to determine if data quality objectives were met. Five principal quality assurance parameters, i.e., precision, accuracy, completeness, comparability, and representativeness, were addressed during V&V. Field sampling and handling, laboratory analysis and reporting, and nonconformances and discrepancies in the data were examined to ensure compliance with appropriate and applicable procedures.

The V&V process evaluated the following parameters:

- Specific Field Forms for sample collection and handling
- Chain of Custody forms
- Completeness of Laboratory Data Deliverable

The data validation process examined the analytical data to determine the level of confidence of the results. General areas examined that apply to all the chemical data include the following:

- Holding Times
- Instrument calibrations
- Calculation of results
- Matrix spike/matrix spike duplicate recoveries
- Laboratory/field duplicate precision
- Field/Laboratory Blank contamination
- Dry weight correction for solid samples
- Correct detection limits reported
- Laboratory Control Sample (LCS) recoveries and compliance with established limits

Specific areas of evaluation for organic PCB data include:

- Gas chromatographic quality of PCB target compounds

- Surrogate recoveries
- Internal or External Standard Area evaluations for PCB data
- Relative percent difference between initial and continuing calibration response and calibration factors

Parameters unique to inorganic analyses that were evaluated include:

- Graphite furnace atomic absorption (GFAA) post-digestion spike recoveries
- Inductively coupled plasma (ICP) and GFAA performance checks

Parameters unique to the evaluation of radiochemical analyses include:

- Calibration data for specific energies
- Background checks
- Relative Error ratios
- Tracer yields
- Detector efficiencies
- Background count correction

For A1PI, 90% of the data were validated at ASL B. This validation included a review of the data for all criteria noted above, and a cursory review of the raw data. Ten percent of the data were validated to ASL D. This validation included the same review process as for ASL B, but included a systematic review of the raw data and recalculations.

Following V&V, qualifier codes were applied to specific data points, reflecting the level of confidence assigned to the particular datum. These codes included:

- No qualification; the positive result or detection limit is confident as reported.

J Positive result is estimated or imprecise; data point is usable for decision-making purposes. Positive results less than the contract required reporting limit are also qualified in this manner.

R Positive result or detection limit is considered unreliable- data point should NOT be used for decision-making purposes

U Undetected result at the stated limit of detection; useable for decision-making purposes

UJ Undetected result; detection limit is considered estimated or imprecise; useable for decision-making purposes

Z This result, or detection limit in this analysis is not the best one to use; another analysis (e.g., the dilution or re-analysis) contains a more confident and usable result..

4.2.1 Results of the Data Validation Process

The qualification of all data for this project is summarized in Table 4-1, Evaluation of Data Qualifiers, which includes the total number of data points, the number qualified as Rejected (R), and the number qualified as Estimated (J or UJ). In general, the data validation process did not result in a significant amount of the data being qualified estimated or unusable. In every CU an adequate number of data points was available for statistical analysis. Table 4-2 summarizes the reasons for qualification of the inorganics, and Table 4-3 summarizes the reasons for the qualification of radiological ASCOCs.

4.3 DATA REDUCTION

The data set for A1PI Certification ASCOCs can be found in Appendix B, and in Appendix C for Ecological ASCOCs. Each sample used to support the A1PI certification decision was entered in the FEMP Sitewide Environmental Database (SED) with the following information.

Field Information

- Sample Identification Number - A unique number assigned to each discrete sample point.
- Sample Collection Date - Date the sample was collected in the field
- Coordinate Information - Northing and Easting locations.
- Certification Unit - Each sample is assigned to a CU based on location.

Laboratory Information

For each sample result the following information is entered:

- Laboratory Result - The reported analytical value from the laboratory.
- Laboratory Qualifier - The qualifier reported from the lab. For inorganic and organic data these qualifiers are consistent with the CLP Qualifiers. For radiological parameters non-detect values are assigned a U qualifier.
- Total Propagated Uncertainty (TPU) - This value represents the uncertainty associated with the reported result. TPU includes the counting error, as well as uncertainty from other laboratory measurements and data reduction. (Applicable to radiological parameters only)
- Units - The units in which the Laboratory Result is reported.

Validation Information

- Validation Result - The result based on the validation process. During the validation process, sample results may be adjusted. For example, if the laboratory result is less than the associated Minimum Detectable Concentration (MDC), the validation result becomes the MDC value.

- Validation TPU - The TPU based on the validation process.
- Validation Qualifier - The qualifier assigned as a result of the data validation process.
- Validation Units - The units in which the Validation Result is reported.

Using the information as summarized above, the following actions were taken for data reduction of each CU data set.

1. All the data for each CU was queried from SED. All the data was used even if the CU had more than the minimum required data points.
2. The data from the validation fields were used for statistics.
3. Data with a qualifier of R or Z was not used in the statistics.
4. Duplicate results were averaged, and the average result was used in the statistics.
5. One half of the non-detect (U or UJ) values were used in the statistics.

TABLE 4-1

EVALUATION OF DATA QUALIFIERS

Analyte	Method	Total Number of Points[a]	Number Qualified "R"	Number Qualified "J" or "UJ"
Total Uranium	calculation/gamma	653	0	196
Thorium-232	alpha	660	0	202
Thorium-228	alpha	660	0	231
Radium-226	gamma	668	0	74
Radium-228	gamma	659	0	46
Cesium-137	gamma	43	0	0
Thorium-230	alpha	43	0	8
Arsenic	ILMO3.1 or ILM)4.1	409	0	124
Beryllium	ILMO3.1 or ILMO4.1	406	0	3
Aluminum	ILMO3.1 or ILMO4.1	485	0	40
Manganese	ILMO3.1 or ILMO4.1	495	16	228
Molybdenum	ILMO3.1 or ILMO4.1	485	0	116
Aroclor-1260	SW-846 8080	77	4	14

[a] If a sample was re-analyzed, both the original result and the re-analysis are included in this total.

TABLE 4-2

REASONS FOR QUALIFICATIONS OF INORGANIC / ORGANIC DATA

Analyte	Qualifier (s)	Primary Reasons for Qualification
Aluminium	J	• Serial Dilution imprecision. • Laboratory duplicate imprecision.
Arsenic	J / UJ	• Matrix Spike recoveries out of control. • Initial Calibration Check Standard (ICS) recovery low. • Field Duplicate RPD high
Beryllium	J / UJ	• Field Duplicate RPD high.
Manganese	R	• Matrix Spike recoveries were less than 30%. These samples were reanalyzed, and some recoveries remained below the acceptable limit.
Manganese	J	• Serial Dilution imprecision. • Matrix Spike recoveries out of control • Field duplicate RPD high. • Laboratory duplicate imprecision.
Molybdenum	J / UJ	• ICS recovery low.
Aroclor 1260	R	• Matrix Spike recoveries were out of control. These samples were reanalyzed. All reanalyses resulted in acceptable data..
Aroclor 1260	J / UJ	• Hold times were slightly exceeded.

TABLE 4-3

REASONS FOR QUALIFICATION OF RADIOLOGICAL DATA

Analyte	Qualifier (s)	Primary Reasons for Qualification
Radium 226	J / UJ	• Laboratory duplicate imprecision. • Field duplicate imprecision. • Calibration deficiency. • High background.
Radium -228	J / UJ	• Elevated TPU. • Calibration deficiency. • Laboratory blank contamination
Thorium-228	J / UJ	• Tracer yield out of control. • Laboratory duplicate imprecision. • Matrix Spike recovery out of control. • Laboratory blank contamination.
Thorium-230	J / UJ	• Tracer yield out of control. • Laboratory duplicate imprecision. • Matrix Spike recovery out of control. • Laboratory blank contamination.
Thorium-232	J / UJ	• Tracer yield out of control. • Laboratory duplicate imprecision. • Matrix Spike recovery out of control. • Laboratory blank contamination.
Total Uranium	J / UJ	• Elevated TPU. • Laboratory duplicate imprecision. • Laboratory blank contamination.
Cesium-137	J / UJ	• Elevated TPU. • Laboratory duplicate imprecision.

SECTION 5.0
CERTIFICATION RESULTS AND CONCLUSIONS

The current pass/fail certification results for A1PI CUs are summarized in Table 5-1, Area 1 Phase I Certification Results. The determination of successful certification or certification failure was based on a review of certification sample data from each CU against criteria discussed in Section 2.5. As indicated in Table 5-1, all the CUs in A1PI have passed certification. CUs O20, Q18-40, and P17-32 required additional corrective actions to attain the final certification criteria.

Initially, some CUs failed certification based upon the statistical analyses discussed in Section 2.5. Additional corrective actions aside from the designed excavation were taken for any CU that did not pass initial certification. Corrective actions included: collection of additional samples, and re-excavation of soil in the entire CU, or portions of a CU, to a sufficient depth that the CU under question passed certification. Each CU was re-certified for the COC(s) for which it had initially failed. A discussion of the CUs which required corrective actions to complete certification is included in Section 5.3.

5.1 FRLs RELATIVE TO THE UCLs

All CUs passed final FRL certification relative to the average concentration of COCs in residual A1PI soils. Additionally, the total uranium ALARA goal of 50 mg/kg in residual soils was not an issue in A1PI. Three CUs required additional corrective actions; i.e., excavation of more than the designed six inches, to pass FRL certification analyses. These CUs were Q18-40 for radium-226, P17-32 for arsenic, and O20 for radium-228.

5.1.1 Q18-40 Radium-226

Twelve certification samples were collected and analyzed for primary radiological COCs in CU Q18-40 after the CU had been initially excavated. Of the 12 sample results, 3 were above the radium-226 FRL of 1.7 mg/kg. The original certification sample locations and results for radium-226 within Q18-40 are depicted in Figure 5-1, Original Radium-226 Certification Results in Q18-40. CU Q18-40 initially failed FRL certification for radium-226 based on statistical analysis, with an upper confidence limit of 1.80 pCi/g, and a probability of 13.5% that the mean concentration is above the radium-226 FRL. These results are shown in Table 5-2, Radium-226 Certification Results and Statistics in Q18-49 Before Corrective Action. Corrective actions taken for this CU are discussed in Section 5.3.

5.1.2 P17-32 Arsenic

Fourteen certification samples were collected in CU P17-32, and analyzed for inorganic COCs. Of the 14 sample results, 7 were above the arsenic FRL of 12 mg/kg. The original certification sample locations and results for arsenic within P17-32 are depicted in Figure 5-2, Original Arsenic Certification Results in P17-32. CU P17-32 failed certification for arsenic based on statistical analysis, with an upper confidence limit of 13.05 mg/kg, and a probability of 41.1% that the mean concentration is above the FRL. These results are shown in Table 5-3, Arsenic Certification Results and Statistics in CU P17-32 Before Corrective Action. Corrective action taken for this CU is discussed in Section 5.3.

5.1.3 O20 Radium-228

Twelve certification samples were collected in CU O20 and analyzed for primary radiological COCs. Five of the 12 results for radium-228 were above the 1.8 pCi/g FRL. The original certification sample locations and results for radium-228 are depicted in Figure 5-3, Original Radium-228 Certification Results in O20. CU O20 failed the certification for radium-228 with a UCL of 1.86 pCi/g, and a probability of 11.6% that the mean concentration is above the FRL. The statistical analysis is shown in Table 5-4, Radium-228 Certification Results and Statistics in CU O20 Before Corrective Action. The corrective action taken for this CU is discussed in Section 5.3.

5.2 HOT SPOT DETERMINATION

All CUs passed final certification relative to the "hot spot" criterion of COCs in residual soils of A1PI. Only CU O20 for total uranium required an additional corrective action to pass the "hot spot" criterion of 2 x FRL.

5.2.1 O20 Total Uranium

Based upon the certification sample results, CU O20 failed certification for total uranium due to a concentration of 205.4 mg/kg in a single sample point compared with the 2 x FRL criterion of 164 mg/kg. The original certification sample locations and results for total uranium within O20 are depicted in Figure 5-4, Original Total Uranium Results in O20. The O20 total uranium original certification sample results and statistics are summarized in Table 5-5, Total Uranium Certification Results And Statistics O20 Before Corrective Action. Corrective action taken for this CU is discussed in Section 5.3.

5.3 ADDITIONAL CORRECTIVE ACTIONS FOR FAILING CUs

5.3.1 Q18-40 Radium-226 Corrective Action

As a result of the initial certification failure for radium-226 in CU Q18-40, the following actions were taken as agreed upon with the regulatory agencies. Since the original certification results demonstrated that the area of contamination appeared to be primarily located in the southern portion of the CU, the CU was divided into two new CUs. The 482825 northing coordinate line was used to bisect the CU. The northern CU was labeled Q18-40A, and the southern CU was labeled Q18-40B. The two CUs were then divided into 16 sub-CUs, as shown in Figure 5-5, New CUs Q18-40A and Q18-40B and Systematic Random Sampling Locations within Each. The plan to determine the depth of regional excavation required to remove contaminated radium-226 soil for Q18-40A and Q18-40B is discussed in Sections 5.3.2 and 5.3.3, respectively.

5.3.2 Q18-40A

In Q18-40A, five original Q18-40 sample locations and their radium-226 results were retained for radium-226 certification results. These locations are #2, #5, #8, #9, and #11 in Figure 5-1, and #6, #14, #7, #15, and #4 in Q18-40A in Figure 5-5. These sample locations and their analytical laboratory results serve as the radium-226 results for each of their respective subunits. Sample locations were randomly selected in the other 11 subunits in Q18-40; these are shown in Figure 5-5.

Using the Geoprobe® Technique, soil core samples were collected in 6 inch intervals at the 16 locations to a depth of 24 inches in Q18-40A (see Figure 5-5). For the initial five sample locations, the 6-12 inch interval was submitted for analysis, and the 12-18 inch and 18-24 inch intervals were archived. The other 11 locations were sampled at both the 0-6 inches and the 6-12 inch intervals, and samples were submitted for radium-226 analysis. The 12-18 and 18-24 inch intervals were archived. Based upon the statistical evaluation of the radium-226 data shown in Table 5-6, Q18-40A Post Corrective Action 0-6 inch and 6-12 inch Radium-226 Statistics, Q18-40A passed certification analyses at the 0-6 inch interval. This evaluation was completed using the original 5 sample points and the additional 11 samples. No futher corrective action is necessary. Furthermore, the 6-12 inch interval also passed certification and this data is also presented in Table 5-6.

5.3.3 Q18-40B

Using the Geoprobe® Technique, a soil core was collected to a depth of 24 inches at each of the 16 random points within Q18-40B. The cores were divided into 4 discrete 6-inch increments. Except for WAC

attainment samples submitted for total uranium analysis, the 0-6 inch samples were discarded, since this increment was removed due to demonstrated radium-226 contamination.

The 6-12 inch and 12-18 inch intervals were collected and analyzed for radium-226, and the 18-24 inch intervals was archived. Based upon the statistical evaluation of the radium-226 data shown in Table 5-7, Q18-40B Post Corrective Action 6-12 inch and 12-18 inch Radium-226 Statistics, Q18-40B passed certification analyses at the 6-12 inch interval. Furthermore, the 12-18 inch interval also passed certification and this data is also presented in Table 5-7. Based on these results, the excavtion was limited to 6 inches as shown in Figure 5-6, Q18-40 Re-excavation. No futher corrective action is necessary.

5.3.4 P17-32 Arsenic Corrective Action

An additional six inches of surface soil was removed from CU P17-32 to address the certification failure for arsenic. The following plan was used to determine the depth of regional excavation required to remove soil contaminated with arsenic exceeding the FRL.

P17-32 was re-divided into 16 sub-units, and a random sampling location was selected within each sub-CU as shown in Figure 5-7, Random Sample Points in CU P17-32. Using the Geoprobe® Technique, a soil core was collected to a depth of 24 inches at each of the 16 random points. The cores were divided into four discrete six-inch increments. Except for WAC attainment samples submitted for total uranium analysis, the 0-6 inch samples were discarded, since this increment was removed due to demonstrated arsenic contamination. The 6-12 inch, 12-18 inch and 18-24 inch samples were analyzed as follows:

- All 16 of the 6-12 inch delineation increments were analyzed using the graphite furnace atomic adsorption method.
- Had the 6-12 inch sample results shown arsenic concentrations above the FRL, the 12-18 inch delineation increments would have been analyzed.

When results from a delineation increment revealed no arsenic contamination, the archived certification portions of that increment were validated and used as the P17-32 arsenic certification data. Based upon the statistical evaluation of the arsenic data shown in Table 5-8, P17-32 Post-Excavation Arsenic Statistics, P17-32 passed certification analyses at the 6-12 inch interval. The 0-6 inch interval across the entire P17-32 CU was excavated. Pre and post-excavation as-built surveys were used to confirm proper excavated depth of the CU as shown in Figure 5-8, P17-32 Re-Excavation.

5.3.5 O20 Corrective Actions

In O20, the statistical analysis of the original certification samples indicated that CU O20 failed both the average concentration criterion, and the hot spot criterion of 2 x FRL. For radium-228, the UCL of 1.86 pCi/g exceeded the FRL of 1.8 pCi/g, and a single total uranium result of 205.4 mg/kg exceeded the 2 x FRL criterion (FRL = 82 mg/kg).

Hot Spot Failure

The following corrective actions were taken to address the total uranium hot spot:

- In order to confirm the area of contamination, physical samples were collected at twelve sample locations to delineate the extent of contaminated soil. Figure 5-9, Sampling Locations in O-20, shows the locations of the samples. One location was at the hot spot (#1 in Figure 9), nine locations were used to bound the area (#2, #4, #5, #6, #7, #8, #9, #10, #11), and two locations were within the bounded area (#3, #12). Table 5-9, CU O20 Sample Locations, shows the sample identification number and the depths that were analyzed. The samples were collected and submitted for total uranium analysis.

- Figure 5-10, O20 Total Uranium Concentration 0"-6" Interval, shows the results from the top interval. Figure 5-11, O20 Total Uranium Concentration 6"-12" Interval, shows the results of the next interval, and Figure 5-12, O20 Total Uranium Concentration 12"-18" Interval, shows the results of the lowest interval. Since contamination above the FRL was seen at the 6" - 12" interval at the hot spot, and no contamination at the 12"-18" interval the depth of excavation was set at 12 inches.

- During actual excavation a radiological technician used a Gieger Moeller Beta/Gamma detector during excavation to ensure complete removal of the contamination. This resulted in a localized 3' x 5'area that was excavated, as shown in Figure 5-13, O20 Hot Spot Excavation.

- After the area was excavated, four confirmatory samples were taken in the area of the original hot spot. The total uranium results for these confirmatory samples were 4 mg/kg, 3 mg/kg, 6 mg/kg, and 35 mg/kg. Since all of these values are well below the FRL, another certification sample was taken at the hot spot location and submitted for analysis. The total uranium result for this sample was 12.8 mg/kg, demonstrating that the hot spot had been removed. The statistics for total uranium were recalculated using this result, and are presented in Appendix B.

Radium-228 Failure

The FRL for radium-228 is 1.8 pCi/g and the mean concentration found in O20 from the original certification samples was 1.65 pCi/g with a standard deviation of 0.42. However, the UCL was 1.86 pCi/g with a probability of 11.6% that the mean concentration is above the FRL. Given that the mean concentration was below the FRL, this failure was a result of the variance within the data set. The strategy to address this failure was to collect additional samples to increase the confidence level. The following corrective actions were taken:

- The CU was divided into 16 sub-CUs using the process described in Section 2.4.1.
- If a sample was not already located in the subunit, a sample location was randomly selected within that subunit. This resulted in 7 additional samples being taken in O20. See Figure 5-14, O20 Radium-228 Sample Locations.
- Using the additional samples the statistics were recalculated, which indicated that radium-228 in O20 meets the FRL criteria. Table 5-10, Radium-228 Statistics in O20 after Corrective Action, presents this data. No further action is necessary.

5.4 NORTH ACCESS ROAD FILL CERTIFICATION

The soil beneath the north access road was certified in place (in CUs NAR-3 and NAR-4), through the pavement, the macadam and compacted fill material underlying the road. WAC attainment samples were collected from the first 6-inch interval of the compacted clay fill material, and the next 6-inch interval of compacted clay fill material was archived for possible WAC attainment analysis. Certification samples were collected and submitted for analysis when "native clay material" was encountered. Generally, "native clay material" was found between 17 and 21 inches below the road surface.

Prior to the certification sampling of NAR-4, the depth to the "native clay material" was estimated to be up to 70 inches below surface in the northern portion of the CU, as shown in Figure 5-15, North Access Road Fill. This portion of the existing North Access Road will not be impacted by the relocation, as shown in Figure 5-16, NAR-4 and Planned Relocated North Access Road. Concern was expressed about the integrity of this large thickness of compacted fill material relative to soil FRLs and the 2 x FRL "hot spot" criterion Additionally, DOE does not want to excavate this area of the existing North Access Road, and wants to avoid the placement of clean material into the OSDF. Therefore, DOE proposed a strategy to collect certification analysis data for the compacted clay fill material in this portion of NAR-4 to make a certification determination. The strategy consisted of collecting additional certification samples from every 6-inch interval of compacted clay fill material encountered between the WAC attainment archive sample and the "native clay material". The samples collected in the compacted clay fill material for certification analysis are summarized in Table 5-11, NAR-4 Certification Samples. The determination for certification pass/fail for this material was conducted independently of the certification samples collected from "native clay material" for NAR-4. The same methodology of certification analyses as discussed in Section 2.5 was applied to the compacted clay fill material.

Based upon on the analytical data collected from the certification samples in the compacted clay fill, it was determined that the fill under the northern portion of NAR-4 is not contaminated, and it passed certification analyses relative to the average residual soil concentration of COCs, within the established confidence intervals relative to the soil FRLs, and according to the A1PI "hot spot" criterion of 2 x FRL. Appendix A includes statistical analyses of these data from NAR-4 for primary radiological COCs and secondary COCs. Therefore, the compacted clay fill material can be left in place, and excavation of the portion of the North Access Road that is planned to be left in place is unnecessary.

5.5 A1PI CERTIFICATION CONCLUSIONS

All of the CUs in A1PI have passed certification testing analyses relative to the determination of average residual soil concentrations within applicable confidence bounds (except for O20 for radium-228 and Q18-40 for Radium-226, which are pending), and relative to the 2 x FRL "hot spot" criterion implemented in A1PI. Corrective actions were or will be implemented for any CU that failed initial certification analyses. Final certification data are presented in Appendix A.

Based on these results, DOE has determined that the remedial actions conducted in A1PI have successfully attained the FRLs consistent with the approach described in this document. Remedial objectives in the OU5 ROD have been achieved and no further remedial actions are warranted in A1PI. The remaining sediment traps in A1PI will be removed during remedial activities in Area 1 Phase II. A1PI has been released for final land use that includes: construction of the northern portion of the OSDF and related infrastructure, placement of the relocated North Access Road, and contruction of miscellaneous support facilities.

TABLE 5-1

AREA 1 PHASE I CERTIFICATION UNITS RESULTS

CU Name	CU Type	Certification Determination		Corrective Action
		UCL	2 times FRL	CU Explanation
A1P1ST-1	Primary Radiological	Pass	Pass	
N19	Primary and Secondary Radiological	Pass	Pass	
NAR1	Primary Radiological	Pass	Pass	
NAR2	Primary Radiological	Pass	Pass	
NAR3	Primary Radiological	Pass	Pass	
NAR4	Primary Radiological	Pass	Pass	
NAR5	Primary Radiological	Pass	Pass	
NAR6	Primary Radiological	Pass	Pass	
O18	Primary Radiological	Pass	Pass	
O19	Primary Radiological	Pass	Pass	
O20	Primary Radiological	Pass	Pass	Total Uranium > 2x FRL, UCL Ra-228 >FRL
P17-22	Primary Radiological	Pass	Pass	
P17-31	Primary Radiological	Pass	Pass	
P17-32	Primary Radiological	Pass	Pass	
P17-33	Primary Radiological	Pass	Pass	
P17-40	Primary Radiological	Pass	Pass	
P18	Primary Radiological	Pass	Pass	
P18-11	Primary Radiological	Pass	Pass	
P18-12	Primary Radiological	Pass	Pass	
P18-20	Primary Radiological	Pass	Pass	
P18-40	Primary Radiological	Pass	Pass	
P19	Primary Radiological	Pass	Pass	
P19-20	Primary Radiological	Pass	Pass	
P19-23	Primary Radiological	Pass	Pass	
P19-40	Primary Radiological	Pass	Pass	
P20-30	Primary Radiological	Pass	Pass	
PUMP-1	Primary and Secondary Radiological	Pass	Pass	
Q16-33	Primary Radiological	Pass	Pass	
Q16-34	Primary Radiological	Pass	Pass	
Q17-10	Primary and Secondary Radiological	Pass	Pass	
Q17-30	Primary and Secondary Radiological	Pass	Pass	
Q18-10	Primary and Secondary Radiological	Pass	Pass	
Q18-30	Primary Radiological	Pass	Pass	
Q18-40	Primary Radiological except Ra-226	Pass	Pass	UCL Ra-226 >FRL
Q18-40A	Radium 226 Only	Pass	Pass	
Q18-40B	Radium 226 Only	Pass	Pass	
Q19-10	Primary Radiological	Pass	Pass	
Q19-20	Primary Radiological	Pass	Pass	
Q19-30	Primary Radiological	Pass	Pass	
Q19-40	Primary Radiological	Pass	Pass	
Q20-10	Primary Radiological	Pass	Pass	
Q20-20	Primary Radiological	Pass	Pass	
Q20-30	Primary Radiological	Pass	Pass	
Q20-40	Primary Radiological	Pass	Pass	
Q18-40a	Radium-226	Pass	Pass	

TABLE 5-1
(continued)

CU Name	CU Type	Certification Determination		Corrective Action
		UCL	2 times FRL	CU Explanation
O18-40b	Radium-226	Pass	Pass	
A1P1ST-1	Metals	Pass	N/A	
N19	Metals	Pass	N/A	
NAR-1	Metals	Pass	N/A	
NAR-2	Metals	Pass	N/A	
NAR-3	Metals	Pass	N/A	
NAR-4	Metals	Pass	N/A	
NAR-5	Metals	Pass	N/A	
NAR-6	Metals	Pass	N/A	
O18	Metals	Pass	N/A	
O19	Metals	Pass	N/A	
O20	Metals	Pass	N/A	
P17-22	Metals	Pass	N/A	
P17-31	Metals	Pass	N/A	
P17-32	Metals	Pass	N/A	UCL Arsenic >FRL
P17-33	Metals	Pass	N/A	
P17-40	Metals	Pass	N/A	
P18	Metals	Pass	N/A	
P18-11	Metals	Pass	N/A	
P18-12	Metals	Pass	N/A	
P18-13	Metals	Pass	N/A	
P18-14	Metals	Pass	N/A	
P18-31	Metals	Pass	N/A	
P18-32	Metals	Pass	N/A	
P19	Metals	Pass	N/A	
P20	Metals	Pass	N/A	
PUMP-1	Metals	Pass	N/A	
Q17	Metals	Pass	N/A	
Q18	Metals	Pass	N/A	
Q19	Metals	Pass	N/A	
Q20	Metals	Pass	N/A	
NAR1	PCB	Pass	N/A	
O18	PCB	Pass	N/A	
P17-31	PCB	Pass	N/A	
P17-33	PCB	Pass	N/A	
P18-11	PCB	Pass	N/A	
P18-13	PCB	Pass	N/A	
PUMP-1	PCB	Pass	N/A	

TABLE 5-2

RADIUM-226 CERTIFICATION RESULTS AND STATISTICS IN Q18-40 BEFORE CORRECTIVE ACTION

Sample Number (see Figure 5-1)	Radium-226 Result (pCi/g)	Result Validated?
1	1.29	Yes
2	1.57	Yes
3	1.25	Yes
4	1.25	Yes
5	1.94	Yes
6	2.61	Yes
7	1.04	Yes
8	1.07	Yes
9	1.4	Yes
9*	1.64	Yes
10	1.06	Yes
11	1.25	Yes
12	2.42	Yes

* Duplicate

STATISTICS FOR RADIUM-226 IN CU Q18-40 :

FRL:	1.7 pCi/g
Samples:	12
Detections	12
Maximum:	2.61 pCi/g
Mean:	1.52 pCi/g
Standard Deviation:	0.53 pCi/g
Upper Confidence Limit:	1.80 pCi/g
t-Statistic	1.16
Probability	13.5%
Pass/Fail:	Fail

TABLE 5-3

ARSENIC CERTIFICATION RESULTS AND STATISTICS IN CU P17-32 BEFORE CORRECTIVE ACTION

Sample Number (see Figure 5-2)	Arsenic Result (mg/kg) before	Result Validated?
1	10.3	Yes
2	14.8	Yes
3	16.9	Yes
4	10.7	Yes
5	14.1	Yes
6	7.1	Yes
7	13.8	Yes
8	7.4	Yes
9	10.8	Yes
10	14.6	Yes
11	16.0	Yes
12	7.1	Yes
13	13.9	Yes
14	7.5	Yes

STATISTICS FOR ARSENIC IN CU P17-32 :

FRL:	12 mg/kg
Samples:	14
Detections	14
Maximum:	16.9 mg/kg
Mean:	11.79 mg/kg
Standard Deviation:	3.52 mg/kg
Upper Confidence Limit:	13.05 mg/kg
t-Statistic	0.23
Probability	41.1%
Pass/Fail:	Fail

TABLE 5-4

RADIUM-228 CERTIFICATION RESULTS AND STATISTICS IN CU O20 BEFORE CORRECTIVE ACTION

Sample Number (see Figure 5-3)	Radium-228 Result (mg/kg)	Result Validated?
1	1.27	Yes
2	2.46	Yes
3	1.6	Yes
4	1.51	Yes
5	1.99	Yes
6	1.89	Yes
6*	1.85	Yes
7	1.65	Yes
8	1.24	Yes
9	0.84	Yes
10	1.95	Yes
11	1.7	Yes
12	1.7	Yes

* Duplicate

STATISTICS FOR RADIUM-228 IN CU O20

FRL:	1.8
Samples:	12
Detections:	12
Maximum:	2.46
Mean:	1.65
Standard Deviation:	0.42
Upper Confidence Limit:	1.86
t-Statistic:	1.26
Probability:	11.6%
Pass/Fail:	Fail
2 x FRL	Pass

TABLE 5-5

TOTAL URANIUM CERTIFICATION RESULTS AND STATISTICS IN CU O20 BEFORE CORRECTIVE ACTION

Sample Number (see Figure 5-4)	Total Uranium Result (mg/kg)	Result Validated?
1	22.0	Yes
2	52.8	Yes
3	47.4	Yes
4	9.1	Yes
5	32.4	Yes
6	29.6	Yes
6*	28.3	Yes
7	16.2	Yes
8	205.4	Yes
9	3.5	Yes
10	38.4	Yes
11	13.7	Yes
12	9.4	Yes

* Duplicate

STATISTICS FOR TOTAL URANIUM IN CU O20 (FRL = 82 mg/kg)

Samples:	12
Maximum:	205.4
Mean:	37.8
Standard Deviation:	55.68
Upper Confidence Limit:	66.6
Pass/Fail:	Pass
2 x FRL (Pass/Fail)	Fail

TABLE 5-6

Q18-40A POST CORRECTIVE ACTION 0-6 INCH AND 6-12 INCH RADIUM-226 STATISTICS

Sample Number (see Figure 5-5)	Radium-226 (pCi/g) 0-6 Inch Interval	Radium-226 (pCi/g) 6-12 Inch Interval
1	1.24	1.40
2	1.16	1.30
3	1.12	1.64
4	1.25**	1.30
5	1.22	1.18
*5	1.20	1.24
6	1.57**	1.43
7	1.07**	1.53
8	1.19	1.34
9	0.98	1.46
10	1.26	1.67
11	1.30	1.36
12	1.14	1.47
13	1.28	1.51
14	1.94**	1.28
15	1.40**	1.38
15*	1.64**	N/A
16	1.30	1.51

* Duplicate

** Sample Points 4, 6, 7, 14, and 15 are the original radium-226 results from Q18-40.

STATISTICS FOR RADIUM-226 IN Q18-40A 0-6 AND 6-12 INTERVALS

	0-6 Inch	6-12 Inch
FRL:	1.7	1.7
Samples:	16	16
Detections:	16	16
Maximum:	1.94	1.67
Mean:	1.28	1.43
Standard Deviation:	0.23	.013
Upper Confidence Limit:	1.38	1.48
t-Statistic:	7.28	8.62
Probability:	0.0%	0.0%
Pass/Fail:	Pass	Pass
2 x (P/F)	Pass	Pass

TABLE 5-7

Q18-40B POST CORRECTIVE ACTION 6-12 INCH AND 12-18 INCH RADIUM-226 STATISTICS

Sample Number (see Figure 5-5)	Radium-226 (pCi/g) 6-12 Inch Interval	Radium-226 (pCi/g) 12-18 Inch Interval
1	1.49	1.22
2	1.28	1.38
3	1.34	1.37
4	1.35	1.43
5	1.45	1.49
*5	1.43	1.37
6	1.28	0.97
7	1.71	1.29
8	1.51	1.03
9	1.30	1.29
10	1.50	1.30
11	1.47	1.56
12	1.60	1.49
13	1.38	1.46
14	1.17	1.70
15	1.59	0.98
16	1.48	1.38

* Duplicate

STATISTICS FOR RADIUM-226 IN Q18-40B 6-12 AND 12-18 INTERVALS

	6-12 Inch	12-18 Inch
FRL:	1.7	1.7
Samples:	16	16
Detections:	16	16
Maximum:	1.71	1.70
Mean:	1.43	1.33
Standard Deviation:	0.14	0.20
Upper Confidence Limit:	1.49	1.42
t-Statistic:	7.63	7.32
Probability:	0.0%	0.0%
Pass/Fail:	Pass	Pass
2 x (P/F)	Pass	Pass

TABLE 5-8

P17-32 POST-EXCAVATION ARSENIC STATISTICS

Sample Number (see Figure 5-7)	Arsenic Result (mg/kg)	Result Validated?
1	11.3	Yes
2	7.7	Yes
3	11	Yes
4	11.3	Yes
5	8.6	Yes
6	5	Yes
7	5	Yes
7*	4.5	Yes
8	11	Yes
9	10.5	Yes
10	12	Yes
11	6.5	Yes
12	7	Yes
13	11.6	Yes
14	9.8	Yes
15	4.6	Yes
16	5.8	Yes
17	8.5	Yes

* Duplicate

STATISTICS FOR ARSENIC IN P17-32 POST-EXCAVATION

FRL:	12
Samples:	16
Detections:	16
Maximum:	11.6
Mean:	9.17
Standard Deviation:	2.29
Upper Confidence Limit:	9.94
t-Statistic:	4.94
Probability:	0.0%
Pass/Fail:	Pass

TABLE 5-9

CU O20 SAMPLE LOCATIONS

Sample Point	Sample ID Number[a]	Northing Coordinate	Easting Coordinate	Depth Increments Analyzed
1[b]	O20HS-x-R-1	484092.69	1349877.1	0"-6", 6"-12", 12"-18"
1[b]	O20HS-x-R-1-D	484092.69	1349877.1	0"-6"
2	O20HS-x-R-2	484096.38	1349878.08	0"-6", 6"-12", 12"-18"
3	O20HS-x-R-3	484078.87	1349873.0	0"-6", 6"-12", 12"-18"
3	O20HS-x-R-3-D	484078.87	1349873.0	0"-6"
4	O20HS-x-R-4	484109.14	1349833.97	0"-6"
5	O20HS-x-R-5	484094.38	1349829.6	0"-6", 6"-12", 12"-18"
6	O20HS-x-R-6	484079.88	1349824.88	0"-6"
7	O20HS-x-R-7	484069.74	1349859.0	0"-6", 6"-12", 12"-18"
8	O20HS-x-R-8	484062.17	1349885.59	0"-6"
9	O20HS-x-R-9	484068.66	1349898.94	0"-6", 6"-12", 12"-18"
10	O20HS-x-R-10	484075.56	1349914.21	0"-6", 6"-12", 12"-18"
11	O20HS-x-R-11	484084.99	1349917.12	0"-6"
12	O20HS-x-R-12	484096.03	1349846.75	0"-6", 6"-12", 12"-18"

[a] The "x" in the sample ID number was replaced by the number that indicates the sample depth. A 1 represents the 0"-6" sample depth, a 2 represents the 6"-12" sample depth and a 3 represents the 12"-18" sample depth.

[b] Location of original certification sample with total uranium concentration of 205.4 mg/kg.

TABLE 5-10

RADIUM-228 STATISTICS IN O20 AFTER CORRECTIVE ACTION

Sample Number (see Figure 5-14)*	Radium-228 Result (pCi/g)	Result Validated?
Original 1	1.27	Yes
Original 2	2.46	Yes
Original 3	1.6	Yes
Original 4	1.51	Yes
Original 5	1.99	Yes
Original 6	1.89	Yes
Original 6**	1.85	Yes
Original 7	1.65	Yes
Original 8	1.24	Yes
Original 9	0.84	Yes
Original 10	1.95	Yes
Original 11	1.7	Yes
Original 12	1.7	Yes
New 1	1.61	Yes
New 2	1.15	Yes
New 3	1.51	Yes
New 4	1.49	Yes
New 5	1.49	Yes
New 6	1.4	Yes
New 7	1.35	Yes

* Original Sample Points 1 - 12 in O20 as noted in Figure 5 -13 as a circle, New sample Points as noted in Figure 5 -14 as triangles.
** Duplicate

STATISTICS FOR RADIUM-228 IN O20 AFTER CORRECTIVE ACTION

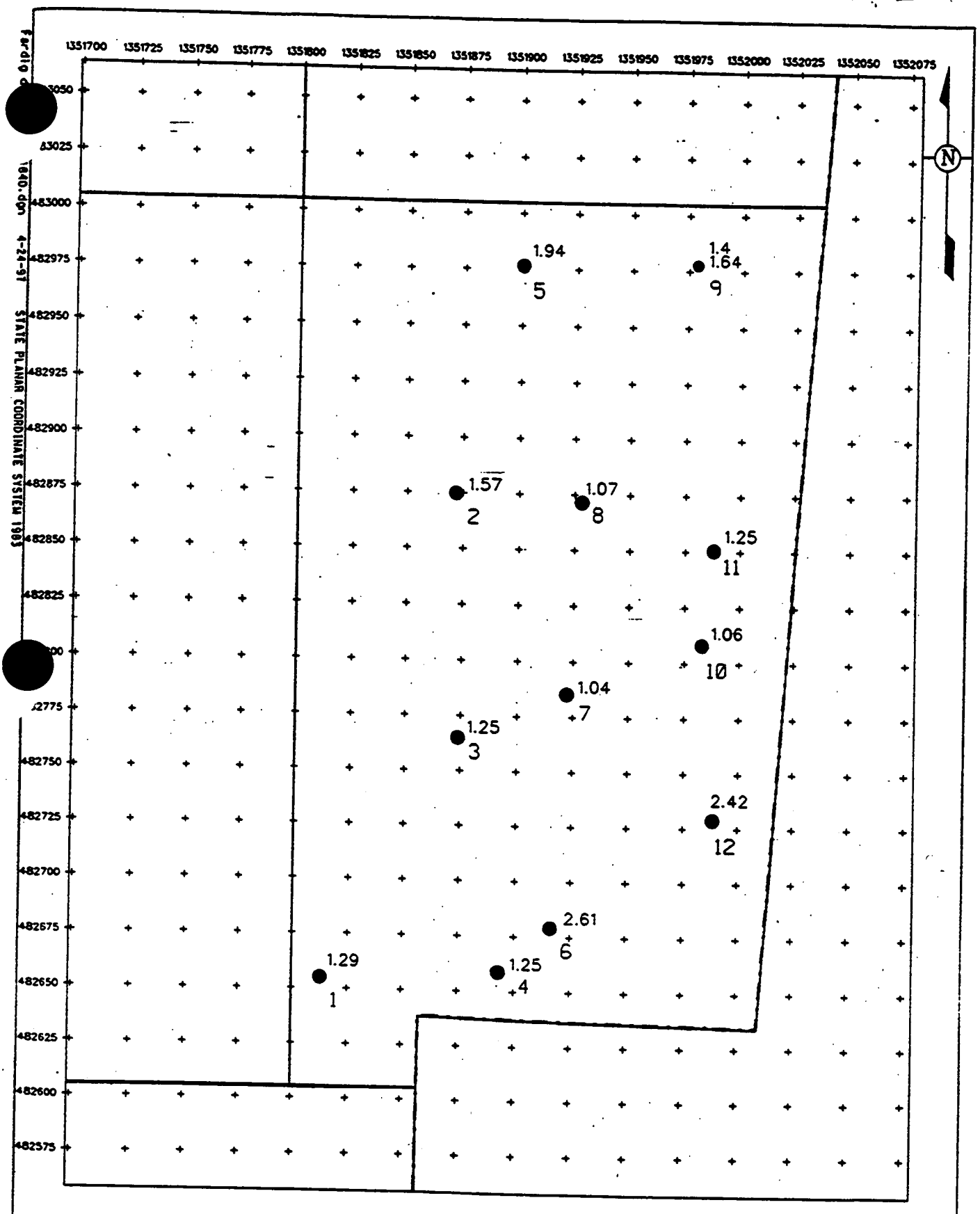
FRL:	1.8
Samples:	19
Detections:	19
Maximum:	2.46
Mean:	1.57
Standard Deviation:	0.35
Upper Confidence Limit:	1.71
t-Statistic:	2.87
Probability:	0.5%
Pass/Fail:	Pass
2 x (P/F)	Pass

TABLE 5-11

NAR-4 CERTIFICATION SAMPLES

NAR-4 Location	Sample Number	Sample Interval Depth below road surface (inches)
NAR-4-1	NAR-4-1C-(X)	16-20
NAR-4-2	NAR-4-2C-(X)	15-19
NAR-4-3	NAR-4-3C-(X)	19-23
NAR-4-4	NAR-4-4C-(X)	14-18
NAR-4-5	NAR-4-5C-(X)	14-18
NAR-4-6	NAR-4-6C-(X)	24-28
NAR-4-7	NAR-4-7C-(X)	13-17
NAR-4-8	NAR-4-8C-(X)	15-21
NAR-4-8	NAR-4-8C2-(X)	38-42
NAR-4-9	NAR-4-9C2-(X)	10-14
NAR-4-9	NAR-4-9C-(X)	14-18
NAR-4-10	NAR-4-10C2-(X)	15-21
NAR-4-10	NAR-4-10C-(X)	27-31
NAR-4-11	NAR-4-11C2-(X)	13-19
NAR-4-11	NAR-4-11C-(X)	39-43
NAR-4-12	NAR-4-12C2-(X)	12-18
NAR-4-12	NAR-4-12C3-(X)	18-23
NAR-4-12	NAR-4-12C-(X)	23-27
NAR-4-13	NAR-4-13C2-(X)	18-24
NAR-4-13	NAR-4-13C3-(X)	24-30
NAR-4-13	NAR-4-13C-(X)	30-34
NAR-4-14	NAR-4-14C2-(X)	14-20
NAR-4-14	NAR-4-14C3-(X)	20-26
NAR-4-14	NAR-4-14C4-(X)	26-32
NAR-4-14	NAR-4-14C5-(X)	32-38
NAR-4-14	NAR-4-14C6-(X)	38-44
NAR-4-14	NAR-4-14C7-(X)	44-50
NAR-4-14	NAR-4-14C8-(X)	50-56

NAR-4 Location	Sample Number	Sample Interval Depth below road surface (inches)
NAR-4-14	NAR-4-14C-(X)	59-63
NAR-4-15	NAR-4-15C2-(X)	12-18
NAR-4-15	NAR-4-15C3-(X)	18-24
NAR-4-15	NAR-4-15C4-(X)	24-30
NAR-4-15	NAR-4-15C5-(X)	30-36
NAR-4-15	NAR-4-15C6-(X)	36-42
NAR-4-15	NAR-4-15C7-(X)	42-48
NAR-4-15	NAR-4-15C8-(X)	48-54
NAR-4-15	NAR-4-15C9-(X)	54-60
NAR-4-15	NAR-4-15C10-(X)	60-66
NAR-4-15	NAR-4-15C11-(X)	66-70
NAR-4-16	NAR-4-16C2-(X)	13-19
NAR-4-16	NAR-4-16C3-(X)	19-25
NAR-4-16	NAR-4-16C4-(X)	25-31
NAR-4-16	NAR-4-16C5-(X)	31-37
NAR-4-16	NAR-4-16C6-(X)	37-43
NAR-4-16	NAR-4-16C7-(X)	43-49
NAR-4-16	NAR-4-16C8-(X)	49-55
NAR-4-16	NAR-4-16C9-(X)	55-61
NAR-4-16	NAR-4-16C10-(X)	61-67
NAR-4-16	NAR-4-16C11-(X)	67-70
NAR-4-16	NAR-4-16C-(X)	70-74



NOTE: RESULTS ARE IN pCi/g

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SCALE

60 30 0 60 FEET

FIGURE 5-1. ORIGINAL RADIUM-226 CERTIFICATION RESULTS IN Q18-40

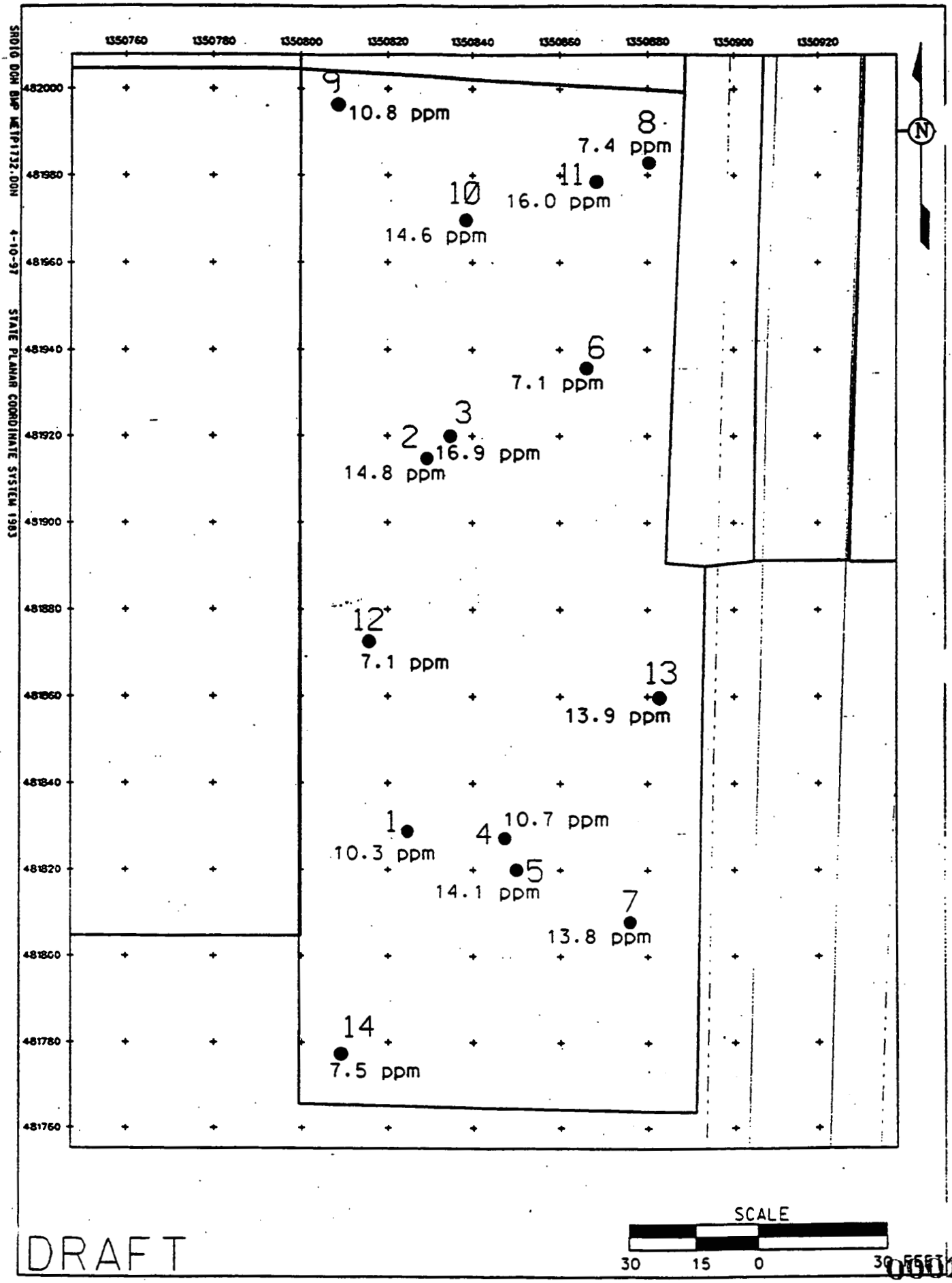

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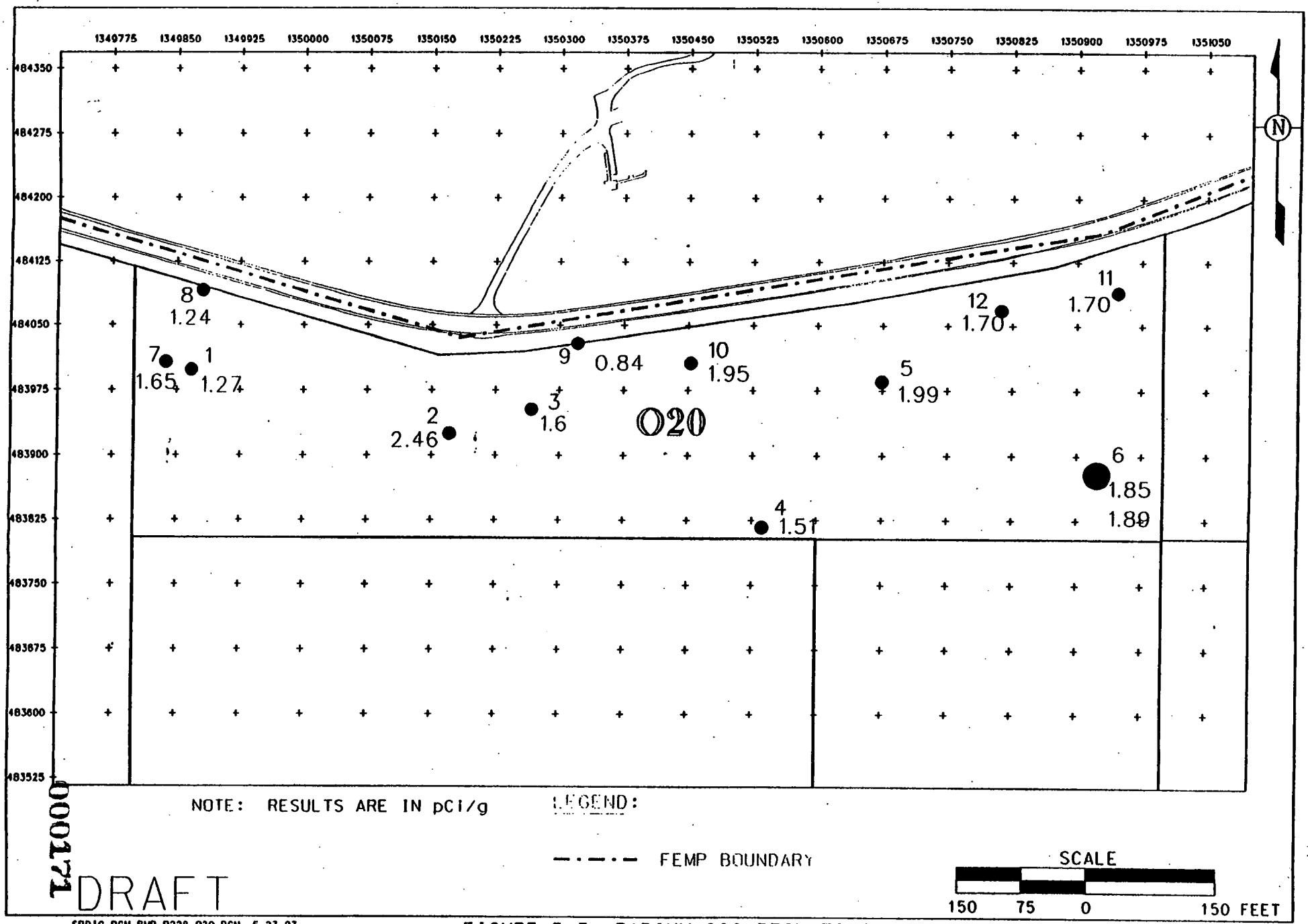
FIGURE 5-2. ORIGINAL ARSENIC CERTIFICATION RESULTS IN P17-32



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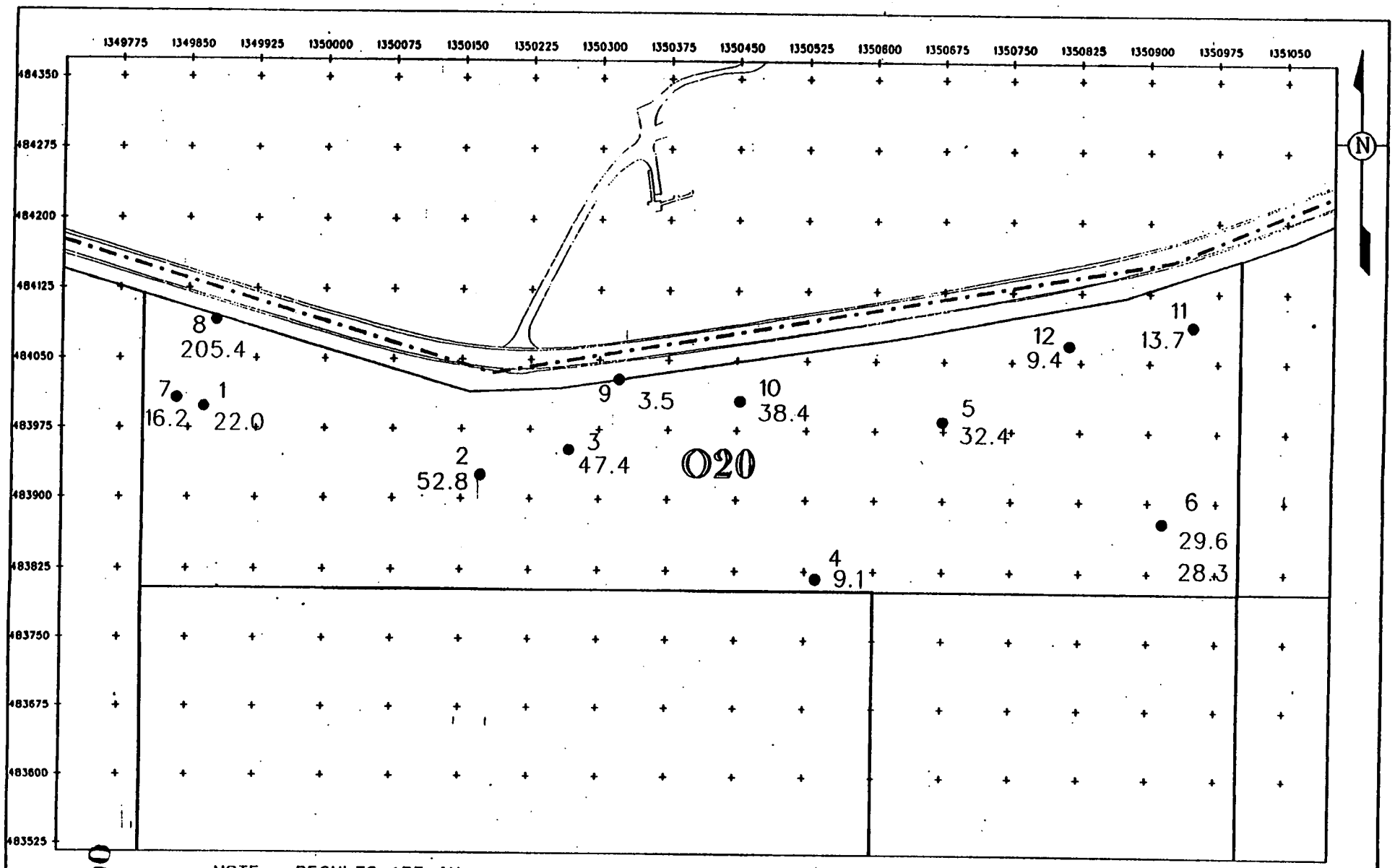
SRDIO DGN BMP R228-020.DGN 5-27-97
STATE PLANAR COORDINATE SYSTEM 1983

FIGURE 5-3 RADIUM-228 RESULTS IN O-20

1 of 2



NOTE: RESULTS ARE IN ppm

SCALE

150 75 0

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STA1 [redacted] ORDINATE SYSTEM 1983

FIGURE 5-4 ORIGINAL [redacted] URANIUM RESULTS IN O-20 [redacted] ET

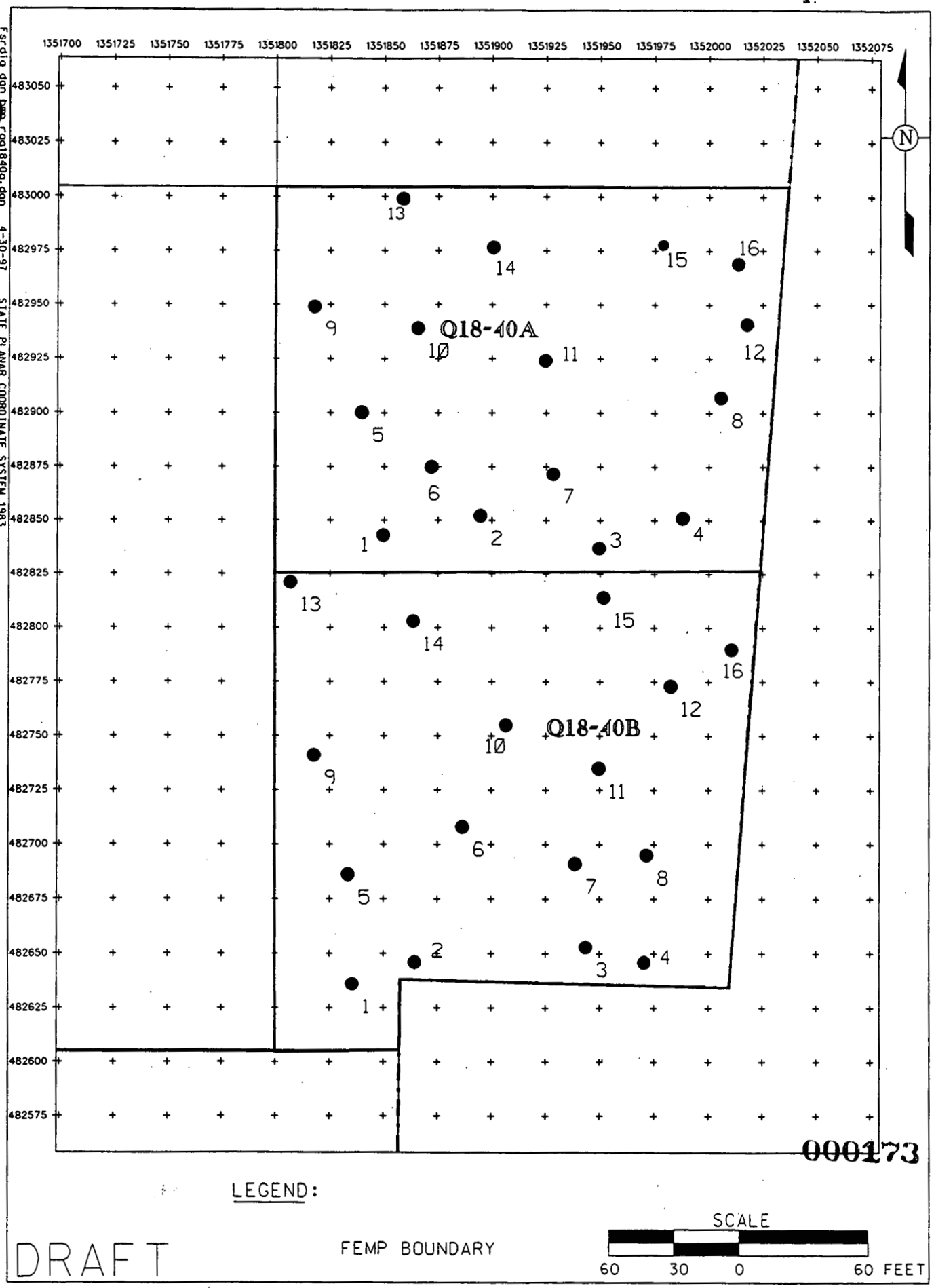

FIGURE 5-5. NEW CUs Q18-40A AND Q18-40B AND THE SYSTEMATIC RANDOM SAMPLING LOCATIONS WITHIN EACH

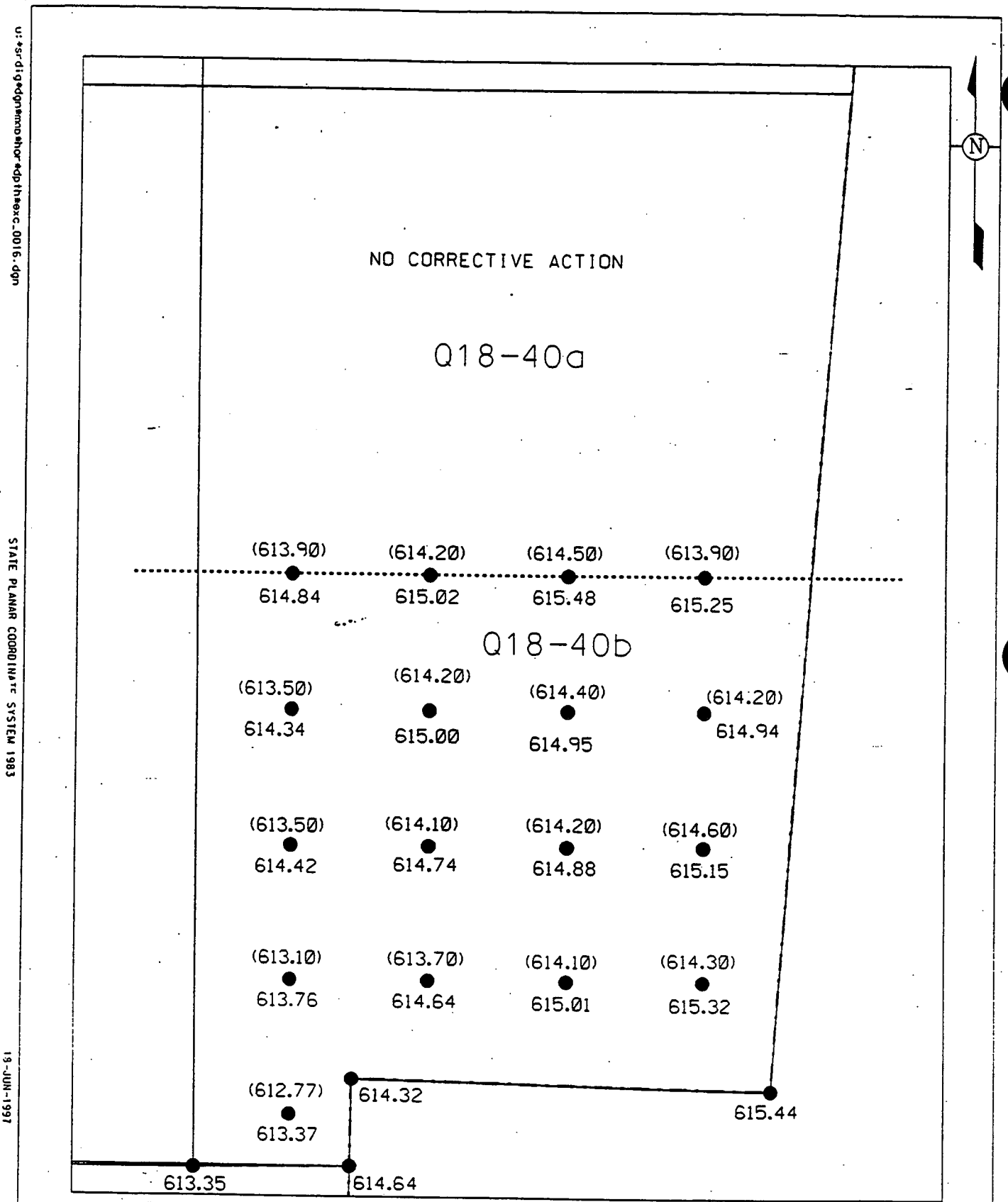

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FIGURE 5-6. Q18-40 RE-EXCAVATION

FIGURE 5-7. RANDOM SAMPLE POINTS IN CU P17-32

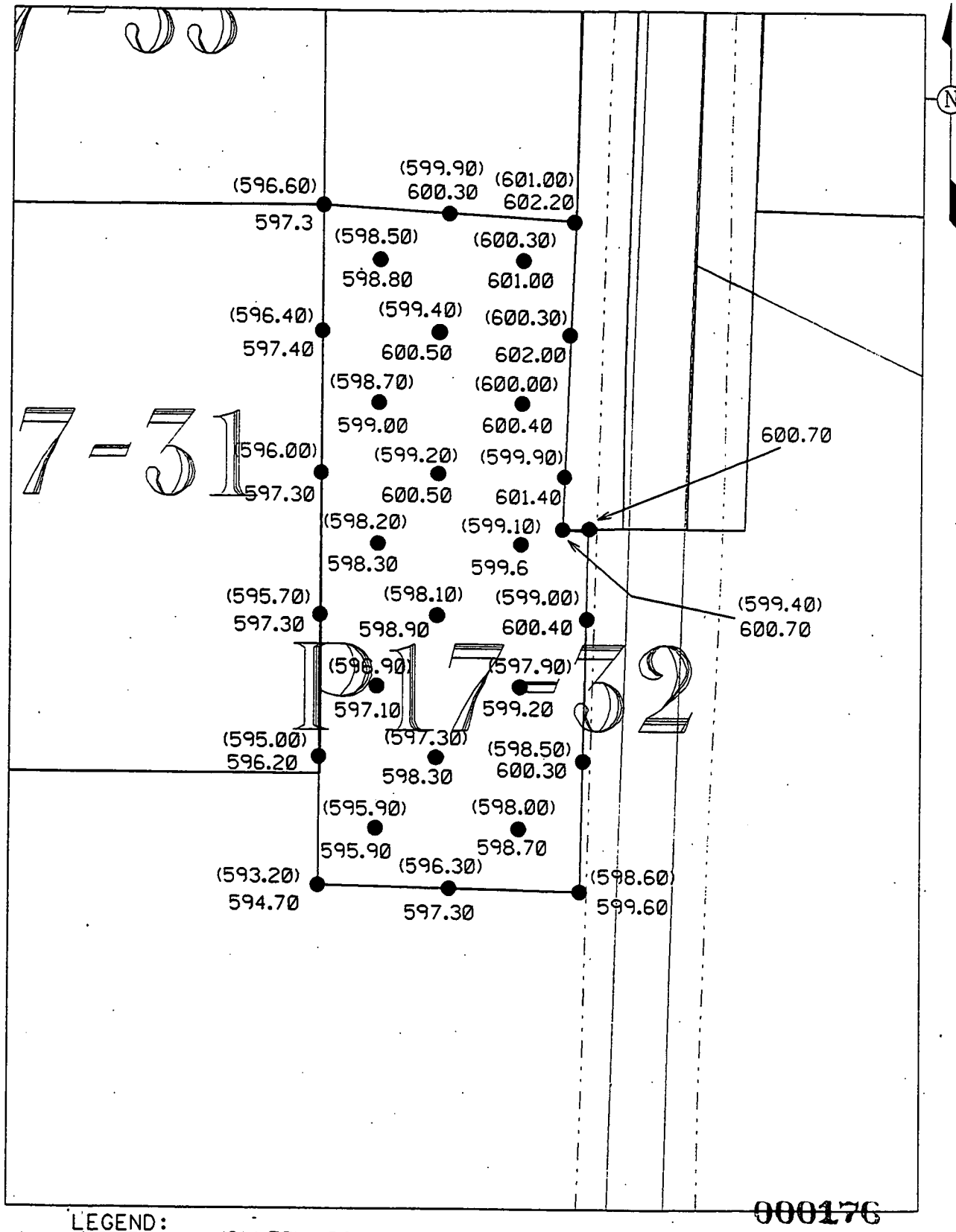


FIGURE 5-8. P17-32 RE-EXCAVATION

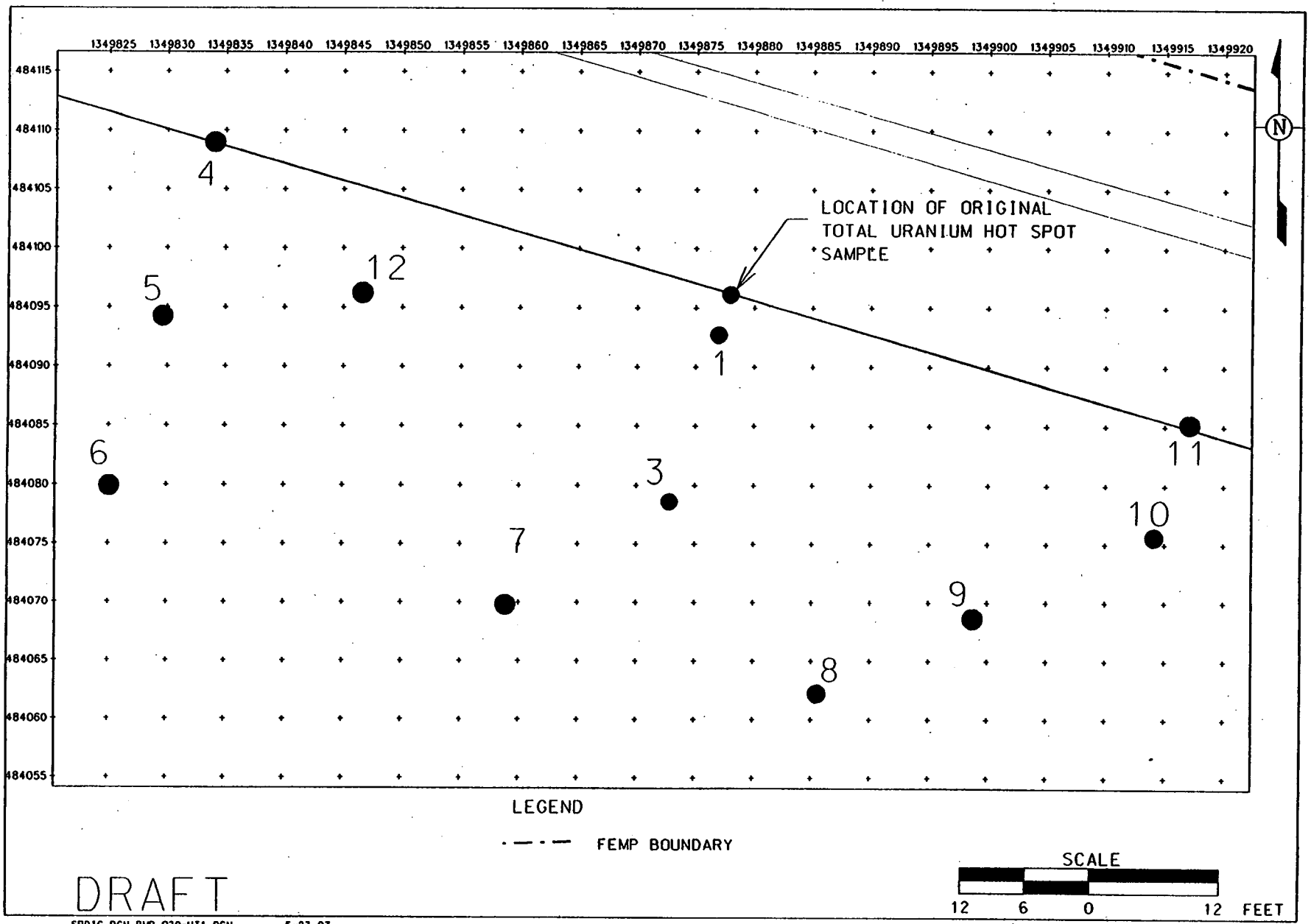
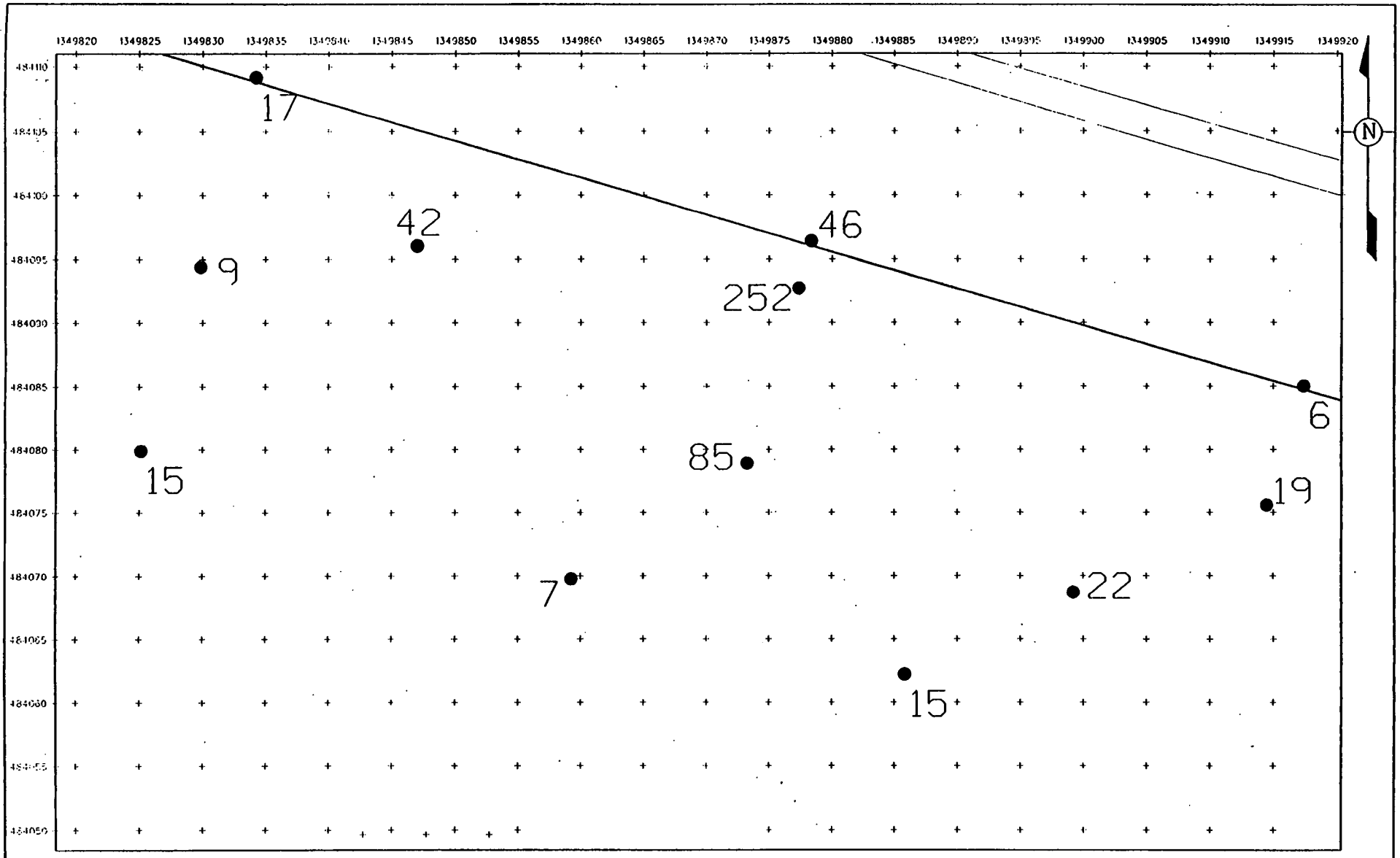


FIGURE 5-9. SAMPLING LOCATIONS IN O-20 FOR HOTSPOT REMOVAL

000277



NOTE: RESULTS ARE IN ppm LEGEND:

● TOTAL URANIUM CONCENTRATION ppm

SCALE

10 5 0 10FEET

00178
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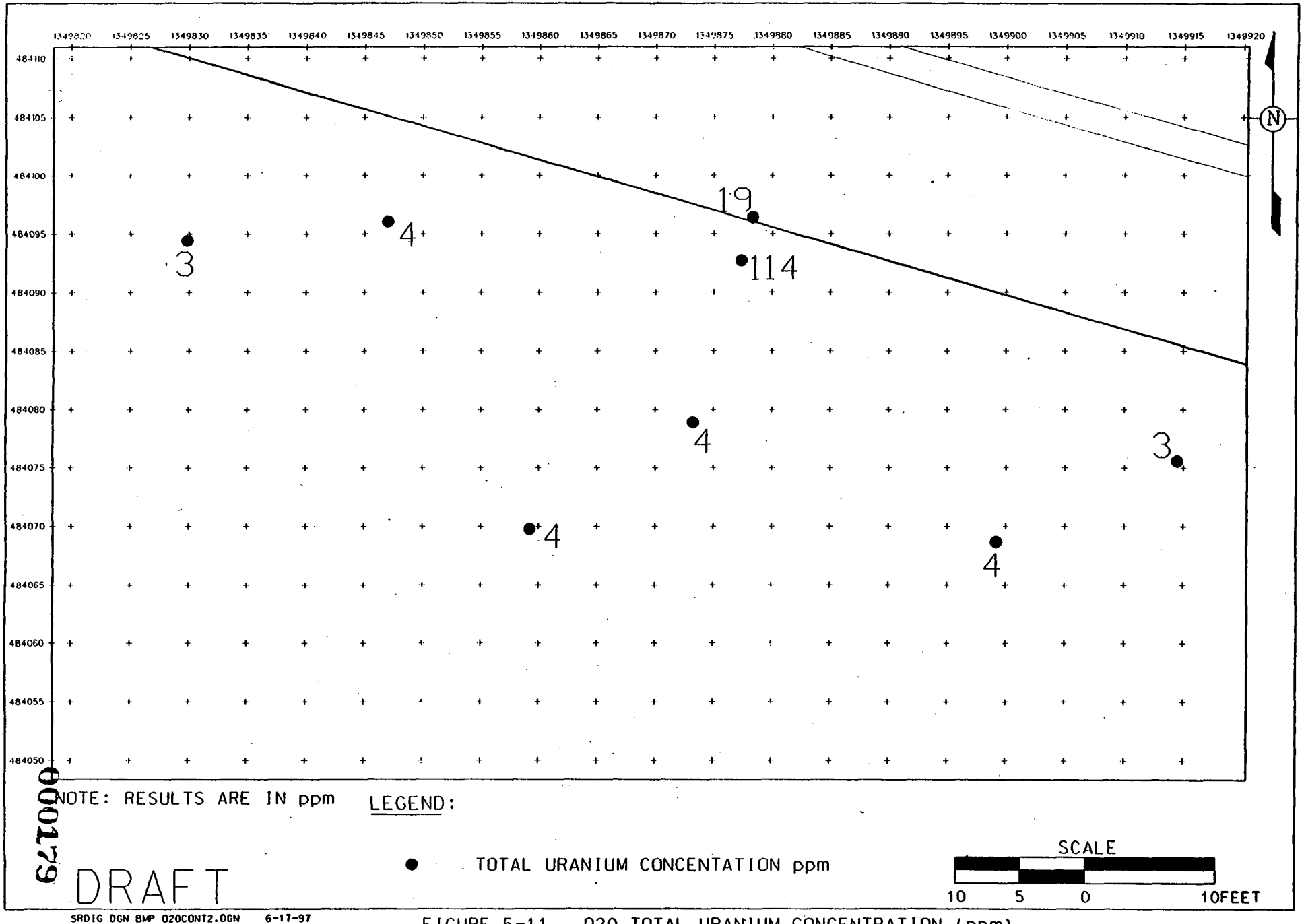
SRDIG O... 020CONT1.DGN 6-17-97
STATE P... ORDINATE SYSTEM 1983

FIGURE 5-10. 020 TOTAL ...IUM CONCENTRATION (ppm)
SAMPLE ...PTH 0" - 6"



NOTE: RESULTS ARE IN ppm

LEGEND:

● TOTAL URANIUM CONCENTATION ppm

SCALE

10 5 0 10FEET

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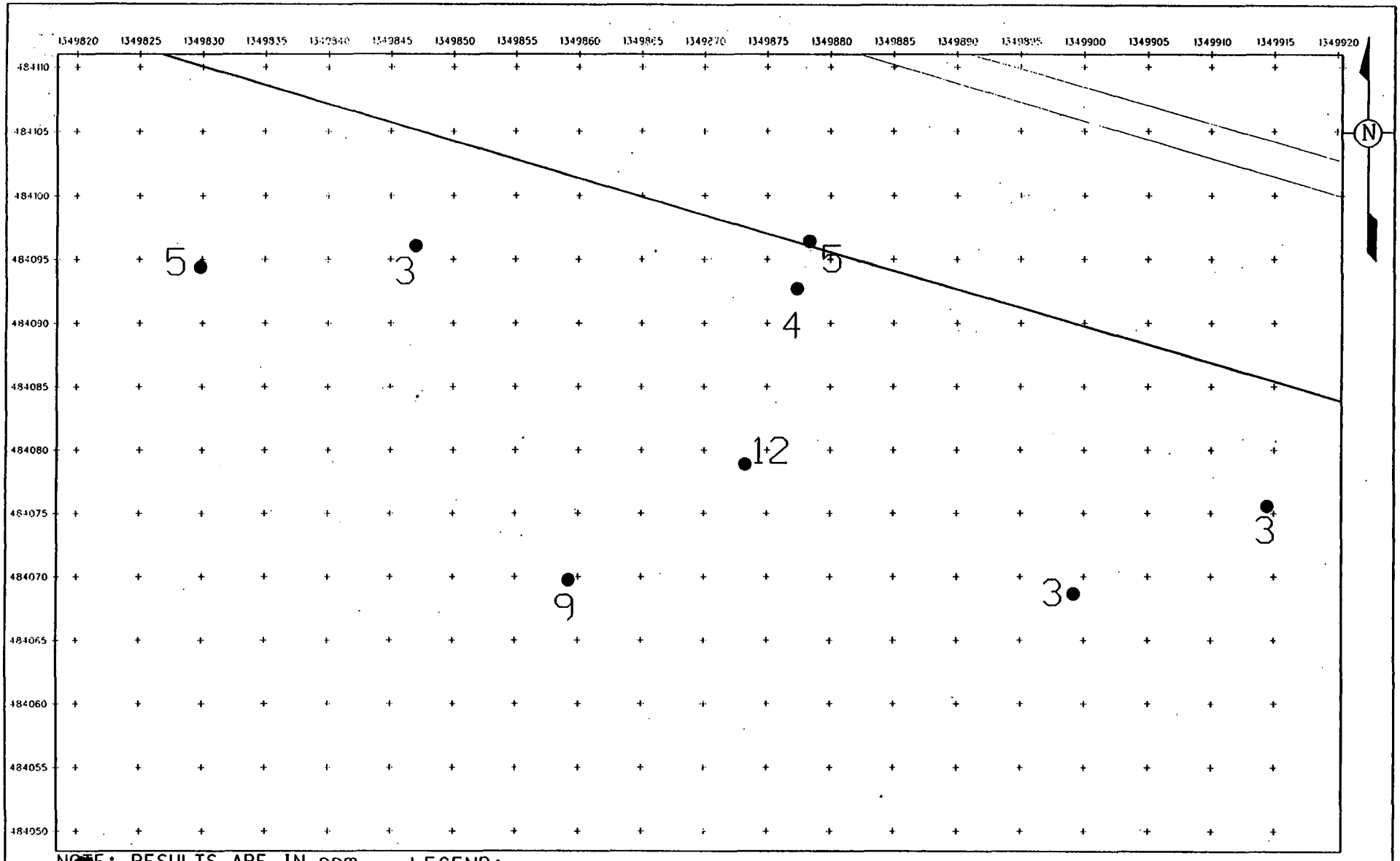
SRDIG DGN BMP 020CONT2.DGN 6-17-97
STATE PLANAR COORDINATE SYSTEM 1983

FIGURE 5-11. 020 TOTAL URANIUM CONCENTRATION (ppm)
SAMPLE DEPTH 6" - 12"



NOTE: RESULTS ARE IN ppm

LEGEND:

● TOTAL URANIUM CONCENTRATION ppm

SCALE

10 5 0 10 FEET

000180

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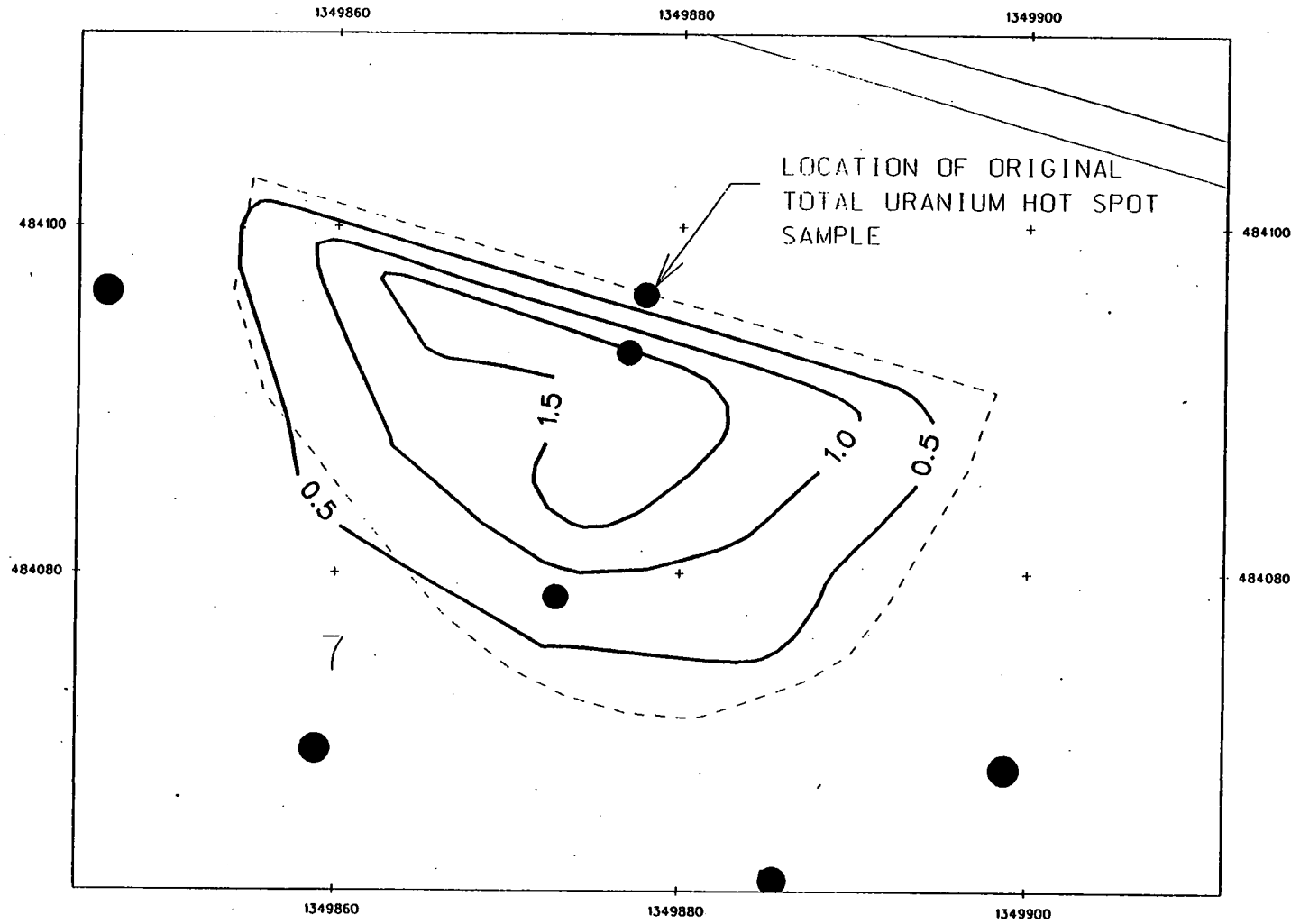
SRDIG 020CONT3.DGN 6-17-97
STATE P COORDINATE SYSTEM 1983

FIGURE 5-12. 020 TO URANIUM CONCENTRATION (ppm)
MPLE DEPTH 12" - 18"



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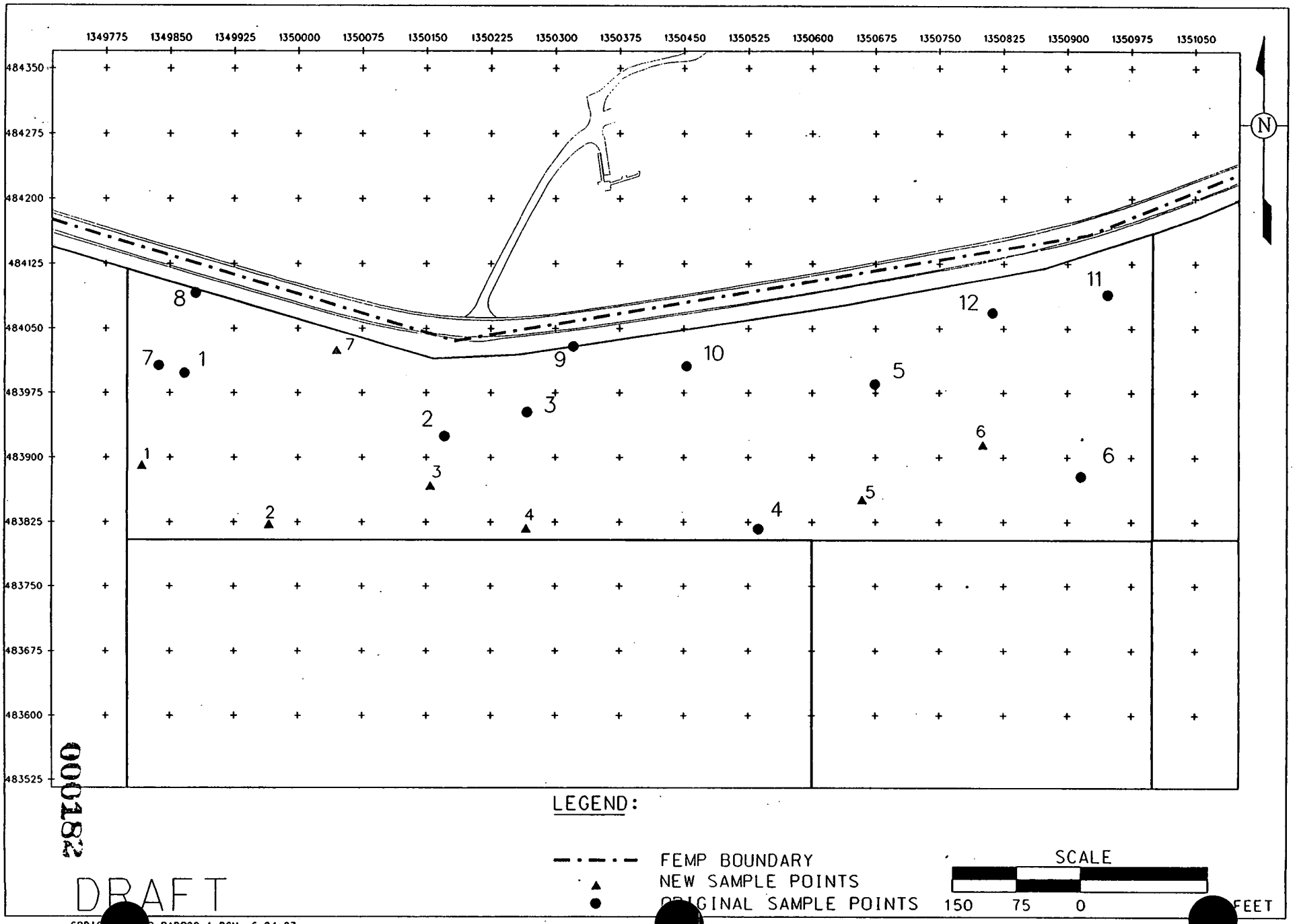
SRDIG DGN BMP 020-EXC.DGN 5-27-97
STATE PLANAR COORDINATE SYSTEM 1983

FIGURE 5-13. 020 HOTSPOT EXCAVATION DEPTH AND CONFIRMATION SAMPLE LOCATIONS



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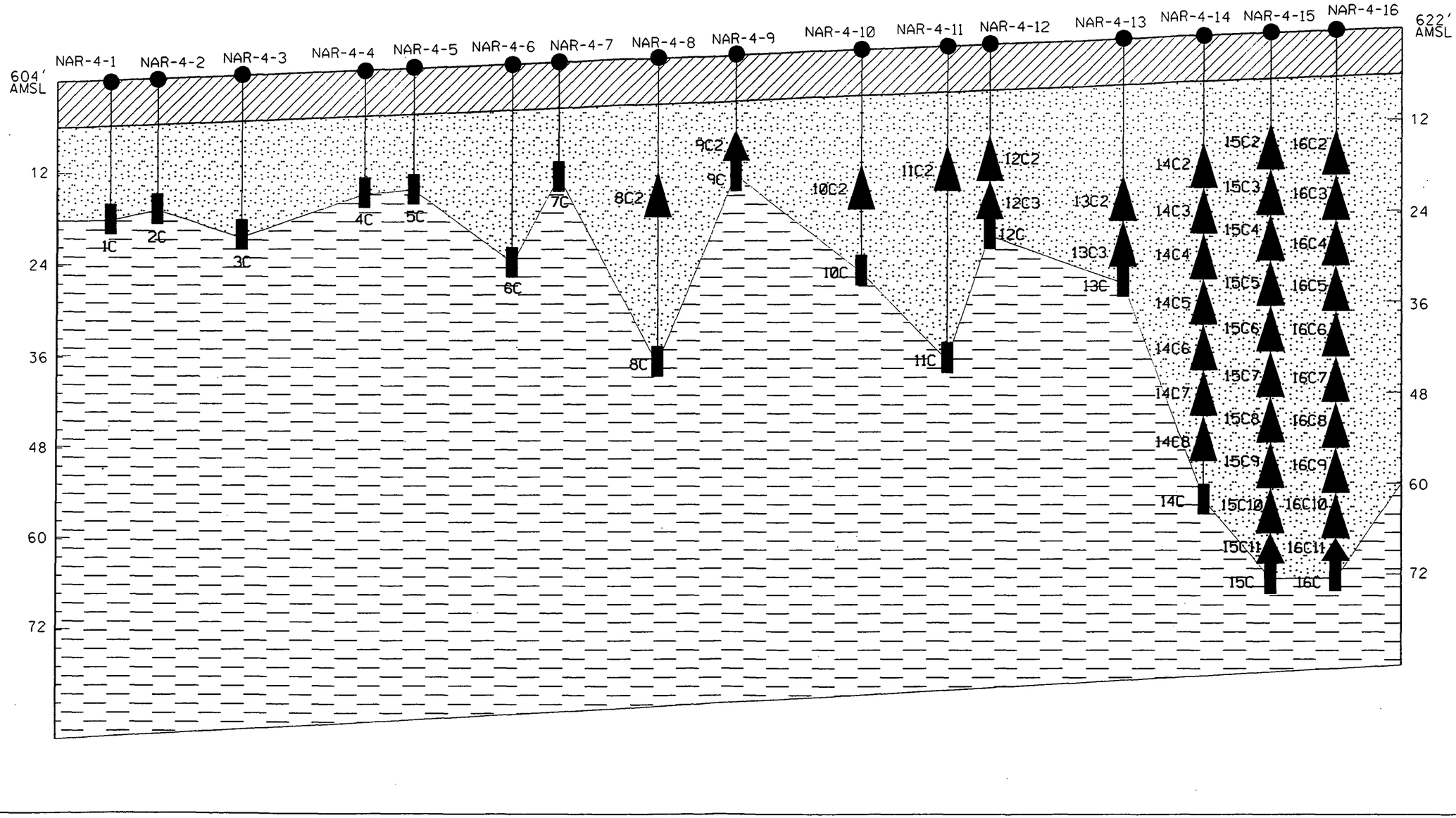
SRDIC P RAD020-1.DGN 6-24-97
STATE COORDINATE SYSTEM 1983

FIGURE 5-14. NEW AND ORIGINAL SAMPLE POINTS IN 0-20



LEGEND:

- INTERVAL OF CERTIFICATION SAMPLE FROM COMPACTED FILL
- INTERVAL OF CERTIFICATION SAMPLE FROM UNDISTURBED SOIL
- UNDISTURBED SOIL
- COMPACTED FILL
- PAVEMENT AND MACADAM

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STATE PLANAR COORDINATE SYSTEM 1927

FIGURE 5-15 NAR-4
CROSS SECTION

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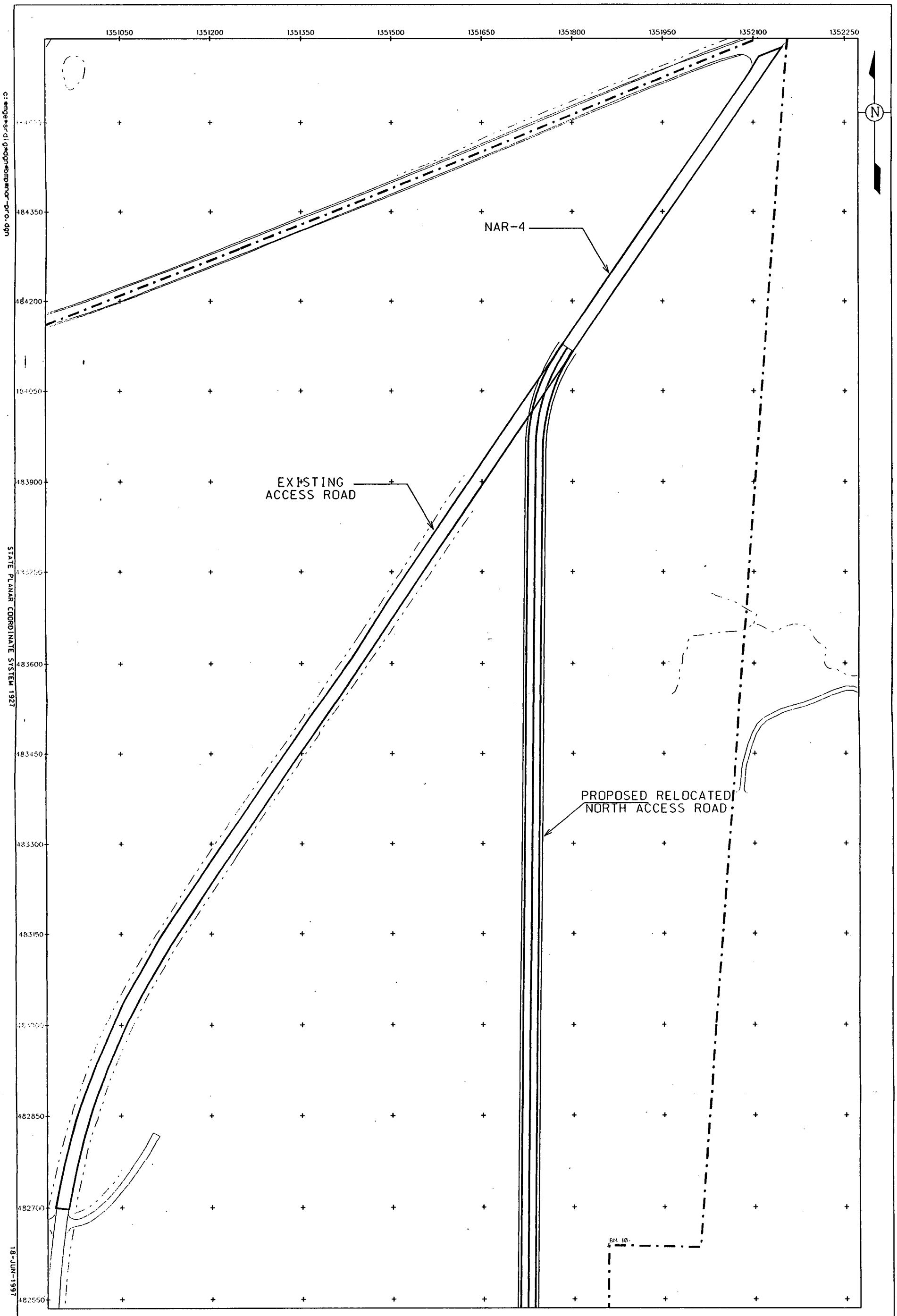


FIGURE 5-16. NAR-4 AND PLANNED RELOCATED NORTH ACCESS ROAD

SECTION 6.0
ACCESS TO CERTIFIED AREAS

DOE has restricted access to the certified areas in order to maintain the integrity of certified areas prior to transferral for final land use. A FEMP procedure (EP-0008) was developed to implement a process to protect certified areas from becoming re-contaminated.

The process for A1PI was as follows:

- At the initiation of certification sampling activities for the area, temporary fencing was installed to delineate the boundaries of the area to be certified.
- Signs were posted on the temporary perimeter fencing where access approval for entry into the area was required.
- The access to the now certified A1PI area is now further contolled by requiring written authorization from the responsible project manager to gain acces.
- Any equipment to be used within this area must be decontaminated before it is used in a contaminated area; or for any intrusive work, before entry into the certified area.
- FEMP management team representatives will instruct general employees/operators on the entry and exit requirements for this area.

Since this area has been certified, it will be transfered to final land use. Until such time, best management practices and administrative controls will be used to protect the area from contamination, and other controls will be implemented as needed.

Appendix A

CU Maps and Statistics Tables

Appendix A, CU Maps and Statistics Tables, includes a map and current statistics for each of the certification units, to date. The appendix is organized by radiological certification units, and metals and PCB certification units.

APPENDIX A
COMPLETED CERTIFICATION UNITS: MAPS WITH SUMMARY STATISTICS

The following Certification Units are complete and presented in this Appendix. Included is a map of the data points within the Certification Unit and the summary statistics. Note that the PCB and Metals samples were taken at the same location. For Certification Units with both Metals and PCBs the sample points are identical, and the summary statistics for Metals and PCBs are presented on the same page.

Radiological Certification Units

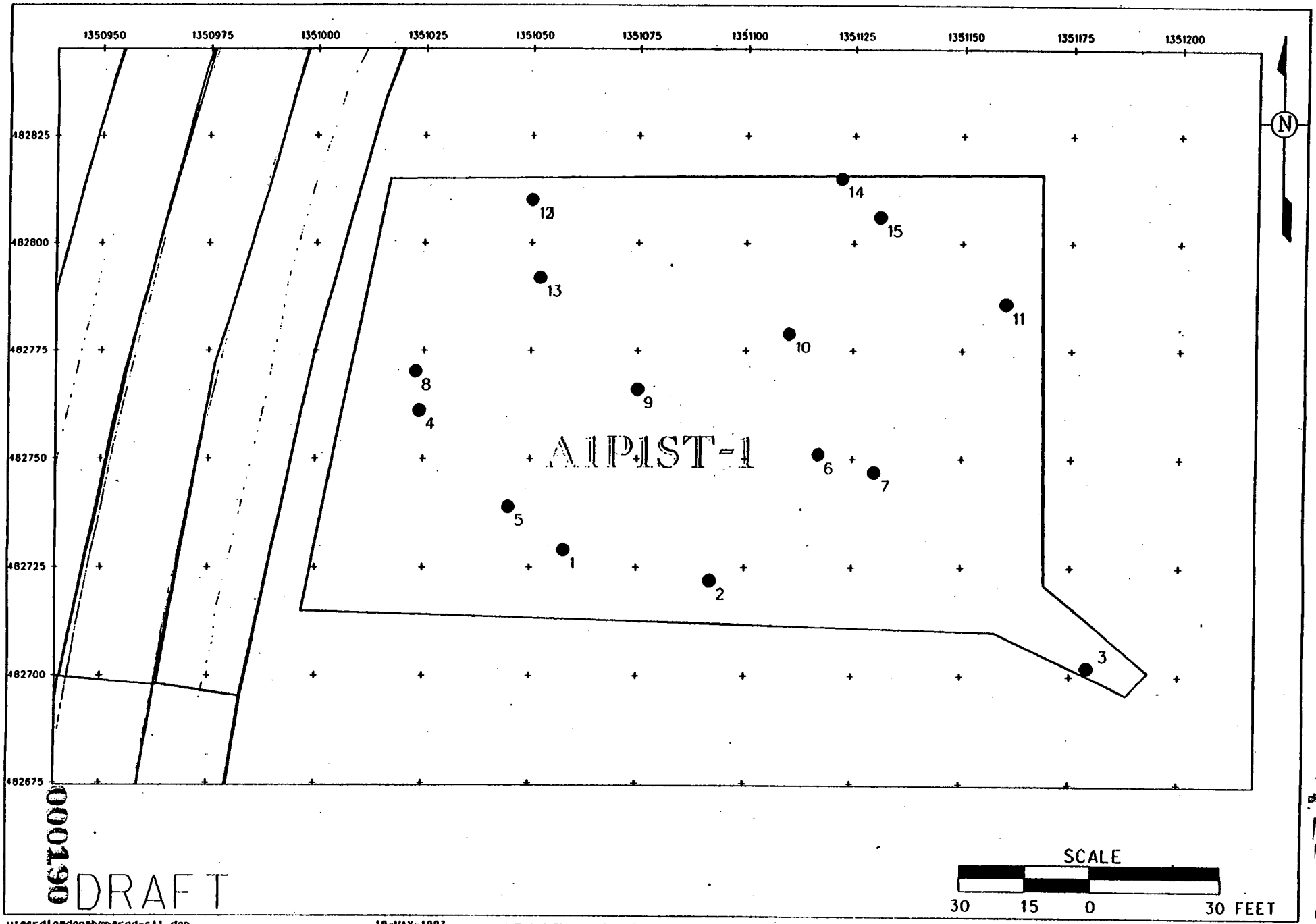
1. A1PIST-1
2. N19
3. NAR-1
4. NAR-2
5. NAR-3
6. NAR-4
7. NAR-5
8. NAR-6
9. O18
10. O19
11. O20
12. P17-22
13. P17-31
14. P17-32
15. P17-33
16. P17-40
17. P18
18. P18-11
19. P18-12
20. P18-20
21. P18-40
22. P19
23. P19-20
24. P19-23
25. P19-40
26. P20-30
27. PUMP-1
28. Q16-33
29. Q16-34
30. Q17-10
31. Q17-30
32. Q18-10
33. Q18-30
34. Q18-40
35. Q18-40A
36. Q18-40B
37. Q19-10
38. Q19-20
39. Q19-30
40 Q19-40
41. Q20-10
42. Q20-20
43. Q20-30
44. Q20-40

Metal Certification Units

1. A1PIST-1
2. N19
3. NAR-1
4. NAR-2
5. NAR-3
6. NAR-4
7. NAR-5
8. NAR-6
9. O18
10. O19
11. O20
12. P17-22
13. P17-31
14. P17-32
15. P17-33
16. P17-40
17. P18
18. P18-11
19. P18-12
20. P18-13
21. P18-14
22. P18-31
23. P18-32
24. P19
25. P20
26. PUMP-1
27. Q17
28. Q18
29. Q19
30. Q20

PCB Certification Units

1. NAR-1
2. O18
3. P17-31
4. P17-33
5. P18-11
6. P18-13
7. PUMP-1



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STATE PLANAR COORDINATE SYSTEM 1983

19-MAY-1997

A1P1ST-1 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

8 8 2

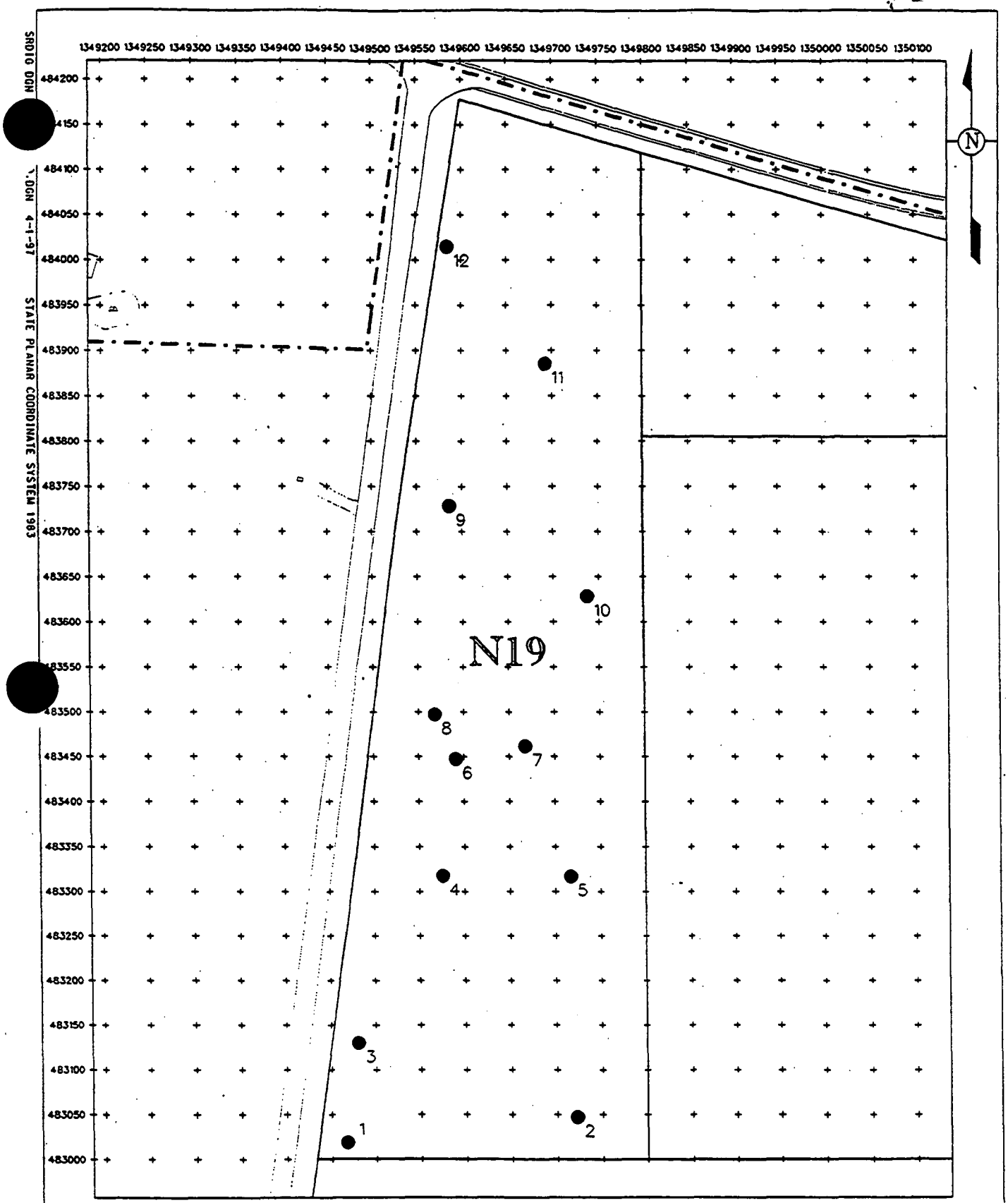
Certification Unit: A1P1ST-1 10:19 AM 20-May-97

Map	Sample ID	PRIMARY ASCOC				
		Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	A1P1ST1-2C-R	1.24 -	1.33 -	1.19 -	1.15 -	9.5 -
2	A1P1ST1-3C-R	1.32 -	1.38 -	1.23 -	1.03 -	8.9 J
3	A1P1ST1-4C-R	1.2 -	1.22 -	1.3 J	1.15 J	24.5 -
4	A1P1ST1-5C-R	1.5 -	1.3 -	1.7 -	1.6 -	3.3 J
5	A1P1ST1-6C-R	1.6 -	1.3 -	1.5 -	1.2 -	3.6 U
6	A1P1ST1-7C-R	1.1 -	1.2 -	0.98 J	0.86 -	3.0 U
7	A1P1ST1-8C-R	1.2 -	1.2 -	1.2 J	1 J	3.6 U
8	A1P1ST1-9C-R	1.41 -	1.11 -	1.3 -	1.19 -	2.8 U
9	A1P1ST1-10C-R	1.1 -	0.97 -	0.98 J	0.76 -	3.3 U
10	A1P1ST1-11C-R	1.1 -	0.93 -	1.1 J	0.84 J	2.9 U
11	A1P1ST1-12C-R	1.2 -	1.3 -	1.5 -	1.3 -	6.3 -
12	A1P1ST1-13C-R	1.4 -	1.5 -	1.4 -	1.1 -	3.9 J
12	A1P1ST1-13C-R-D	1.4 -	1.3 -	1.4 -	1.3 -	4.8 -
13	A1P1ST1-14C-R	1.3 -	1.1 -	1.4 -	1.2 -	3.9 -
14	A1P1ST1-15C-R	1.4 -	1.4 -	1.3 -	1.1 -	5.1 -
15	A1P1ST1-16C-R	1.5 -	1.4 -	1.4 -	1.4 -	6.3 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	15	15	15	15	15
	Hits	15	15	15	15	9
	Max	**1.60**	**1.40**	**1.70**	**1.60**	**24.5**
	Mean	1.30	1.24	1.30	1.13	5.4
	St.Dev.	0.16	0.15	0.20	0.22	5.90
	UCL	**1.38**	**1.30**	**1.39**	**1.23**	**8.1**
	t-Stat	9.62	14.40	7.90	6.55	50.21
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SCALE

150 75 0 150 FEET

N19 PRIMARY AND SECONDARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: N19 12:48 PM 22-May-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
	N19-00C-1-R	1.38 -	1.47 -	1.58 J	1.29 J	14.5 -	0.64 -	1.91 J
	N19-00C-2-R	1.47 -	1.08 -	1.54 -	1.22 -	19.1 -	0.55 -	2.07 -
3	N19-00C-3-R	1.43 -	1.41 -	1.55 J	1.35 J	23.8 -	0.96 -	1.98 J
4	N19-00C-5-R	1.65 -	1.43 -	1.3 -	1.09 -	8.1 -	0.66 -	1.56 J
5	N19-00C-6-R	1.37 -	1.36 -	1.45 J	1.2 J	13.3 -	0.57 -	1.88 J
6	N19-00C-7-R	1.5 -	1.3 -	1.38 J	1.01 J	7.4 -	0.56 -	1.57 J
7	N19-00C-8-R	1.4 -	1.24 -	1.13 -	1.04 -	12.7 -	0.59 -	1.49 -
8	N19-00C-9-R	1.49 -	1.17 -	1.64 -	1.06 -	9.6 -	0.54 -	1.63 J
9	N19-00C-11-R	1.39 -	1.33 -	1.28 -	1.07 -	13.2 -	0.65 -	1.72 J
10	N19-00C-12-R	1.36 -	1.41 -	1.57 J	1.22 J	11.5 -	0.5 -	1.8 J
10	N19-00C-12-R-D	1.34 -	1.28 -	1.33 -	1.25 -	11.3 -	0.51 -	1.55 -
11	N19-00C-14-R	1.18 -	1.39 -	2.12 -	1.71 -	16.9 -	0.69 -	1.88 -
12	N19-00C-15-R	1.48 -	1.06 -	1.37 J	1.16 J	5.2 -	0.68 -	1.68 J
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	12	12	12	12	12	12	12
	Hits	12	12	12	12	12	12	12
	Max	**1.65**	**1.47**	**2.13**	**1.71**	**23.8**	**0.96**	**2.07**
	Mean	1.42	1.30	1.48	1.20	12.9	0.63	1.75
	St.Dev.	0.11	0.13	0.25	0.19	5.24	0.12	0.19
	UCL	**1.48**	**1.37**	**1.61**	**1.30**	**15.6**	**0.68**	**1.83**
	t-Stat	8.39	12.99	3.04	5.36	45.67	22.21	5200.45
	Prob.	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

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STATE PLANAR COORDINATE SYSTEM 1983

14-MAY-1997

1350500 1350600 1350700 1350800 1350900 1351000 1351100 1351200 1351300

483000 482900 482800 482700 482600 482500 482400 482300 482200 482100 482000 481900 481800 481700

N

NAR-1

NAR-3

NAR-5

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

SCALE

100 50 0 100 FEET

DRAFT

NAR-1 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000391

832

Certification Unit: NAR-1 05:17 PM 21-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-226		Thorium-228		Thorium-232		Uranium, Total	
1	NAR-1-1C-R	0.97	-	1.01	-	1.2	J	0.93	J	3.1	U
2	NAR-1-2C-R	1	-	1.15	-	1.25	J	1.04	J	2.3	-
3	NAR-1-3C-R	1	-	0.84	-	1.27	J	0.93	J	3.2	U
4	NAR-1-4C-R	1.3	-	1.11	-	1.06	J	0.93	J	3.0	U
5	NAR-1-5C-R	1.25	-	1.32	-	1.07	-	1.18	-	7.6	J
6	NAR-1-6C-R	1.14	-	1.31	-	1.07	J	1.05	J	5.5	J
7	NAR-1-7C-R	1.27	-	1.15	-	1.15	J	1.06	J	7.3	J
8	NAR-1-8C-R	1.03	-	1.01	-	0.98	-	0.76	-	3.4	U
9	NAR-1-9C-R	1.31	-	1.21	-	1.32	J	1.19	J	3.6	-
10	NAR-1-10C-R	1.48	-	1.23	-	1.36	-	1.27	-	5.2	J
11	NAR-1-11C-R	1.28	-	1.19	-	1.34	J	1.22	J	2.6	-
12	NAR-1-12C-R	1.6	-	1.43	-	1.55	J	1.21	J	2.6	U
13	NAR-1-13C-R	1.53	-	1.26	-	1.29	-	1.04	-	5.8	J
14	NAR-1-14C-R	1.31	-	1.38	-	1.3	-	1.24	-	6.8	J
15	NAR-1-15C-R	1.34	-	1.23	-	1.32	J	1.21	J	10.0	J
16	NAR-1-16C-R	1.22	-	1.45	-	1.47	-	1.08	-	10.7	-
16	NAR-1-16C-R-D	1.33	-	1.23	-	1.38	-	1.09	-	5.3	J
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.00**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	16		16		16		16		16	
	Hits	16		16		16		16		11	
	Max	**1.60**		**1.43**		**1.55**		**1.27**		**10.0**	
	Mean	1.25		1.20		1.25		1.08		4.5	
	St.Dev.	0.19		0.15		0.15		0.14		2.85	
	UCL	**1.34**		**1.26**		**1.31**		**1.15**		**5.8**	
	t-Stat	9.38		15.71		12.03		11.58		108.89	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

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1350900 1351000 1351100 1351200 1351300 1351400 1351500 1351600 1351700 1351800 1351900 1352000 1352100

484600 484500 484400 484300 484200 484100 484000 483900 483800 483700 483600 483500 483400 483300 483200 483100 483000 482900 482800 482700 482600

STATE PLANAR COORDINATE SYSTEM 1983

N

NAR-4

NAR-2

NAR-6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SCALE

150 75 0 150 FEET

DRAFT

14-MAY-1997

000496

NAR-2 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

837

Certification Unit: NAR-2 05:12 PM 21-May-97

		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	NAR-2-1C-R	1.6 -	1.29 -	1.45 -	1.07 -	5.5 J
2	NAR-2-2C-R	1.44 -	1.43 -	1.4 -	1.17 -	8.1 J
3	NAR-2-3C-R	0.76 -	0.62 -	0.75 -	0.56 -	3.5 J
4	NAR-2-4C-R	0.85 -	0.82 -	0.7 -	0.16 J	2.7 U
5	NAR-2-5C-R	0.87 -	0.77 -	0.86 -	0.77 -	3.8 J
5	NAR-2-5C-R-D	0.86 -	0.83 -	0.83 J	0.65 J	3.6 J
6	NAR-2-6C-R	0.82 -	0.84 -	0.99 -	0.92 -	4.7 J
7	NAR-2-7C-R	0.85 -	0.45 J	0.77 -	0.78 -	8.0 J
8	NAR-2-8C-R	1.03 -	0.77 -	0.83 -	0.72 -	5.1 J
9	NAR-2-9C-R	1.45 -	1.46 -	1.28 -	1.18 -	5.3 J
10	NAR-2-10C-R	1.46 -	1.23 -	1.1 -	1.12 -	3.5 J
11	NAR-2-11C-R	1.29 -	1.39 -	1.11 -	1.17 -	4.4 J
12	NAR-2-12C-R	0.99 -	0.93 -	0.95 -	1.08 -	4.0 J
13	NAR-2-13C-R	1.22 -	1.46 -	1.05 -	1.12 -	7.4 J
14	NAR-2-14C-R	1.09 -	1.32 -	1.17 -	1.03 -	10.7 J
15	NAR-2-15C-R	1.24 -	1.32 -	0.94 -	1.05 -	7.5 J
16	NAR-2-16C-R	1.26 -	1.38 -	1.08 -	1.18 -	9.0 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	16	16	16	16	16
	Hits	16	16	16	16	15
	Max	**1.60**	**1.46**	**1.45**	**1.18**	**10.7**
	Mean	1.14	1.09	1.03	0.94	5.7
	St.Dev.	0.27	0.34	0.22	0.28	2.48
	UCL	**1.26**	**1.24**	**1.12**	**1.06**	**6.8**
	t-Stat	8.36	8.40	12.02	7.87	122.88
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

SRDIG DGN BMP RADNAR3.DGN 4-30-97 STATE PLANAR COORDINATE SYSTEM 1983

1350650 1350700 1350750 1350800 1350850 1350900 1350950 1351000 1351050 1351100 1351150 1351200 1351250

482800 482750 482700 482650 482600 482550 482500 482450 482400 482350 482300 482250 482200 482150 482100 482050 482000 481950 481900

N

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

NAR-1

NAR-5

NAR-3

SCALE

70 35 0 70 FEET

DRAFT

NAR-3 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000198

Certification Unit: NAR-3 05:28 PM 21-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
	NAR-3-1C-R	0.87	-	0.83	-	1.08	J	0.82	J	1.2	U
2	NAR-3-2C-R	1	-	0.83	-	0.95	J	0.7	J	2.7	U
3	NAR-3-3C-R	1.28	-	1.05	-	1.01	-	1	-	3.2	U
3	NAR-3-3C-R-D	1.14	-	1.16	-	1.13	-	1	-	6.3	J
4	NAR-3-4C-R	1.31	J	1.12	-	1.31	J	1.03	J	3.4	U
5	NAR-3-5C-R	1.32	J	1.1	-	1.14	J	1.06	J	3.4	U
6	NAR-3-6C-R	0.99	J	1.06	-	1.3	J	0.94	J	2.5	-
7	NAR-3-7C-R	1.19	J	0.89	-	1.05	J	0.91	J	3.4	U
8	NAR-3-8C-R	1.53	J	1.4	-	1.62	-	1.48	-	1.2	U
9	NAR-3-9C-R	1.6	J	1.64	-	1.55	J	1.35	J	3.8	U
10	NAR-3-10C-R	1.38	J	1.46	-	1.52	J	1.28	J	1.8	U
11	NAR-3-11C-R	1.37	J	1.5	-	1.77	J	1.42	J	1.7	-
12	NAR-3-12C-R	1.13	-	1.1	-	0.98	J	1.1	J	6.5	J
13	NAR-3-13C-R	1.48	-	1.16	-	1.11	-	0.95	-	2.8	U
14	NAR-3-14C-R	0.94	-	0.73	-	0.85	-	0.92	-	2.2	U
15	NAR-3-15C-R	1.35	-	1.36	-	1.17	-	1.35	-	3.6	J
16	NAR-3-16C-R	1.29	-	1.41	-	1.14	-	1.06	-	1.8	U

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	16	16	16	16	16
Hits	16	16	16	16	5
Max	**1.60**	**1.64**	**1.77**	**1.48**	**6.5**
Mean	1.25	1.17	1.23	1.09	2.0
St.Dev.	0.22	0.27	0.26	0.23	1.54
UCL	**1.34**	**1.29**	**1.34**	**1.19**	**2.7**
t-Stat	8.38	9.40	7.19	7.27	207.94
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

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1350900 1351000 1351100 1351200 1351300 1351400 1351500 1351600 1351700 1351800 1351900 1352000 1352100

484600 484500 484400 484300 484200 484100 484000 483900 483800 483700 483600 483500 483400 483300 483200 483100 483000 482900 482800 482700 482600

STATE PLANAR COORDINATE SYSTEM 1983

NAR-4

NAR-2

NAR-6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

N

SCALE

150 75 0 150 FEET

DRAFT

NAR-4 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

14-MAY-1987

000200

Certification Unit: NAR-4 05:46 PM 21-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
	NAR-4-1C-R	1.38	-	1.49	-	1.24	J	1.12	J	2.8	U
2	NAR-4-2C-R	1.55	-	1.2	-	1.43	-	1.21	-	2.6	U
3	NAR-4-3C-R	1.3	-	1.24	-	1.07	-	1.13	-	6.3	J
4	NAR-4-4C-R	0.97	-	0.9	-	0.81	-	0.81	-	5.1	J
5	NAR-4-5C-R	0.86	-	0.61	-	0.92	-	0.91	-	6.5	J
6	NAR-4-6C-R	0.83	-	1.02	-	1.38	-	1.19	-	5.2	J
7	NAR-4-7C-R	0.76	-	0.85	-	0.93	-	0.78	-	4.0	J
8	NAR-4-8C-R	1.26	J	0.89	-	0.93	J	0.81	J	3.9	U
9	NAR-4-9C-R	1.41	J	1.18	-	1.51	J	1.27	J	3.9	U
9	NAR-4-9C-R-D	1.49	J	1.28	-	1.6	-	1.32	-	1.4	-
10	NAR-4-10C-R	1.12	J	0.88	-	1.24	J	1.09	J	3.7	U
11	NAR-4-11C-R	1.49	J	1.22	-	1.5	-	1.21	-	1.6	J
12	NAR-4-12C-R	1.25	J	1.27	-	1.42	J	1.13	J	3.6	U
13	NAR-4-13C-R	1.41	J	1.25	-	1.35	J	1.16	J	3.6	U
14	NAR-4-14C-R	1.39	J	1.33	-	1.5	J	1.22	J	1.7	U
15	NAR-4-15C-R	1.37	J	1.37	-	1.51	J	1.22	J	3.3	J
16	NAR-4-16C-R	1.34	J	1.23	-	1.46	-	1.23	-	3.3	U
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	16		16		16		16		16	
	Hits	16		16		16		16		8	
	Max	**1.55**		**1.49**		**1.55**		**1.30**		**6.5**	
	Mean	1.23		1.12		1.27		1.10		2.9	
	St.Dev.	0.25		0.24		0.25		0.17		1.89	
	UCL	**1.34**		**1.23**		**1.38**		**1.17**		**3.7**	
	t-Stat	7.52		11.46		6.90		9.60		167.02	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: NAR-4 Fill 03:29 PM 22-May-97

Map	Sample ID	PRIMARY ASCOCs: Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	NAR-4-8C2-R	1.22 J	0.88 -	0.88 -	0.82 -	3.0 U
	NAR-4-9C2-R	1.49 J	1.33 -	1.39 J	1.35 -	1.1 -
0	NAR-4-10C2-R	1.31 J	0.97 -	0.85 -	0.84 -	3.3 U
11	NAR-4-11C2-R	1.21 J	1.02 -	1.4 J	1 J	1.4 -
12	NAR-4-12C2-R	1 J	1.01 -	1.2 -	0.92 -	1.0 U
12	NAR-4-12C3-R	1.1 -	0.97 -	0.92 J	1.07 J	2.7 U
13	NAR-4-13C2-R	1.32 J	1 -	1.26 -	1.2 -	3.6 U
13	NAR-4-13C3-R	0.92 -	1.04 -	0.85 J	0.89 J	3.2 U
14	NAR-4-14C2-R	0.91 J	0.84 -	0.93 J	0.69 J	1.3 J
14	NAR-4-14C3-R	1.25 J	1.06 -	1.25 -	1.16 -	2.9 U
14	NAR-4-14C3-R-D	0.81 J	0.74 -	1.13 -	0.94 -	1.0 J
14	NAR-4-14C4-R	1.15 -	1.11 -	1.22 J	1.03 J	1.5 U
14	NAR-4-14C5-R	0.95 -	0.8 -	1.16 -	0.95 -	4.1 U
14	NAR-4-14C6-R	1.45 -	1.36 -	1.28 -	1.11 -	3.2 U
14	NAR-4-14C7-R	1.26 -	1.34 -	1.32 J	1.21 J	2.0 -
14	NAR-4-14C8-R	1.29 -	1.18 -	1.41 -	1.19 -	3.8 J
15	NAR-4-15C10-R	1.08 -	1.1 -	1.2 -	1.06 -	2.9 -
15	NAR-4-15C11-R	1.4 -	1.13 -	1.66 -	1.19 -	3.4 U
15	NAR-4-15C2-R	1.08 J	0.95 -	0.98 J	0.86 J	2.1 -
15	NAR-4-15C3-R	1.46 -	1.28 -	1.3 -	1.18 -	2.9 U
15	NAR-4-15C4-R	1.16 -	0.92 -	1.21 J	0.99 J	1.2 U
15	NAR-4-15C5-R	0.97 -	0.66 -	1.16 J	0.76 J	3.9 -
15	NAR-4-15C6-R	1.03 -	0.94 -	1.28 -	1.03 -	2.2 U
15	NAR-4-15C7-R	1.02 -	1.02 -	1.21 -	1.01 -	1.7 -
15	NAR-4-15C8-R	0.88 -	0.81 -	0.97 J	0.84 J	3.1 U
15	NAR-4-15C9-R	1.02 -	1.06 -	1.2 -	0.97 -	2.2 U
16	NAR-4-16C10-R	1.18 -	1.05 -	0.71 J	0.88 J	3.4 U
16	NAR-4-16C11-R	1.12 -	0.97 -	1.07 J	0.99 J	4.6 J
16	NAR-4-16C2-R	1.29 J	1.05 -	1.15 J	0.9 J	2.7 U
16	NAR-4-16C3-R	1.03 -	0.96 -	1.17 J	0.93 J	1.7 U
16	NAR-4-16C4-R	1.4 -	1.04 -	0.92 J	0.97 J	3.4 J
16	NAR-4-16C5-R	1 -	1.31 -	0.89 J	0.9 J	3.6 U
	NAR-4-16C6-R	0.94 -	1.01 -	0.83 J	0.7 J	3.5 U
	NAR-4-16C7-R	1 -	0.95 -	0.82 J	0.84 J	2.5 U
16	NAR-4-16C8-R	0.98 -	0.99 -	0.88 J	0.88 J	2.6 U
16	NAR-4-16C9-R	0.83 -	0.69 -	0.9 J	0.74 J	2.7 J

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	1.70	1.80	1.70	1.50	82.0
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	35	35	35	35	35
Hits	35	35	35	35	13
Max	1.49	1.36	1.66	1.35	4.6
Mean	1.13	1.02	1.11	0.97	1.8
St.Dev.	0.18	0.17	0.22	0.16	0.93
UCL	1.18	1.07	1.17	1.01	2.0
t-Stat	18.77	27.50	16.22	20.19	508.26
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	Pass	Pass	Pass	Pass	Pass
2 x (P/F)	Pass	Pass	Pass	Pass	Pass

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

SRD1G DGN BMP RADNARS.DGN 4-30-97 STATE PLANAR COORDINATE SYSTEM 1983

1350650 1350700 1350750 1350800 1350850 1350900 1350950 1351000 1351050 1351100 1351150 1351200 1351250

482800 482750 482700 482650 482600 482550 482500 482450 482400 482350 482300 482250 482200 482150 482100 482050 482000 481950 481900

N

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

NAR-1

NAR-5

NAR-3

SCALE

70 35 0 70 FEET

DRAFT

NAR-5 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

002000 002032

8328

Certification Unit: NAR-5 05:32 PM 21-May-97

		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	NAR-5-1C-R	0.85 -	0.88 -	0.79 -	0.67 -	4.3 J
1	NAR-5-1C-R-D	0.8 -	0.9 -	0.78 -	0.75 -	4.0 J
2	NAR-5-2C-R	1.47 -	1.2 -	1.09 -	0.99 -	3.9 J
3	NAR-5-3C-R	0.95 -	0.81 -	0.85 J	0.79 J	2.9 J
4	NAR-5-4C-R	0.86 -	0.88 -	0.87 -	0.89 -	2.7 U
5	NAR-5-5C-R	1.21 -	1.05 -	1.24 -	1.09 -	5.4 J
6	NAR-5-6C-R	1.4 -	1.25 -	1.2 -	1.09 -	16.7 J
7	NAR-5-7C-R	1.33 -	1.34 -	1.28 -	0.94 -	7.2 J
8	NAR-5-8C-R	1.48 -	1.28 -	1.2 -	1.07 -	11.5 J
9	NAR-5-9C-R	1.17 -	1.19 -	1.3 J	0.97 J	2.7 -
10	NAR-5-10C-R	1.63 -	1.53 -	1.25 J	1.03 J	6.0 -
11	NAR-5-11C-R	1.52 -	1.36 -	1.4 J	1.17 J	1.5 U
12	NAR-5-12C-R	1.72 -	1.32 -	1.39 J	1.14 J	3.3 J
13	NAR-5-13C-R	1.61 -	1.49 -	1.56 J	1.31 J	2.3 -
14	NAR-5-14C-R	1.44 -	1.4 -	1.4 -	1.28 -	3.1 -
15	NAR-5-15C-R	1.43 -	1.4 -	1.28 -	1.2 -	6.4 J
16	NAR-5-16C-R	1.34 -	1.33 -	1.45 -	1.25 -	6.9 J
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	16	16	16	16	16
	Hits	16	16	16	16	14
	Max	**1.72**	**1.53**	**1.56**	**1.31**	**16.6**
	Mean	1.34	1.23	1.22	1.06	5.3
	St.Dev.	0.27	0.22	0.22	0.17	4.04
	UCL	**1.45**	**1.33**	**1.32**	**1.13**	**7.1**
	t-Stat	5.42	10.39	8.63	10.33	75.89
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

1350900 1351000 1351100 1351200 1351300 1351400 1351500 1351600 1351700 1351800 1351900 1352000 1352100 1352200

484700 484600 484500 484400 484300 484200 484100 484000 483900 483800 483700 483600 483500 483400 483300 483200 483100 483000 482900 482800 482700

N

NAR-1

NAR-2

NAR-6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SCALE

150 75 0 150 FEET

STATE PLANAR COORDINATE SYSTEM 1983

14-MAY-1997

DRAFT

NAR-6 PRIMARY RADIOLOICAL MAP OF DATA POINTS

Certification Unit: NAR-6 10:57 AM 22-May-97

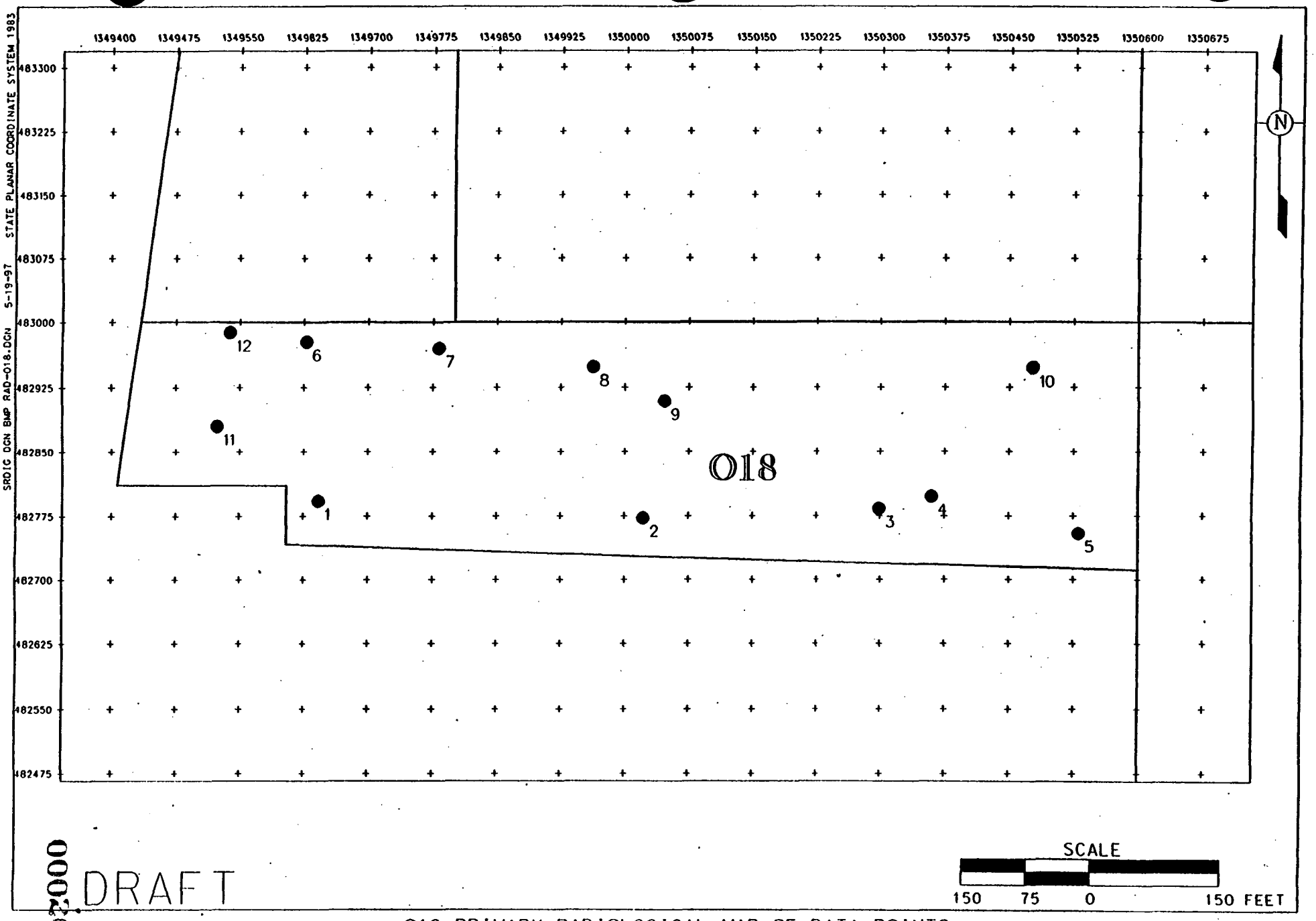
		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	NAR-6-1C-R	1.51	J	1.36	J	1.55	-	1.23	-	7.3	J
2	NAR-6-2C-R	0.89	-	1.01	-	0.74	-	0.88	-	3.8	J
3	NAR-6-3C-R	0.79	-	0.72	-	0.82	-	0.7	-	3.1	J
4	NAR-6-4C-R	0.86	-	0.89	-	0.63	J	0.68	J	5.1	J
5	NAR-6-5C-R	0.74	-	0.81	-	0.84	-	0.66	-	4.1	J
6	NAR-6-6C-R	0.71	-	0.86	-	0.64	-	0.87	-	2.9	J
7	NAR-6-7C-R	0.87	-	0.89	-	0.85	-	0.94	-	3.2	U
8	NAR-6-8C-R	0.79	-	0.83	-	0.84	-	0.79	-	5.8	J
9	NAR-6-9C-R	0.99	-	0.94	-	0.93	-	0.74	-	2.7	U
10	NAR-6-10C-R	1.22	-	1.19	-	1.38	J	1.1	J	5.0	-
11	NAR-6-11C-R	1.31	-	1.25	-	1.15	-	1.02	-	3.7	U
12	NAR-6-12C-R	1.17	-	1.32	-	1.14	-	0.94	-	4.7	J
13	NAR-6-13C-R	1.19	-	1.2	-	1.37	-	1.16	-	3.5	J
14	NAR-6-14C-R	0.8	-	0.9	-	0.67	-	0.84	-	3.5	U
15	NAR-6-15C-R	1.36	J	1.25	-	1.06	J	0.85	J	8.2	J
16	NAR-6-16C-R	1.01	-	0.96	-	0.96	J	0.88	J	5.3	J
16	NAR-6-16C-R-D	1.06	-	0.98	-	1.05	J	1.01	J	3.6	J

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	16	16	16	16	16
Hits	16	16	16	16	12
Max	**1.51**	**1.36**	**1.56**	**1.23**	**8.2**
Mean	1.01	1.02	0.98	0.90	4.0
St.Dev.	0.25	0.20	0.28	0.17	1.98
UCL	**1.12**	**1.11**	**1.10**	**0.97**	**4.9**
t-Stat	11.06	15.20	10.33	14.33	157.63
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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002207

018 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: O18 09:28 AM 19-May-97

Map	Sample ID	PRIMARY ASCOCs Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	O18-00C-1-R	1	-	1.3	-	1.09	-	1.09	-	30.0	-
2	O18-00C-3-R	1.2	-	1.3	-	1.38	-	1.14	-	25.8	-
3	O18-00C-5-R	1.1	-	1.1	-	1.05	-	0.99	-	24.9	-
4	O18-00C-6-R	1.1	-	1.1	-	1.22	-	1.21	-	21.0	-
5	O18-00C-7-R	1.2	-	1.2	-	1.47	-	1.43	-	42.0	-
5	O18-00C-7-R-D	1.1	-	1.1	-	1.22	-	1.25	-	39.0	-
6	O18-00C-8-R	1	-	1.3	-	1.36	-	1.18	-	36.0	-
7	O18-00C-9-R	1.1	-	1.1	-	1.08	-	1.18	-	36.0	-
8	O18-00C-10-R	1.1	-	1.3	-	1.27	-	1.34	-	33.0	-
9	O18-00C-11-R	1.1	-	1.5	-	1.44	-	1.2	-	33.0	-
10	O18-00C-14-R	1	-	1.2	-	0.94	-	1.1	-	27.6	-
11	O18-00C-15-R	1.1	-	1.2	-	1	-	1.03	-	26.7	-
12	O18-00C-16-R	1.1	-	1.3	-	0.99	J	0.96	J	24.9	-
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	12		12		12		12		12	
	Hits	12		12		12		12		12	
	Max	**1.20**		**1.50**		**1.44**		**1.34**		**40.5**	
	Mean	1.09		1.24		1.18		1.15		29.9	
	St.Dev.	0.06		0.12		0.17		0.12		5.78	
	UCL	**1.12**		**1.30**		**1.27**		**1.21**		**32.9**	
	t-Stat	34.91		16.38		10.28		10.09		31.22	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

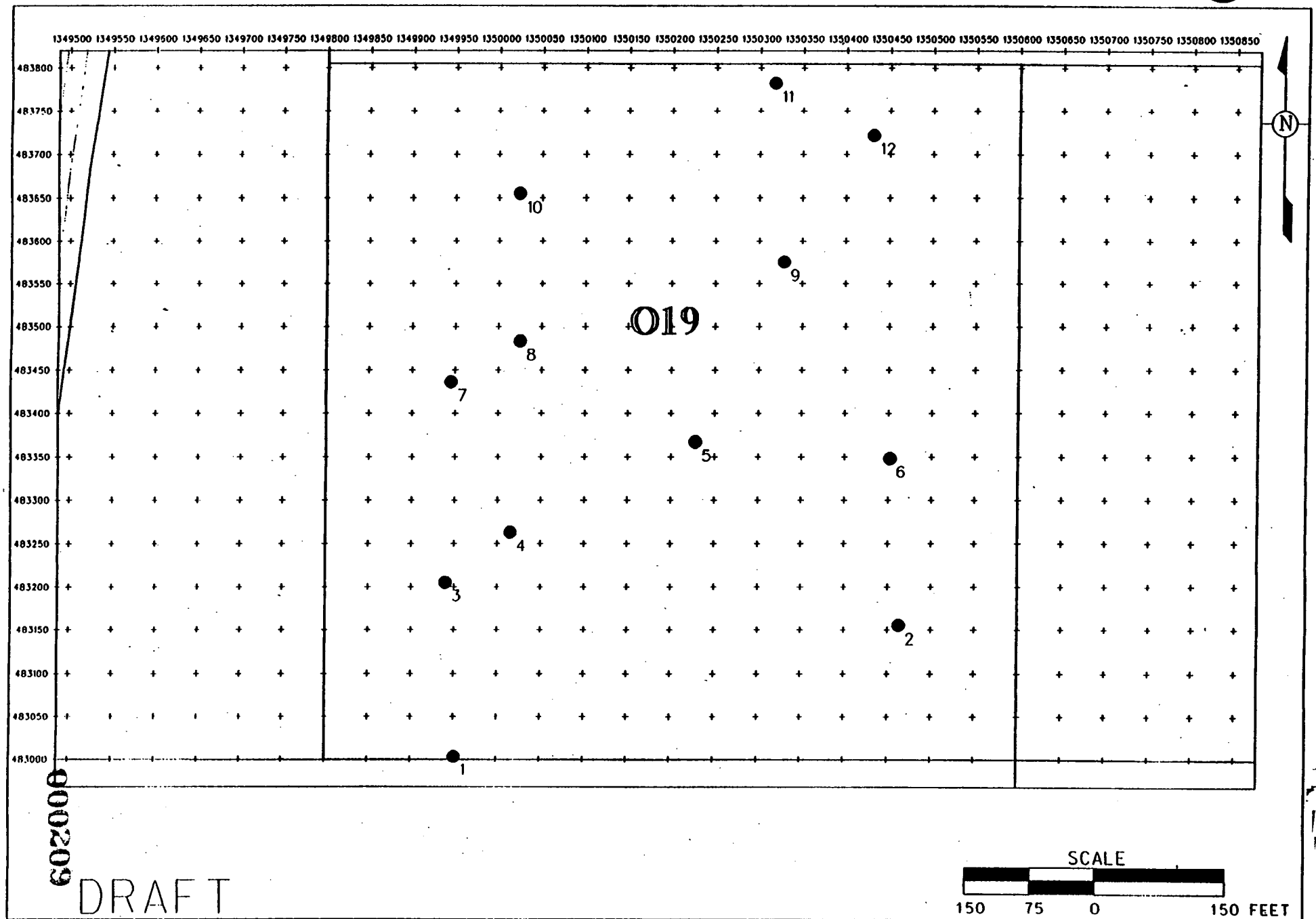
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



002009

DRAFT

SRDIG DGN BMP RAD-019.DGN 5-19-97
STATE PLANAR COORDINATE SYSTEM 1983

019 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: O19 10:26 AM 20-May-97

Map	Sample ID	PRIMARY COCs Radium-226		Radium-228		Thorium-232		Uranium-Total	
1	O19-00C-1-R	1.02	-	2.05	-	1.35	-	33.3	J
2	O19-00C-4-R	1.08	-	1.28	-	1.26	-	30.9	-
3	O19-00C-5-R	1.09	-	1.08	J	1.16	-	24.8	-
4	O19-00C-6-R	1.15	-	1.08	J	1.34	-	17.9	J
5	O19-00C-7-R	0.95	-	1.46	-	1.37	-	26.9	-
6	O19-00C-8-R	1.04	-	1.33	-	1.36	-	24.3	-
7	O19-00C-9-R	1.27	-	1.15	-	1.25	-	20.7	-
8	O19-00C-10-R	0.83	-	0.88	J	1.22	-	21.6	-
9	O19-00C-11-R	1.32	-	1.51	-	1.42	-	36.0	-
10	O19-00C-14-R	1.42	-	0.99	J	1.47	-	20.1	U
11	O19-00C-15-R	1.29	-	1.65	-	1.21	-	17.7	U
12	O19-00C-16-R	1.37	-	1.5	-	1.18	-	28.3	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	12	12	12	10
Max	**1.42**	**2.05**	**1.47**	**1.32**	**36.0**
Mean	1.15	1.33	1.30	1.18	23.6
St.Dev.	0.18	0.33	0.10	0.07	8.42
UCL	**1.25**	**1.50**	**1.35**	**1.22**	**28.0**
t-Stat	10.45	4.99	13.99	15.80	24.01
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

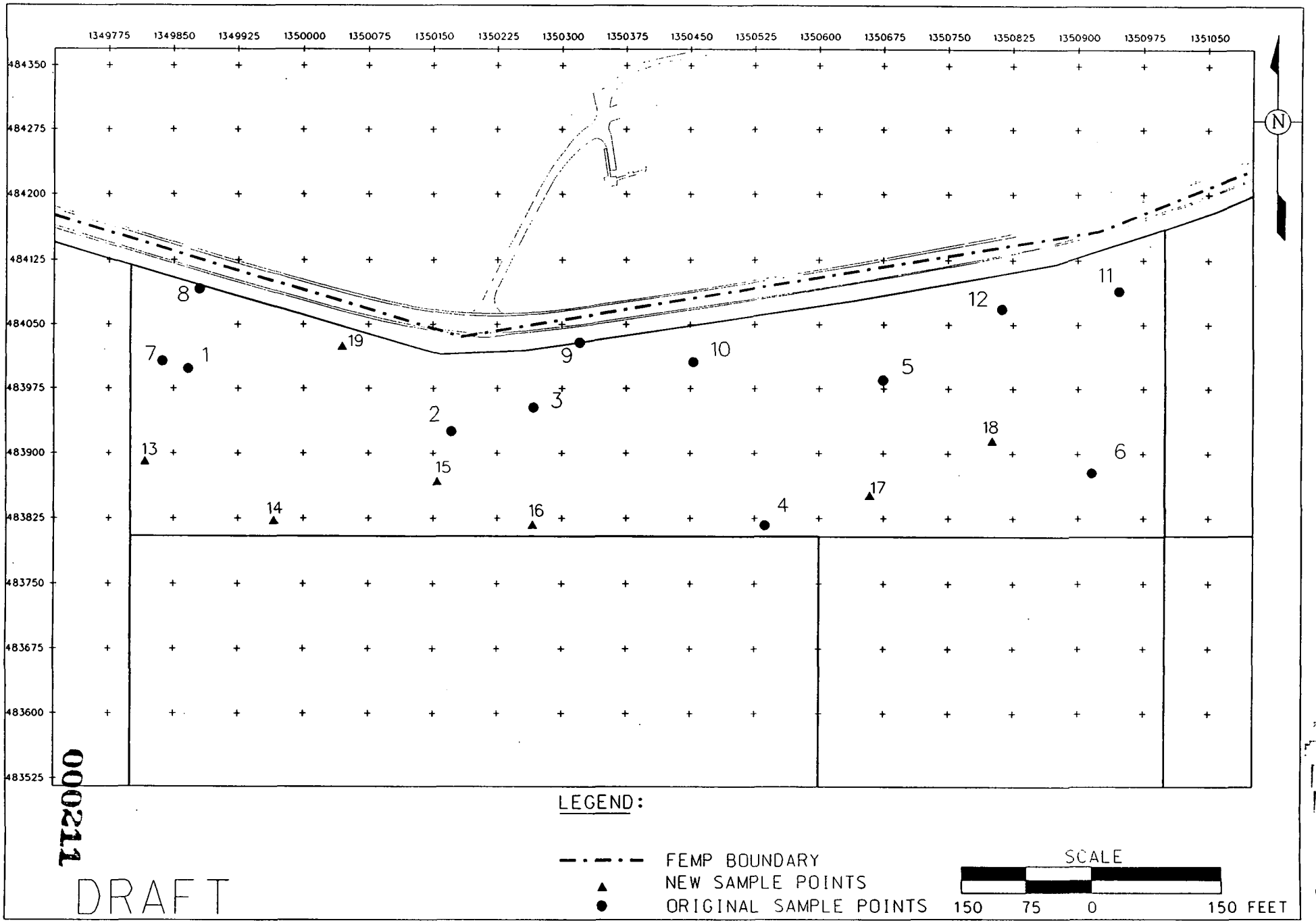
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SRDIG DGN BMP RAD020-1.DGN 6-26-97
STATE PLANAR COORDINATE SYSTEM 1983

020 RADIUM-228 MAP OF DATA POINTS

1-089

ORIGINAL FAILED CU RESULTS

Certification Unit: O20 04:19 PM 25-Jun-97

		PRIMARY ASCOCs									
Map	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	O20-00C-1-R	0.99	-	1.27	-	0.8	-	0.98	-	22.0	-
2	O20-00C-2-R	1.09	J	2.46	J	1.66	J	1.61	J	52.8	J
3	O20-00C-3-R	0.89	J	1.6	J	1.45	J	1.39	J	47.4	J
4	O20-00C-4-R	1.33	-	1.51	-	1.45	-	1.33	-	13.8	U
5	O20-00C-5-R	1.05	J	1.99	J	1.34	J	1.34	J	32.4	J
6	O20-00C-6-R	1.28	-	1.89	-	1.37	-	1.32	-	29.6	-
6	O20-00C-6-R-D	1.39	-	1.85	-	1.47	-	1.22	-	28.3	-
7	O20-00C-7A-R	1.16	J	1.65	J	1.2	J	1.11	J	17.1	UJ
8	O20-00C-7B-R	1.38	J	1.24	J	1.08	J	1.04	J	205.4	J
9	O20-00C-9-R	0.59	J	0.84	J	1.16	J	1.22	J	12.3	UJ
10	O20-00C-10-R	0.76	J	1.95	J	1.47	J	1.45	J	38.4	J
11	O20-00C-12A-R	1.37	J	1.7	J	1.39	J	1.4	J	21.3	UJ
12	O20-00C-12B-R	0.84	J	1.7	J	1.45	J	1.15	J	22.8	UJ
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	12		12		12		12		12	
	Hits	12		12		12		12		7	
	Max	**1.38**		**2.46**		**1.66**		**1.61**		**205.4**	
	Mean	1.07		1.65		1.32		1.27		39.2	
	St.Dev.	0.26		0.42		0.23		0.18		54.76	
	UCL	**1.20**		**1.86**		**1.44**		**1.37**		**67.6**	
	t-Stat	8.42		1.26		5.72		4.29		2.71	
	Prob.	0.0%		11.6%		0.0%		0.1%		1.0%	
	Pass/Fail	**Pass**		**Fail**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Fail**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: O20 06:33 AM 19-Jun-97

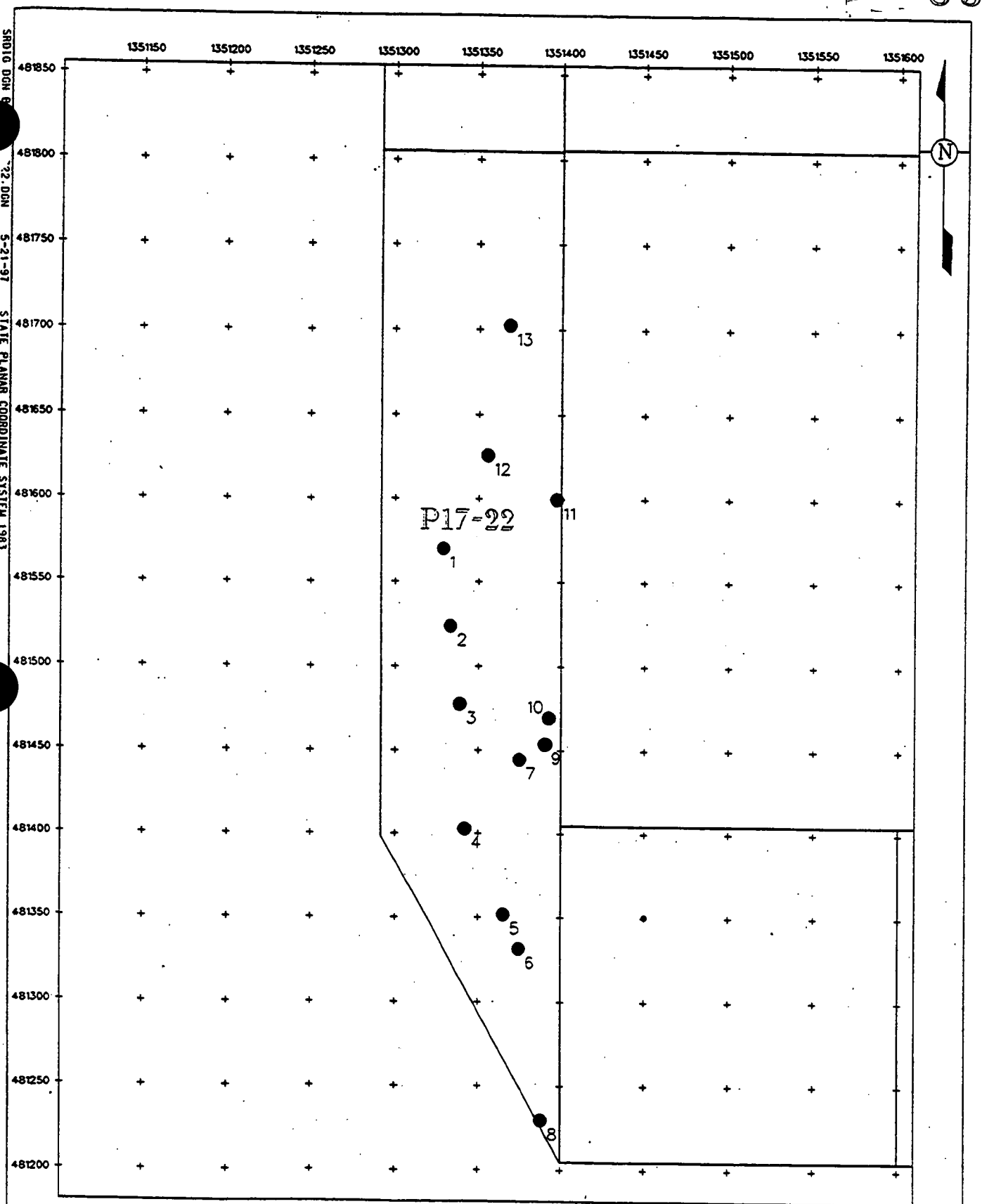
		PRIMARY ASCOCs									
p	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	O20-00C-1-R	0.99	0	1.27	-	0.8	-	0.98	-	21.98	-
2	O20-00C-2-R	1.09	J	2.46	J	1.66	J	1.61	J	52.77	J
3	O20-00C-3-R	0.89	J	1.6	J	1.45	J	1.39	J	47.38	J
4	O20-00C-4-R	1.33	-	1.51	-	1.45	-	1.33	-	13.79	U
5	O20-00C-5-R	1.05	J	1.99	J	1.34	J	1.34	J	32.38	J
6	O20-00C-6-R	1.28	-	1.89	-	1.37	-	1.32	-	29.60	-
6	O20-00C-6-R-D	1.39	-	1.85	-	1.47	-	1.22	-	28.25	-
7	O20-00C-7A-R	1.16	J	1.65	J	1.2	J	1.11	J	17.09	UJ
8	O20-00C-7B-R	1.38	J	1.24	J	1.08	J	1.04	J		
8	O20HS-1-R-13									12.81	J
9	O20-00C-9-R	0.59	J	0.84	J	1.16	J	1.22	J	12.29	UJ
10	O20-00C-10-R	0.76	J	1.95	J	1.47	J	1.45	J	38.38	J
11	O20-00C-12A-R	1.37	J	1.7	J	1.39	J	1.4	J	21.29	UJ
12	O20-00C-12B-R	0.84	J	1.7	J	1.45	J	1.15	J	22.79	UJ
13	O20-00C-13-R			1.61	J						
14	O20-00C-14-R			1.15	J						
15	O20-00C-15-R			1.51	J						
16	O20-00C-16-R			1.49	J						
17	O20-00C-17-R			1.49	J						
18	O20-00C-18-R			1.4	J						
19	O20-00C-19-R			1.35	J						

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	19	12	12	12
Hits	12	19	12	12	7
Max	**1.38**	**2.46**	**1.66**	**1.66**	**52.77**
Mean	1.07	1.57	1.32	1.32	23.19
St.Dev.	0.26	0.35	0.23	0.23	16.47
UCL	**1.20**	**1.71**	**1.44**	**1.44**	**31.73**
t-Stat	8.42	2.87	5.72	5.72	12.37
Prob.	0.0%	0.5%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P17-22 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P17-22 11:05 AM 20-May-97

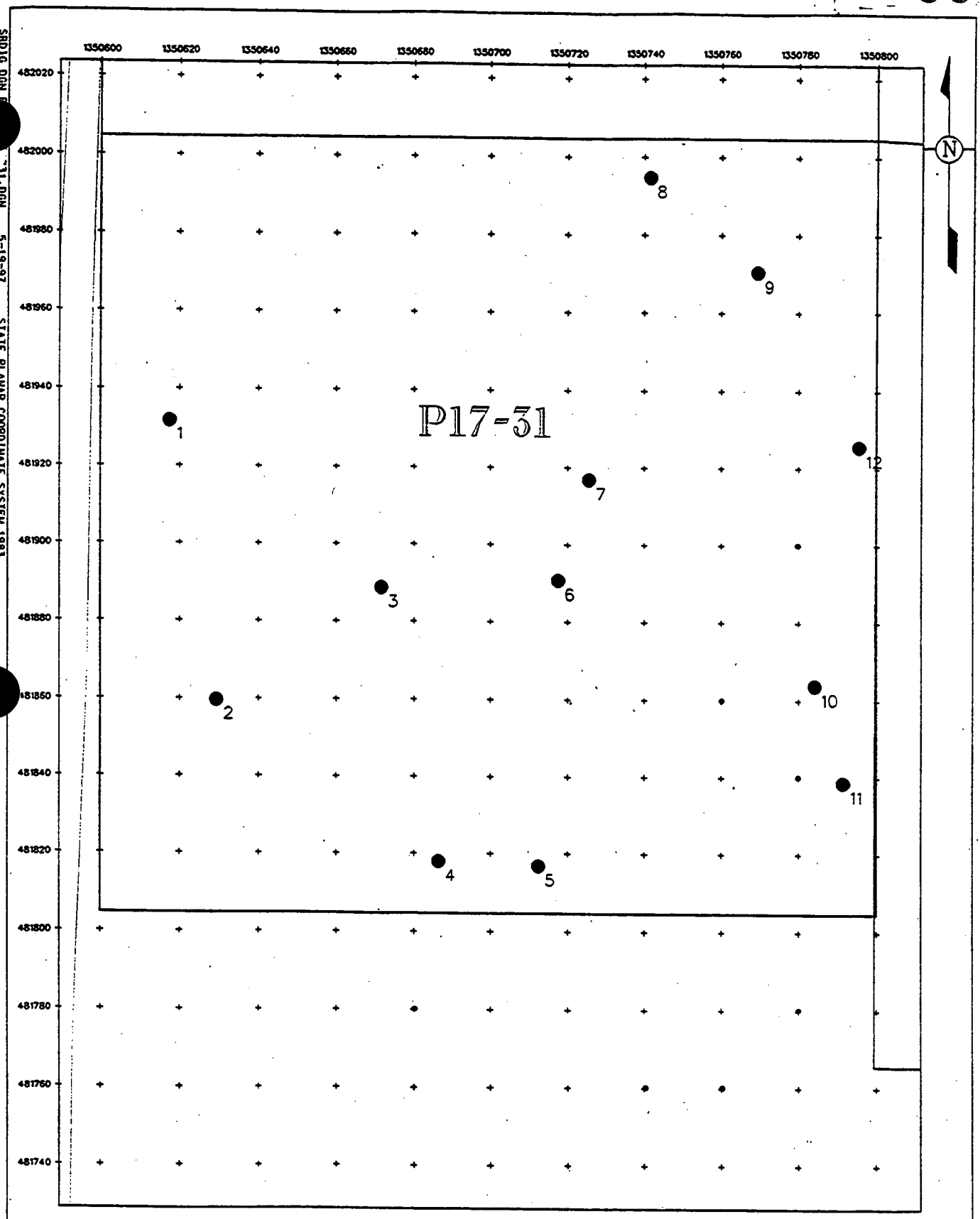
Map	Sample ID	PRIMARY COCs: Radium-226		Radium-226		Thorium-232		Thorium-232		Uranium-Total	
	P17-22C2-R-1	1.37	-	1.4	-	1.43	-	1.34	-	1.7	-
1	P17-22C2-R-1-D	1.52	-	1.89	-	1.36	-	1.13	-	5.8	-
2	P17-22C2-R-2	2.66	J	2.61	J	1.34	-	1.25	-	3.1	J
3	P17-22C2-R-3	1.36	-	1.23	-	1.24	J	1.2	J	10.0	-
4	P17-22C2-R-4	1.43	-	1.51	-	1.32	-	1.37	-	9.5	-
5	P17-22C2-R-5	2.37	J	2.3	J	1.57	-	1.22	-	24.0	J
6	P17-22C2-R-6	1.39	-	1.41	-	1.49	J	1.07	J	17.4	-
7	P17-22C2-R-7	1.3	-	1.36	-	1.29	-	1.21	-	1.5	J
8	P17-22C2-R-8	1.61	-	1.43	-	1.57	J	1.34	J	4.1	U
9	P17-22C2-R-9	1.44	-	1.36	-	1.49	-	1.19	-	14.1	-
10	P17-22C2-R-10	1.45	-	1.41	-	1.4	-	1.26	-	3.0	-
11	P17-22C2-R-11	1.06	-	1.16	-	1.33	-	1.23	-	7.4	-
12	P17-22C2-R-12	1.31	-	1.26	-	1.35	-	1.2	-	18.4	-
13	P17-22C2-R-13	1.13	-	1.05	-	1.41	-	1.19	-	25.6	-
13	P17-22C2-R-13-D	1.33	-	1.13	-	1.36	J	1.23	J	19.6	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	13	13	13	13	13
Hits	13	13	13	13	12
Max	**1.62**	**1.65**	**1.57**	**1.37**	**22.6**
Mean	1.35	1.33	1.40	1.23	9.5
St.Dev.	0.14	0.16	0.10	0.07	7.10
UCL	**1.42**	**1.41**	**1.45**	**1.26**	**13.0**
t-Stat	8.99	10.85	10.49	13.57	36.81
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



SRDIG DGN 11-DGN 5-19-97 STATE PLANAR COORDINATE SYSTEM 1983

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SCALE

35 17.5 0 35 FEET

P17-31 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P17-31 11:11 AM 19-May-97

Map	Sample ID	PRIMARY ASCOCs Radium-226		Radium-226		Thorium-228		Thorium-232		Uranium, Total	
1	P17-31C-617931	0.9	-	1.08	-	1.44	-	1.18	-	25.0	-
2	P17-31C-629859	0.95	-	0.94	-	1	-	0.83	-	10.8	-
3	P17-31C-671888	1.6	-	1.4	-	1.2	-	1.3	-	4.5	J
4	P17-31C-686817	1.5	-	1.3	-	1.2	-	1.1	-	9.0	-
5	P17-31C-712816	1.5	-	1.1	-	1.1	-	1.1	-	7.2	-
6	P17-31C-717890	1.4	-	0.98	-	1.1	J	1	J	12.3	-
7	P17-31C-725916	1.2	-	1.2	-	1.1	-	1.1	-	13.8	-
8	P17-31C-741994	0.85	-	0.91	-	0.75	J	0.8	J	7.2	-
9	P17-31C-769970	1	-	0.91	-	0.74	-	0.75	-	6.3	-
10	P17-31C-784863	1.4	-	1.3	-	1.1	-	1	J	5.1	-
11	P17-31C-791838	1.6	-	1.6	-	1.2	-	1.2	-	5.7	-
12	P17-31C-795925	1.6	-	1.2	-	1.4	J	1.3	J	3.0	J
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	12		12		12		12		12	
	Hits	12		12		12		12		12	
	Max	**1.60**		**1.60**		**1.44**		**1.30**		**25.0**	
	Mean	1.29		1.16		1.11		1.06		9.2	
	St.Dev.	0.30		0.22		0.21		0.19		5.95	
	UCL	**1.44**		**1.27**		**1.22**		**1.15**		**12.2**	
	t-Stat	4.80		10.30		9.61		8.32		42.43	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

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St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

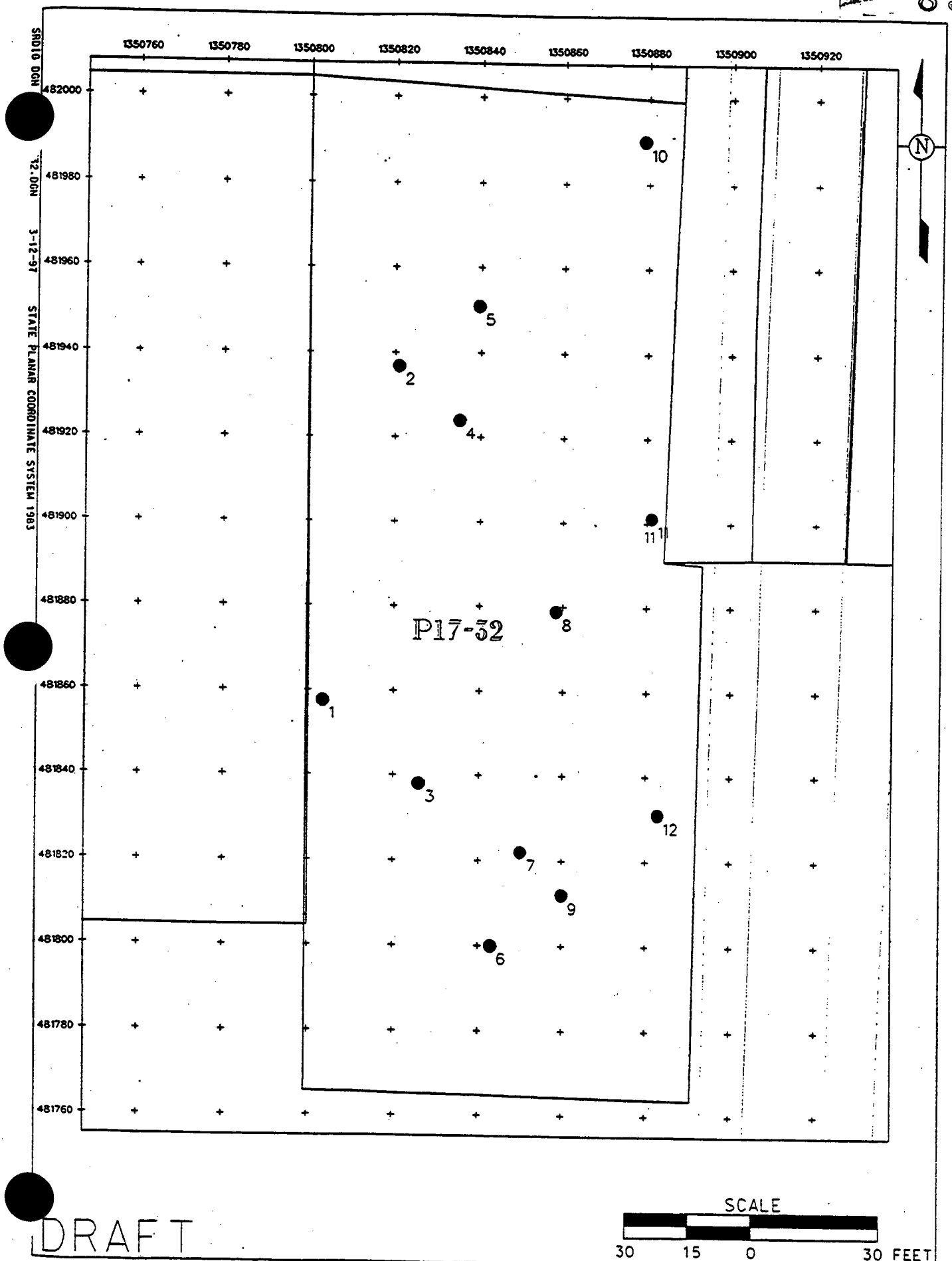
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P17-32 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P17-32 10:38 AM 20-May-97

Map	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium-Total	
		PRIMARY COCs									
1	P17-32C-803857	1.4	-	1.5	-	1.2	-	1.1	-	3.6	U
2	P17-32C-820936	1.4	-	1.3	-	1.2	-	1.1	-	12.0	-
3	P17-32C-826838	1.3	-	1.26	-	1.3	-	1.25	-	12.6	-
4	P17-32C-835924	0.92	J	1.4	-	1.55	-	1.36	-	17.5	-
4	P17-32C-835924-D	1.29	J	1.47	-	1.41	-	1.27	-	20.5	-
5	P17-32C-839950	1.4	-	1.3	-	1.5	-	1.6	-	6.6	-
6	P17-32C-843800	1.07	-	1.35	-	1.52	-	1.25	-	14.1	-
7	P17-32C-850822	1.25	-	1.52	-	1.28	J	1.07	J	10.2	-
8	P17-32C-858878	1.4	-	1.5	-	1.3	-	1.4	-	3.9	J
9	P17-32C-860812	1.1	-	1.26	-	1.32	-	1.11	-	12.3	-
10	P17-32C-879990	1.2	-	1.2	-	1.4	-	1.4	-	5.1	-
11	P17-32C-881901	1.3	-	1.3	-	1.3	-	1.6	-	25.5	-
12	P17-32C-883831	1.3	-	1.4	-	1.2	-	1.2	-	18.3	-
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	12		12		12		12		12	
	Hits	12		12		12		12		11	
	Max	**1.40**		**1.53**		**1.52**		**1.60**		**25.5**	
	Mean	1.27		1.36		1.33		1.28		11.8	
	St.Dev.	0.13		0.11		0.12		0.19		6.90	
	UCL	**1.33**		**1.42**		**1.39**		**1.38**		**15.4**	
	t-Stat	11.92		14.03		10.94		4.04		35.24	
	Prob.	0.0%		0.0%		0.0%		0.1%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

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KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

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Samples - Number of distinct sample locations in the analysis (see NOTE above).

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Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

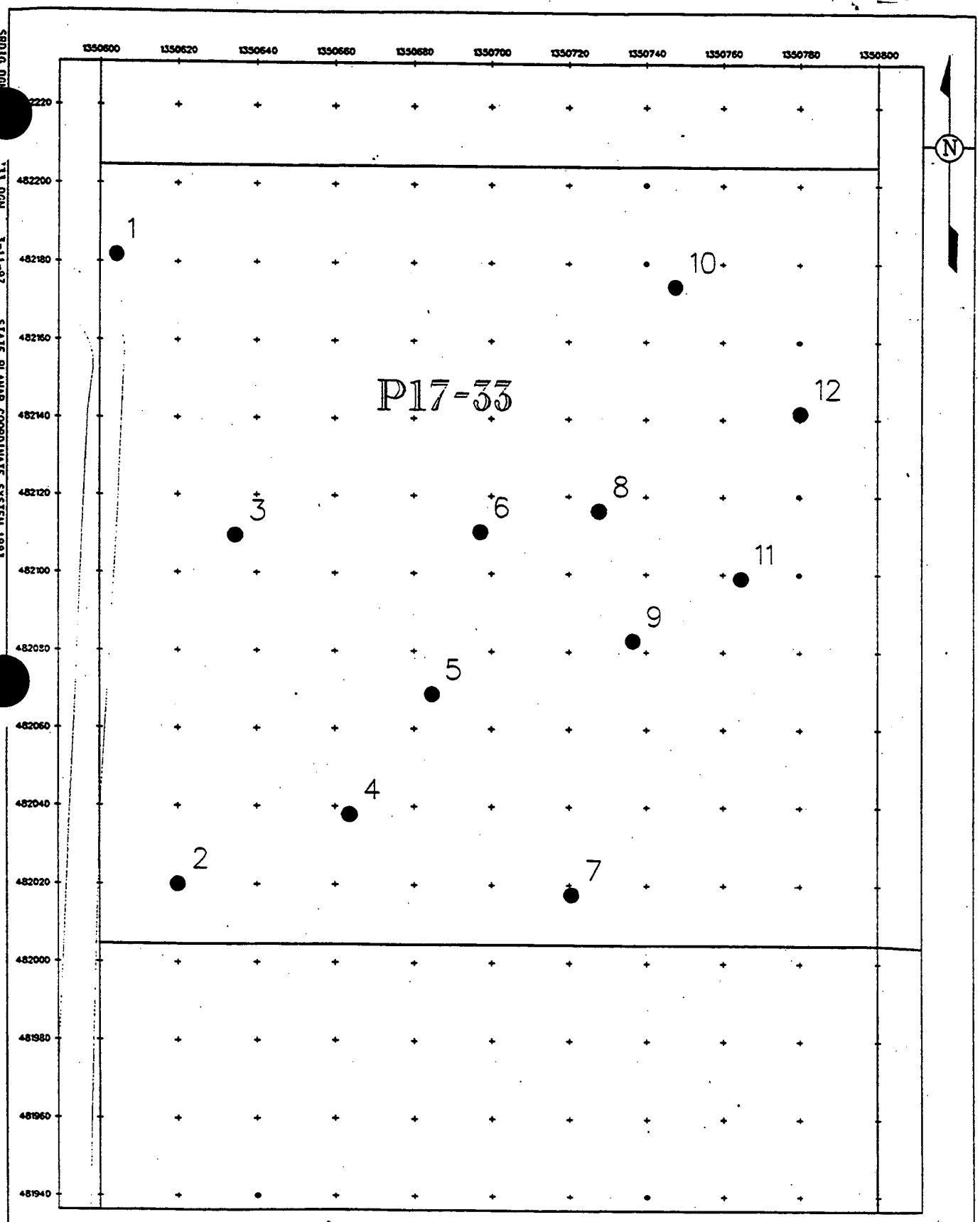
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SCALE

35 17.5 0 35 FEET

P17-33 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000220

Certification Unit: P17-33 04:06 PM 21-May-97

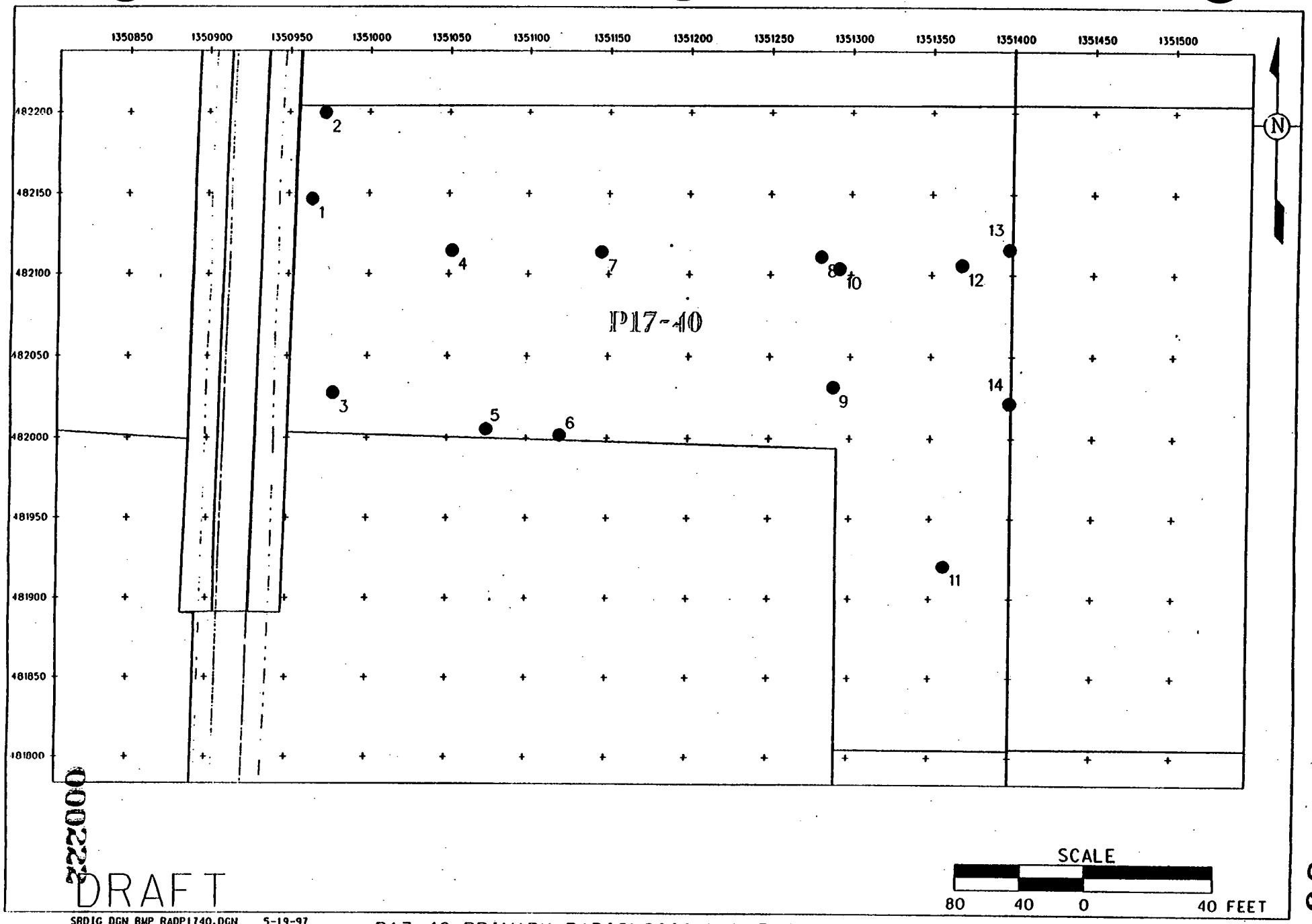
ap	Sample ID	PRIMARY ASCOCs Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	P17-33C-604181	1 -	0.91 -	0.94 -	0.74 -	11.7 -
2	P17-33C-620020	0.85 -	0.71 -	0.65 -	0.64 -	8.1 J
2	P17-33C-620020-D	0.9 -	0.69 -	0.57 -	0.53 -	5.4 J
3	P17-33C-634109	0.89 -	0.79 -	0.84 -	0.76 -	6.6 -
4	P17-33C-663037	0.79 -	0.87 -	0.88 -	0.83 -	9.6 -
5	P17-33C-684068	1 -	1.1 -	0.67 -	0.62 -	9.0 -
6	P17-33C-697110	0.91 -	0.79 -	0.9 -	0.88 -	9.3 -
7	P17-33C-720017	0.92 -	0.83 -	0.87 -	0.87 -	11.1 -
8	P17-33C-727116	1.4 -	1.4 -	1.2 -	1.2 -	8.4 -
9	P17-33C-736082	0.86 -	0.85 -	0.63 -	0.83 -	7.5 -
10	P17-33C-747174	0.94 -	1.1 -	0.87 J	0.74 J	7.8 -
11	P17-33C-764098	0.97 -	0.98 -	0.82 -	0.83 -	7.8 -
12	P17-33C-780141	1.2 -	0.92 -	0.77 J	0.72 J	6.0 -

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	12	12	12	12
Max	**1.40**	**1.40**	**1.20**	**1.20**	**11.7**
Mean	0.98	0.94	0.83	0.80	8.5
St.Dev.	0.17	0.19	0.16	0.16	1.76
UCL	**1.07**	**1.03**	**0.92**	**0.88**	**9.4**
t-Stat	14.98	15.82	18.91	15.53	144.98
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SRDIG DGN BMP RADP1740.DGN 5-19-97
STATE PLANAR COORDINATE SYSTEM 1983

P17-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P17-40 10:45 AM 20-May-97

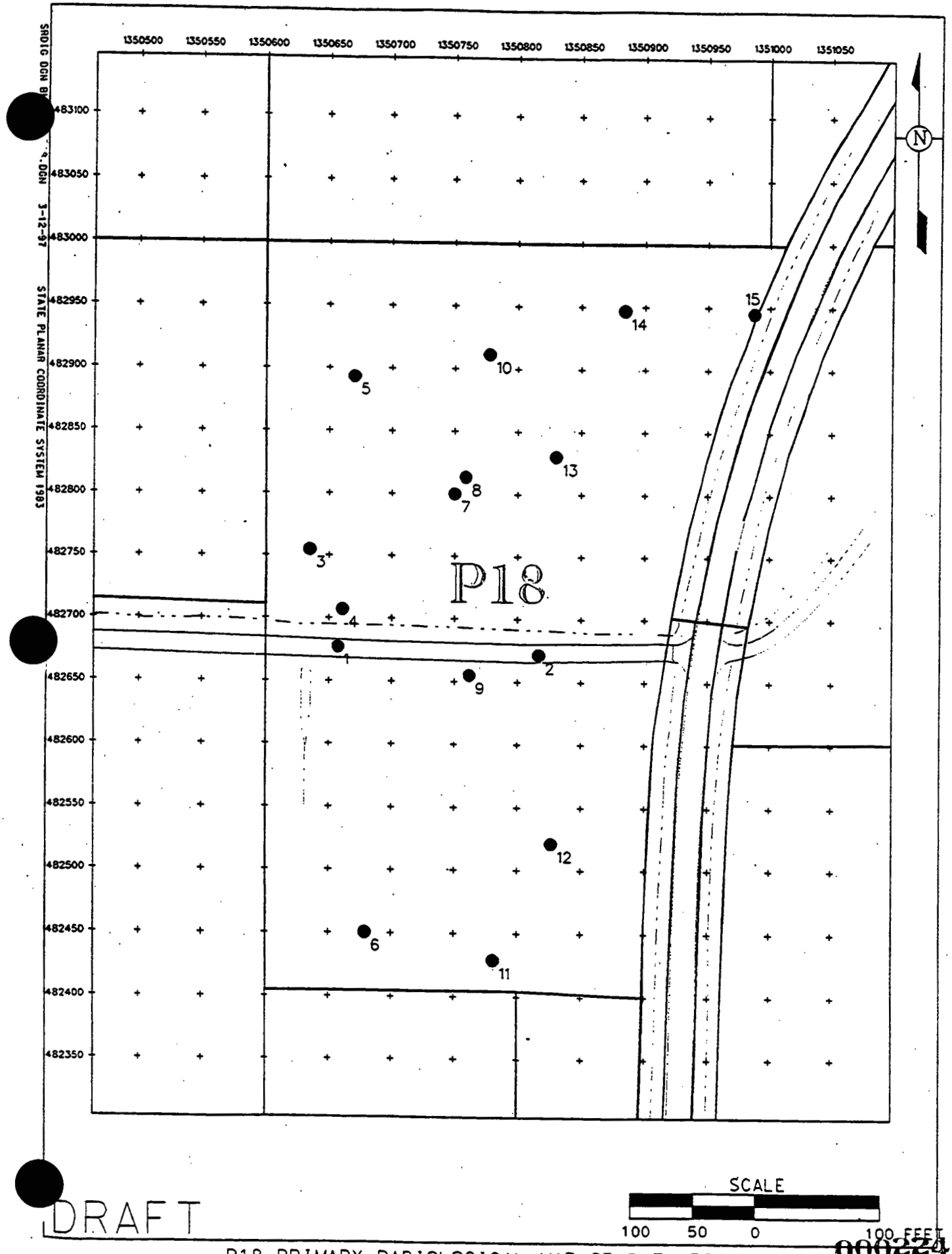
Map	Sample ID	PRIMARY ASC COCs: Radium-226		Radium-226		Thorium-228		Thorium-232		Uranium-Total	
1	P17-34C-964146	1.5	-	1.3	-	1.2	J	1.1	J	3.3	J
2	P17-34C-972199	1.6	-	1.3	-	1.1	J	1.1	J	9.0	J
3	P17-40C2-R-3	1.25	-	1.14	-	1.32	J	1.15	J	5.3	-
3	P17-40C2-R-3-D	1.42	-	1.44	-	1.34	J	1.1	J	7.3	-
4	P17-40C-052114	1.4	-	1.5	-	1.3	J	1.2	J	13.5	-
5	P17-40C2-R-4	0.84	-	0.72	-	0.94	J	0.79	J	3.9	-
6	P17-40C2-R-5	1.2	-	1.08	-	1.2	-	1.15	-	7.6	J
7	P17-40C-145113	1.5	-	1.4	-	1.2	J	1.3	J	13.8	-
8	P17-40C-281110	1.5	-	1.3	-	1.4	-	1.3	-	8.4	-
9	P17-40C-289031	1.6	-	1.2	-	1.4	J	1.4	J	2.3	U
10	P17-40C-292103	1.3	-	1.3	-	1.1	J	1.1	J	10.8	-
11	P17-40C2-R-1	1.56	-	1.67	-	1.35	J	1.01	J	9.0	-
12	P17-40C-368105	1.4	-	1.4	-	1.2	J	1.1	J	6.3	-
13	P17-40C-397115	1.8	-	1.3	-	1.5	-	1.3	-	10.8	-
14	P17-40C-398021	1.3	-	1.2	-	1.2	J	1.1	J	7.5	-
14	P17-40C-398021-D	1.2	-	1.2	-	1.1	-	1	-	8.7	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	14	14	14	14	14
Hits	14	14	14	14	13
Max	**1.80**	**1.67**	**1.50**	**1.40**	**13.8**
Mean	1.41	1.28	1.24	1.14	8.0
St.Dev.	0.23	0.21	0.15	0.15	3.65
UCL	**1.52**	**1.38**	**1.31**	**1.22**	**9.7**
t-Stat	4.68	9.04	11.64	8.71	75.90
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P18 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P18 11:12 AM 20-May-97

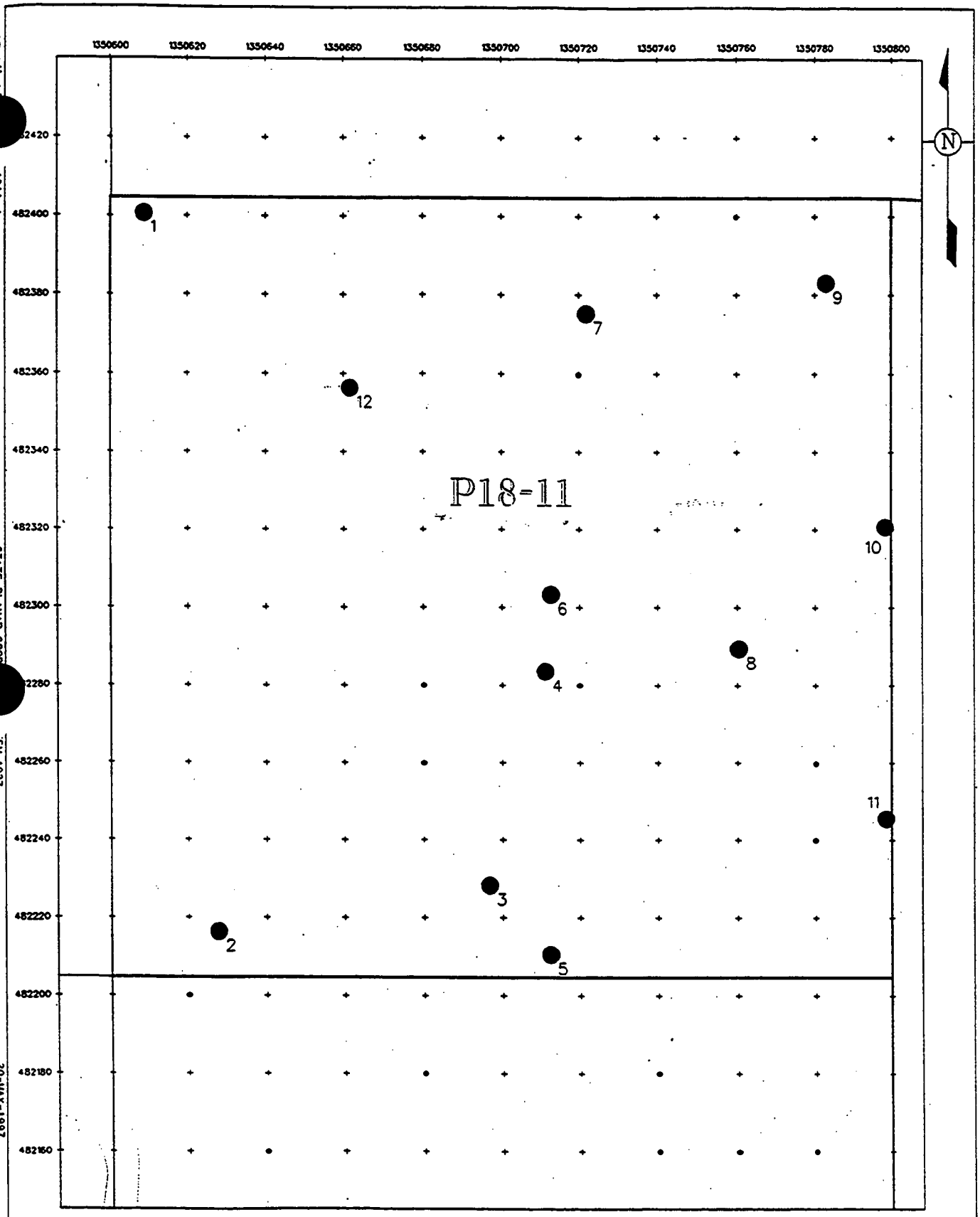
Map	Sample ID	PRIMARY/ASSOC Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium Total	
1	P18-31C-657677	0.9	-	1.13	J	1.1	-	1.12	-	12.6	U
2	P18-32C-816671	1.04	-	1.97	-	1.11	-	1	-	15.9	U
3	P18C-634755	1.2	J	1.2	-	1.3	-	1.3	-	29.7	-
4	P18C-661706	1	-	1.2	-	1.27	-	0.99	-	24.7	-
5	P18C-670893	1	J	1.1	-	1.3	-	1.1	-	18.6	-
6	P18C-679450	1.1	-	0.97	-	1.3	-	1.2	-	3.9	-
7	P18C-750800	1.18	-	1.27	-	1.59	-	1.21	-	38.9	-
8	P18C-758813	1.6	J	1.2	-	1.3	-	1.4	-	30.0	-
9	P18C-761655	1.2	-	0.94	-	1.1	-	1.1	-	9.3	J
10	P18C-777911	1.09	-	1.09	-	1.45	-	1.2	-	22.0	-
11	P18C-781429	0.91	-	0.74	-	0.59	-	0.8	-	2.9	U
12	P18C-826521	1.4	-	1.3	-	1.3	-	1.4	-	5.1	-
13	P18C-830830	1.04	-	1.15	-	1.3	-	0.99	-	27.1	-
14	P18C-884947	0.95	-	1.21	-	1.12	-	1.02	-	20.5	-
15	P18C-987945	1.1	J	0.99	-	1.2	J	1.1	-	20.7	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	15	15	15	15	15
Hits	15	15	15	15	12
Max	**1.60**	**1.97**	**1.59**	**1.40**	**38.9**
Mean	1.11	1.16	1.22	1.13	17.7
St.Dev.	0.19	0.27	0.22	0.16	11.43
UCL	**1.20**	**1.28**	**1.32**	**1.20**	**22.9**
t-Stat	12.11	9.25	8.41	8.83	21.78
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SCALE

35 17.5 0 35 FEET

P18-11 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P18-11 11:16 AM 20-May-97

Map	Sample ID	PRIMARY COC Radium-226	PRIMARY COC Radium-228	PRIMARY COC Thorium-228	PRIMARY COC Thorium-232	PRIMARY COC Uranium-Total
1	P18-11C-608400	0.76 -	0.65 -	0.79 J	0.68 J	2.4 U
2	P18-11C-627216	0.85 -	0.75 -	0.79 J	0.99 J	9.0 -
3	P18-11C-696228	0.85 -	0.93 -	0.77 J	0.75 J	4.2 -
4	P18-11C-711283	1 -	1.2 -	1.2 J	1.2 J	18.6 -
5	P18-11C-712210	0.99 -	0.91 -	0.98 J	0.99 J	12.3 -
6	P18-11C-712303	0.91 -	1 -	0.97 J	0.99 J	6.6 -
7	P18-11C-721375	1.2 -	0.99 -	0.77 J	0.86 J	2.7 U
8	P18-11C-760289	0.85 -	1 -	1.6 J	1.4 J	9.9 -
9	P18-11C-783383	1.4 -	1.1 -	1 J	1.1 J	7.5 -
10	P18-11C-789320	1 -	0.99 -	0.89 J	0.88 J	2.9 U
11	P18-11C-798245	0.88 -	1.1 -	0.79 J	0.73 J	5.1 -
12	P18-11C2-1-R	1.1 -	1.1 -	1.1 -	0.89 -	3.3 J
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	12	12	12	12	12
	Hits	12	12	12	12	9
	Max	**1.40**	**1.20**	**1.60**	**1.40**	**18.6**
	Mean	0.98	0.98	0.97	0.96	6.7
	St.Dev.	0.18	0.15	0.24	0.21	5.18
	UCL	**1.08**	**1.06**	**1.10**	**1.06**	**9.4**
	t-Stat	13.85	18.49	10.38	9.13	50.32
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U") Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

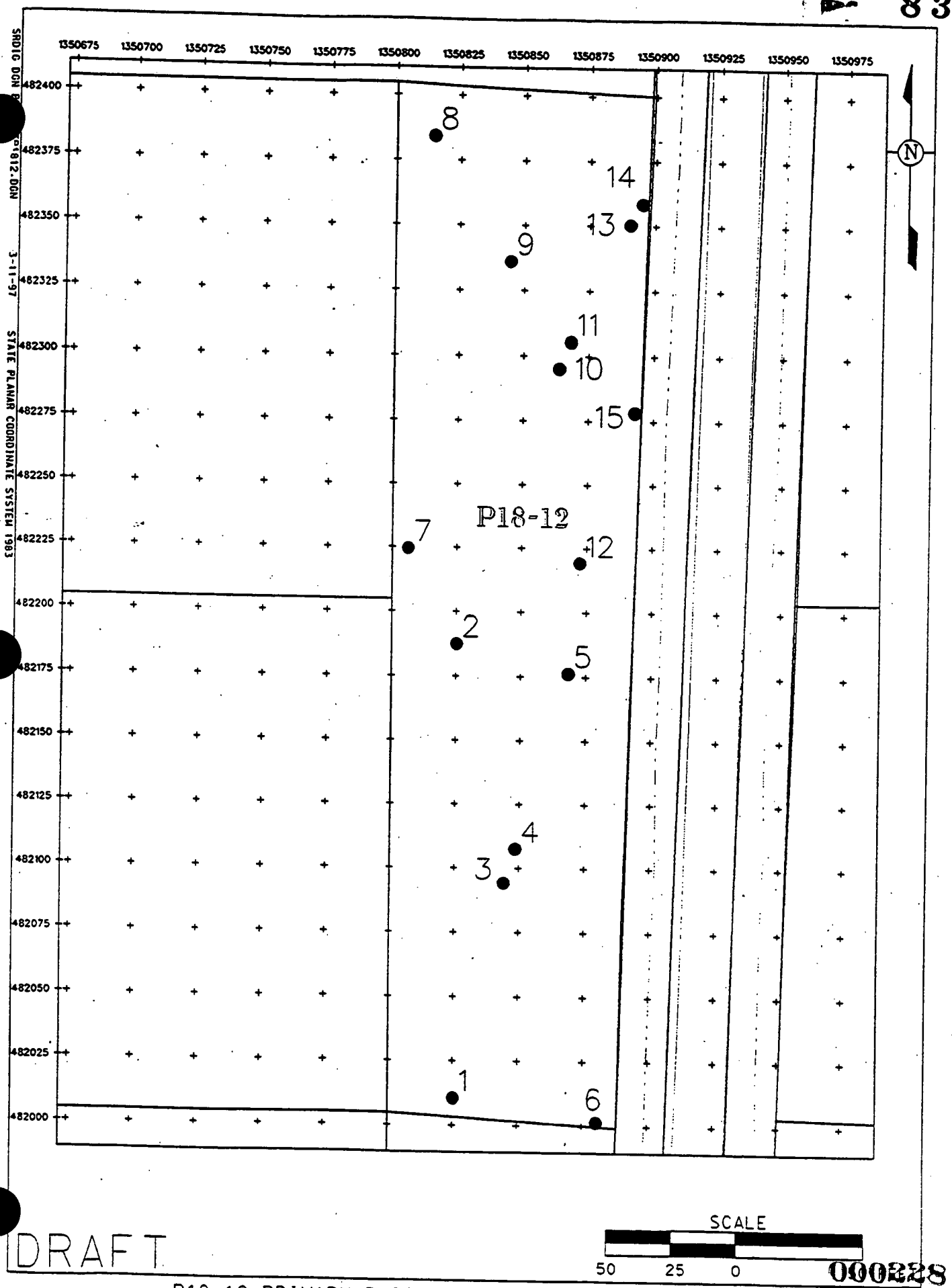
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration..

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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000228

P18-12 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P18-12 03:55 PM 21-May-97

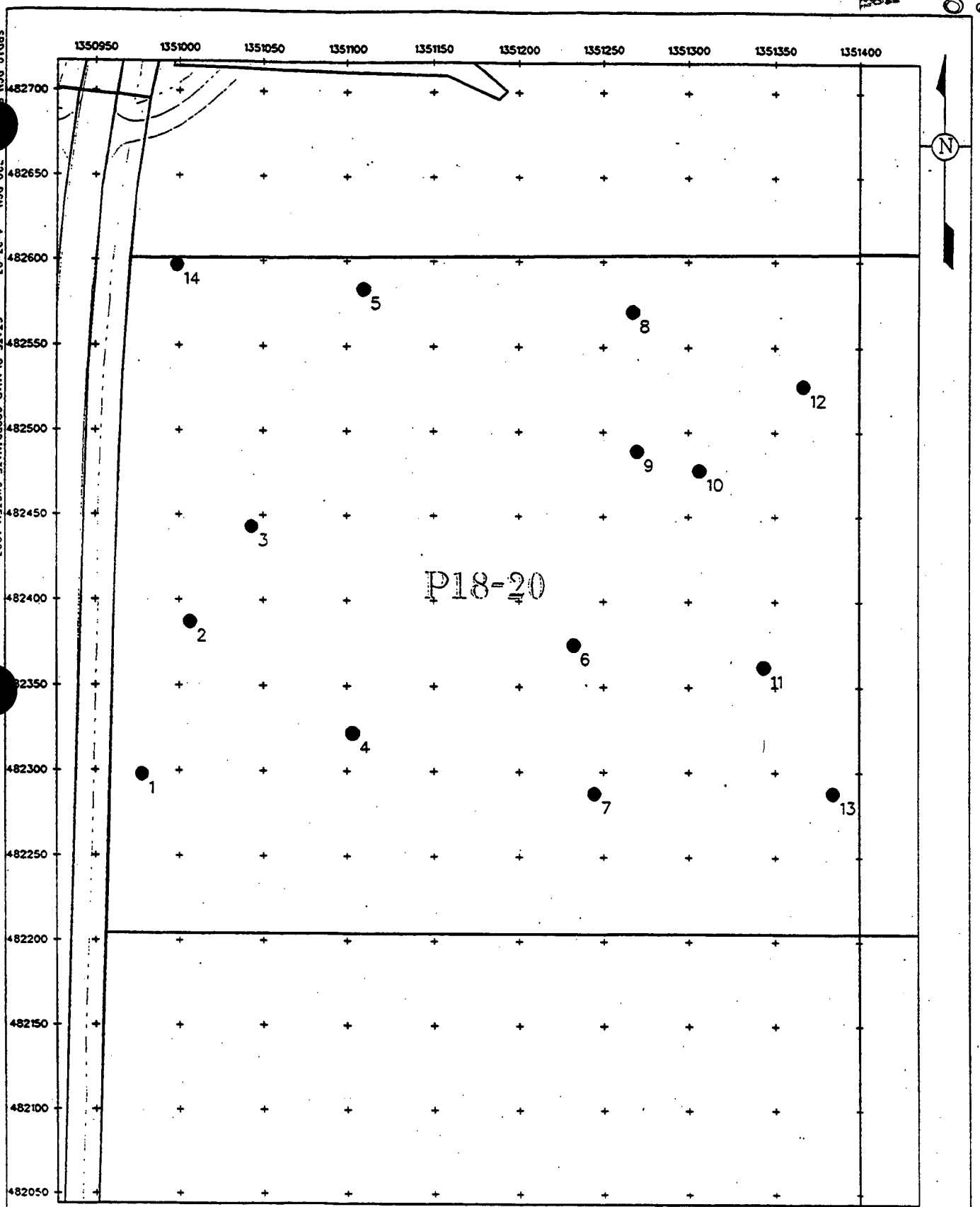
		PRIMARY ASCOCs				
Sp	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	P17-34C-825010	0.92 -	0.84 -	0.86 J	0.88 J	9.6 J
2	P17-34C-825187	0.767 -	0.634 -	1.08 -	0.756 -	7.0 J
3	P17-34C-844094	1.7 -	1.6 -	1.6 -	1.5 -	8.4 J
4	P17-34C-848107	1.33 -	1.51 -	1.28 -	1.43 -	14.7 U
5	P17-34C-868176	1.114 -	0.995 -	1.11 -	0.955 -	5.3 J
6	P17-34C-880001	1.2 -	1.2 -	1.1 -	1.2 -	7.5 J
7	P18-12C-806224	0.924 -	0.858 -	1.16 -	0.787 -	8.0 -
8	P18-12C-814384	1.7 J	1.4 -	1.3 -	1.3 -	14.7 -
9	P18-12C-844336	1.6 J	1.5 -	1.6 J	1.5 J	7.2 -
10	P18-12C-863295	1.126 -	1.432 -			5.5 J
11	P18-12C-868305	1.6 J	1.2 -	1.4 -	1.4 -	6.9 -
12	P18-12C-872219	2 J	1.6 -	1.4 -	1.4 -	6.0 -
13	P18-12C-890350	1.4 J	1.1 -	1.3 -	1.2 -	7.8 -
14	P18-12C-902358	1.3 J	1.1 -	0.99 J	1.2 J	4.8 -
15	P18-12C-903278	1.6 J	1.3 -	1.2 -	1.2 -	4.8 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.7**	**1.8**	**1.7**	**1.5**	**82**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	15	15	14	14	15
	Hits	15	15	14	14	14
	Max	**2.00**	**1.60**	**1.60**	**1.50**	**14.7**
	Mean	1.35	1.22	1.24	1.19	7.4
	St.Dev.	0.35	0.30	0.21	0.26	2.44
	UCL	**1.51**	**1.35**	**1.34**	**1.31**	**8.5**
	t-Stat	3.87	7.59	8.01	4.48	118.38
	Prob.	0.1%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

E-837



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SCALE

80 40 0 80 FEET

P18-20 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000230

Certification Unit: P18-20 03:50 PM 21-May-97

p	Sample ID	PRIMARY ASCOCs: Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	P18-12C-977297	1.5 -	1.3 -	1 J	0.93 J	19.2 -
2	P18-20C-006387	1.1 -	0.94 -	0.95 -	0.93 -	9.9 -
3	P18-20C-043443	1.3 -	1 -	0.89 -	0.88 -	5.7 -
4	P18-20C-103322	1.2 -	1.2 -	1.3 -	1.1 -	15.6 -
5	P18-20C-109583	1.5 -	1.3 -	1.2 J	1.1 J	5.7 -
6	P18-20C-232374	0.88 -	1.4 -	1.26 J	1.27 J	9.0 U
6	P18-20C-232374-D	1.7 -	1.3 -	1.4 J	1.1 J	9.0 -
7	P18-20C-244287	1.2 -	1.2 -	0.96 -	0.99 -	6.6 -
8	P18-20C-267570	1.2 -	1.1 -	0.85 -	1.2 -	7.2 -
9	P18-20C-269488	1.1 -	1.3 -	1.4 -	1.4 -	10.5 -
10	P18-20C-306477			1 J	0.96 J	
11	P18-20C-343361	1.4 -	1.3 -	1.1 -	1.3 -	3.3 J
12	P18-20C-366527	1.4 -	1.5 -	1.2 -	1.2 -	15.9 -
13	P18-20C-384287	1.4 -	1.3 -	1.2 -	1.3 -	12.9 -
14	P18C-998597	1.4 -	1.4 -	1.1 J	1.2 J	10.5 -

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	13	13	14	14	13
Hits	13	13	14	14	13
Max	**1.50**	**1.50**	**1.40**	**1.40**	**19.2**
Mean	1.31	1.25	1.11	1.12	10.0
St.Dev.	0.14	0.16	0.17	0.16	4.75
UCL	**1.38**	**1.32**	**1.19**	**1.20**	**12.3**
t-Stat	10.25	12.80	13.00	8.81	54.62
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

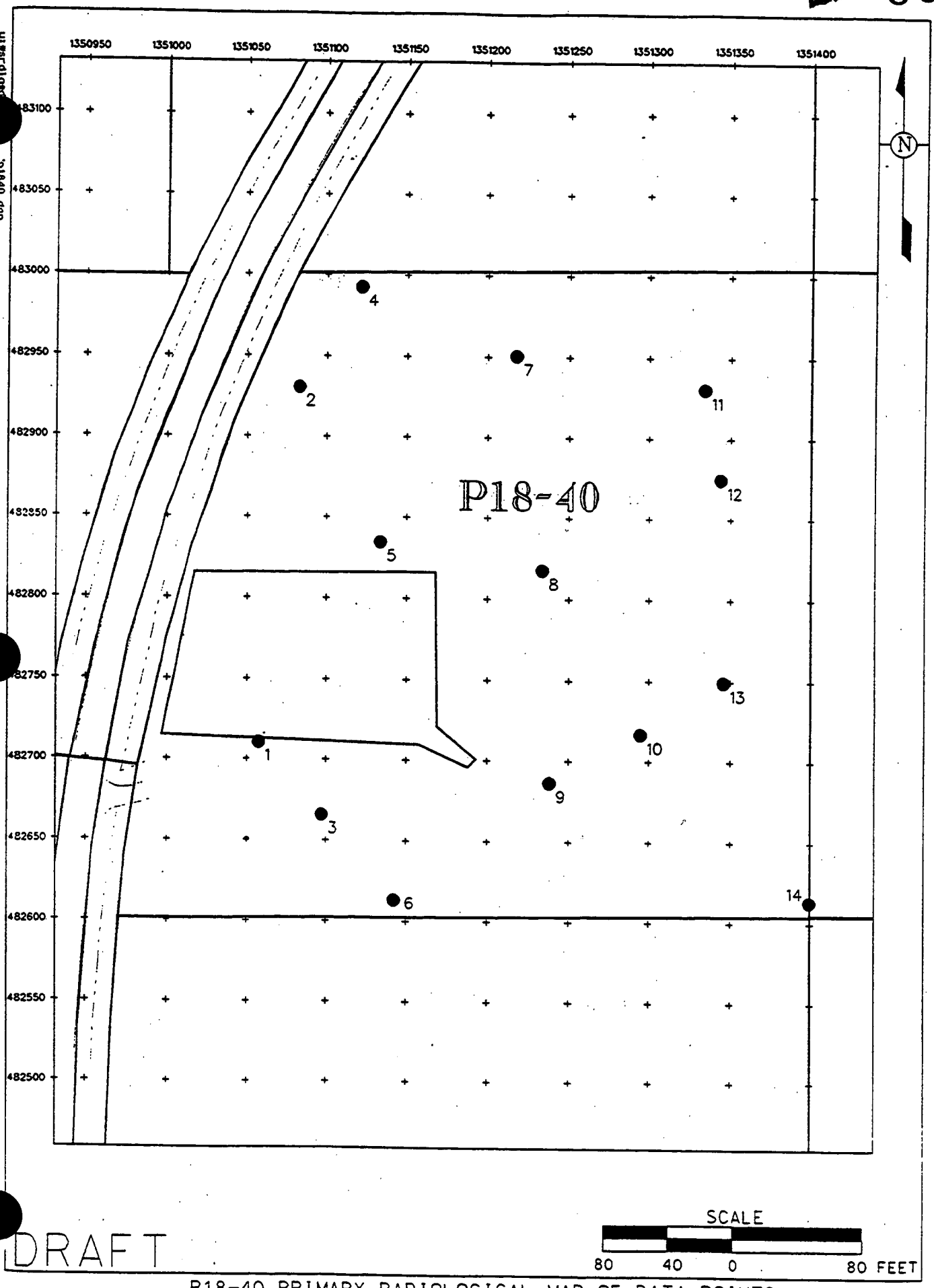
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P18-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000232

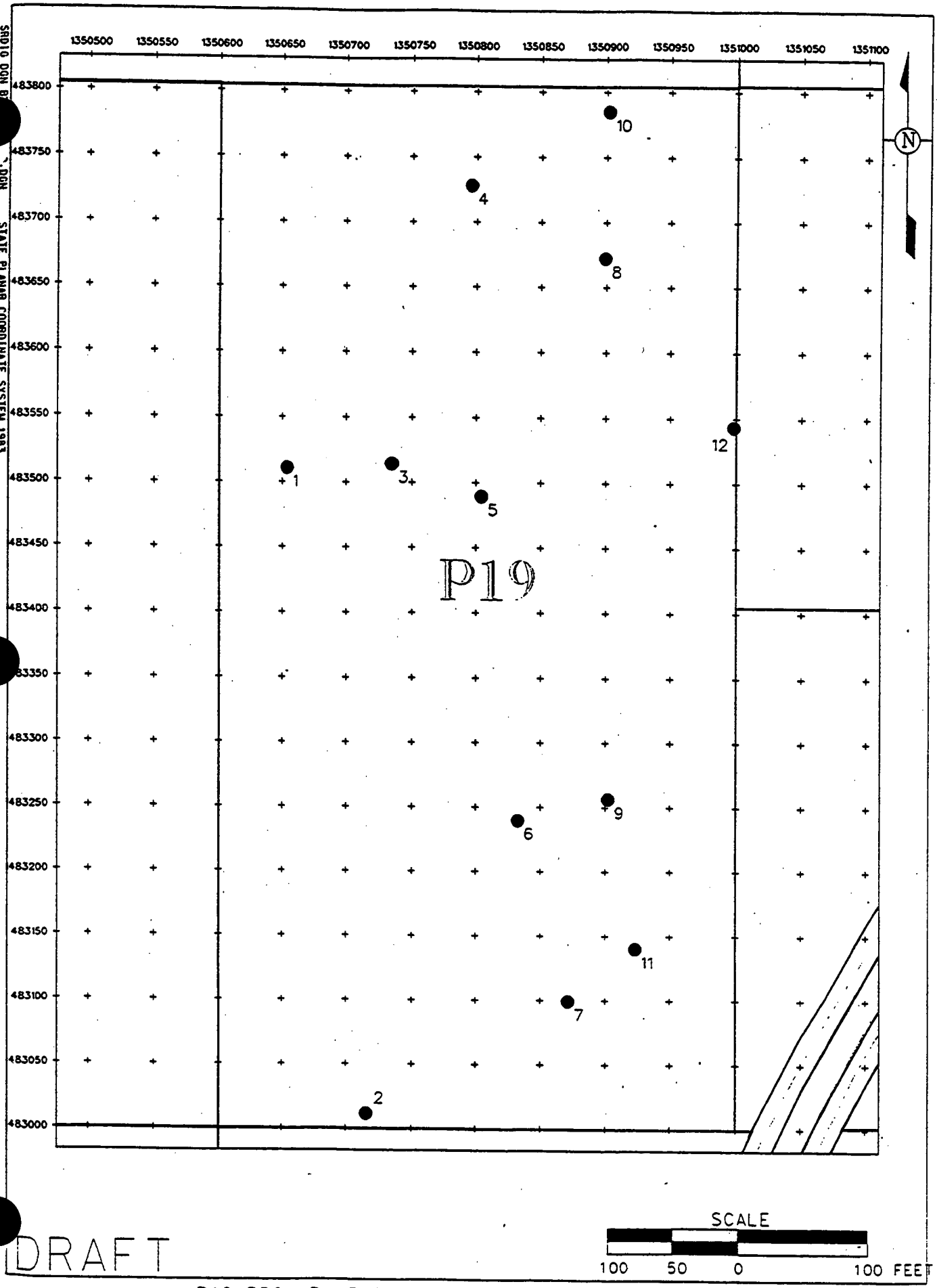
Certification Unit: P18-40 03:08 PM 21-May-97

		PRIMARY ASCOCs									
#	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	P18-40C-057710	1.06	-	1.13	-	1.29	-	1.04	-	11.9	-
2	P18-40C-082930	0.91	-	1.18	-	1.09	-	0.97	-	10.2	U
3	P18-40C-097665	1.2	-	1.3	-	1.1	J	1	J	7.2	-
4	P18-40C-121992	1.29	-	1.08	-	1.4	-	1.15	-	2.7	J
5	P18-40C-133834	1.74	-	1.63	-	1.03	J	0.9	J	22.2	J
6	P18-40C-142613	1.3	-	1.1	-	1.1	J	1	J	2.8	U
7	P18-40C-217950	1.04	-	1.39	-	1.15	J	0.99	J	11.1	U
8	P18-40C-233817	1.81	-	1.32	-	1.13	-	1.17	-	36.9	-
8	P18-40C-233817-D	1.45	-	0.88	J	1.11	-	1.16	-	30.9	-
9	P18-40C-238686	1.3	-	1.2	-	1.7	J	1.4	J	9.6	-
10	P18-40C-294716	1.79	-	1.62	-	1.22	-	1.23	-	41.4	-
11	P18-40C-333930	1.55	-	1.24	-	1.58	-	1.29	-	4.4	J
12	P18-40C-343874	1.06	-	1.03	-	1.08	-	1.16	-	9.6	U
13	P18-40C-345749	1.38	-	1.04	J	0.81	J	0.76	J	10.5	U
14	P18-40C-399613	1.26	-	1.2	-	1.81	-	1.39	-	7.0	-
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	14		14		14		14		14	
	Hits	14		14		14		14		9	
	Max	**1.79**		**1.63**		**1.81**		**1.40**		**41.4**	
	Mean	1.32		1.23		1.25		1.10		11.6	
	St.Dev.	0.27		0.19		0.28		0.19		12.22	
	UCL	**1.45**		**1.32**		**1.38**		**1.19**		**17.4**	
	t-Stat	5.22		10.96		6.05		8.01		21.56	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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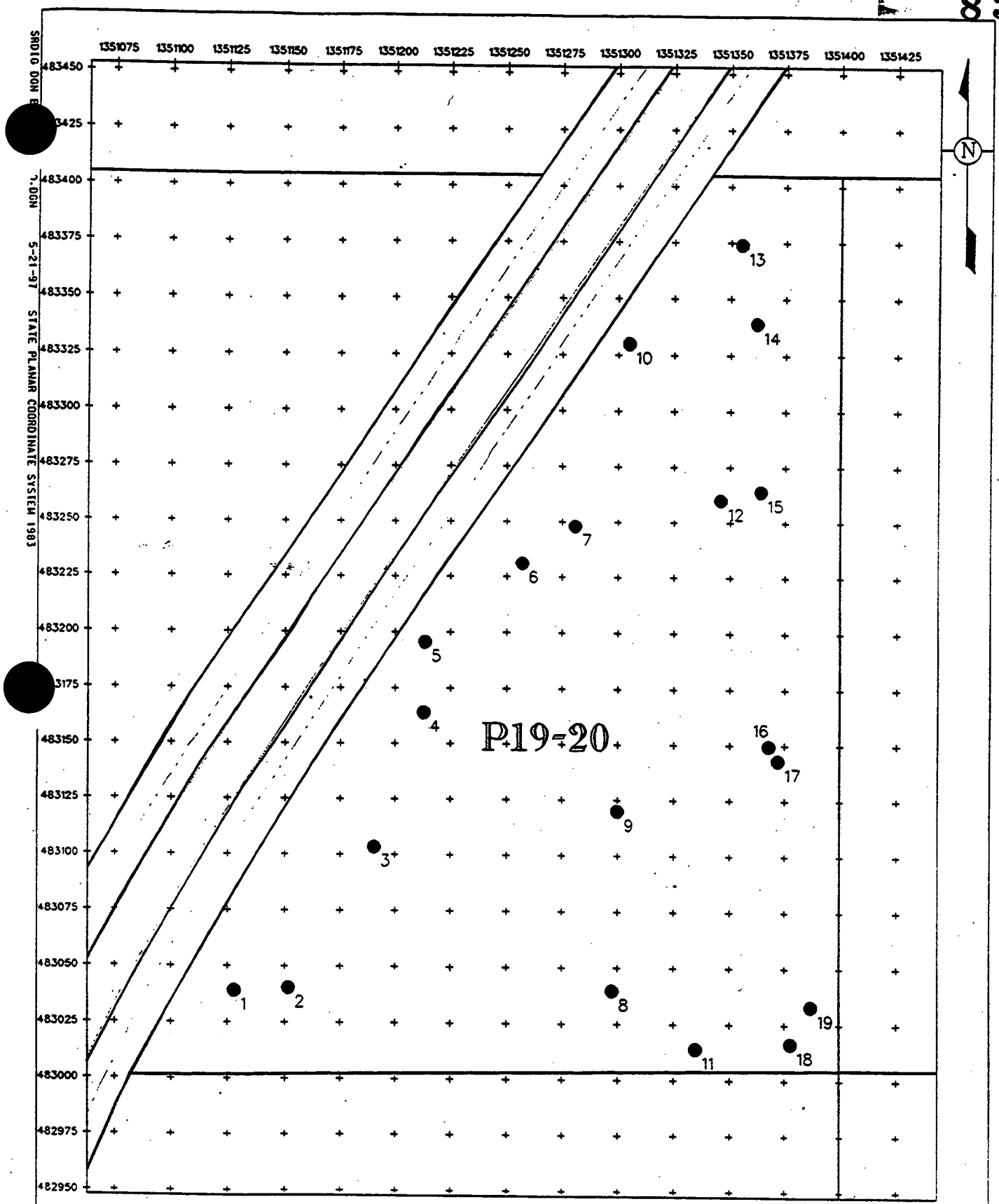
P19 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P19 02:01 PM 19-May-97

		PRIMARY COCs				
Map	Sample ID	Radium-226	Radium-228	Thorium-226	Thorium-232	Uranium Total
1	P19C-653510	1.08 -	1.21 -	1.58 -	1.09 -	19.4 -
2	P19C-716011	1.02 -	1.33 -	1.42 -	1.16 -	17.9 -
3	P19C-734514	1.02 -	1.14 -	1.56 -	1.07 -	23.2 -
4	P19C-796728	1.13 -	1.27 -	1.39 -	1.62 -	23.6 -
5	P19C-804489	0.91 -	1.22 -	1.28 -	0.88 -	23.5 -
6	P19C-832239	1.07 -	1.26 -	1.12 -	0.96 -	38.1 -
7	P19C-871099	1.21 -	1.33 -	0.99 J	1.13 J	18.5 -
8	P19C-899672	0.96 -	1.21 -	1.44 -	1.1 -	21.0 -
9	P19C-902256	1.16 -	0.97 -	1.21 -	1.13 -	20.2 -
10	P19C-902785	0.98 -	1.26 -	1.42 -	1.24 -	18.0 -
11	P19C-923140	1.15 -	1.23 -	1.3 -	0.98 -	28.9 -
12	P19C-998543	1.08 -	1.2 -	1.53 -	1.06 -	24.2 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	12	12	12	12	12
	Hits	12	12	12	12	12
	Max	**1.21**	**1.33**	**1.58**	**1.62**	**38.1**
	Mean	1.07	1.22	1.35	1:12	23.0
	St.Dev.	0.09	0.10	0.18	0.19	5.74
	UCL	**1.11**	**1.27**	**1.45**	**1.21**	**26.0**
	t-Stat	24.54	21.14	6.66	7.13	35.58
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SCALE

60 30 0 60 FEET

P19-20 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

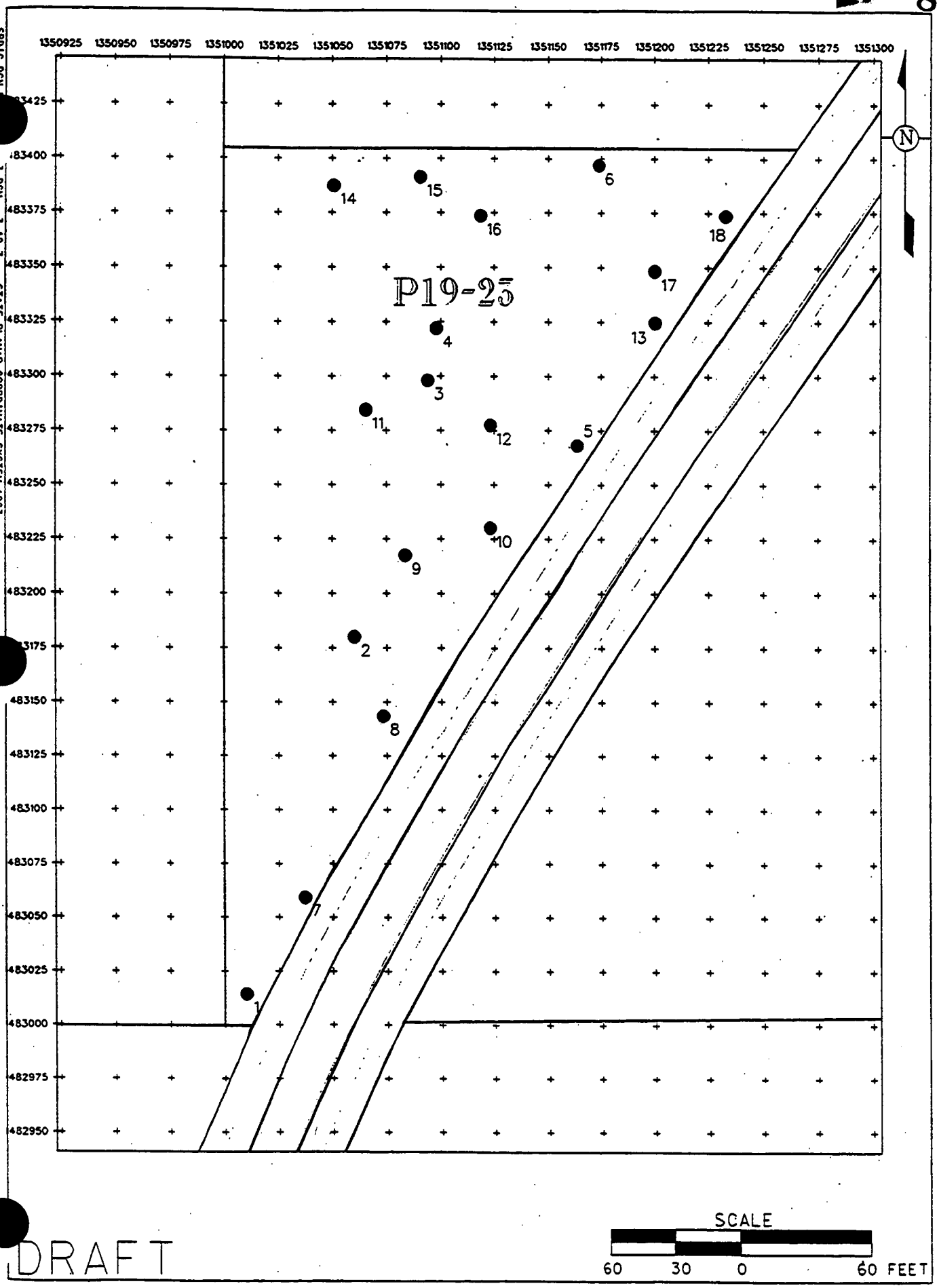
Certification Unit: P19-20 03:11 PM 21-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
	P19-20C-1-R	1	-	1	-	0.9	J	1	-	10.8	-
1	P19-20C-1-R-D	0.95	-	0.97	-	0.97	J	1.18	-	9.9	-
2	P19-20C-151040	1.18	-	0.74	J	1.12	-	1.04	-	13.8	U
3	P19-20C-190103	1.44	-	1.3	-	1.36	-	1.24	-	17.1	U
4	P19-20C-6-R	1.3	-	1.3	-	1.29	J	1.03	-	11.1	-
5	P19-20C-213195	1.3	-	1.06	-	1.19	-	1.11	-	12.0	U
6	P19-20C-10-R	1.3	-	1.2	-	1.15	J	1.11	-	7.8	J
7	P19-20C-11-R	1.2	-	1.3	-	1.08	J	1.11	-	9.0	J
8	P19-20C-297039	1.06	-	0.91	-	1.03	-	1.01	-	13.2	U
9	P19-20C-8-R	1.1	-	0.96	-	1.21	J	0.89	-	9.6	J
10	P19-20C-14-R	1.2	-	1.2	-	1.21	J	1.05	-	3.3	J
11	P19-20C-4-R	0.98	-	1.1	-	0.91	J	1.1	-	9.3	J
12	P19-20C-12-R	1.1	-	1	-	1.3	J	1.1	-	10.8	J
13	P19-20C-15-R	1.1	-	1.1	-	1.39	J	1.07	-	4.5	J
14	P19-20C-16-R	1.46	-	1.4	-	1.63	-	1.27	-	2.9	-
15	P19-20C-13-R	1.2	-	1.1	-	1.15	J	0.94	-	18.3	-
16	P19-20C-367150	1.14	-	1.29	-	1.18	-	1.29	-	32.1	-
17	P19-20C-9-R	1	-	0.85	-	0.75	J	1.01	-	17.4	-
18	P19-20C-377016	1.18	-	1.4	-	1.12	-	1.13	-	11.1	U
19	P19-20C-5-R	1.1	-	1.1	-	1.01	J	1.2	-	4.5	J

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	1.70	1.80	1.70	1.50	82.0
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	19	19	19	19	19
Hits	19	19	19	19	14
Max	1.46	1.40	1.63	1.30	32.1
Mean	1.17	1.12	1.16	1.09	9.7
St.Dev.	0.14	0.18	0.19	0.10	6.80
UCL	1.23	1.19	1.24	1.14	12.4
t-Stat	16.48	16.03	12.11	16.93	46.31
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	Pass	Pass	Pass	Pass	Pass
2 x (P/F)	Pass	Pass	Pass	Pass	Pass

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P19-23 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: P19-23 03:12 PM 21-May-97

		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	P19-20C-010014	1.33 -	1.03 J	1.34 -	1.41 J	14.6 J
2	P19-20C-060180	0.83 -	1.57 -	1.33 -	1.25 J	40.5 -
3	P19-20C-094298	0.64 -	1.07 -	1.26 J	1.25 J	23.5 -
4	P19-20C-098322	0.69 -	0.96 -	1.15 -	1.22 J	22.4 -
5	P19-20C-163268	1.07 -	1.81 -	1.26 -	1.2 J	18.6 U
6	P19-20C-174397	1.37 -	1.61 -	1.25 -	1.29 J	38.3 -
7	P19-23C-1-R	1.6 -	1.2 -	1.2 J	0.94 J	12.0 -
8	P19-23C-3-R	1.6 -	1.3 -	1.4 J	1.2 J	10.8 -
9	P19-23C-6-R	1.6 -	1.3 -	1.3 -	1.3 -	22.2 J
9	P19-23C-6-R-D	1.6 -	1.25 -	1.4 -	1.4 -	15.6 J
10	P19-23C-7-R	1.5 -	1.45 -	1.4 J	1.4 J	11.7 -
11	P19-23C-9-R	1.6 -	1.6 -	1.5 J	1.4 J	23.7 -
12	P19-23C-10-R	1.6 -	1.4 -	1.3 -	1.1 -	10.8 -
13	P19-23C-11-R	1.3 -	1.3 -	1.4 J	1.3 J	19.8 -
14	P19-23C-12-R	1.6 -	1.3 -	1.4 J	1.2 J	9.3 -
15	P19-23C-13-R	1.4 -	1.4 -	1.6 -	1.5 -	15.6 -
16	P19-23C-14-R	1.4 -	1.45 -	1.5 J	1.2 J	15.9 -
17	P19-23C-15-R	1.3 -	1.3 -	1.2 -	1.2 -	23.4 -
18	P19-23C-16-R	1.6 -	1.4 -	1.3 J	1.2 J	8.4 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	18	18	18	18	18
	Hits	18	18	18	18	17
	Max	**1.60**	**1.81**	**1.60**	**1.50**	**40.5**
	Mean	1.34	1.36	1.34	1.26	18.3
	St.Dev.	0.32	0.22	0.12	0.13	9.32
	UCL	**1.47**	**1.45**	**1.39**	**1.31**	**22.1**
	t-Stat	4.82	8.72	13.03	8.05	29.01
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

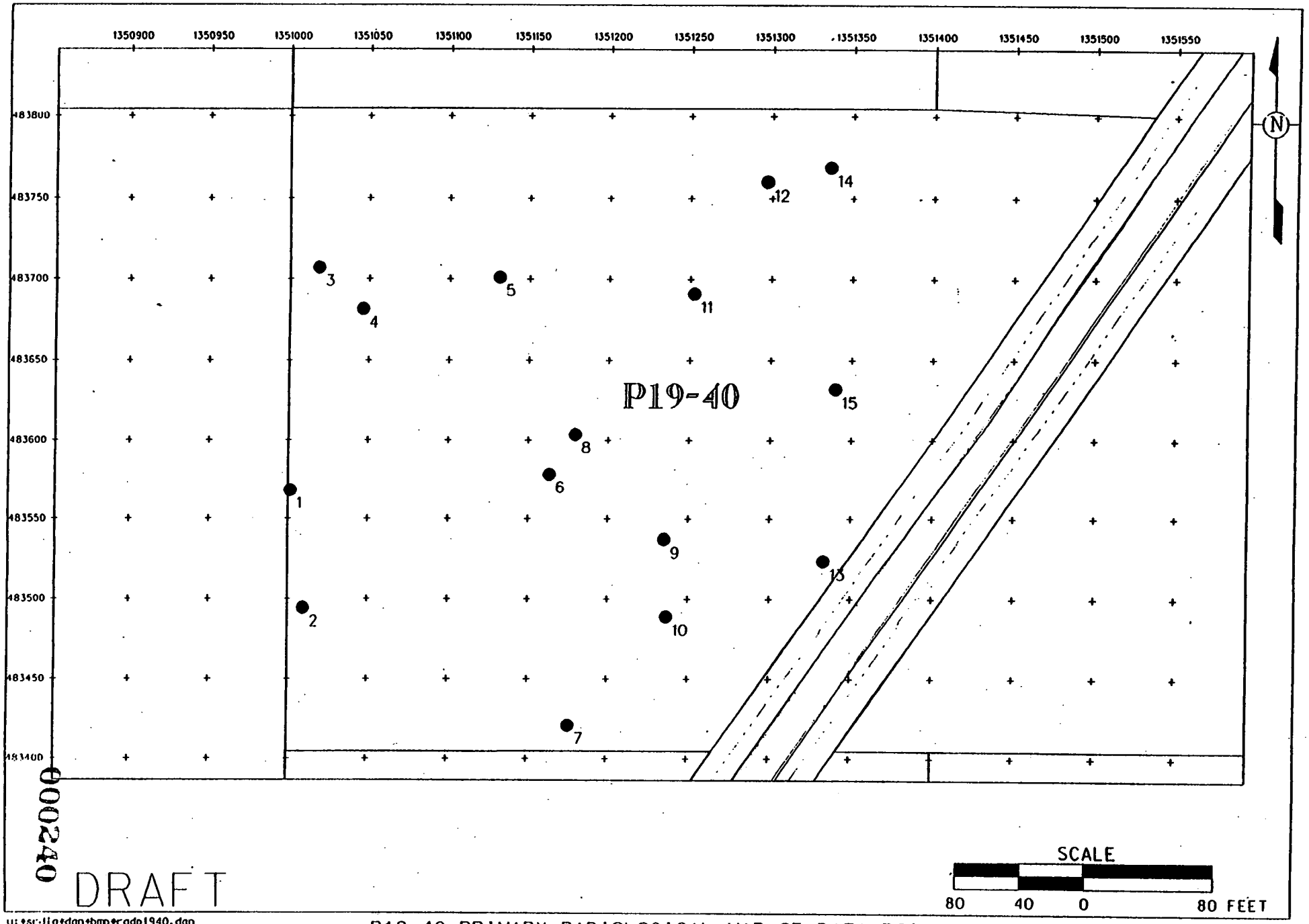
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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P19-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

832

Certification Unit: P19-40 03:11 PM 21-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	P19-40C-001567	0.96	-	1.13	-	1.23	-	1.16	-	19.4	-
2	P19-40C-009494	1.03	-	1.18	-	1.36	-	0.92	-	17.3	-
3	P19-40C-018707	1.15	-	1.4	-	1.04	J	1.1	J	27.3	-
4	P19-40C-046680	0.89	-	1.16	-	0.97	J	0.95	J	16.1	-
5	P19-40C-131701	1.39	-	1.5	-	1.21	J	1.14	J	13.6	J
6	P19-40C-163578	0.92	-	1.17	-	1.54	-	0.95	-	7.0	J
7	P19-40C-176421	1.07	-	1.17	-	1.35	-	1.07	-	21.2	-
8	P19-40C-179603	0.91	-	1.15	-	1.31	-	1.04	-	17.2	-
9	P19-40C-235537	1.06	-	1.17	-	1.06	-	1.28	-	24.2	-
10	P19-40C-237489	0.69	-	0.61	-	1.02	J	1.22	J	9.2	J
11	P19-40C-252690	1.02	-	1.18	-	1.22	-	1.05	-	22.5	-
12	P19-40C-297760	0.99	-	1.26	-	0.82	-	0.74	-	24.6	-
13	P19-40C-333523	1.17	-	1.27	-	1.45	-	1	-	22.4	-
14	P19-40C-336769	0.98	-	1.12	-	1.45	-	1.16	-	19.1	-
15	P19-40C-340632	1.18	-	1.04	-	1.15	J	1.13	J	18.5	-

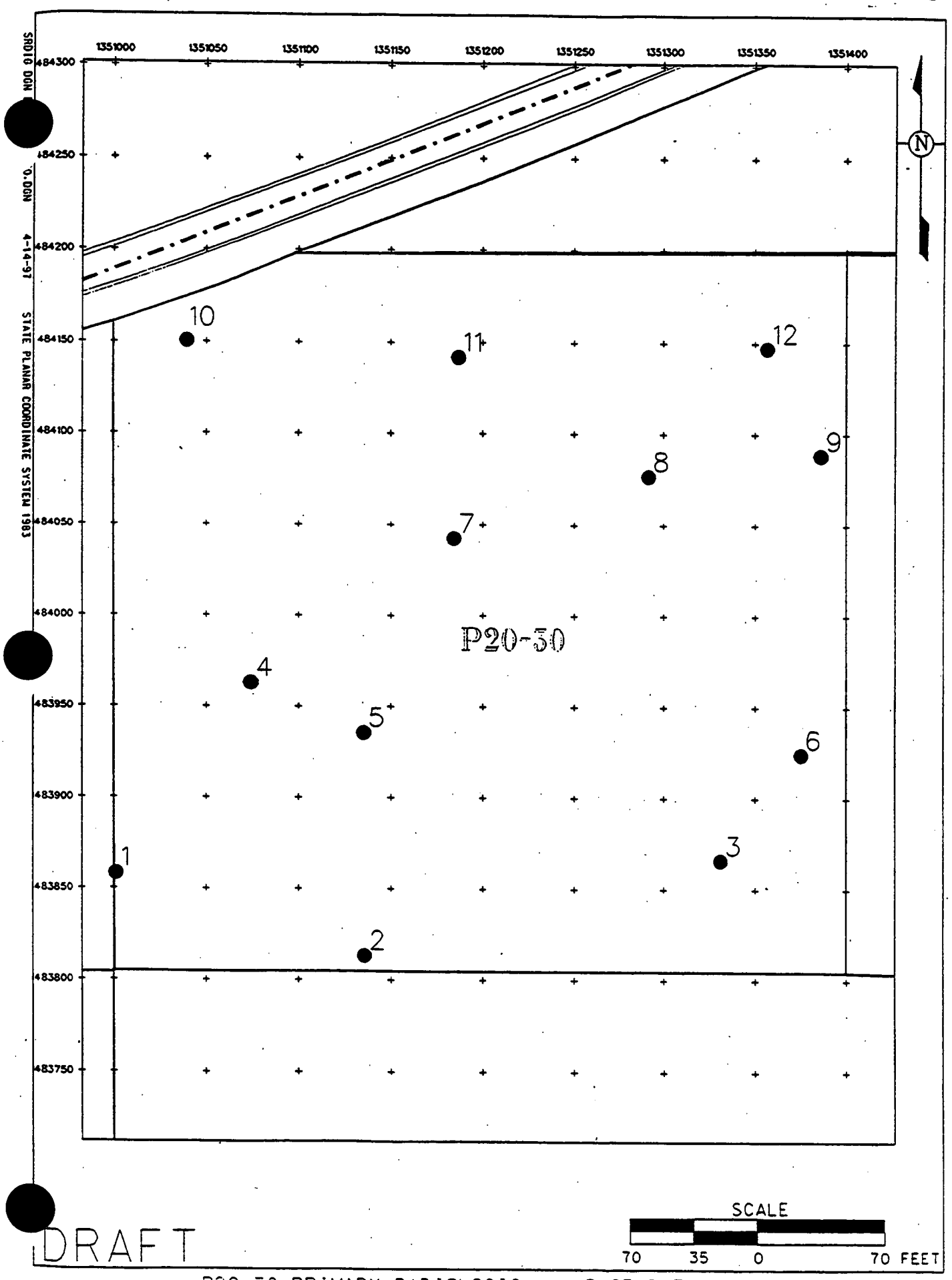
Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	15	15	15	15	15
Hits	15	15	15	15	15
Max	**1.39**	**1.50**	**1.54**	**1.28**	**27.3**
Mean	1.03	1.17	1.21	1.06	18.6
St.Dev.	0.16	0.19	0.20	0.13	5.59
UCL	**1.10**	**1.26**	**1.30**	**1.12**	**21.2**
t-Stat	16.23	12.81	9.32	12.60	43.86
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

E-837



DRAFT

P20-30 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

000242

Certification Unit: P20-30 10:57 AM 20-May-97

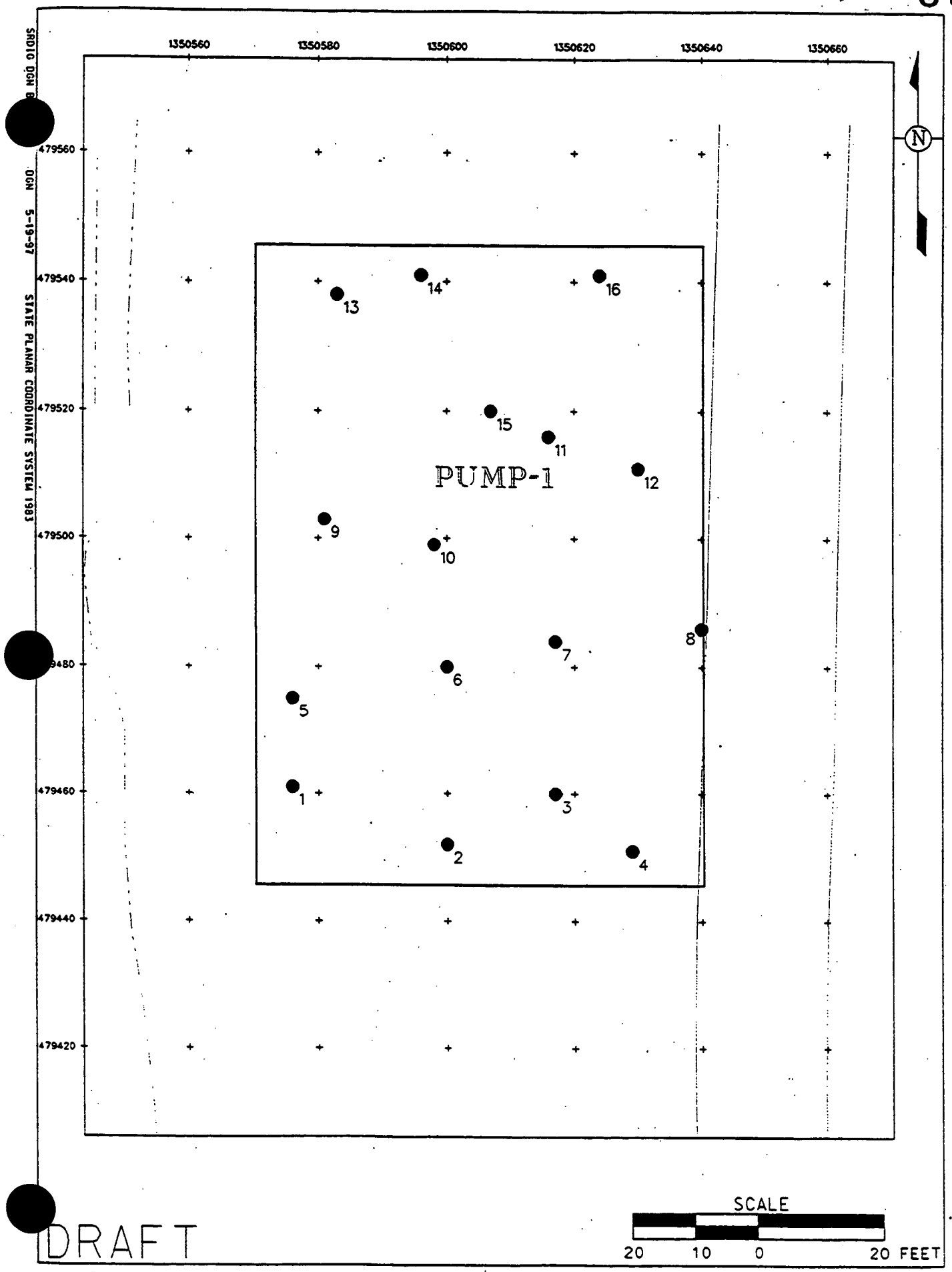
Map	Sample ID	PRIMARY COCs Radium-226		Radium-226		Thorium-232		Thorium-232		Uranium-total	
1	P20-20C-1-R	0.97	-	1.22	-	1.24	-	1.06	-	20.0	-
2	P20-20C-2-R	1.16	-	1.3	-	0.91	-	0.93	-	19.3	-
3	P20-20C-4-R	1.66	-	2.05	-	1.41	J	1.32	-	23.3	J
4	P20-20C-5-R	1.02	-	1.26	-	1.09	J	1.01	J	19.0	-
5	P20-20C-6-R	1.01	-	1.11	-	1.32	-	1.27	-	25.4	-
6	P20-20C-8-R	1.05	-	1.07	-	1.58	-	1.17	-	20.5	-
7	P20-20C-10-R	1.11	-	1.28	-	1.85	-	1.18	-	23.8	-
8	P20-20C-11-R	0.97	-	1.18	-	1.23	-	1.13	-	17.0	-
9	P20-20C-12-R	1.22	-	2.21	-	1.42	J	1.42	-	22.2	-
10	P20-20C-13-R	0.82	-	1.16	-	1.16	J	1.09	J	26.9	-
11	P20-20C-14-R	0.92	-	1.23	-	1.16	J	1.1	J	16.5	-
12	P20-20C-16-R	1.06	-	1.2	-	1.27	-	1.18	-	18.6	-
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**	
	FRL	**1.7**		**1.8**		**1.7**		**1.5**		**82**	
	Background UCL	1.22		1.10		1.12		1.08		3.30	
	Background 95%	1.42		1.25		1.43		1.36		3.73	
	Samples	12		12		12		12		12	
	Hits	12		12		12		12		12	
	Max	**1.66**		**2.21**		**1.85**		**1.42**		**26.9**	
	Mean	1.08		1.36		1.30		1.16		21.0	
	St.Dev.	0.21		0.37		0.24		0.14		3.29	
	UCL	**1.19**		**1.55**		**1.43**		**1.23**		**22.7**	
	t-Stat	10.11		4.16		5.63		8.76		64.14	
	Prob.	0.0%		0.1%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

E 837



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PUMP-1 PRIMARY AND SECONDARY RADIOLOGICAL AND MAP OF DATA POINTS

000244

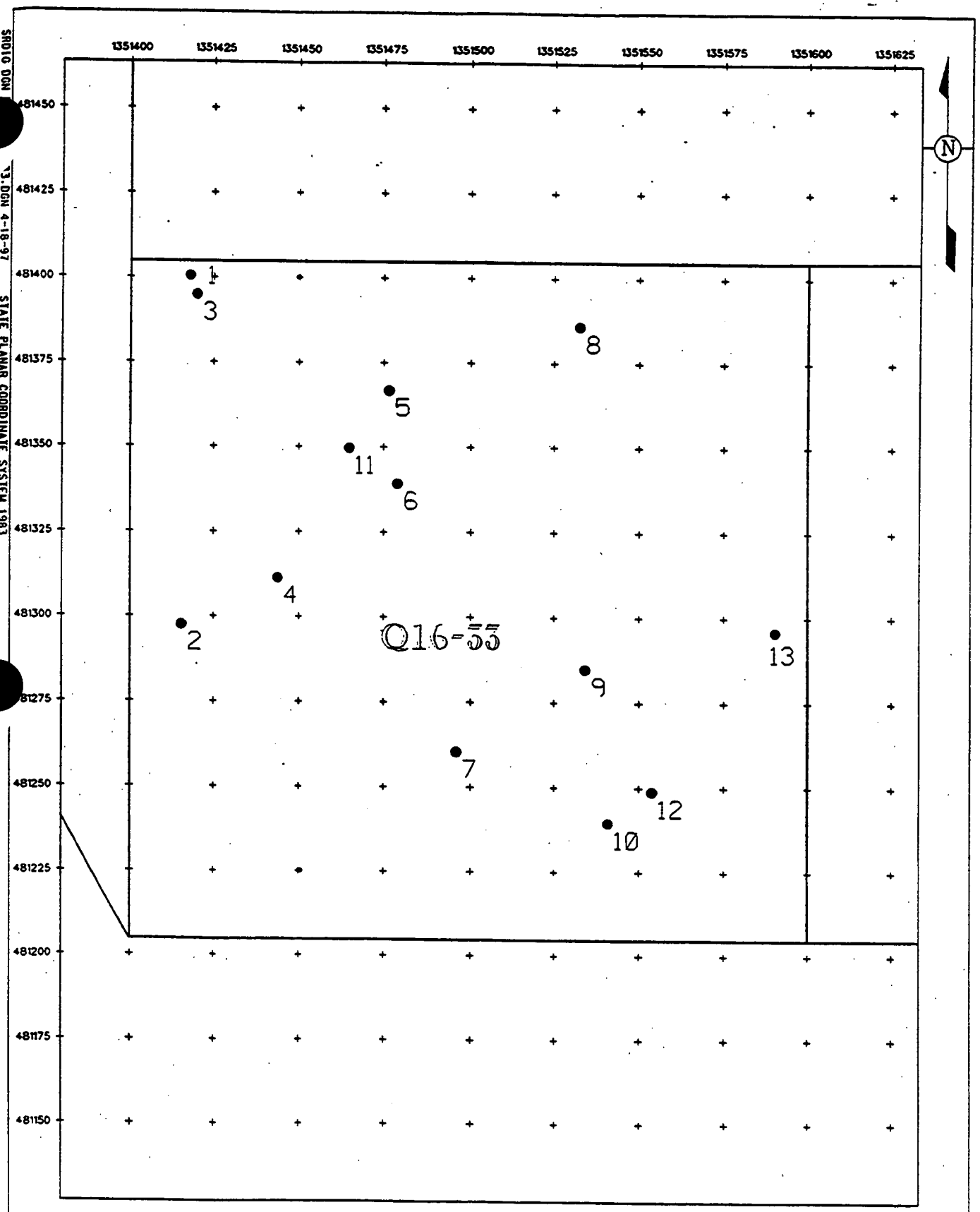
Certification Unit: PUMP-1 12:52 PM 22-May-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
	PUMP1-C-1-RS	1.64 -	1.47 -	1.42 -	1.25 -	7.8 -	0.1 U	1.8 -
	PUMP1-C-2-RS	1.33 -	1.11 -	1.42 J	1.2 J	15.0 -	0.28 -	1.76 J
3	PUMP1-C-3-RS	1.22 -	1.22 -	1.35 -	1.15 -	9.5 -	0.15 J	1.61 -
4	PUMP1-C-4-RS	1.32 -	1.44 -	1.37 -	1.2 -	8.5 -	0.13 U	1.59 -
5	PUMP1-C-5-RS	1.59 -	1.42 -	1.26 -	1.49 -	7.9 -	0.11 -	1.92 -
6	PUMP1-C-6-RS	1.47 -	1.31 -	1.23 J	1.08 J	3.7 J	0.09 U	1.56 J
7	PUMP1-C-7-RS	1.43 -	1.31 -	1.34 -	0.94 -	6.9 -	0.1 U	1.46 -
8	PUMP1-C-8-RS	1.5 -	1.23 -	1.43 -	1.13 -	6.1 J	0.16 J	1.6 -
9	PUMP1-C-9-RS	1.23 -	1.08 -	1.44 -	0.94 -	10.5 -	0.1 U	1.66 -
10	PUMP1-C-10-RS	1.4 -	1.32 -	1.39 J	1.01 -	3.5 -	0.09 U	1.5 -
11	PUMP1-C-11-RS	1.32 -	1.06 -	1.55 J	1.15 -	11.9 -	0.15 -	1.78 -
11	PUMP1-C-11-RS-D	1.29 -	1.39 -	1.25 J	1.08 -	9.1 -	0.1 U	1.58 -
12	PUMP1-C-12-RS	1.33 -	1.12 -	1.28 J	0.95 -	8.0 -	0.23 -	1.6 -
13	PUMP1-C-13-RS	1.19 -	1.11 -	1.24 J	1.09 J	8.8 -	0.12 U	1.63 J
14	PUMP1-C-14-RS	1.35 -	1.22 -	1.34 J	0.94 -	3.6 J	0.09 U	1.46 -
15	PUMP1-C-15-RS	1.37 -	1.02 -	1.28 J	0.89 -	6.1 -	0.15 J	1.41 -
16	PUMP1-C-16-RS	1.34 -	1.27 -	1.32 J	1.13 -	6.51 -	0.09 U	1.45 J
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	16	16	16	16	16	16	16
	Hits	16	16	16	16	16	7	16
	Max	**1.64**	**1.47**	**1.44**	**1.49**	**15.0**	**0.28**	**1.92**
	Mean	1.38	1.24	1.34	1.09	7.7	0.10	1.61
	St.Dev.	0.12	0.13	0.07	0.15	2.96	0.07	0.14
	UCL	**1.43**	**1.30**	**1.37**	**1.16**	**9.0**	**0.13**	**1.65**
	t-Stat	10.40	16.76	20.75	10.53	100.53	72.01	8033.68
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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016-33 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

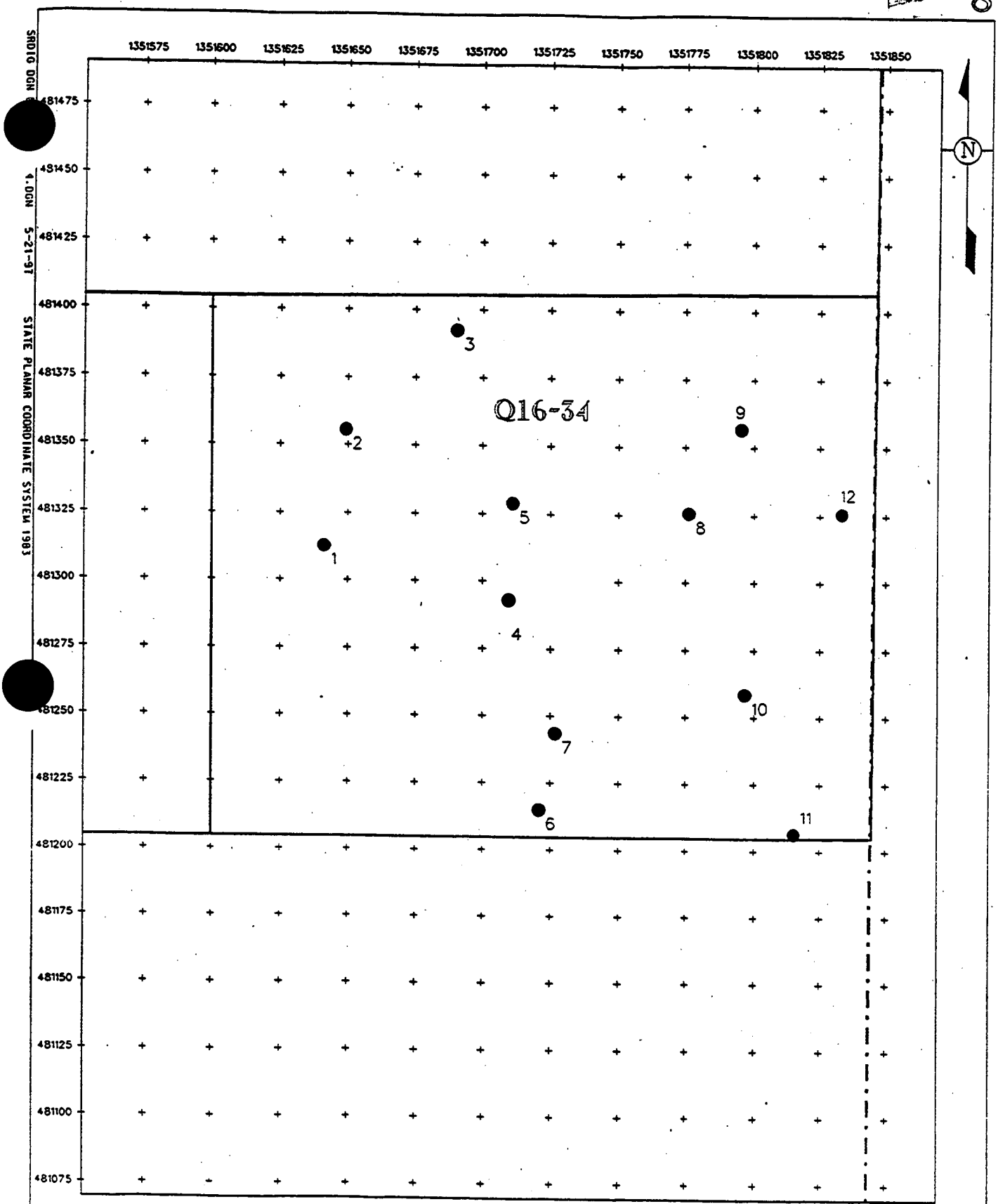
Certification Unit: Q16-33 05:56 AM 19-Jun-97

ap	Sample ID	PRIMARY ASCOCs Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	P17-22C-400417	1.4 -	1.3 -	1.3 J	1.3 J	30.0 -
2	Q16-33C-415297	1.35 -	1.4 -	1.25 J	1.25 J	13.1 U
3	Q16-33C-419394	1.03 -	1.14 -	1.14 -	1.17 -	24.0 -
4	Q16-33C-443311	1.36 -	0.62 UJ	1.22 -	1.24 -	7.5 U
5	Q16-33C-476366	1.03 -	1.32 J	1.14 -	1.18 -	33.6 -
6	Q16-33C-478339	0.99 -	1.18 J	1.26 -	1.22 -	30.6 -
7	Q16-33C-495260	1.09 -	1.41 -	1.29 -	1.21 -	35.2 -
8	Q16-33C-532385	1.47 -	1.35 J	1.15 -	1.32 -	29.2 -
9	Q16-33C-534284	0.9 -	1.49 -	1.49 J	1.38 -	26.4 -
10	Q16-33C-540239	1.84 -	1.61 J	1.64 J	1.34 J	15.3 U
11	Q16-33C-546349	1.44 -	1.71 -	1.37 J	1.25 J	8.7 U
12	Q16-33C-553248	1.34 -	1.75 -	1.29 J	1.37 J	20.7 J
13	Q16-33C-590295	0.69 -	0.92 J	1.42 -	1.22 -	9.3 U
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.7**	**1.8**	**1.7**	**1.5**	**82**
	Background UCL	1.10	1.12	1.08	1.08	1.50
	Background 95%	1.25	1.43	1.36	1.36	1.97
	Samples	13	13	13	13	13
	Hits	13	12	13	13	8
	Max	**1.84**	**1.75**	**1.64**	**1.38**	**35.2**
	Mean	1.23	1.30	1.30	1.26	19.7
	St.Dev.	0.30	0.38	0.15	0.07	12.40
	UCL	**1.38**	**1.48**	**1.38**	**1.30**	**25.9**
	t-Stat	5.65	4.81	9.79	12.06	18.10
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q16-34 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q16-34 11:54 AM 21-May-97

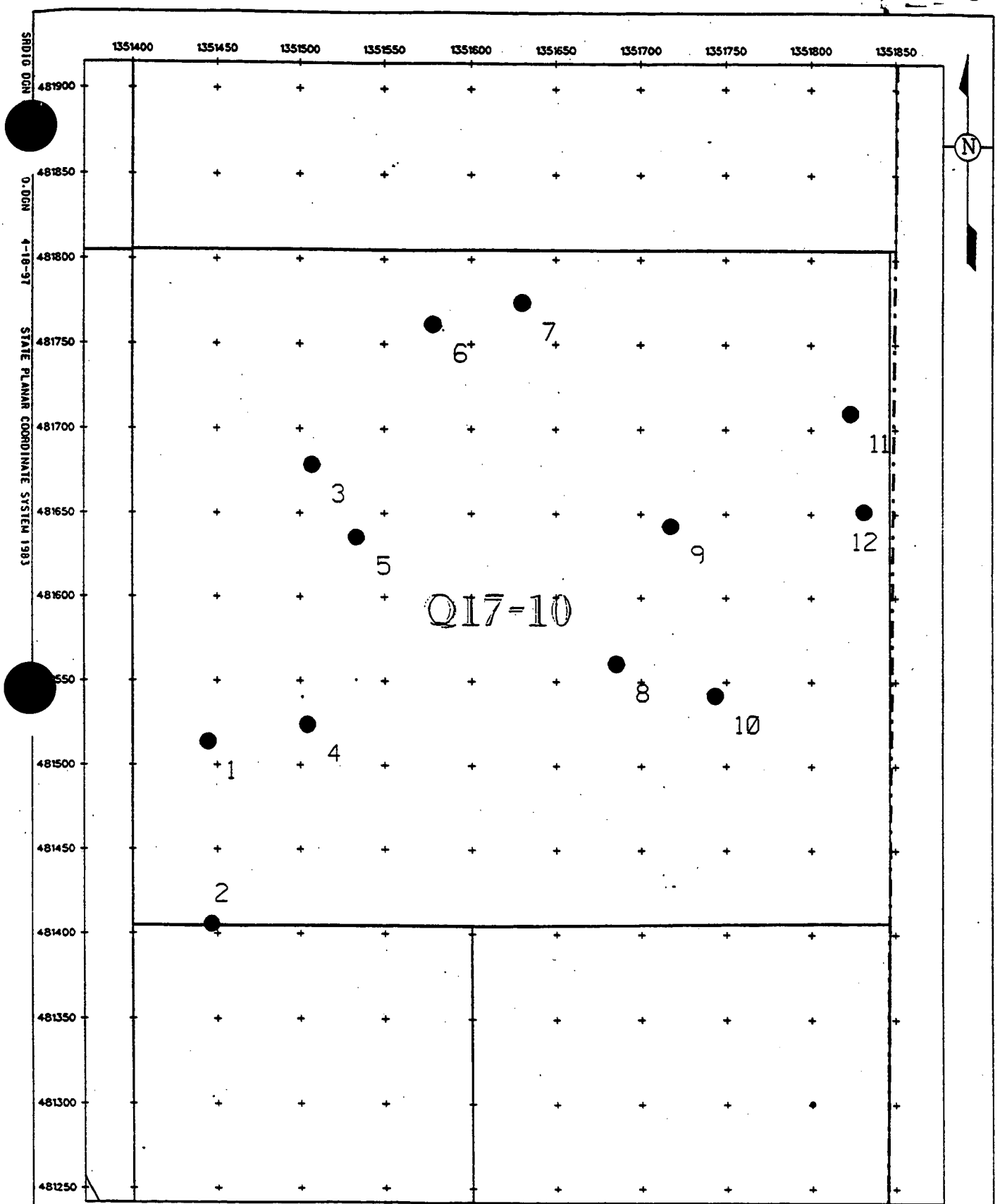
Map	Sample ID	PRIMARY COCs Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium-Total	
	Q16-34C-641312	1.08	-	1.25	-					10.0	J
	Q16-34C2-R-1					1.12	-	1.06	-		
	Q16-34C-649355	1.3	J	1.4	-					11.1	J
2	Q16-34C2-R-2					1.2	-	1.13	-		
3	Q16-34C-690392	1.2	J	1.3	-					17.7	-
3	Q16-34C2-R-3					1.14	-	0.88	-		
4	Q16-34C-709292	1.1	J	1.1	-					8.1	J
4	Q16-34C2-R-4					1.22	-	0.96	-		
5	Q16-34C-711328	1.08	-	1.35	-					6.9	J
5	Q16-34C-711328-D	1.35	J	1.28	-					45.7	-
5	Q16-34C2-R-5					1.2	-	0.91	-		
5	Q16-34C2-R-6					1.32	-	1.02	-		
6	Q16-34C3-R-1	1.47	-	1.43	-	1.45	-	1.15	-	10.9	J
7	Q16-34C-726243	1.2	J	0.95	-					23.7	-
7	Q16-34C2-R-8					1.12	-	1.05	-		
8	Q16-34C-776325	1.1	J	0.95	-					11.4	J
8	Q16-34C2-R-9					1	-	1.04	-		
8	Q16-34C2-R-9-D					1.12	-	0.94	-		
9	Q16-34C-795356	1.45	-	1.57	-	1.29	J	1.24	-	21.8	J
10	Q16-34C-796258	1.16	-	1.24	-					15.1	-
10	Q16-34C2-R-10					1.22	-	1.31	-		
11	Q16-34C-815206	1.2	J	1.4	-					33.0	-
11	Q16-34C2-R-11					0.91	J	1.1	J		
12	Q16-34C-821347	1.08	-	1.36	-	1.43	-	1.32	-	21.1	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	12	12	12	12
Max	**1.47**	**1.57**	**1.45**	**1.32**	**33.0**
Mean	1.21	1.27	1.20	1.10	17.5
St.Dev.	0.13	0.19	0.15	0.14	7.74
UCL	**1.28**	**1.37**	**1.28**	**1.17**	**21.5**
t-Stat	12.62	9.62	11.50	10.00	28.87
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q17-10 PRIMARY AND SECONDARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q17-10 12:53 PM 22-May-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
	Q17-10C-444513	1.28 -	1.58 -	1.29 J	1.26 J	25.6 -	0.22 -	1.61 J
	Q17-10C-446405	1.14 -	1.33 -	1.1 -	1.08 -	37.5 -	0.45 -	1.45 -
3	Q17-10C-507678	0.96 -	1.43 -	1.05 -	1.12 -	11.4 U	0.11 U	1.23 -
4	Q17-10C-524504	1.18 -	1.27 J	1.28 -	1.17 -	37.6 -	0.46 -	1.67 -
5	Q17-10C-533635	1.04 -	1.28 -	1.08 J	1.15 J	12.4 U	0.11 U	1.32 J
6	Q17-10C-578761	1.26 -	1.19 -			30.9 -	0.19 -	
6	Q17-10C2-R-12			0.97 -	0.88 -			1.18 -
7	Q17-10C-630774	1.12 J	1.33 -	1.22 J	1.27 J	9.1 U	0.16 U	1.25 J
8	Q17-10C-685560	1.22 -	1.43 -	1.15 -	1.14 -	19.7 -	0.36 -	1.53 -
9	Q17-10C-717642	1.12 -	1.46 -			8.8 J	0.04 U	
9	Q17-10C2-R-13			1.01 -	1.17 -			1.28 -
10	Q17-10C-743541	1.17 -	1.41 -	1.2 -	1.21 -	9.8 J	0.05 J	1.68 -
11	Q17-10C-823709	1.36 J	1.06 -	1.01 -	1.01 -	18.2 -	0.2 -	1.29 J
12	Q17-10C-831651	1.21 -	1.2 -	1.08 -	0.98 -	23.2 -	0.41 -	1.39 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	12	12	12	12	12	12	12
	Hits	12	12	12	12	9	8	12
	Max	**1.37**	**1.58**	**1.29**	**1.27**	**37.6**	**0.46**	**1.68**
	Mean	1.17	1.33	1.12	1.12	19.0	0.21	1.41
	St.Dev.	0.11	0.14	0.11	0.12	12.17	0.17	0.18
	UCL	**1.23**	**1.40**	**1.18**	**1.18**	**25.3**	**0.28**	**1.48**
	t-Stat	16.92	11.43	18.68	11.31	17.93	24.52	5433.41
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
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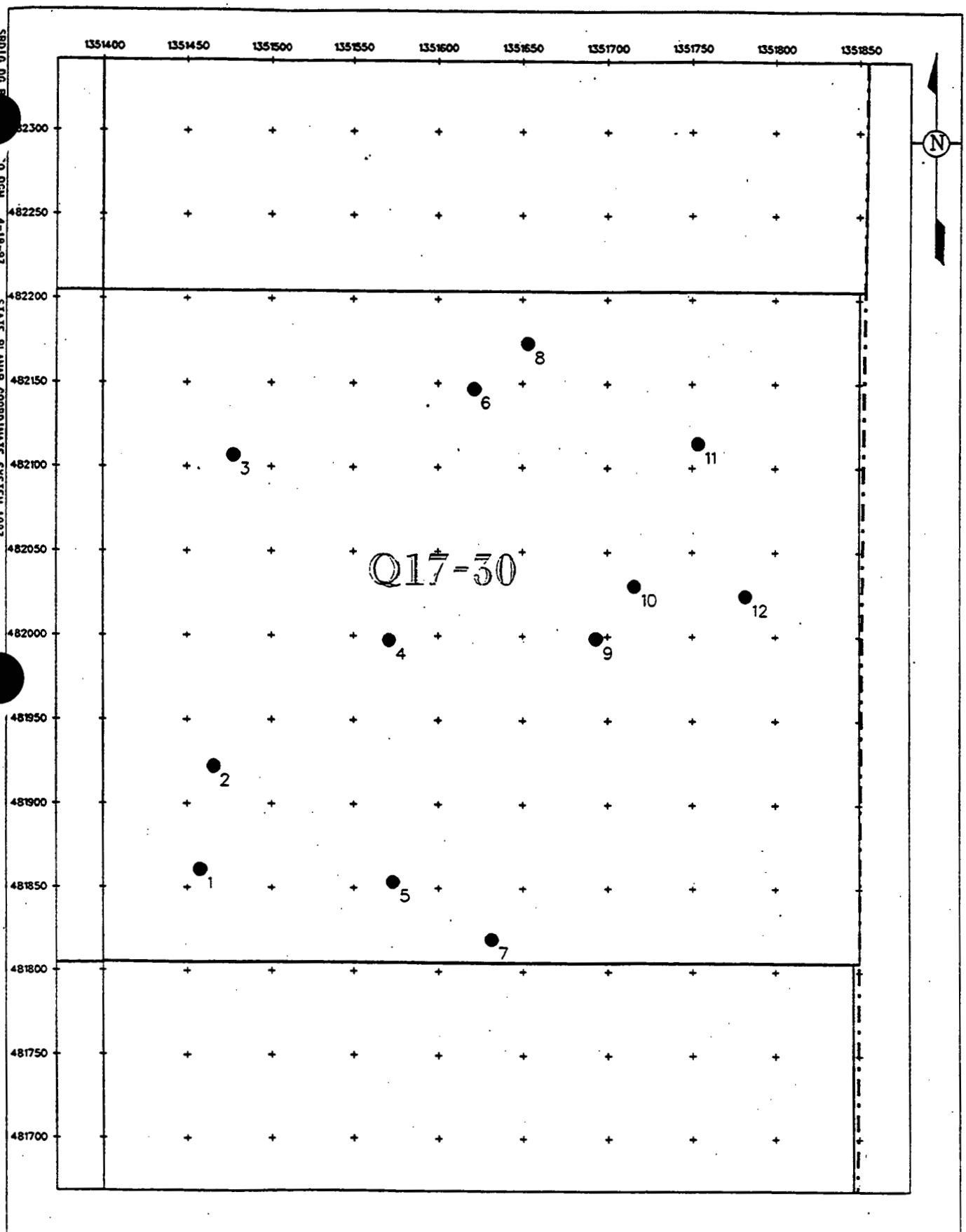
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q17-30 PRIMARY AND SECONDARY RADIOLOGICAL MAP OF DATA POINTS

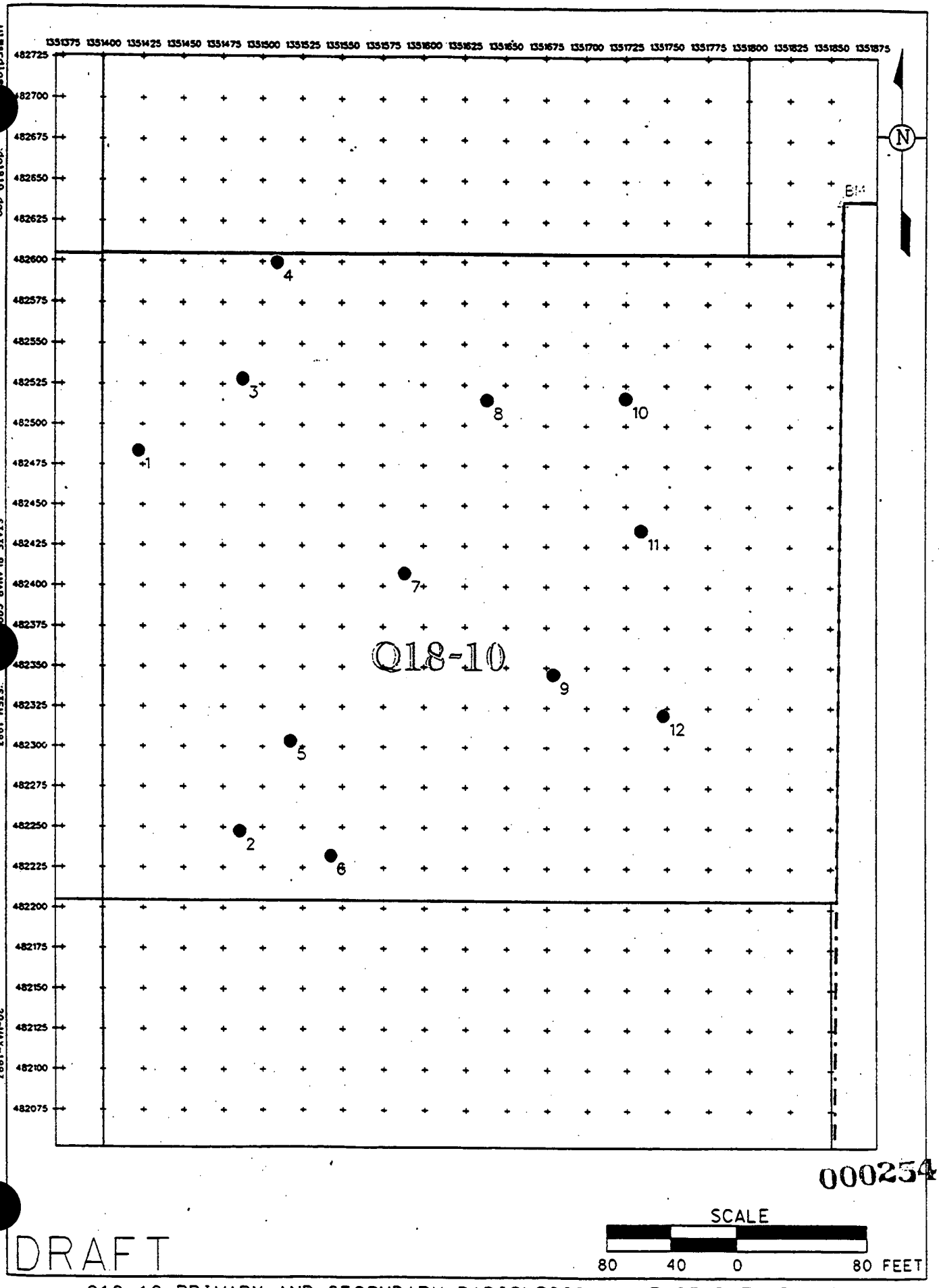
Certification Unit: Q17-30 01:13 PM 22-May-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
	Q17-30C-457860	1.16 -	1.25 -	1.16 -	1.23 -	15.8 -	0.17 J	1.35 -
	Q17-30C-465922	1.33 -	1.52 -	1.28 J	1.26 -	10.8 U	0.12 U	1.42 -
3	Q17-30C-477106	0.94 -	1.14 -	1.29 -	1.29 -	13.6 -	0.2 U	1.54 -
4	Q17-30C-571997	1.49 -	1.36 -	1.31 -	1.11 -	7.7 J	0.05 U	1.4 -
5	Q17-30C-573853	1.09 -	1.03 -	1.17 -	1.14 -	21.1 -	0.18 -	1.47 -
6	Q17-30C-621146	1.29 -	1.26 -	1.09 -	1.02 -	10.3 J	0.06 U	1.3 -
7	Q17-30C-631819	1.24 -	1.45 -			9.3 J	0.05 U	
7	Q17-30C2-R-14			1.19 -	0.96 -			1.36 -
8	Q17-30C-653173	1.34 -	1.3 -	1.21 -	1.32 -	22.3 -	0.43 -	1.8 -
9	Q17-30C-693998	1.22 -	1.54 -	1.34 -	1.29 -	9.5 J	0.04 U	1.57 -
10	Q17-30C-715029	1.37 -	1.65 -	1.2 -	1.13 -	10.3 J	0.14 U	1.47 -
11	Q17-30C-753114	1.33 -	1.43 -	1.24 -	1.26 -	6.5 U	0.08 U	1.62 -
12	Q17-30C-781023	1.34 -	1.23 -			7.0 J	0.04 U	
12	Q17-30C2-R-15			1.34 -	1.18 -			1.43 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	12	12	12	12	12	12	12
	Hits	12	12	12	12	10	3	12
	Max	**1.49**	**1.65**	**1.34**	**1.32**	**22.3**	**0.43**	**1.80**
	Mean	1.26	1.35	1.24	1.18	11.3	0.10	1.48
	St.Dev.	0.14	0.18	0.08	0.11	5.91	0.12	0.14
	UCL	**1.34**	**1.44**	**1.28**	**1.24**	**14.4**	**0.14**	**1.53**
	t-Stat	10.58	8.80	20.45	9.65	41.47	38.03	6994.91
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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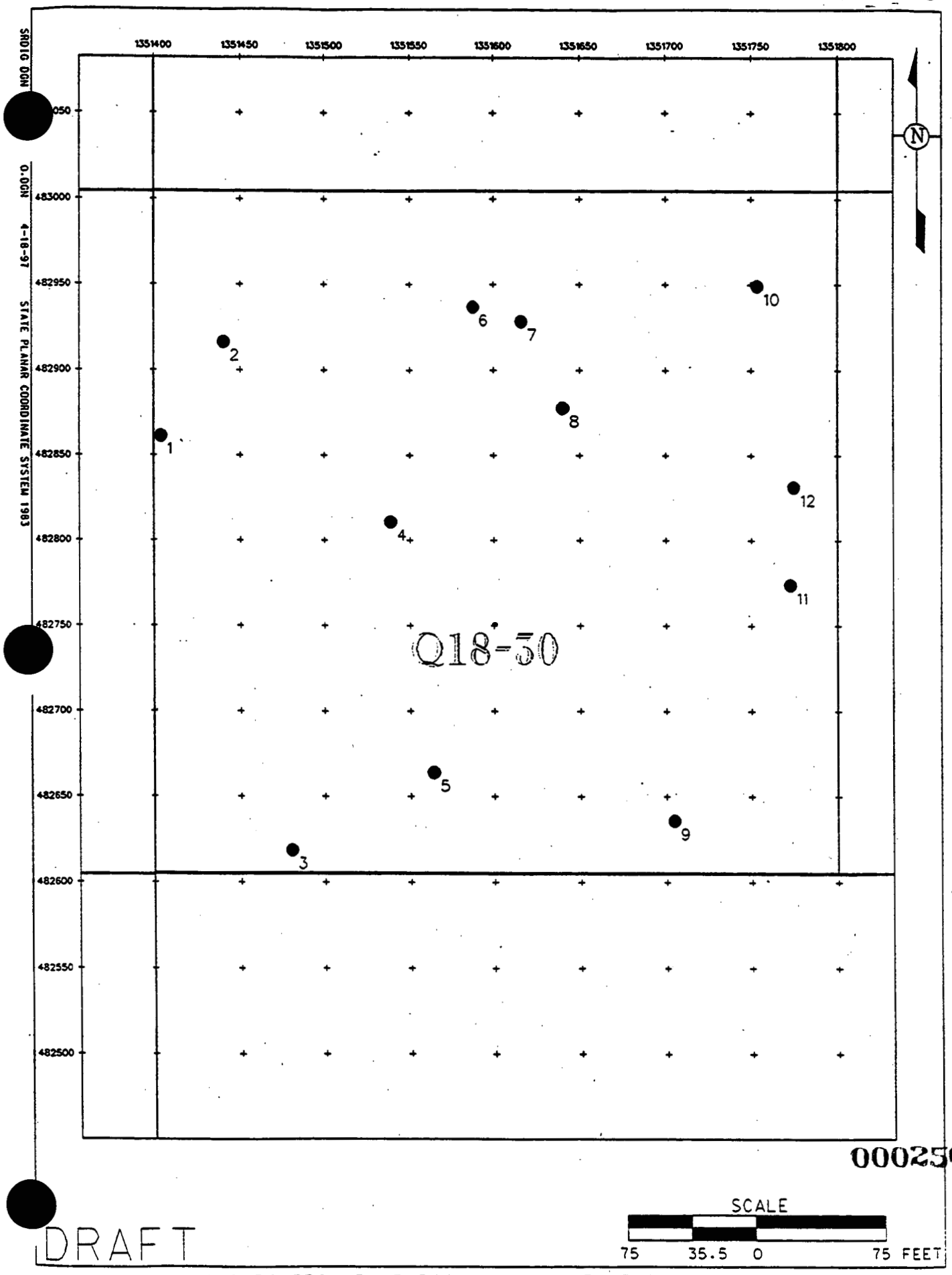
018-10 PRIMARY AND SECONDARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q18-10 01:14 PM 22-May-97

	Sample ID	PRIMARY ASCOCs					SECONDARY ASCOCs	
		Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
	Q18-10C-422483	1.4 -	1.96 -	1.55 J	1.08 J	9.9 J	0.14 -	1.5 J
	Q18-10C-485247	1.49 -	1.43 J	1.14 -	1.13 -	13.2 U	0.32 -	1.32 -
3	Q18-10C-487528	1.5 -	1.3 -	1.3 -	1.1 -	18.3 -	0.08 U	1.2 -
4	Q18-10C-509599	1.5 -	1.6 -	1.3 -	1.2 -	6.6 -	0.1 U	1.7 -
5	Q18-10C-517303	0.9 -	1.2 J	1.24 -	1.11 -	21.8 -	0.65 -	1.39 -
6	Q18-10C-542232	1.19 -	1.56 J	1.38 J	1.14 J	8.1 U	0.25 U	1.44 J
7	Q18-10C-588407	1.2 J	1.3 -			8.4 J	0.07 J	
7	Q18-10C2-R-16			0.95 -	1.05 -			1.3 -
8	Q18-10C-638515	1.4 J	1.6 -			4.8 U	0.05 U	
8	Q18-10C2-R-17			1.23 -	1.38 -			1.41 J
9	Q18-10C-679345	1.1 J	1.3 -			4.5 J	0.04 U	
9	Q18-10C2-R-18			1.18 -	1.04 -			1.22 -
10	Q18-10C-725517	1.2 J	1.4 -			4.5 J	0.08 J	
10	Q18-10C2-R-19			1.19 J	0.95 J			1.2 J
11	Q18-10C-734434	1.3 J	1.4 -			11.7 J	0.09 U	
11	Q18-10C2-R-20			1.18 -	1.1 -			1.63 -
12	Q18-10C-747320	1.3 J	1.3 -			7.2 J	0.05 U	
12	Q18-10C2-R-21			1.1 -	1.03 -			1.34 J
	Method	Gamma	Gamma	Alpha	Alpha	Gamma	Gamma	Alpha
	FRL	1.70	1.80	1.70	1.50	82.0	1.40	280.0
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	12	12	12	12	12	12	12
	Hits	12	12	12	12	9	5	12
	Max	1.50	1.96	1.55	1.38	21.8	0.65	1.70
	Mean	1.29	1.45	1.23	1.11	8.8	0.13	1.39
	St.Dev.	0.18	0.21	0.15	0.11	5.90	0.18	0.16
	UCL	1.38	1.55	1.31	1.16	11.9	0.20	1.45
	t-Stat	7.78	5.90	10.90	12.76	42.99	23.98	5999.01
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	2 x (P/F)	Pass	Pass	Pass	Pass	Pass	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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018-30 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q18-30 01:25 PM 20-May-97

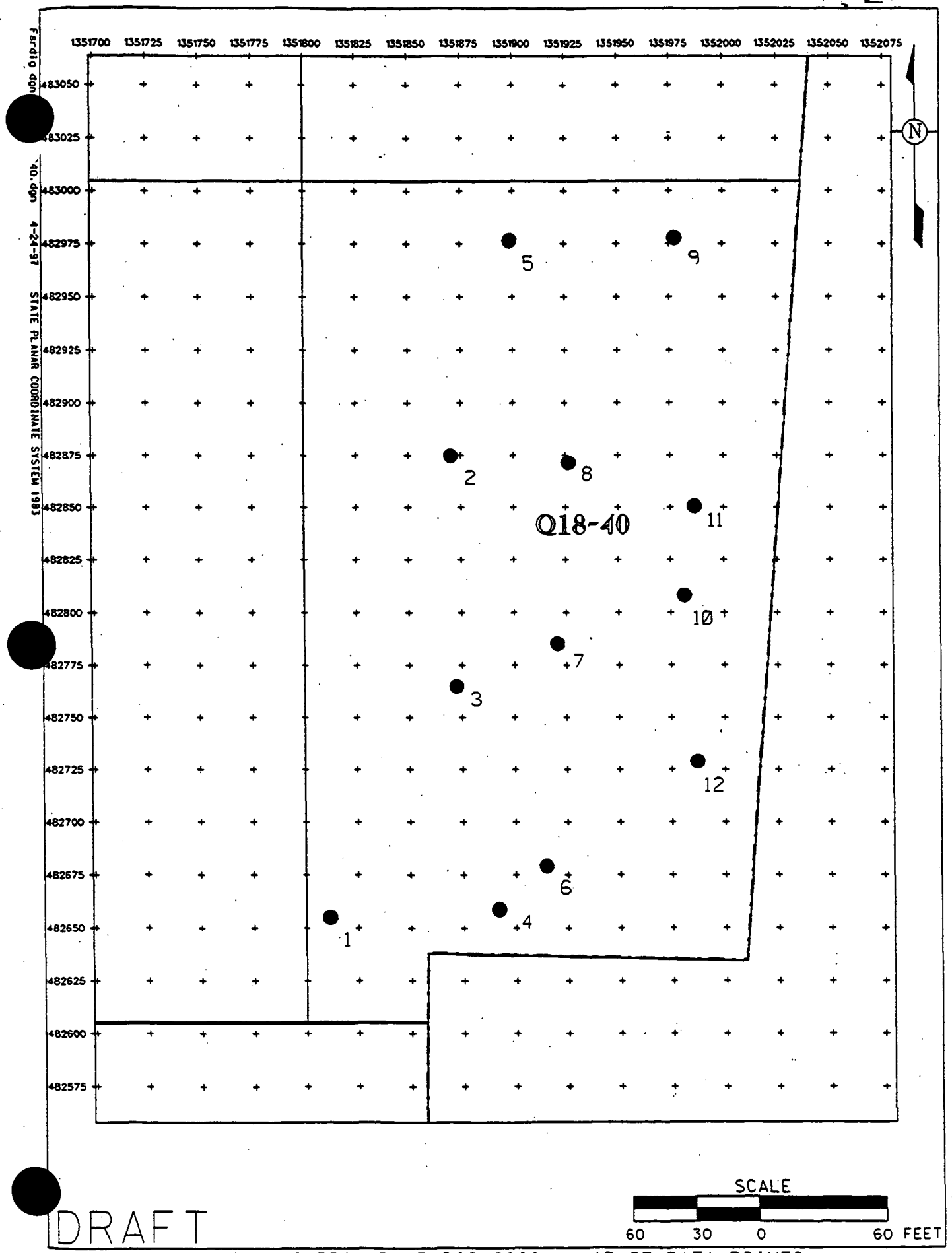
Map	Sample ID	PRIMARY ASCOCs Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, total	
1	Q18-30C-404861	1.4	-	1.3	-	1.1	-	1.1	-	6.3	-
2	Q18-30C-440916	1.3	-	1.2	-	1.2	-	1.1	-	5.1	-
3	Q18-30C-479618	1.3	-	1.2	-	0.78	-	1	-	5.7	J
4	Q18-30C-538810	1.2	-	1.2	-	1.1	-	1.2	-	6.9	-
5	Q18-30C-563663	1.4	J	1.3	-					4.2	J
5	Q18-30C2-R-22					1.19	-	1.15	-		
6	Q18-30C-587936	1.25	-	1.48	J	1.07	J	1.07	-	5.4	U
7	Q18-30C-616928	1.28	-	1.13	-	1.22	-	1.1	-	9.0	U
8	Q18-30C-640877	1.3	-	1.34	-	1.19	-	1.09	-	5.4	U
9	Q18-30C-704635	1.1	J	1.2	-					10.2	J
9	Q18-30C2-R-23					1.18	-	0.98	-		
9	Q18-30C2-R-23-D					0.91	J	1.02	J		
10	Q18-30C-753949	1.09	-	0.88	UJ	1.19	-	1.12	-	13.3	J
11	Q18-30C-772773	1.13	-	1.21	-	1.15	-	1.25	-	8.1	J
12	Q18-30C-774831	1.53	-	1.05	-	1.13	-	1.23	-	5.1	U

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	11	12	12	8
Max	**1.53**	**1.48**	**1.22**	**1.26**	**13.3**
Mean	1.27	1.17	1.11	1.12	6.0
St.Dev.	0.13	0.25	0.12	0.08	3.25
UCL	**1.34**	**1.30**	**1.18**	**1.16**	**7.7**
t-Stat	11.24	8.56	16.95	16.42	81.00
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q18-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

ORIGINAL FAILED CU RESULTS

Certification Unit: Q18-40 04:17 PM 25-Jun-97

		PRIMARY ASCOCs									
Map	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	Q18-40C-811654	1.29	-	1.38	-	1.11	-	1.08	-	11.7	U
2	Q18-40C-870874	1.57	-	1.13	-	1.14	-	1.25	-	14.4	U
3	Q18-40C-872764	1.25	-	1.11	-	1.17	-	1.11	-	9.0	U
4	Q18-40C-891658	1.25	-	1.14	-	1.12	-	1.11	-	8.7	U
5	Q18-40C-898975	1.94	-	1.58	-	1.33	J	1.31	-	12.9	U
6	Q18-40C-914679	2.61	-	1.4	-	1.21	-	1.21	-	22.7	J
7	Q18-40C-920785	1.04	-	1.49	-	1.09	J	1.08	-	7.8	U
8	Q18-40C-926871	1.07	-	1.43	-	1.11	-	1.16	-	9.6	U
9	Q18-40C-977977	1.4	-	1.74	-	1.19	J	1.27	J	11.1	U
9	Q18-40C-977977-D	1.64	-	1.66	-	1.41	J	1.36	J	16.5	U
10	Q18-40C-981808	1.06	-	1.25	-	1.07	-	1.12	-	7.8	U
11	Q18-40C-986850	1.25	-	1.39	-	1.09	-	1.07	-	9.6	U
12	Q18-40C-987728	2.42	-	2.1	-	1.31	J	1.16	J	13.2	U

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	12	12	12	1
Max	**2.61**	**2.10**	**1.33**	**1.32**	**22.7**
Mean	1.52	1.43	1.17	1.16	6.8
St.Dev.	0.53	0.28	0.09	0.09	5.13
UCL	**1.80**	**1.57**	**1.22**	**1.21**	**9.5**
t-Stat	1.16	4.64	19.38	13.09	50.79
Prob.	13.5%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Fail**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: Q18-40 02:44 PM 20-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	Q18-40C-811654			1.38	-	1.11	-	1.08	-	11.7	U
2	Q18-40C-870874			1.13	-	1.14	-	1.25	-	14.4	U
3	Q18-40C-872764			1.11	-	1.17	-	1.11	-	9.0	U
4	Q18-40C-891658			1.14	-	1.12	-	1.11	-	8.7	U
5	Q18-40C-898975			1.58	-	1.33	J	1.31	-	12.9	U
6	Q18-40C-914679			1.4	-	1.21	-	1.21	-	22.7	J
7	Q18-40C-920785			1.49	-	1.09	J	1.08	-	7.8	U
8	Q18-40C-926871			1.43	-	1.11	-	1.16	-	9.6	U
9	Q18-40C-977977			1.74	-	1.19	J	1.27	J	11.1	U
9	Q18-40C-977977-D			1.66	-	1.41	J	1.36	J	16.5	U
10	Q18-40C-981808			1.25	-	1.07	-	1.12	-	7.8	U
11	Q18-40C-986850			1.39	-	1.09	-	1.07	-	9.6	U
12	Q18-40C-987728			2.1	-	1.31	J	1.16	J	13.2	U

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	0	12	12	12	12
Hits	0	12	12	12	1
Max	--	**2.10**	**1.33**	**1.32**	**22.7**
Mean	--	1.43	1.17	1.16	6.8
St.Dev.	--	0.28	0.09	0.09	5.13
UCL	--	**1.57**	**1.22**	**1.21**	**9.5**
t-Stat	--	4.64	19.38	13.09	50.79
Prob.	--	0.0%	0.0%	0.0%	0.0%
Pass/Fail	--	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	--	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

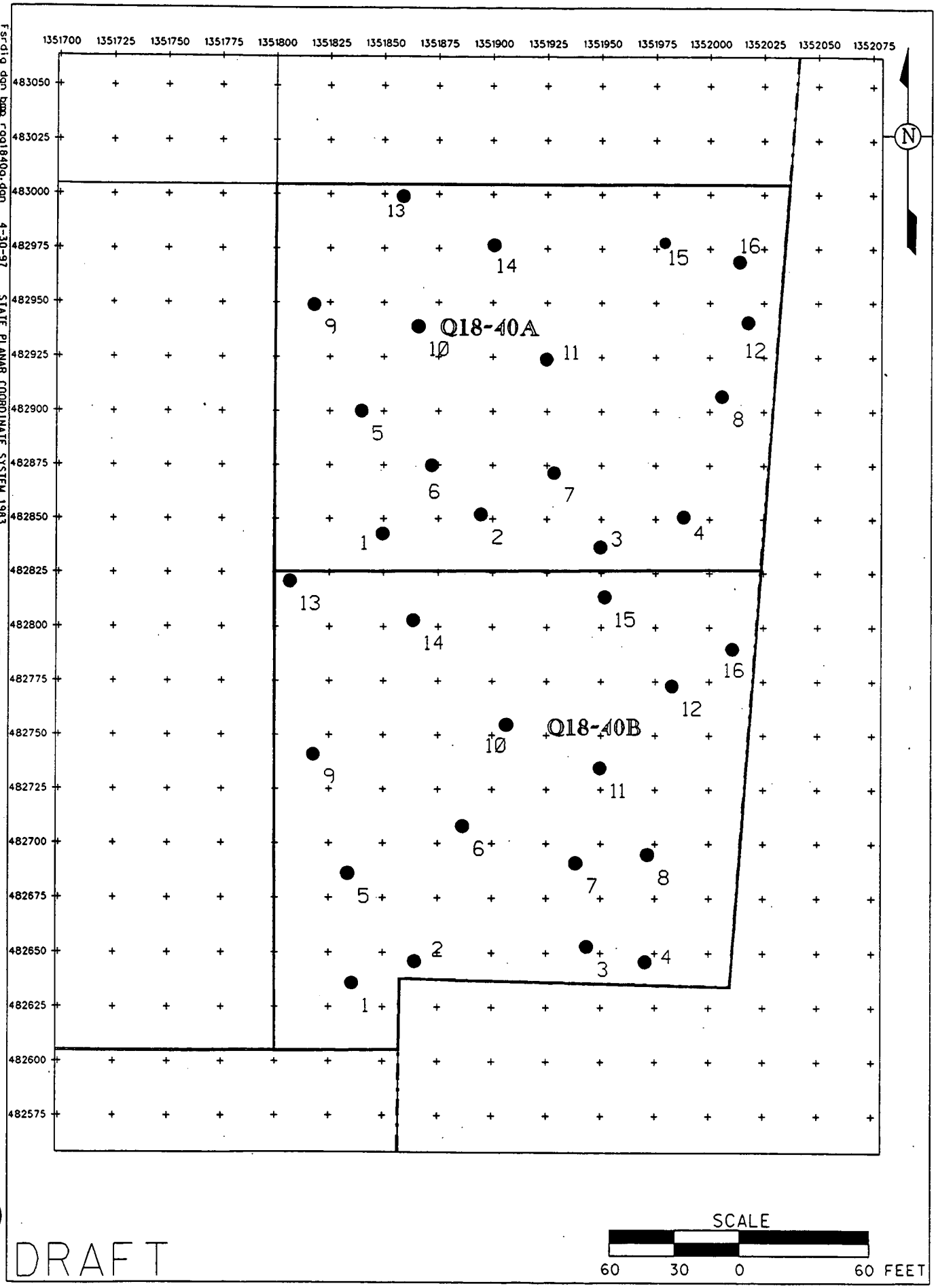
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



Q18-40a AND Q18-40b RADIUM-226 MAP OF DATA POINTS

Q18-40 A & Q18-40b 04:13 PM 18-Jun-97

Method: Gamma Spec.

Map*	Sub CU Identifier	RADIUM-226 Q18-40A-C1	RADIUM-226 Q18-40B-C2
1	-1	1.24 -	1.49 -
2	-2	1.16 -	1.28 -
3	-3	1.12 -	1.34 -
4	-4	1.25 -	1.35 -
5	-5	1.22 -	1.45 -
5	-5-D	1.20 -	1.43 -
6	-6	1.57 -	1.28 -
7	-7	1.07 -	1.71 -
8	-8	1.19 -	1.51 -
9	-9	0.98 -	1.30 -
10	-10	1.26 -	1.50 -
11	-11	1.30 -	1.47 -
12	-12	1.14 -	1.60 -
13	-13	1.28 -	1.38 -
14	-14	1.94 -	1.17 -
15	-15	1.40 -	1.59 -
15	-15-D	1.64 -	
16	-16	1.30 -	1.48 -

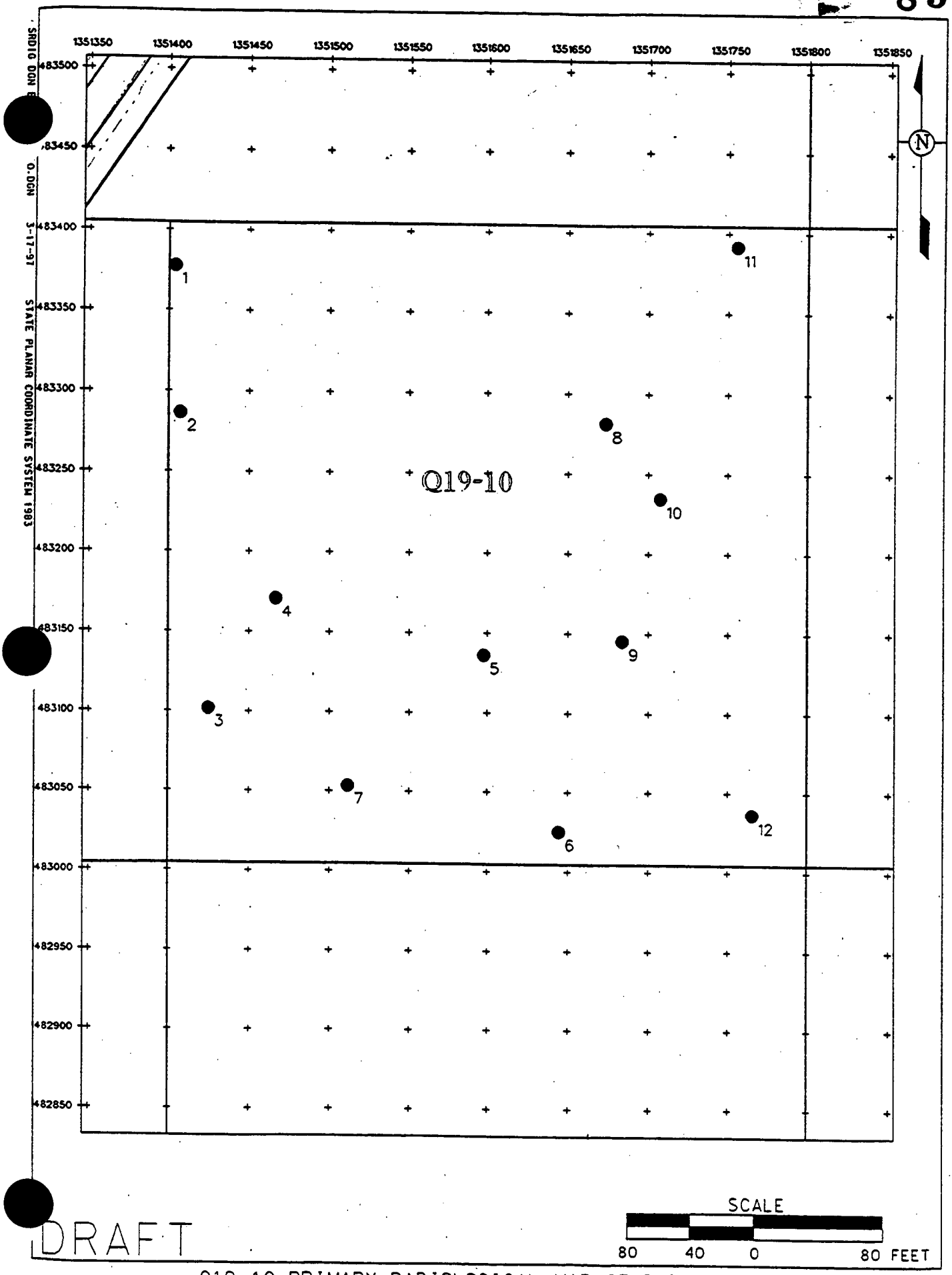
CU / Sample Depth	Q18-40A-C1	Q18-40B-C2
FRL	**1.70**	**1.70**
Background UCL	1.22	1.22
Background 95%	1.42	1.42
Samples	16	16
Hits	16	16
Max	**1.94**	**1.71**
Mean	1.28	1.43
St.Dev.	0.23	0.14
UCL	**1.38**	**1.49**
t-Stat	7.28	7.63
Prob.	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

* **Please refer to Map ID in the appropriate CU: Q18-40A or Q18-40B**

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



Q19-10 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q19-10 03:01 PM 20-May-97

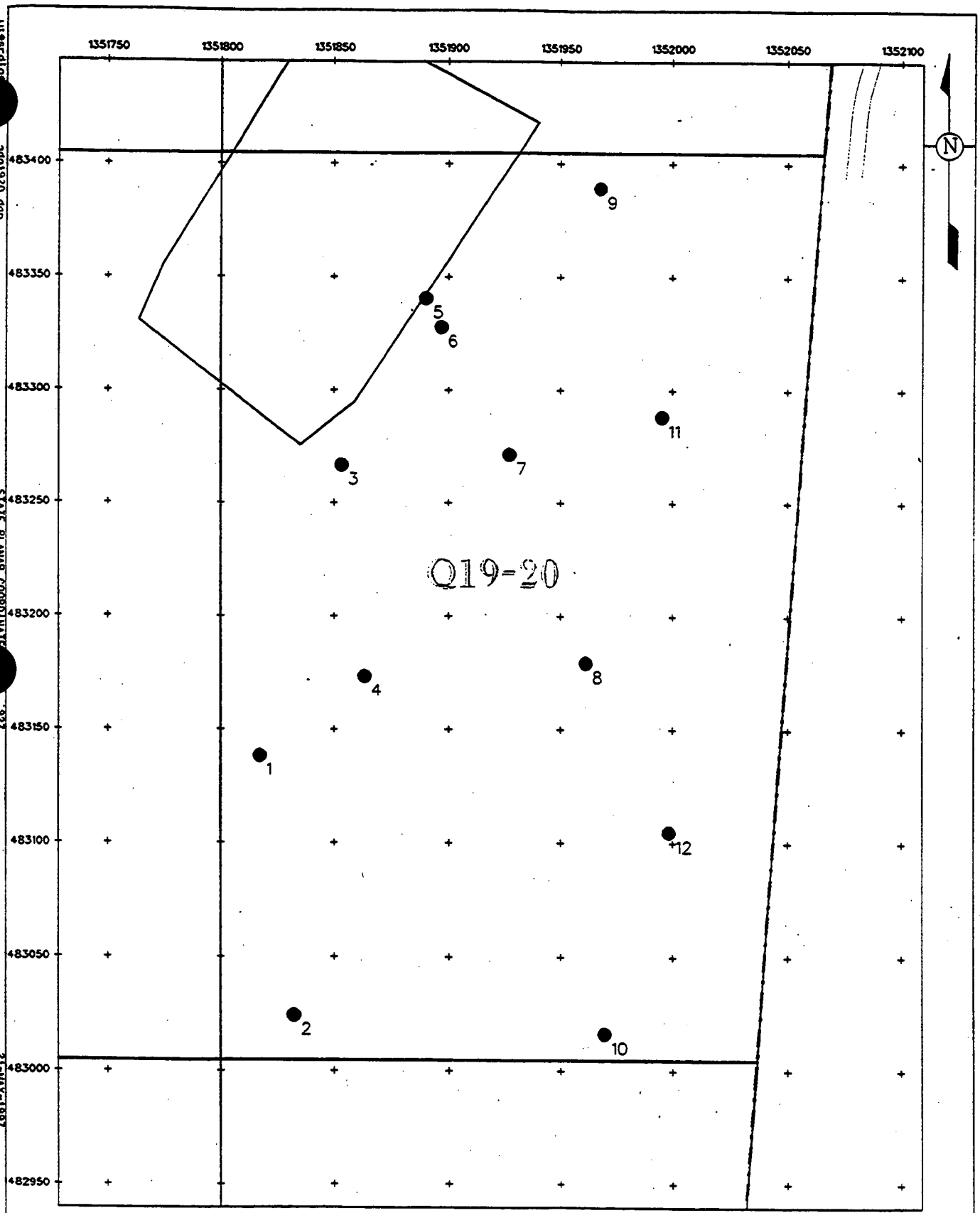
Map	Sample ID	PRIMARY ASCOCs									
		Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	Q19-10C-403377	1.4	-	1.3	-	1.1	J	0.98	J	2.6	J
2	Q19-10C-407286	1.3	-	1.4	-	1.1	J	0.96	J	4.1	J
3	Q19-10C-424101	1.4	-	1.2	-	1.1	-	1.1	-	3.3	U
4	Q19-10C-466170	1.2	-	1.1	-	1	J	1	J	3.2	-
5	Q19-10C-640364	1.12	-	1.11	-	1.13	-	1.13	-	12.0	J
6	Q19-10C-644025	1.55	-	1.01	J	1.17	-	1.31	-	8.7	U
7	Q19-10C-655190	0.83	-	0.83	J	1.15	J	1.16	J	10.8	J
8	Q19-10C-673281	1.67	-	1.71	J	1.29	J	1.03	J	16.8	-
9	Q19-10C-683145	1.47	-	1.68	-	1.2	J	1.14	J	7.5	U
10	Q19-10C-707234	1.66	-	1.72	-	1.29	J	1.19	J	11.1	U
11	Q19-10C-755391	1.64	-	1.86	-	1.33	J	1.12	J	15.8	J
12	Q19-10C-765036	1.21	-	1.36	J	1.4	-	1.24	-	9.9	U

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	12	12	12	12	12
Hits	12	12	12	12	7
Max	**1.67**	**1.86**	**1.40**	**1.31**	**16.8**
Mean	1.37	1.36	1.19	1.11	7.1
St.Dev.	0.25	0.33	0.12	0.11	5.29
UCL	**1.50**	**1.53**	**1.25**	**1.17**	**9.9**
t-Stat	4.52	4.71	15.23	12.63	49.08
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SCALE

60 30 0 60 FEET

019-20 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

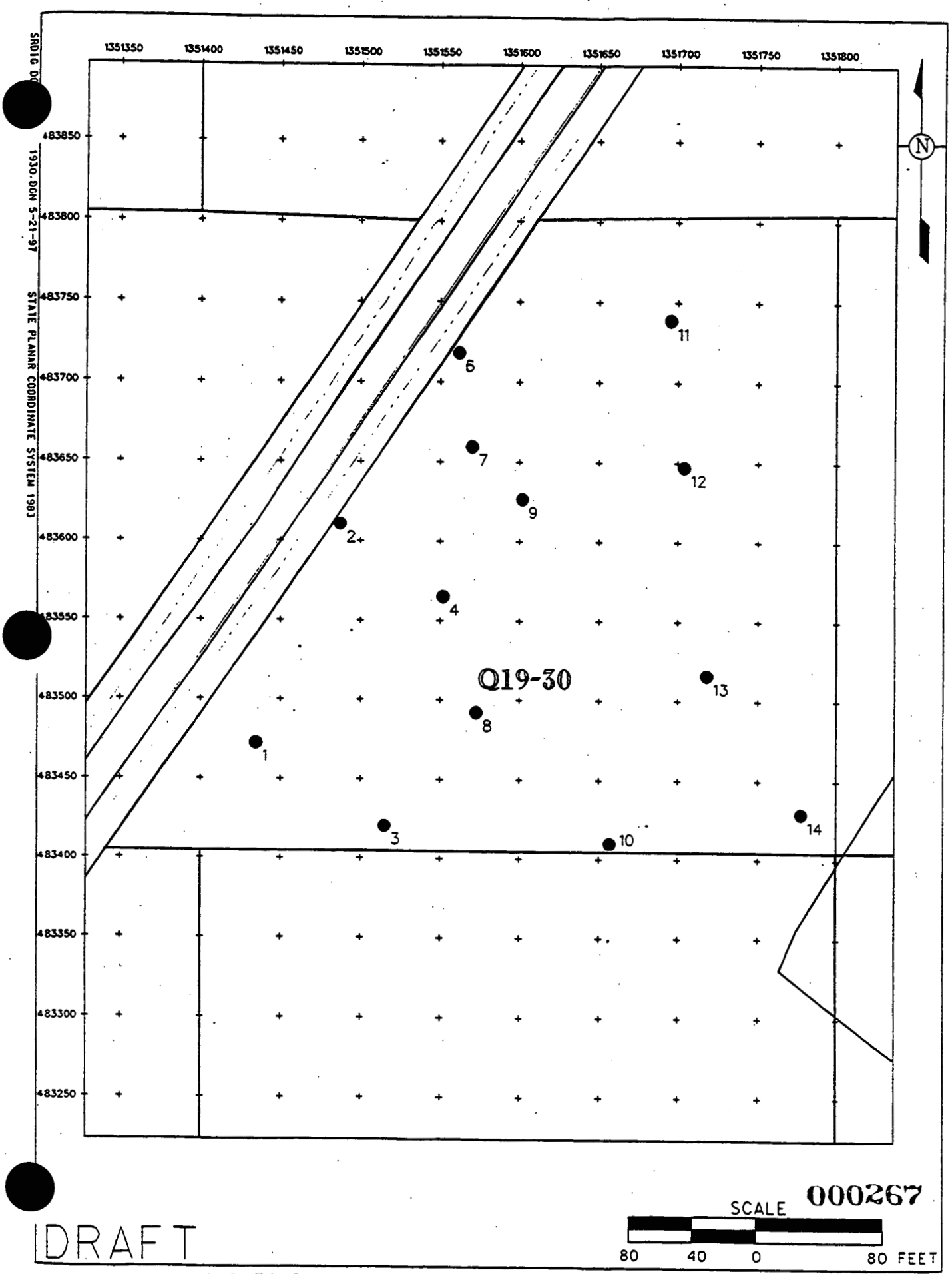
Certification Unit: Q19-20 03:21 PM 20-May-97

		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	Q19-20C-817138	1.13 -	1.43 -			4.8 J
1	Q19-20C2-R-24			1.04 -	1.2 -	
2	Q19-20C-832024	1.1 -	1.14 -			12.4 -
2	Q19-20C2-R-25			1.04 -	0.98 -	
3	Q19-20C-853266	1.15 -	1.14 -			6.3 J
3	Q19-20C2-R-26			1.42 -	1.28 -	
4	Q19-20C-863173	0.98 -	1.11 -			4.6 J
4	Q19-20C2-R-27			1.04 -	0.87 -	
5	Q19-20C-890340	1.1 -	1.11 -			3.4 U
5	Q19-20C2-R-28			1.27 -	0.83 -	
6	Q19-20C-897327	1.09 -	1.01 -			10.7 J
6	Q19-20C2-R-29			1.12 -	1.12 -	
7	Q19-20C-927271	1.23 -	1.27 -			7.2 J
7	Q19-20C2-R-30			1.22 -	1.27 -	
8	Q19-20C-961179	1.16 -	1.33 -			3.3 J
8	Q19-20C2-R-31			1.18 -	1.19 -	
9	Q19-20C-967389	1.15 -	1.18 -			4.8 J
9	Q19-20C2-R-32			0.95 -	1.05 -	
10	Q19-20C-969016	0.86 -	1.05 -			6.9 J
10	Q19-20C2-R-33			1.33 -	1.04 -	
11	Q19-20C-995288	1.23 -	1.11 -			4.2 U
11	Q19-20C2-R-34			1.24 -	1.01 -	
11	Q19-20C2-R-34-D			1.04 -	1.03 -	
12	Q19-20C-998104	1.07 -	1.12 -			14.1 -
	Q19-20C2-R-35			1.15 -	1.17 -	
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	12	12	12	12	12
	Hits	12	12	12	12	10
	Max	**1.23**	**1.43**	**1.42**	**1.28**	**14.1**
	Mean	1.10	1.17	1.16	1.09	6.6
	St.Dev.	0.10	0.12	0.14	0.15	3.96
	UCL	**1.16**	**1.23**	**1.23**	**1.16**	**8.6**
	t-Stat	20.04	18.39	13.87	9.89	65.97
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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019-30 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

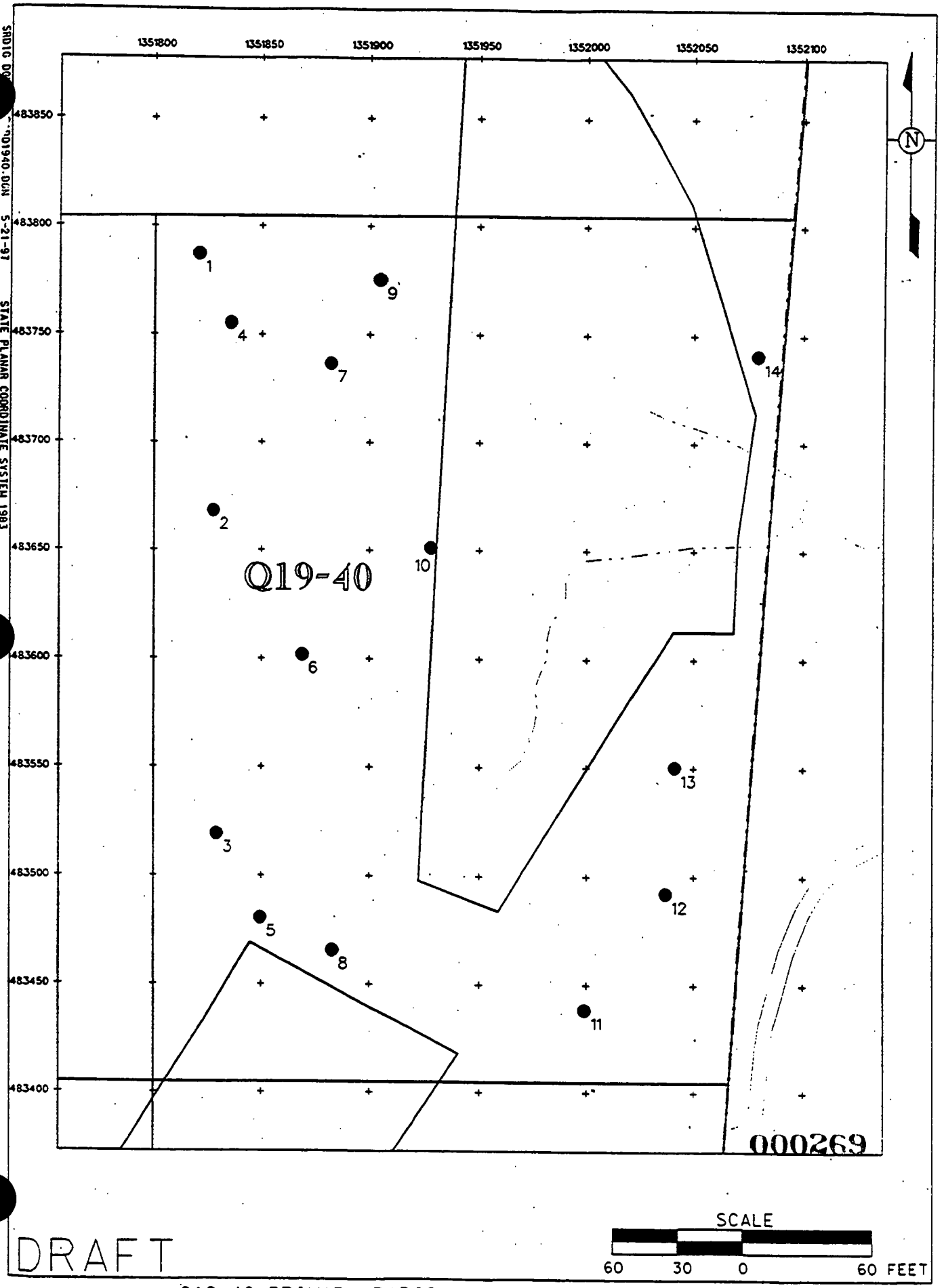
Certification Unit: Q19-30 11:22 AM 21-May-97

		PRIMARY COCs				
	Sample ID	Radium-228	Radium-226	Thorium-228	Thorium-232	Uranium-238
	Q19-30C-434472	1.2 -	1.1 -			6.5 J
	Q19-30C2-R-36			1.11 -	1.24 -	
2	Q19-30C-487610	1.17 -	1.18 -			6.1 J
2	Q19-30C2-R-37			1.4 -	1.08 -	
3	Q19-30C2-R-2	1.23 -	1.31 -	1.43 -	1.2 -	5.4 J
4	Q19-30C-552565	1.22 -	1.26 -			18.8 -
4	Q19-30C2-R-38			1.23 J	1 J	
5	Q19-30C2-R-40			1.27 -	1.04 -	
6	Q19-30C-562718	1.11 -	1.24 -			6.3 J
6	Q19-30C2-R-39			1.13 -	1.05 -	
7	Q19-30C-570659	1.09 -	1.29 -			4.4 J
7	Q19-30C2-R-41			1.3 -	0.96 -	
8	Q19-30C-573492	1.12 -	1.21 -			9.5 J
8	Q19-30C2-R-42			1.14 -	1.09 -	
9	Q19-30C-602626	1.26 -	1.2 -			9.1 J
9	Q19-30C2-R-43			1.46 -	1.27 -	
10	Q19-30C-657409	0.9 -	1.06 -			19.5 -
10	Q19-30C2-R-44			1.2 -	1.08 -	
11	Q19-30C-695738	1.17 -	1.29 -			8.0 J
11	Q19-30C2-R-45			1.2 -	1.11 -	
12	Q19-30C2-R-1	1.05 -	0.92 -	1.05 -	0.95 -	2.6 U
13	Q19-30C-718516	1.26 -	1.26 -			9.6 J
13	Q19-30C2-R-46			1.01 -	1.01 -	
14	Q19-30C-777429	1.01 -	1.06 -			4.2 J
	Q19-30C2-R-47			0.86 -	0.81 -	
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	13	13	14	14	13
	Hits	13	13	14	14	12
	Max	**1.26**	**1.31**	**1.46**	**1.27**	**19.5**
	Mean	1.14	1.18	1.20	1.06	8.4
	St.Dev.	0.11	0.12	0.17	0.12	5.32
	UCL	**1.19**	**1.24**	**1.28**	**1.12**	**11.0**
	t-Stat	19.08	19.26	11.19	13.47	49.92
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



Q19-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q19-40 11:11 AM 21-May-97

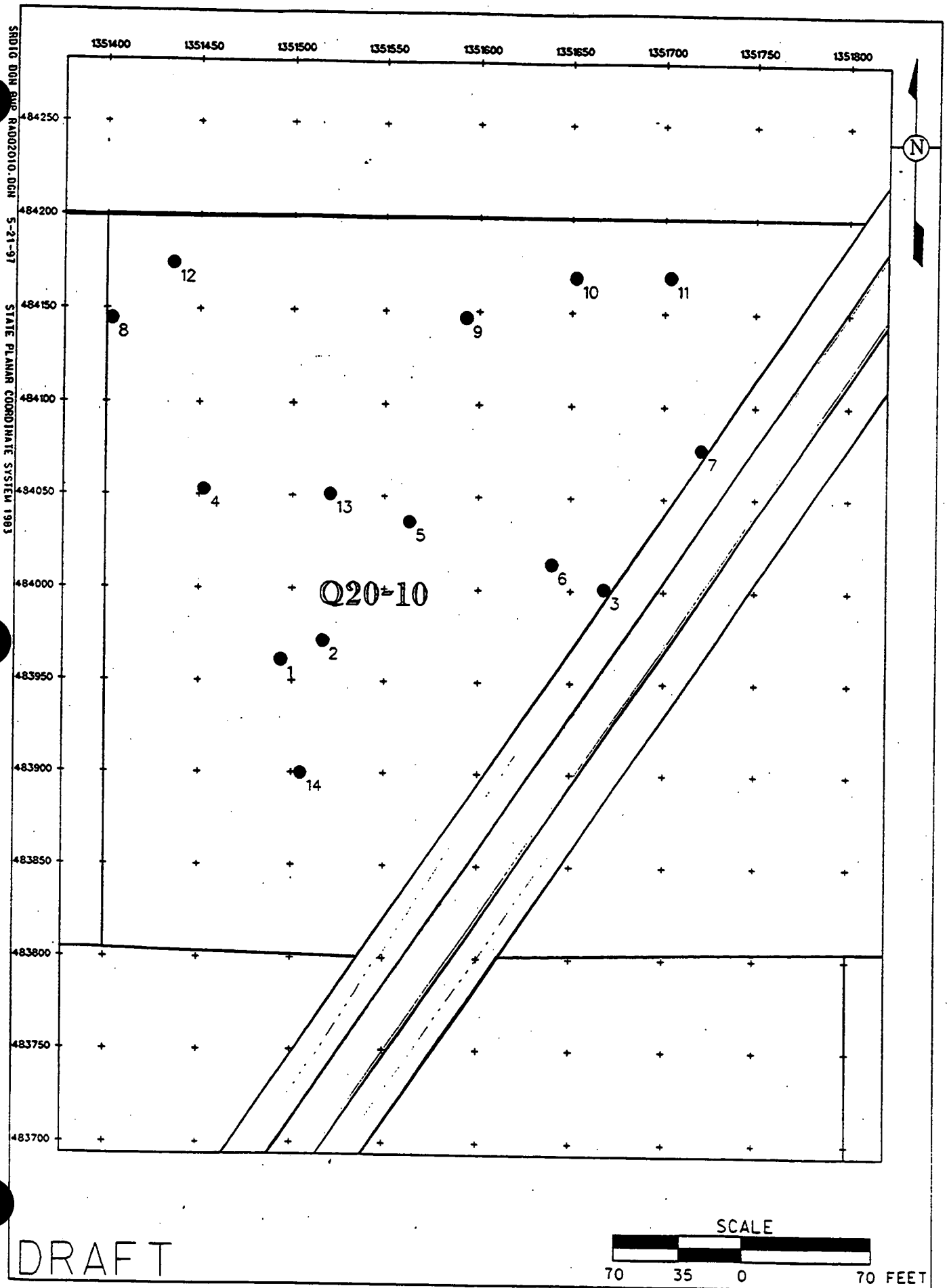
		PRIMARY COCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium-238
	Q19-40C2-R-2	1.31 -	1.43 -	1.05 J	0.85 J	3.9 J
	Q19-40C2-R-4	1.2 -	1.27 -	1.19 -	1.24 -	3.9 J
3	Q19-40C2-R-1	1.08 -	1.06 -	1.06 -	1.07 -	14.1 -
4	Q19-40C2-R-50			1.18 J	1.01 J	
4	Q19-40C2-R-50-D			1.42 -	0.99 -	
4	Q19-40C-835755	1.16 -	1.25 -			4.0 J
5	Q19-40C2-R-51			1.31 -	1 -	
5	Q19-40C-849480	1.16 -	1.33 -			9.2 J
6	Q19-40C2-R-6	1.32 -	1.23 -	1.12 -	1.12 -	7.7 J
7	Q19-40C2-R-3	1.45 -	1.19 -	1.12 -	1.08 -	3.9 U
8	Q19-40C-882465	1.2 -	1.23 -			11.2 J
8	Q19-40C-882465-D	1.07 -	1.06 -			10.7 J
8	Q19-40C2-R-52			1.22 -	1.06 -	
9	Q19-40C2-R-53			1.37 -	1.13 -	
9	Q19-40C-904775	1.32 -	1.26 -			7.1 J
10	Q19-40C-927651	1.39 -	1.34 -			5.6 J
11	Q19-40C2-R-54			1.04 -	1 -	
11	Q19-40C-999438	1.23 -	0.89 -			4.6 U
12	Q19-40C2-R-5	1.22 -	1.06 -	1 J	1.02 J	6.4 J
13	Q19-40C2-R-48			1.15 -	1.01 -	
13	Q19-40C-041550	1.2 -	1.53 -			17.2 J
14	Q19-40C-079740	1.34 -	1.14 -			7.7 J
14	Q19-40C2-R-49			1.07 -	0.94 -	

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	14	14	13	13	14
Hits	14	14	13	13	12
Max	**1.45**	**1.54**	**1.37**	**1.24**	**17.2**
Mean	1.25	1.23	1.15	1.04	7.3
St.Dev.	0.11	0.16	0.12	0.10	4.40
UCL	**1.30**	**1.30**	**1.21**	**1.09**	**9.4**
t-Stat	15.81	13.19	16.83	17.36	63.51
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q20-10 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

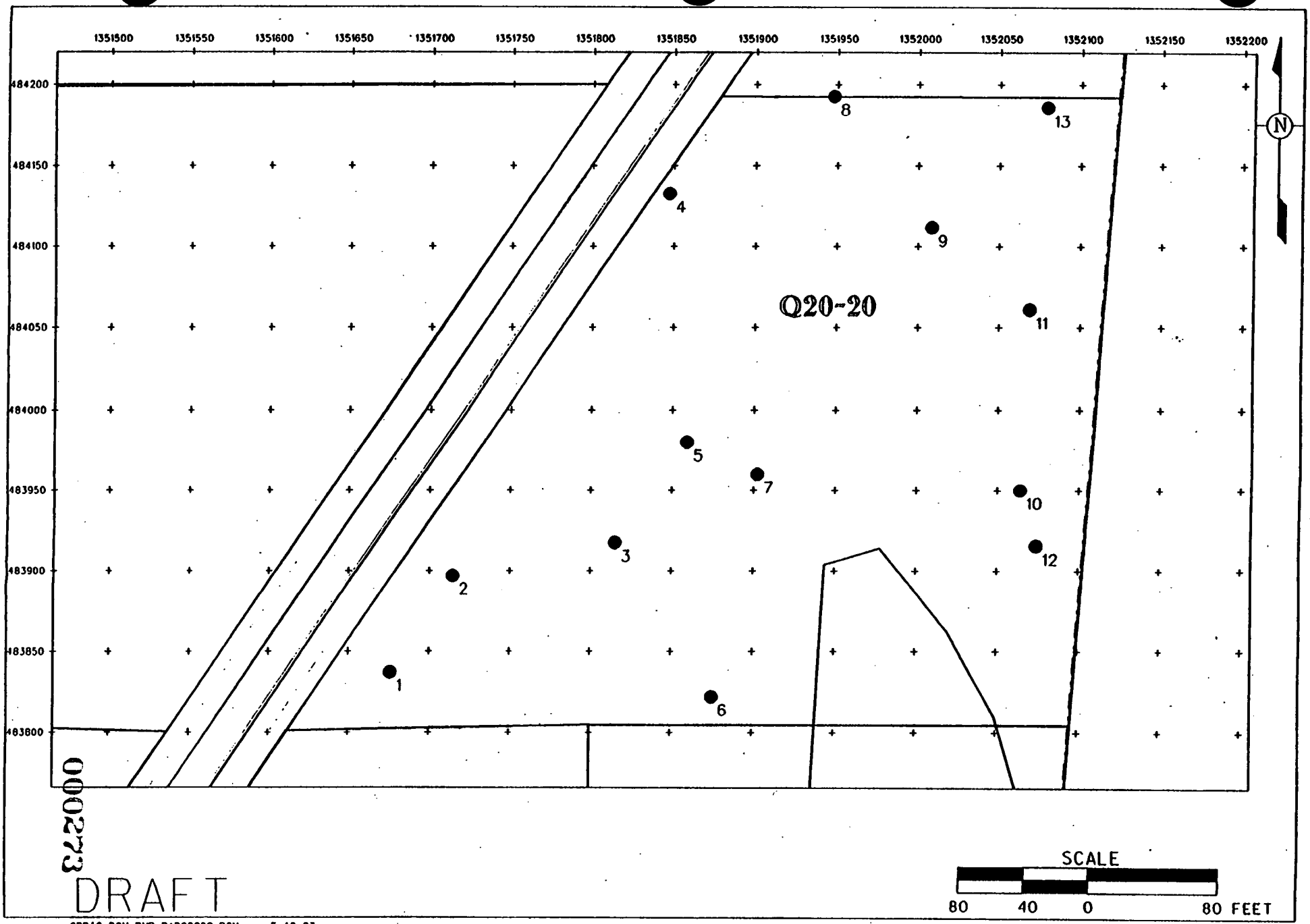
Certification Unit: Q20-10 10:51 AM 21-May-97

		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
	Q20-10C-5-R	1.2 -	1.3 -	1.11 J	1.04 -	27.0 -
2	Q20-10C-6-R	1 -	1.4 -	1.23 -	1.09 -	21.6 -
3	Q20-10C-8-R	1.36 -	1.33 -	1.51 J	1.27 J	11.9 -
3	Q20-10C-8-R-D	1.2 -	1.29 -	1.68 -	1.31 -	8.6 -
4	Q20-10C-9-R	1.2 -	1.3 -	1.08 J	0.88 -	15.3 -
5	Q20-10C-10-R	0.91 -	1.4 -	1.14 -	0.94 -	17.1 -
6	Q20-10C-11-R	0.91 -	1.2 -	1.08 -	1.07 -	15.9 -
7	Q20-10C-12-R	0.9 -	1.2 -	1.1 -	1.03 -	11.1 -
8	Q20-10C-13-R	1.2 -	1.4 -	1.38 J	1.26 -	9.0 J
9	Q20-10C-14-R	1.2 -	1.2 -	1.12 -	1.13 -	21.3 -
10	Q20-10C-15-R	0.48 -	0.66 -	1.22 -	1.13 -	8.7 J
11	Q20-10C2-R-1	1.59 -	1.36 -	1.5 -	1.34 -	9.5 -
11	Q20-10C2-R-1-D	1.46 -	1.25 -	1.32 J	1.15 J	9.1 -
12	Q20-10C2-R-2	1.06 -	1.33 -	1.31 J	1.2 J	5.0 -
13	Q20-10C2-R-3	1.47 -	1.7 -	1.61 -	1.27 -	11.6 -
14	Q20-10C2-R-4	1.59 -	1.54 -	1.56 -	1.45 -	14.7 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
	Background UCL	1.22	1.10	1.12	1.08	3.30
	Background 95%	1.42	1.25	1.43	1.36	3.73
	Samples	14	14	14	14	14
	Hits	14	14	14	14	14
	Max	**1.60**	**1.70**	**1.61**	**1.45**	**27.0**
	Mean	1.14	1.30	1.28	1.15	14.1
	St.Dev.	0.29	0.23	0.20	0.15	6.07
	UCL	**1.28**	**1.41**	**1.38**	**1.22**	**17.0**
	t-Stat	7.15	8.11	7.89	8.75	41.83
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SRDIG DGN BMP RAD02020.DGN 5-19-97
STATE PLANAR COORDINATE SYSTEM 1983

Q20-20 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q20-20 02:59 PM 19-May-97

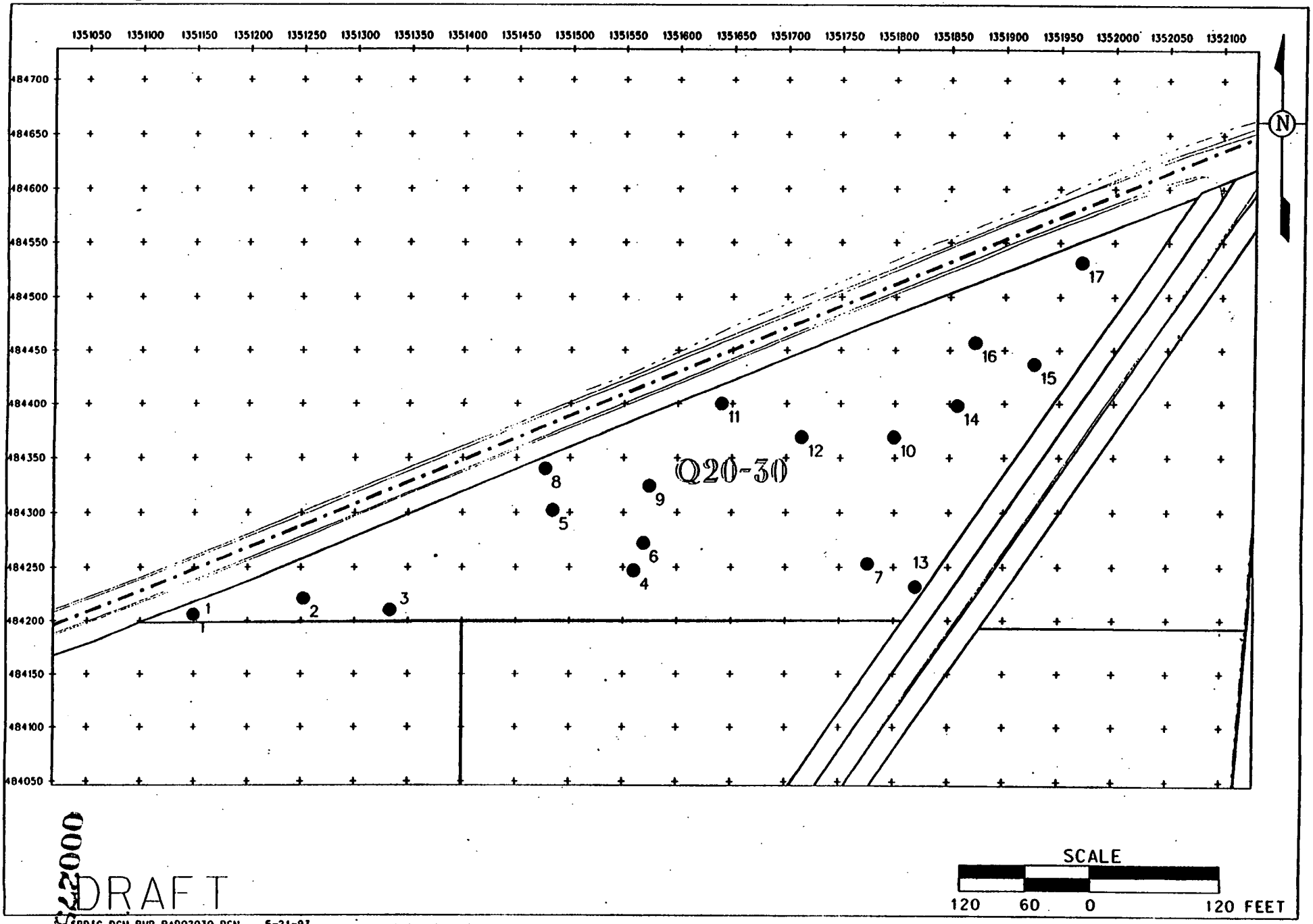
Map	Sample ID	PRIMARY COCs Radium-226		Radium-226		Thorium-228		Thorium-232		Uranium-234	
1	Q20-20C2-R-3	1.46	-	1.07	-	1.36	J	1.11	J	1.5	J
2	Q20-10C-714896	1.2	-	1.7	-	1.5	-	1.2	-	6.3	J
3	Q20-20C-815917	1.11	-	1.11	-					5.6	J
3	Q20-20C2-R-58					1.06	-	1.27	-		
4	Q20-20C-847132	0.9	-	1.1	-	1.5	-	1.3	-	23.1	-
5	Q20-20C-859980	0.79	-	0.97	-					4.5	J
5	Q20-20C2-R-59					1.36	-	1.23	-		
6	Q20-20C-875821	1.32	-	1.18	-					6.5	J
6	Q20-20C2-R-60					1.2	-	1.25	-		
7	Q20-20C-902959	1.08	-	1.23	-					6.1	J
7	Q20-20C2-R-61					1.21	-	0.97	-		
8	Q20-20C-947192	1.1	-	1.2	-	1.6	-	1.4	-	15.3	-
9	Q20-20C-008111	1	-	1.3	-	1.4	-	1.2	-	12.3	-
10	Q20-20C-064950	1.09	-	1.16	-					6.9	J
10	Q20-20C2-R-55					1.1	-	1.27	-		
11	Q20-20C2-R-2	1.16	-	1.16	-	1.23	J	0.95	J	10.4	-
12	Q20-20C-074915	0.91	-	1.24	-					22.0	-
12	Q20-20C2-R-56					1.04	-	1.02	-		
13	Q20-20C2-R-1	1.13	-	1.11	-	1.25	J	1.08	J	3.3	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	1.70	1.80	1.70	1.50	82.0
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	13	13	13	13	13
Hits	13	13	13	13	13
Max	1.46	1.70	1.60	1.40	23.1
Mean	1.09	1.19	1.29	1.17	9.5
St.Dev.	0.18	0.17	0.18	0.14	6.85
UCL	1.18	1.28	1.38	1.24	12.9
t-Stat	12.36	12.57	8.27	8.63	38.15
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	Pass	Pass	Pass	Pass	Pass
2 x (P/F)	Pass	Pass	Pass	Pass	Pass

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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SRDIG DGN BMP RAD02030.DGN 5-21-97
STATE PLANAR COORDINATE SYSTEM 1983

Q20-30 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

Certification Unit: Q20-30 03:41 PM 20-May-97

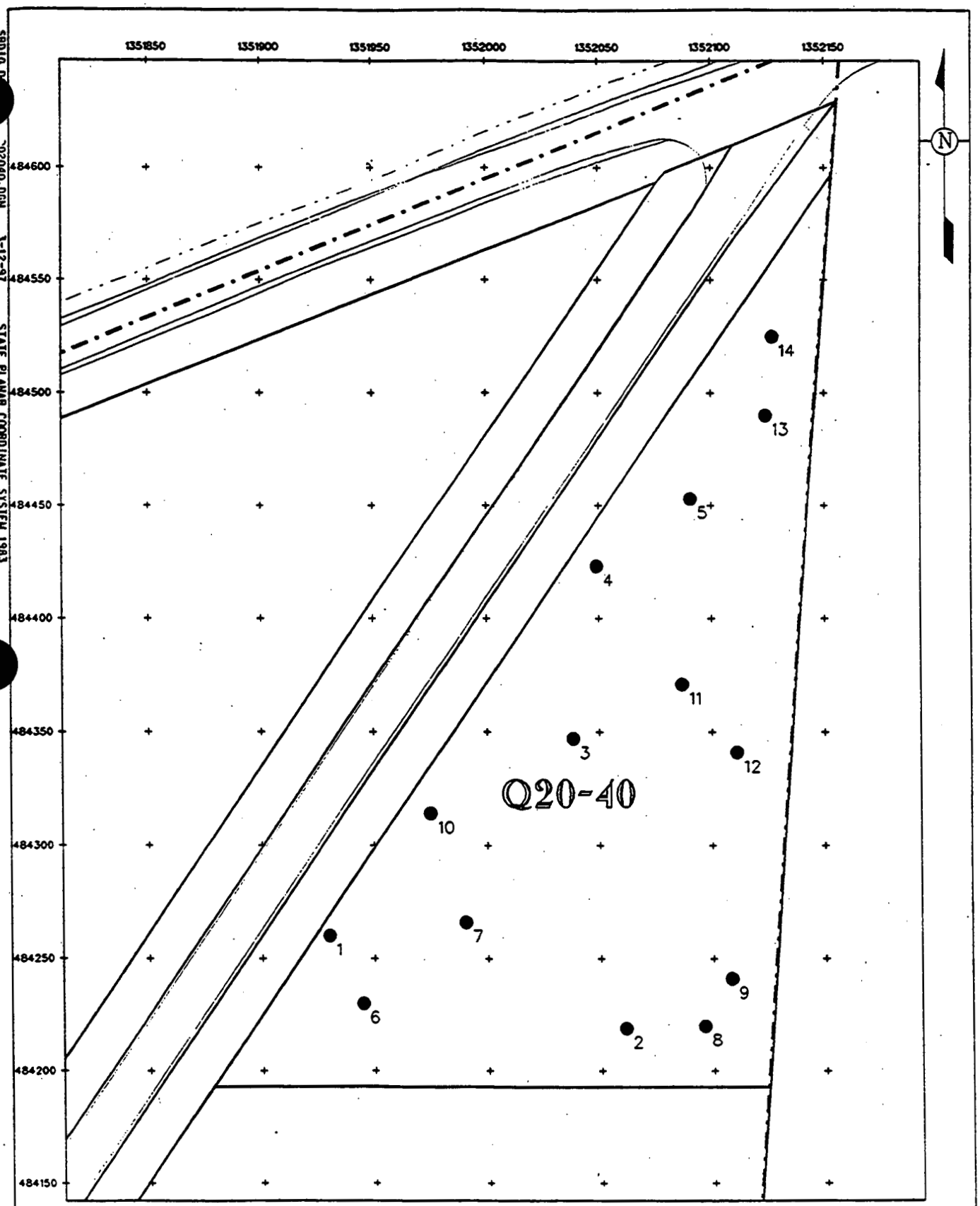
		PRIMARY ASCOCs				
	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total
1	Q20-30C-1-R	1.17 -	1.27 -	1.33 -	1.21 -	10.0 J
1	Q20-30C-1-R-D	1.18 -	1.25 -	1.44 -	1.41 -	6.4 J
2	Q20-30C-3-R	1.22 -	1.18 -	1.51 -	1.26 -	11.0 -
3	Q20-30C-4-R	1.29 -	1.37 -	1.57 -	1.4 -	7.0 -
4	Q20-30C-5-R	1.29 -	1.47 -	1.52 -	1.27 -	13.0 -
5	Q20-30C-8-R	0.89 -	0.95 -	1.5 -	1.4 -	8.3 -
6	Q20-30C-9-R	1.14 -	1.42 -	1.4 -	0.95 -	12.9 -
7	Q20-30C-10-R	1.14 -	1.12 -	1.15 -	1.02 -	13.1 -
8	Q20-30C-11-R	1.11 -	1.14 -	1.08 J	0.96 J	5.5 -
9	Q20-30C-12-R	1.21 -	1.33 -	1.44 -	1.33 -	15.8 -
10	Q20-30C-13-R	0.88 -	1.11 -	0.8 -	0.85 -	13.9 -
11	Q20-30C-14-R	0.8 -	1.18 -	1.16 -	1.08 -	10.1 J
12	Q20-30C-15-R	1.1 -	1.24 -	1.26 -	1.14 -	15.5 -
13	Q20-40C-1-R	1.4 -	1.5 -	1.65 -	1.3 -	7.2 -
14	Q20-40C-9-R	1.2 -	1.3 -	1.5 -	1.3 -	6.6 -
15	Q20-40C-10-R	1.1 -	1.25 -	1.8 -	1.5 -	12.0 -
15	Q20-40C-10-R-D	1.1 -	1.5 -	1.4 J	1.3 J	9.6 -
16	Q20-40C-13-R	1.3 -	1.4 -	1.7 -	1.3 -	10.2 -
17	Q20-40C-14-R	1 -	1.3 -	1.4 J	1.3 J	7.5 -

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	17	17	17	17	17
Hits	17	17	17	17	17
Max	**1.40**	**1.50**	**1.70**	**1.40**	**15.8**
Mean	1.13	1.27	1.39	1.21	10.4
St.Dev.	0.16	0.15	0.23	0.17	3.23
UCL	**1.20**	**1.33**	**1.49**	**1.28**	**11.8**
t-Stat	14.43	14.87	5.49	6.83	91.36
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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Q20-40 PRIMARY RADIOLOGICAL MAP OF DATA POINTS

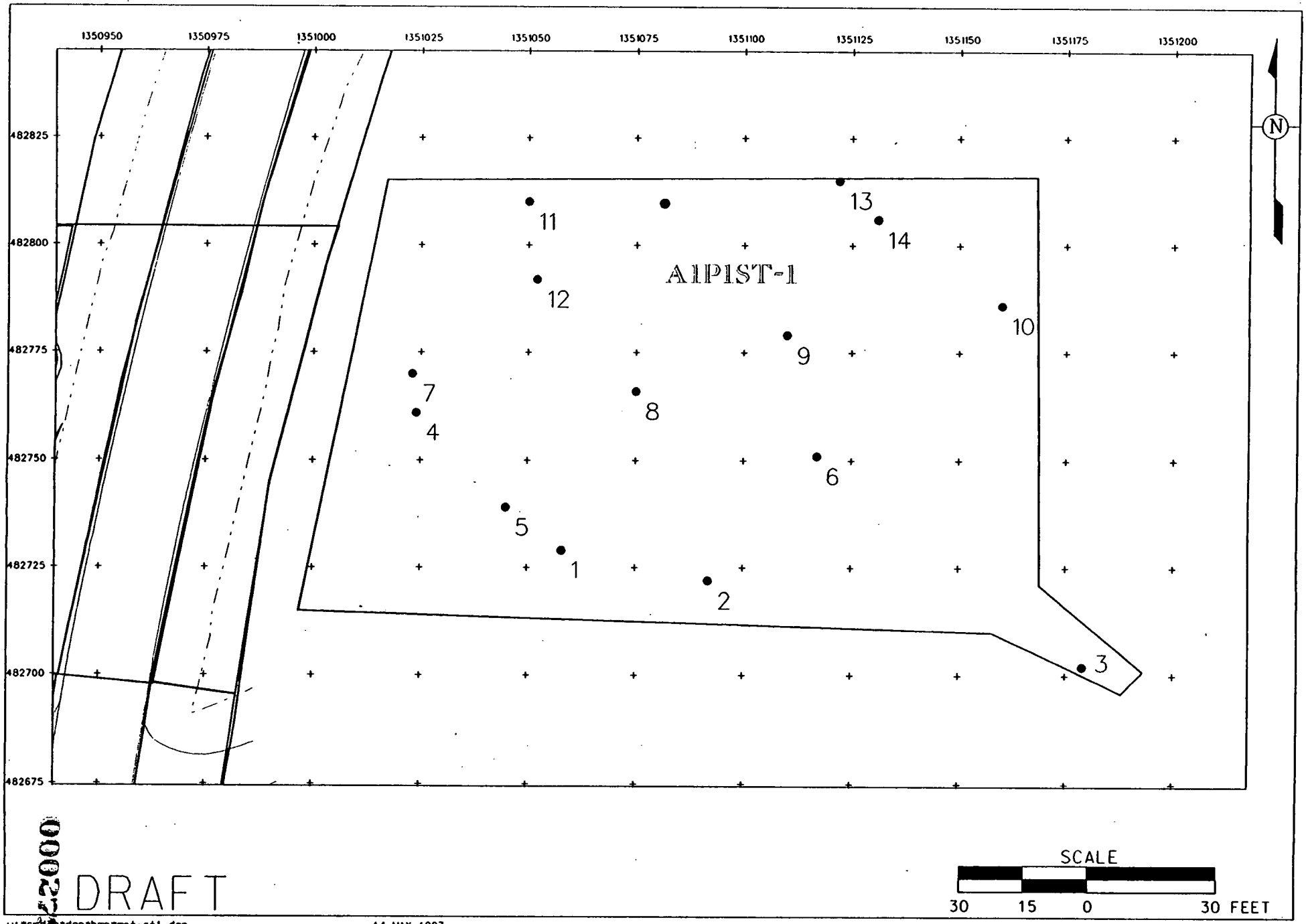
Certification Unit: Q20-40 03:45 PM 20-May-97

		PRIMARY ASCOCs									
	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total	
1	Q20-40C-2-R	1.2	-	1.1	-	1.3	J	1.1	J	7.2	-
2	Q20-40C-4-R	1.3	-	1.2	-	1.5	-	1.2	-	1.6	-
3	Q20-40C-7-R	1.3	-	1.46	-	1.4	-	1.4	-	10.8	-
4	Q20-40C-11-R	1.4	-	1.3	-	1.5	-	1.3	-	11.7	-
5	Q20-40C-12-R	0.74	-	0.77	-	1.4	-	1.3	-	9.6	-
6	Q20-40C2-2-R					1.73	J	1.41	J		
7	Q20-40C2-3-R	1.25	-	1.32	-	1.66	J	1.24	J	8.7	-
8	Q20-40C2-6-R	1.55	-	1.4	-	1.69	J	1.36	J	2.3	U
9	Q20-40C2-7-RV	1.33	-	1.45	-	1.46	-	1.28	-	10.2	-
10	Q20-40C2-8-R	1.34	-	1.15	-	1.47	J	1.26	-	6.8	-
11	Q20-40C2-11-R	1.54	-	1.24	-	1.59	J	1.39	J	5.3	-
12	Q20-40C2-12-R	1.64	-	1.31	-	1.44	J	1.12	-	4.9	J
12	Q20-40C2-12-R-D	1.43	-	1.14	-	1.52	J	1.23	J	12.4	J
13	Q20-40C2-15-RV	1.22	-	1.21	-	1.11	J	0.98	J	13.1	-
14	Q20-40C2-16-R	1.47	-	1.2	-	1.53	J	1.25	-	6.7	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**
Background UCL	1.22	1.10	1.12	1.08	3.30
Background 95%	1.42	1.25	1.43	1.36	3.73
Samples	13	13	14	14	13
Hits	13	13	14	14	12
Max	**1.55**	**1.46**	**1.73**	**1.41**	**13.1**
Mean	1.32	1.23	1.49	1.26	7.8
St.Dev.	0.21	0.18	0.16	0.12	3.58
UCL	**1.43**	**1.32**	**1.56**	**1.32**	**9.6**
t-Stat	6.43	11.50	4.95	7.49	74.72
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.



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STATE PLANAR COORDINATE SYSTEM 1983

14-MAY-1997

A1P1ST-1 METALS MAP OF DATA POINTS

Certification Unit: A1P1ST-1

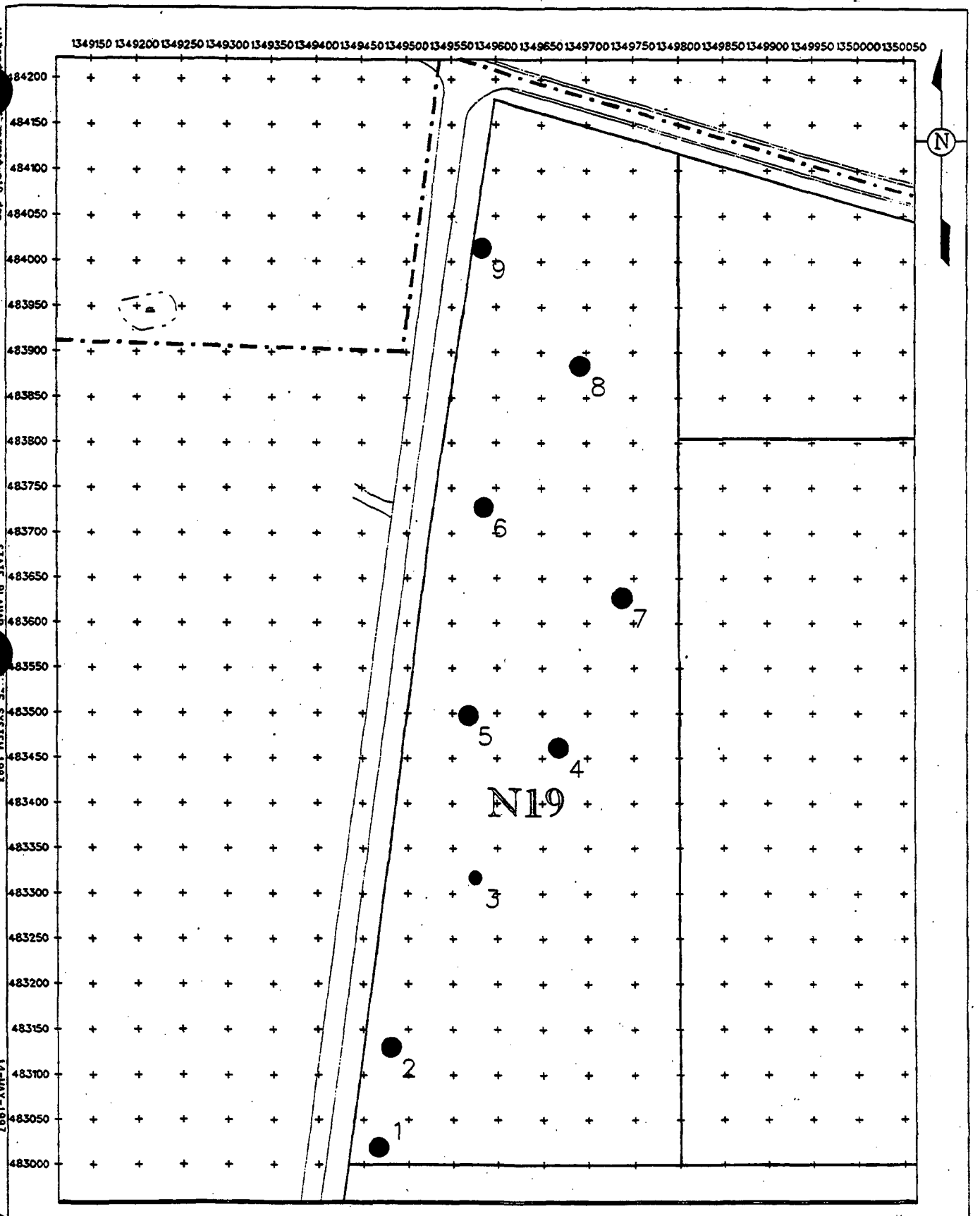
11:14 AM 22-May-97

		Certification Analytes			Ecological COCs		
	Sample ID	Arsenic	Beryllium	Aluminum	Manganese	Molybdenum
1	A1P1ST1-2C-M	9.6 J	0.72 -	10600 -	654 J	1.3 U
2	A1P1ST1-3C-M	7.8 J	0.87 -	8460 -	799 J	1.3 U
3	A1P1ST1-4C-M	10.2 J	1.2 -	10000 -	1040 J	0.99 U
4	A1P1ST1-5C-M	10.3 -	1 -	13300 -	279 -	1.3 U
5	A1P1ST1-6C-M	9.4 -	1.1 -	14800 -	619 -	1 U
6	A1P1ST1-7C-M	10 -	1 -	15500 -	1180 -	1 U
7	A1P1ST1-9C-M	7.1 J	0.72 -	7600 -	647 J	0.98 U
8	A1P1ST1-10C-M	6.3 -	0.8 -	11200 -	568 -	0.93 U
9	A1P1ST1-11C-M	6.8 -	0.71 -	10000 -	498 -	1.1 U
10	A1P1ST1-12C-M	9.2 -	1 -	15100 -	834 -	1.2 U
11	A1P1ST1-13C-M	8.3 -	0.84 -	12900 -	614 -	0.97 U
11	A1P1ST1-13C-M-D	7.5 -	0.77 -	11800 -	577 -	1.4 U
12	A1P1ST1-14C-M	9 -	1 -	14300 -	464 -	1.2 U
13	A1P1ST1-15C-M	6.1 -	0.6 -	6520 -	664 -	1.3 U
14	A1P1ST1-16C-M	7.9 -	0.88 -	12600 -	851 -	1 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	814	n/a
	Background 95%	8.2	0.6	11880	1348	n/a
	Samples	14	14	14	14	14
	Hits	14	14	14	14	0
	Max	**10.3**	**1.20**	**15500**	**1180**	**0.65**
	Mean	8.4	0.89	11595	692	0.56
	St.Dev.	1.5	0.17	2874	234	0.07
	UCL	**8.9**	**0.95**	**12632**	**777**	**0.59**
	t-Stat	9.23	13.46	--	--	--
	Prob.	0.0%	0.0%	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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SCALE

150 75 0 150 FEET

N19 METALS MAP OF DATA POINTS

Certification Unit: N19 01:35 PM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	N19-00C-1-M	8.2 -	0.81 U	9900 -	28.3 -	720 -	0.8 U
2	N19-00C-3-M	7.6 -	0.67 U	8030 -	30.4 -	573 -	0.92 U
3	N19-00C-5-M	4.7 -	0.51 U	5820 -	20 -	568 -	0.83 U
4	N19-00C-8-M	6.6 -	0.66 U	8130 J	24.8 -	1260 -	5.9 UJ
5	N19-00C-9-M	5 -	0.47 U	5740 -	19.6 -	993 -	0.55 U
6	N19-00C-11-M	9.9 -	0.59 U	12100 -	25.8 -	855 J	5.6 UJ
7	N19-00C-12-M	6.7 -	0.63 U	8700 -	21.9 -	766 -	0.75 U
7	N19-00C-12-M-D	7.9 J	0.77 UJ	10300 J	25.1 J	917 J	0.83 UJ
8	N19-00C-14-M	7 -	2 U	16400 -	29.9 -	974 J	5.4 UJ
9	N19-00C-15-M	11.8 -	0.66 U	11900 -	20.5 -	422 J	5 UJ
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9
	Hits	9	0	9	9	9	0
	Max	**11.8**	**1.00**	**16400**	**30.4**	**1260**	**2.95**
	Mean	7.6	0.39	9724	24.8	801	1.43
	St.Dev.	2.2	0.23	3383	4.2	259	1.24
	UCL	**8.6**	**0.50**	**11300**	**26.7**	**922**	**2.01**
	t-Stat	5.96	14.24	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

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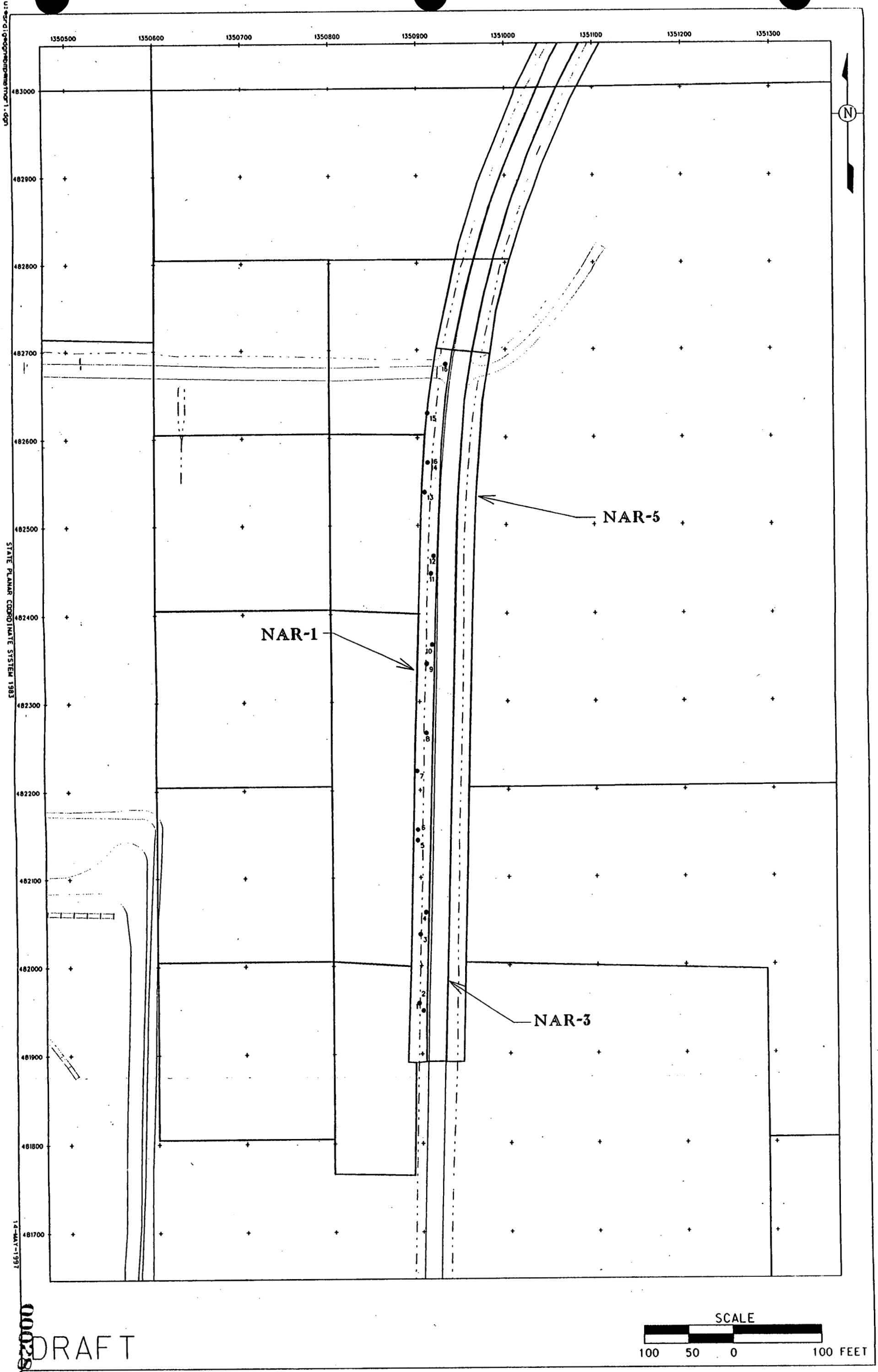


NAR-1 METALS MAP OF DATA POINTS

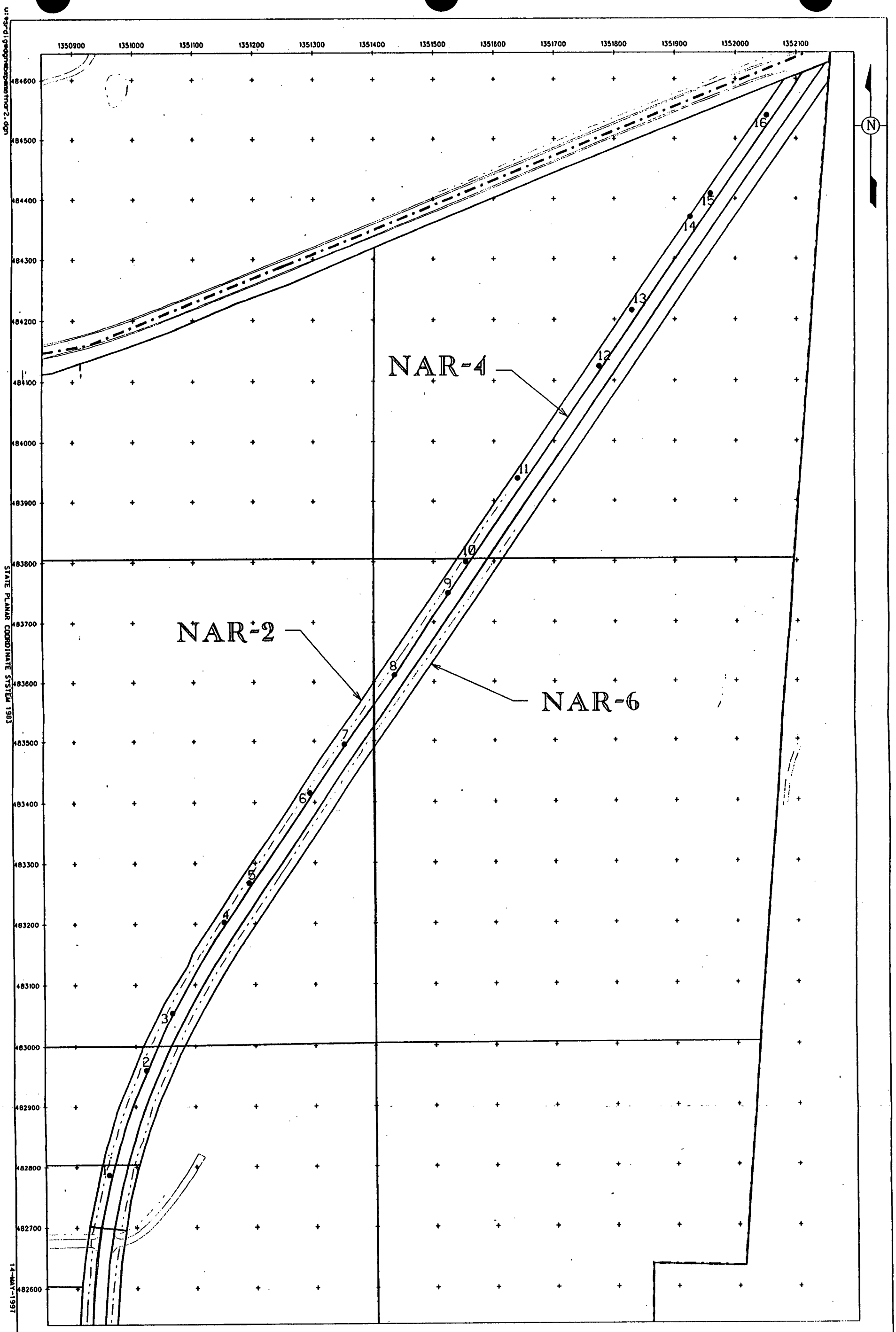
Certification Unit: NAR-1 11:13 AM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	NAR-1-1C-MP	12.5 J	0.77 -	41 U	15900 -	16 -	333 -	0.98 UJ
2	NAR-1-2C-MP	6 J	0.59 -	39 U	8200 -	10.2 -	647 -	0.94 UJ
3	NAR-1-3C-MP	7.5 J	0.62 -	39 UJ	8810 -	14.6 -	671 -	0.95 UJ
4	NAR-1-4C-MP	11 J	0.95 -	41 U	13400 -	11.8 -	702 -	0.98 U
5	NAR-1-5C-MP	9.9 -	0.51 -	41 U	10600 -	14.7 -	349 -	1.3 U
6	NAR-1-6C-MP	10.2 -	0.56 -	41 U	15500 -	15.2 -	198 -	1.2 U
7	NAR-1-7C-MP	15.5 -	1.3 -	43 U	24700 -	15.9 -	316 -	1.2 U
8	NAR-1-8C-MP	6.8 -	0.75 U	38 U	8490 -	7.2 -	518 J	0.92 U
9	NAR-1-9C-MP	14 J	1.5 -	42 U	13800 -	17.2 -	542 -	1 UJ
10	NAR-1-10C-MP	8.8 J	1.2 -	40 U	23400 -	16.5 -	170 -	0.97 U
11	NAR-1-11C-MP	7.5 J	0.67 -	41 UJ	9870 -	12.2 -	769 -	1 UJ
12	NAR-1-12C-MP	12.6 J	1.1 -	42 UJ	16600 -	17.1 -	514 -	1 UJ
13	NAR-1-13C-MP	15.5 -	1.5 -	42 U	23900 -	21.1 -	1810 -	1 U
14	NAR-1-14C-MP	11.5 -	1.2 -	44 U	23900 -	15.8 -	275 -	1.1 U
15	NAR-1-15C-MP	10.4 -	1.8 -	42 U	18700 -	18.6 -	1770 -	1 U
16	NAR-1-16C-MP	12.8 J	0.99 -	42 U	21100 -	15.1 -	539 -	1 U
16	NAR-1-16C-MP-D	14.8 J	0.83 -	41 UJ	21400 -	17.6 -	455 -	1 U
	FRL (* = BTV)	12	1.5	130	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	16	16	16	16	16
	Hits	16	15	0	16	16	16	0
	Max	15.5	1.80	22.0	24700	21.1	1810	0.65
	Mean	10.8	0.97	20.5	16064	15.0	630	0.52
	St.Dev.	3.0	0.42	0.8	5989	3.3	487	0.05
	UCL	11.9	1.11	20.8	18071	16.2	793	0.54
	t-Stat	1.53	5.05	572.34	--	--	--	--
	Prob.	7.3%	0.0%	0.0%	--	--	--	--
	Pass/Fail	Pass	Pass	Pass	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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NAR-2 METALS MAP OF DATA POINTS

000285

Certification Unit: NAR-2 11:16 AM 22-May-97

ap	Sample ID	Certification Analytes		Ecological COCs		
		Arsenic	Beryllium	Aluminum	Manganese	Molybdenum
1	NAR-2-1C-M	10.4 J	1.5 -	23000 -	511 -	1 U
2	NAR-2-2C-M	14.7 J	0.69 -	15000 -	452 -	2.4 -
3	NAR-2-3C-M	7 J	0.54 -	8900 -	304 -	0.9 U
4	NAR-2-4C-M	7 J	0.65 -	10600 -	474 -	1.8 -
5	NAR-2-5C-M	7.3 J	0.74 -	11100 -	720 J	1.2 -
5	NAR-2-5C-M-D	9 J	0.88 -	13500 -	461 J	0.98 -
6	NAR-2-6C-M	5.7 J	0.52 -	9380 -	561 -	1.2 -
7	NAR-2-7C-M	6 J	0.63 -	10600 -	429 -	1.3 -
8	NAR-2-8C-M	10.1 J	0.88 -	12900 -	629 -	1.3 -
9	NAR-2-9C-M	13.6 J	1.1 -	15900 -	480 -	1 U
10	NAR-2-10C-M	9.3 J	1.2 -	16200 -	1100 -	1 U
11	NAR-2-11C-M	17.2 J	1.3 -	16900 -	954 J	1.3 U
12	NAR-2-12C-M	8.9 J	0.74 -	9970 -	609 J	1.1 U
13	NAR-2-13C-M	12.8 J	1.3 -	16600 -	1320 J	1 U
14	NAR-2-14C-M	5.8 -	1.2 -	13700 -	1880 -	1 U
15	NAR-2-15C-M	12.6 -	1.3 -	17300 -	525 -	1 U
16	NAR-2-16C-M	8.6 -	1 -	13300 -	918 -	1.3 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	814	n/a
	Background 95%	8.2	0.6	11880	1348	n/a
	Samples	16	16	16	16	16
	Hits	16	16	16	16	6
	Max	**17.2**	**1.50**	**23000**	**1880**	**2.40**
	Mean	9.9	0.96	13909	734	0.90
	St.Dev.	3.5	0.32	3722	411	0.57
	UCL	**11.0**	**1.07**	**15157**	**871**	**1.09**
	t-Stat	2.47	6.83	--	--	--
	Prob.	1.3%	0.0%	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

SRDIG DGN BMP METNAR3.DGN 4-30-97 STATE PLANAR COORDINATE SYSTEM 1983

1350650 1350700 1350750 1350800 1350850 1350900 1350950 1351000 1351050 1351100 1351150 1351200 1351250

82800 82750 82700 82650 82600 82550 82500 82450 82400 82350 82300 82250 82200 82150 82100 82050 82000 81950 81900

N

NAR-1

NAR-5

NAR-3

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

SCALE

70 35 0 70 FEET

DRAFT

NAR-3 METALS MAP OF DATA POINTS

Certification Unit: NAR-3

11:17 AM 22-May-97

		Certification Analytes		Ecological COCs		
	Sample ID	Arsenic	Beryllium	Aluminum	Manganese	Molybdenum
1	NAR-3-1C-M	6.4 J	0.72 -	11300 -	359 -	0.93 UJ
2	NAR-3-2C-M	5.3 UJ	1.3 -	10900 -	1230 -	1 J
3	NAR-3-3C-M	7.8 -	0.98 -	13500 -	436 J	0.94 UJ
3	NAR-3-3C-M-D	8.9 -	1.1 -	14800 -	714 J	0.94 UJ
4	NAR-3-4C-M	6.6 J	0.51 -	6830 -	711 -	1 J
5	NAR-3-5C-M	10.5 J	0.76 -	10700 -	960 -	0.94 UJ
6	NAR-3-6C-M	12.3 J	1.6 -	15600 -	759 -	1 UJ
7	NAR-3-7C-M	6.9 J	0.64 -	9920 -	387 -	0.92 UJ
8	NAR-3-8C-M	5.6 UJ	0.68 -	20700 -	233 -	1.1 UJ
9	NAR-3-9C-M	12.9 J	0.69 -	17300 -	262 -	1.1 UJ
10	NAR-3-10C-M	12.9 J	1.3 -	17400 -	537 -	1.1 J
11	NAR-3-11C-M	7.8 J	0.84 -	11400 -	499 -	0.95 UJ
12	NAR-3-12C-M	8 J	0.67 -	12000 -	918 -	0.94 U
13	NAR-3-13C-M	9.5 J	0.99 -	17400 -	907 -	0.99 U
14	NAR-3-14C-M	7.8 J	0.72 -	12500 -	751 -	0.92 U
15	NAR-3-15C-M	10.7 -	1.7 -	24500 -	666 -	1 UJ
16	NAR-3-16C-M	11.6 J	1 -	21000 -	458 -	1 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	814	n/a
	Background 95%	8.2	0.6	11880	1348	n/a
	Samples	16	16	16	16	16
	Hits	15	17	17	17	3
	Max	**12.9**	**1.70**	**24500**	**1230**	**1.10**
	Mean	8.6	0.95	14600	638	0.59
	St.Dev.	3.2	0.36	4788	277	0.22
	UCL	**9.7**	**1.07**	**16205**	**731**	**0.67**
	t-Stat	4.28	6.20	--	--	--
	Prob.	0.0%	0.0%	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

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1350900 1351000 1351100 1351200 1351300 1351400 1351500 1351600 1351700 1351800 1351900 1352000 1352100

484600 484500 484400 484300 484200 484100 484000 483900 483800 483700 483600 483500 483400 483300 483200 483100 483000 482900 482800 482700 482600

NAR-4

NAR-2

NAR-6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

N

STATE PLANAR COORDINATE SYSTEM 1983

14-MAY-1997

SCALE

150 75 0 150 FEET

DRAFT

NAR-4 METALS MAP OF DATA POINTS

Certification Unit: NAR-4 11:40 AM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic		Certification Analytes: Beryllium		Ecological COCs: Aluminum		Ecological COCs: Manganese		Ecological COCs: Molybdenum	
1	NAR-4-1C-M	12.1	-	0.92	-	16800	-	444	-	0.99	UJ
2	NAR-4-2C-M	8.9	-	2.1	-	18900	-	2470	-	1	UJ
3	NAR-4-3C-M	9.2	-	1.3	-	18600	-	570	-	0.99	UJ
4	NAR-4-4C-M	5.5	-	0.76	-	11100	-	755	-	0.91	UJ
5	NAR-4-5C-M	6.9	-	0.82	-	11400	-	590	-	0.93	UJ
6	NAR-4-6C-M	5.5	-	0.68	-	9700	-	568	-	0.91	UJ
7	NAR-4-7C-M	5.1	-	0.83	-	11800	-	650	-	0.88	UJ
8	NAR-4-8C-M	4.6	-	0.38	-	6030	-	401	-	1.9	UJ
9	NAR-4-9C-M	12	-	1.3	-	17000	-	570	-	0.98	UJ
9	NAR-4-9C-M-D	9.7	-	1.4	-	21400	-	591	-	0.98	UJ
10	NAR-4-10C-M	4.8	U	0.92	-	13900	-	375	-	0.97	UJ
11	NAR-4-11C-M	19.1	-	1.3	-	15800	-	547	-	1	UJ
12	NAR-4-12C-M	8.6	-	0.77	-	15700	-	160	-	0.96	UJ
13	NAR-4-13C-M	8.4	-	1.2	-	18000	-	1340	-	1	UJ
14	NAR-4-14C-M	14.1	-	1.6	-	25200	-	243	-	1	UJ
15	NAR-4-15C-M	9.7	-	1.2	-	14800	-	570	-	1	UJ
16	NAR-4-16C-M	7	-	0.6	-	8360	-	827	-	0.94	UJ
	FRL (* = BTV)	12		1.5		10103		1500	*	10	*
	Background UCL	5.6		0.6		8812		814		n/a	
	Background 95%	8.2		0.6		11880		1348		n/a	
	Samples	16		16		16		16		16	
	Hits	15		16		16		16		0	
	Max	19.10		2.10		25200		2470		0.95	
	Mean	8.62		1.05		14706		693		0.51	
	St.Dev.	4.09		0.43		4859		543		0.12	
	UCL	9.99		1.19		16334		875		0.55	
	t-Stat	3.30		4.24		--		--		--	
	Prob.	0.2%		0.0%		--		--		--	
	Pass/Fail	Pass		Pass		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

Certification Unit: NAR-4 Fill 04:07 PM 22-May-97

		Certification Analytes				Ecological COCs					
	Sample ID	Arsenic		Beryllium		Aluminum		Manganese		Molybdenum	
	NAR-4-8C2-M	8.1	-	1.1	-	12300	-	1130	J	1.3	UJ
	NAR-4-9C2-M	11.4	-	1.6	-	19000	-	1200	J	0.97	UJ
10	NAR-4-10C2-M	8.3	-	0.61	-	10800	-	661	J	0.93	UJ
11	NAR-4-11C2-M	7.5	-	1	-	13900	-	486	J	0.95	UJ
12	NAR-4-12C2-M	6.8	-	0.68	-	11600	-	583	J	0.93	UJ
12	NAR-4-12C3-M	8.3	-	0.86	U	9360	-	682	-	1	U
13	NAR-4-13C2-M	7.2	-	0.64	-	11900	-	874	J	0.97	UJ
13	NAR-4-13C3-M	6	-	0.78	U	9250	-	579	-	1.3	U
14	NAR-4-14C2-M	9.7	-	1.1	-	15700	-	1630	J	0.95	UJ
14	NAR-4-14C3-M	5.1	J	1.7	-	14800	-	1860	J	0.96	U
14	NAR-4-14C3-M-D	8.8	J	1.1	-	12600	-	646	J	1.7	U
14	NAR-4-14C4-M	6.6	-	0.79	-	10500	-	566	J	1.5	U
14	NAR-4-14C5-M	6.1	-	0.84	-	10600	-	719	J	1.3	U
14	NAR-4-14C6-M	7.3	-	1.7	-	16400	-	1490	J	1	U
14	NAR-4-14C7-M	8.4	-	1.3	-	15300	-	1450	J	1.5	U
14	NAR-4-14C8-M	11.6	-	1.4	-	16000	-	903	J	1.3	U
15	NAR-4-15C10-M	5.5	-	1	-	6390	-	1370	J	1.1	U
15	NAR-4-15C11-M	3.7	-	1.4	-	8800	-	377	J	1	U
15	NAR-4-15C2-M	6.3	-	0.8	-	12700	-	583	J	0.92	UJ
15	NAR-4-15C3-M	4.3	-	0.86	-	10500	-	587	J	1.6	U
15	NAR-4-15C4-M	3.9	-	0.89	-	6320	-	1050	J	1.4	U
15	NAR-4-15C5-M	3.7	-	1.1	-	7260	-	287	J	1.4	U
15	NAR-4-15C6-M	3.3	-	0.76	-	5200	-	628	J	1.6	U
15	NAR-4-15C7-M	2.4	-	0.84	-	5850	-	484	J	1	U
15	NAR-4-15C8-M	4.2	-	1.2	-	8270	-	391	J	0.92	U
15	NAR-4-15C9-M	3.8	-	0.89	-	6660	-	630	J	0.93	U
16	NAR-4-16C10-M	9	-	0.88	U	10600	-	594	-	1.4	U
	NAR-4-16C11-M	7.4	-	0.96	U	12800	-	1100	-	0.97	U
	NAR-4-16C2-M	7.8	-	0.83	-	14800	-	512	J	0.94	UJ
	NAR-4-16C3-M	9	-	1.1	U	12800	-	406	-	1.3	U
	NAR-4-16C4-M	8.9	-	0.98	U	11100	-	372	-	1.7	U
16	NAR-4-16C5-M	10.1	-	0.8	U	9190	-	668	-	1.9	U
16	NAR-4-16C6-M	9	-	0.89	U	9750	-	585	-	1.4	U
16	NAR-4-16C7-M	5.6	-	0.61	U	6520	-	703	-	1.1	U
16	NAR-4-16C8-M	8.6	-	0.79	U	8340	-	680	-	1.6	U
16	NAR-4-16C9-M	7.5	-	0.78	U	9150	-	549	-	1.3	U
	FRL (* = BTV)	12		1.5		10103		1500	*	10	*
	Background UCL	5.6		0.6		8812		814		n/a	
	Background 95%	8.2		0.6		11880		1348		n/a	
	Samples	35		35		35		35		35	
	Hits	35		24		35		35		0	
	Max	11.60		1.70		19000		1630		0.95	
	Mean	6.98		0.84		10837		765		0.61	
	St.Dev.	2.31		0.38		3390		355		0.14	
	UCL	7.49		0.93		11586		843		0.64	
	t-Stat	12.84		10.27		--		--		--	
	Prob.	0.0%		0.0%		--		--		--	
	Pass/Fail	Pass		Pass		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

SRDIG DGN BMP METMARS.DGN 4-30-97 STATE PLANAR COORDINATE SYSTEM 1983

1350650 1350700 1350750 1350800 1350850 1350900 1350950 1351000 1351050 1351100 1351150 1351200 1351250

482800 482750 482700 482650 482600 482550 482500 482450 482400 482350 482300 482250 482200 482150 482100 482050 482000 481950 481900

16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

N

SCALE

70 35 0 70 FEET

DRAFT

NAR-5 METALS MAP OF DATA POINTS

Certification Unit: NAR-5

11:17 AM 22-May-97

...ap	Sample ID	Certification Analytes: Arsenic		Beryllium		Ecological COCs: Aluminum		Manganese		Molybdenum	
1	NAR-5-1C-M	4.8	J	0.76	-	11900	-	290	J	0.94	U
1	NAR-5-1C-M-D	8	J	0.76	-	8870	-	734	J	0.93	U
2	NAR-5-2C-M	12.2	-	1.4	-	20100	-	1210	J	0.99	U
3	NAR-5-3C-M	9.9	-	1.2	-	15500	-	407	J	0.97	U
4	NAR-5-4C-M	6.2	-	0.59	-	7440	-	432	J	0.9	U
5	NAR-5-5C-M	8.2	-	1	-	15600	-	575	J	0.91	U
6	NAR-5-6C-M	13.6	-	0.86	-	12400	-	378	J	0.98	U
7	NAR-5-7C-M	11.8	-	1.2	-	16700	-	600	J	1	U
8	NAR-5-8C-M	11.9	-	0.87	-	10300	-	462	J	0.99	U
9	NAR-5-9C-M	9.3	-	0.9	-	15200	-	674	J	0.97	UJ
10	NAR-5-10C-M	14.7	-	1.2	-	19100	-	1030	J	0.99	UJ
11	NAR-5-11C-M	12.8	-	1.2	-	18500	-	1160	J	1	UJ
12	NAR-5-12C-M	11.9	-	1.6	-	24000	-	966	J	1.1	UJ
13	NAR-5-13C-M	12.9	-	1.1	-	14500	-	1190	J	1	UJ
14	NAR-5-14C-M	7.2	-	0.71	-	8730	-	432	J	0.96	UJ
15	NAR-5-15C-M	10.4	J	1.3	-	19300	-	1860	J	1	U
16	NAR-5-16C-M	8.3	-	0.6	-	12300	-	235	J	0.96	U
	FRL (* = BTV)	**12**		**1.5**		**10103**		**1500**	*	**10**	*
	Background UCL	5.6		0.6		8812		814		n/a	
	Background 95%	8.2		0.6		11880		1348		n/a	
	Samples	16		16		16		16		16	
	Hits	16		16		16		16		0	
	Max	**14.7**		**1.60**		**24000**		**1860**		**0.94**	
	Mean	10.9		1.08		15653		790		0.52	
	St.Dev.	2.5		0.31		4600		436		0.11	
	UCL	**11.7**		**1.18**		**17194**		**936**		**0.56**	
	t-Stat	1.82		5.50		--		--		--	
	Prob.	4.5%		0.0%		--		--		--	
	Pass/Fail	**Pass**		**Pass**		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

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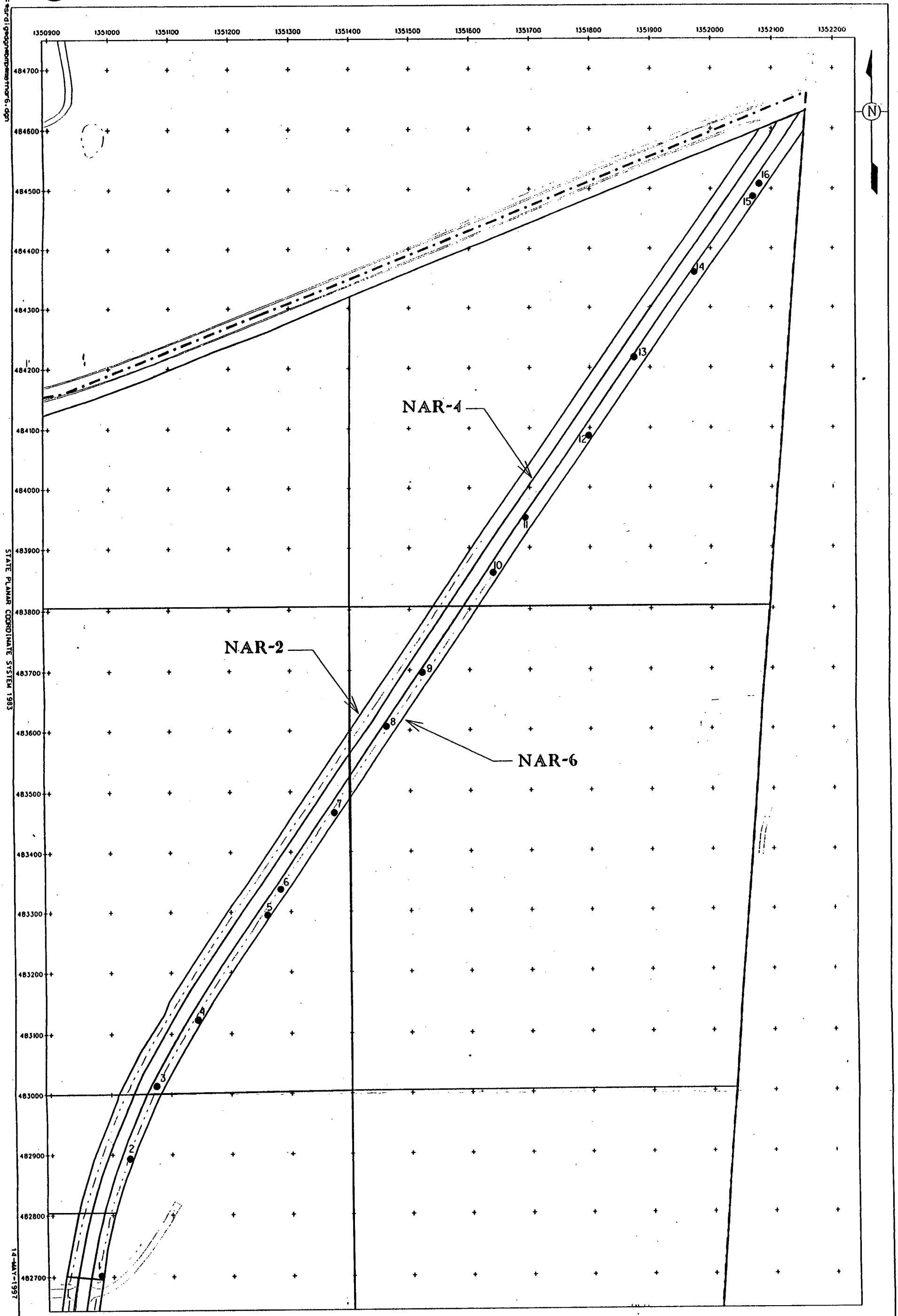

STATE PLANAR COORDINATE SYSTEM 1983

14-MAY-1997

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NAR-6 METALS MAP OF DATA POINTS

0002971

Certification Unit: NAR-6

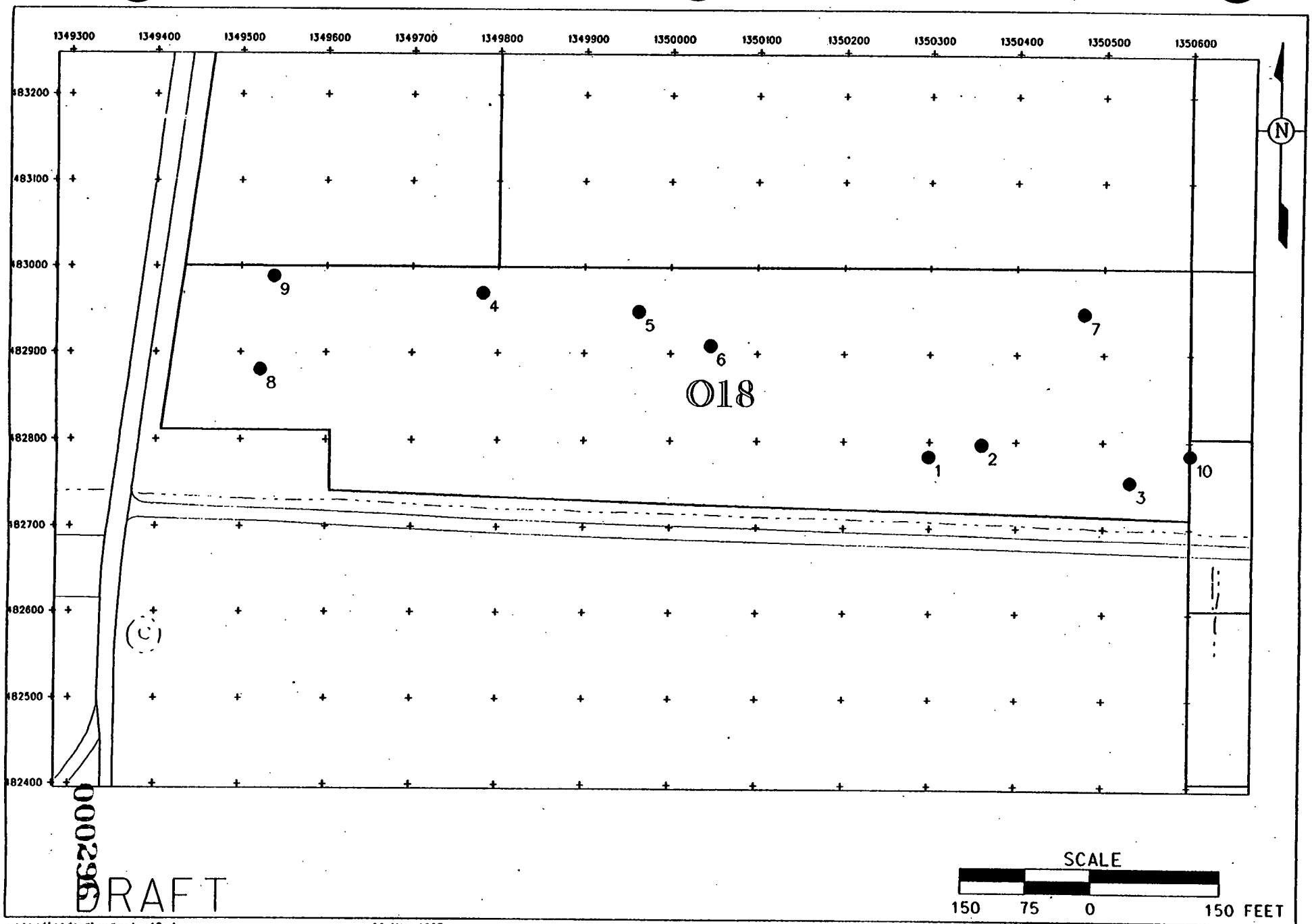
11:18 AM 22-May-97

		Certification Analytes		Ecological COCs		
ID	Sample ID	Arsenic	Beryllium	Aluminum	Manganese	Molybdenum
1	NAR-6-1C-M	2.7 -	0.97 -	6880 -	522 J	0.98 U
2	NAR-6-2C-M	12.6 J	1.5 -	18700 -	902 J	0.99 U
3	NAR-6-3C-M	4.2 UJ	0.62 -	7710 -	567 J	1.5 U
4	NAR-6-4C-M	6.1 -	0.65 -	8410 -	545 J	1.7 -
5	NAR-6-5C-M	5.5 -	0.61 -	7790 -	1050 J	1.8 -
6	NAR-6-6C-M	5.4 UJ	0.64 -	8110 -	555 J	1.3 U
7	NAR-6-7C-M	6 -	0.76 -	10400 -	427 J	1.3 -
8	NAR-6-8C-M	6.7 J	0.73 -	9860 -	466 J	1.9 U
9	NAR-6-9C-M	11.6 J	1.5 -	20000 -	775 J	1 U
10	NAR-6-10C-M	9.5 -	1.3 U	14700 -	1120 J	1.1 U
11	NAR-6-11C-M	8.3 J	1.1 -	15000 -	289 J	1 U
12	NAR-6-12C-M	11.3 J	1.2 -	13800 -	461 J	0.99 U
13	NAR-6-13C-M	10 J	1.1 -	15900 -	506 J	0.98 U
14	NAR-6-14C-M	12.2 J	1.5 -	16000 -	502 J	1.4 U
15	NAR-6-15C-M	10.2 -	0.82 U	12000 -	513 -	1.1 U
16	NAR-6-16C-M	9.2 -	1.1 U	12100 -	1000 -	1.2 U
16	NAR-6-16C-M-D	9.3 -	0.96 U	11600 -	731 -	1.6 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	814	n/a
	Background 95%	8.2	0.6	11880	1348	n/a
	Samples	16	16	16	16	16
	Hits	14	13	16	16	3
	Max	**12.6**	**1.50**	**20000**	**1120**	**1.80**
	Mean	7.9	0.90	12319	629	0.79
	St.Dev.	3.5	0.37	4127	239	0.43
	UCL	**9.1**	**1.03**	**13703**	**709**	**0.93**
	t-Stat	4.69	6.46	--	--	--
	Prob.	0.0%	0.0%	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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STATE PLANAR COORDINATE SYSTEM 1983

20-MAY-1997

O18 METALS MAP OF DATA POINTS

1 of 2

Certification Unit: O18 02:47 PM 23-Mar-97

ip	Sample ID	Certification Analytes: Arsenic	Beryllium	Aroclor-1260	Ecological COCs: Aluminum	Lead	Manganese	Molybdenum
1	O18-00C-5-MP	7.5 -	0.68 U	64 U	11200 -	24.2 -	750 -	0.91 U
2	O18-00C-6-MP	7.9 -	0.72 U	57 U	11700 -	25.4 -	607 -	1.2 U
3	O18-00C-7-MP	8.5 -	0.81 U	58 U	10800 -	24.3 -	804 -	0.93 U
4	O18-00C-9-MP	5.9 -	0.73 U	61 U	9510 -	23.1 -	554 -	0.54 U
5	O18-00C-10-MP	7.8 -	0.69 U	61 U	10200 -	22.4 -	389 -	0.83 U
6	O18-00C-11-MP	9.1 -	0.77 U	62 U	9920 -	27.2 -	649 -	0.84 U
7	O18-00C-14-MP	5.8 -	0.36 U	58 U	6880 -	23.8 -	375 -	1 U
8	O18-00C-15-MP	7.3 -	0.77 U	55 U	10200 -	23.4 -	660 -	0.7 U
9	O18-00C-16-MP	7.8 -	0.66 U	58 U	9650 -	30.1 -	764 -	1.1 U
10	P18-31C-601785	5.3 -	0.38 U		6860 -	21.5 -	524 -	1.7 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	9	10	10	10	10
	Hits	10	0	0	10	10	10	0
	Max	**9.10**	**0.41**	**32.0**	**11700**	**30.1**	**804**	**0.85**
	Mean	7.29	0.33	29.7	9692	24.5	608	0.49
	St.Dev.	1.24	0.08	1.4	1635	2.5	149	0.16
	UCL	**7.83**	**0.36**	**30.3**	**10407**	**25.6**	**673**	**0.56**
	t-Stat	12.03	46.88	212.84	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

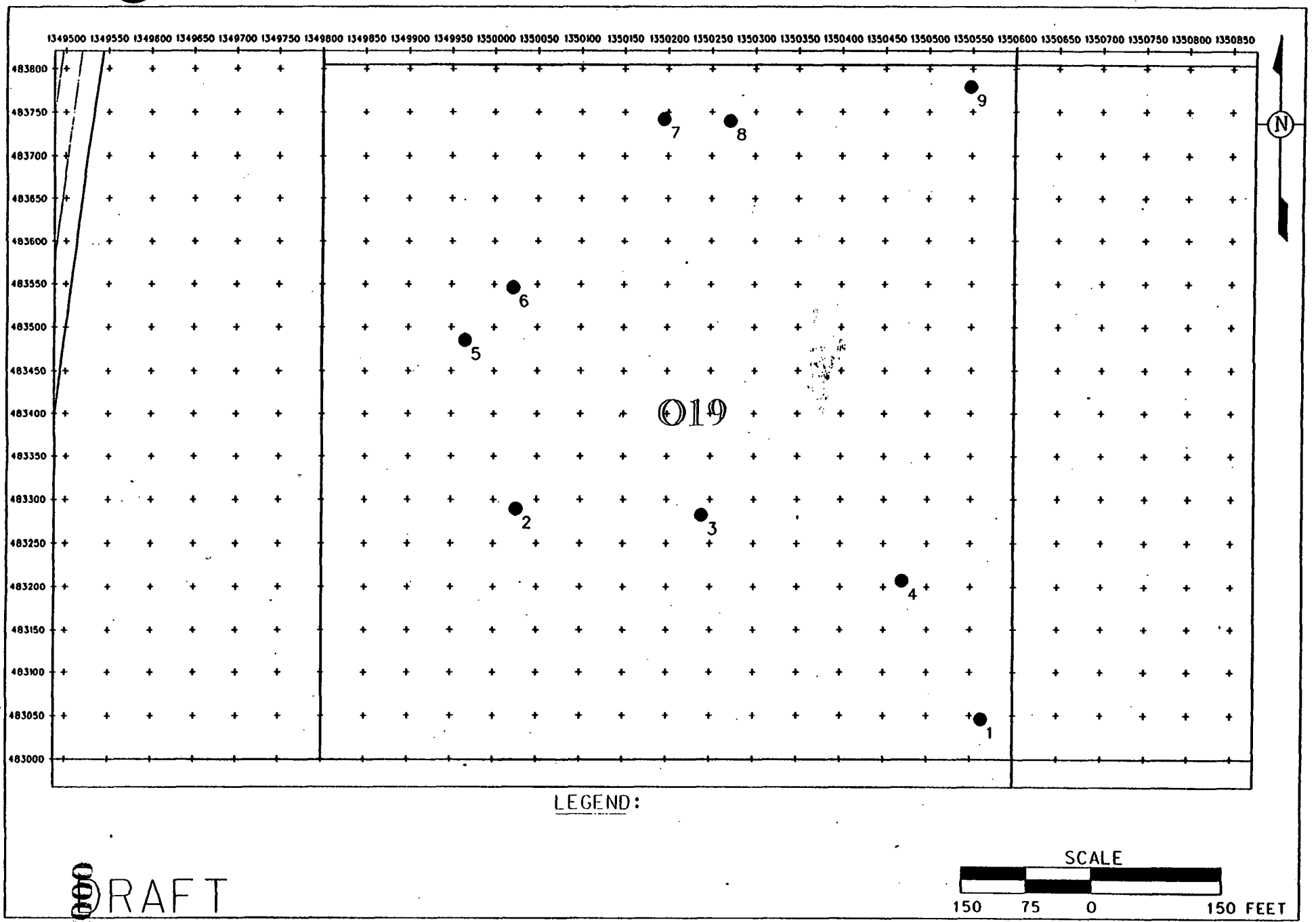
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



LEGEND:

SCALE

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SRDIC DGN BMP MET-019.DGN 5-20-97
STATE PLANAR COORDINATE SYSTEM 1983

019 METALS MAP OF DATA POINTS

8500

832

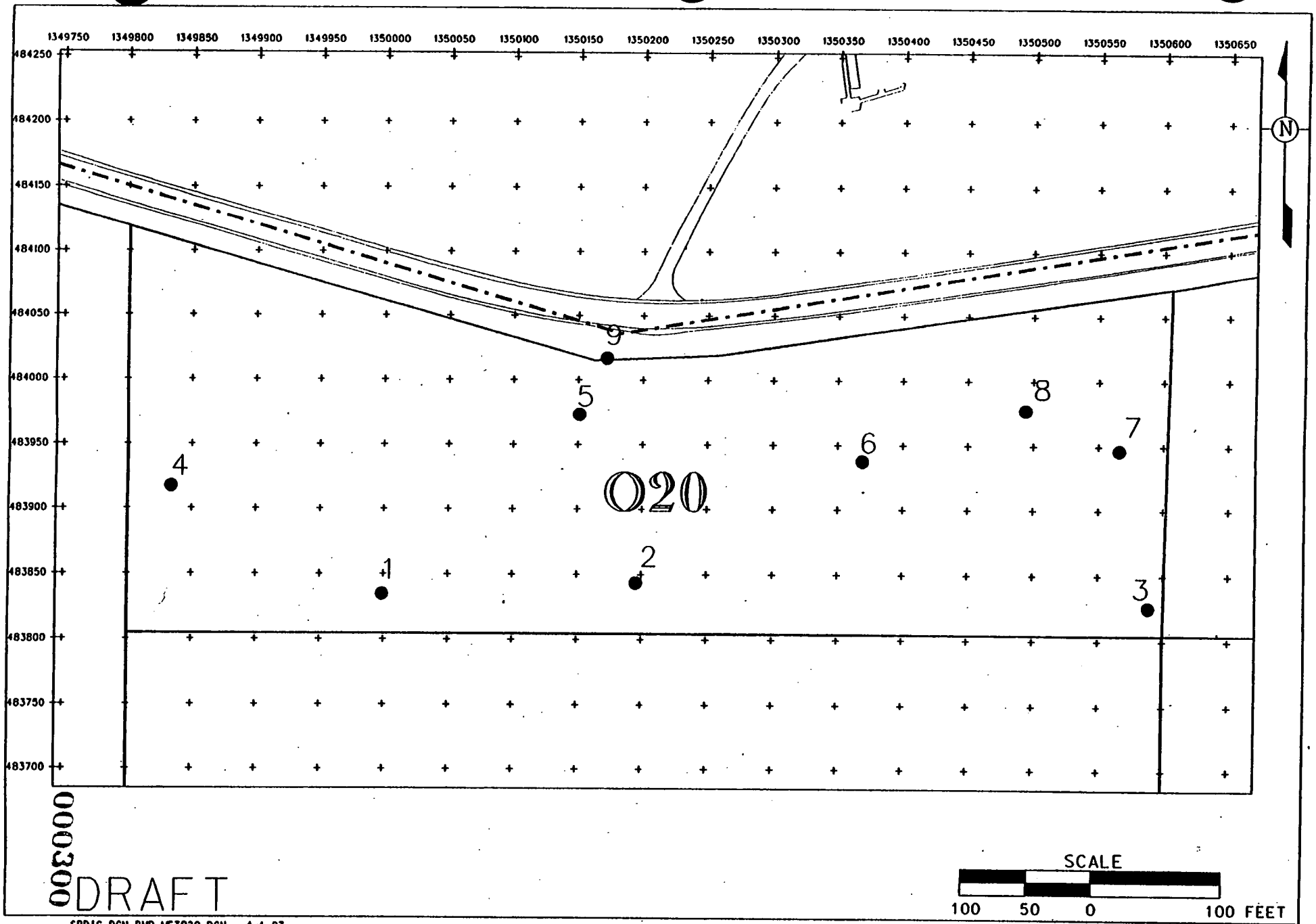
Certification Unit: O19 11:22 AM 22-May-97

ap	Sample ID	Certification Analytes: Arsenic	Certification Analytes: Beryllium	Ecological COCs: Aluminum	Ecological COCs: Lead	Ecological COCs: Manganese	Ecological COCs: Molybdenum
1	O19-00C-4-M	5 -	0.61 U	9520 -	20.9 -	276 J	0.77 U
2	O19-00C-6-M	7.1 -	0.77 U	11200 -	23.6 -	374 J	0.7 U
3	O19-00C-7-M	5.8 -	0.75 U	11200 -	23.9 -	561 J	0.58 U
4	O19-00C-8-M	4.9 -	0.65 U	10700 -	20.8 -	827 J	0.49 U
5	O19-00C-9-M	6.2 -	0.78 U	12300 -	15.7 -	1190 J	0.43 U
6	O19-00C-10-M	6.1 -	0.74 U	12300 -	21.6 -	1150 J	0.42 U
7	O19-00C-14-M	7 -	0.64 U	11200 -	22.6 -	730 J	0.6 U
8	O19-00C-15-M	7.3 -	0.97 U	14100 -	19.4 -	1470 J	0.5 U
9	O19-00C-16-M	7.1 -	0.83 U	16400 -	26.8 -	984 J	0.91 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9
	Hits	9	0	9	9	9	0
	Max	**7.30**	**0.49**	**16400**	**26.8**	**1470**	**0.46**
	Mean	6.28	0.37	12102	21.7	840	0.30
	St.Dev.	0.92	0.06	2050	3.1	397	0.08
	UCL	**6.70**	**0.40**	**13057**	**23.2**	**1025**	**0.34**
	t-Stat	18.74	61.05	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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SRDIG DGN BMP MET020.DGN 4-1-97
STATE PLANAR COORDINATE SYSTEM 1983

020 METALS MAP OF DATA POINTS

2838

Certification Unit: O20 11:24 AM 22-May-97

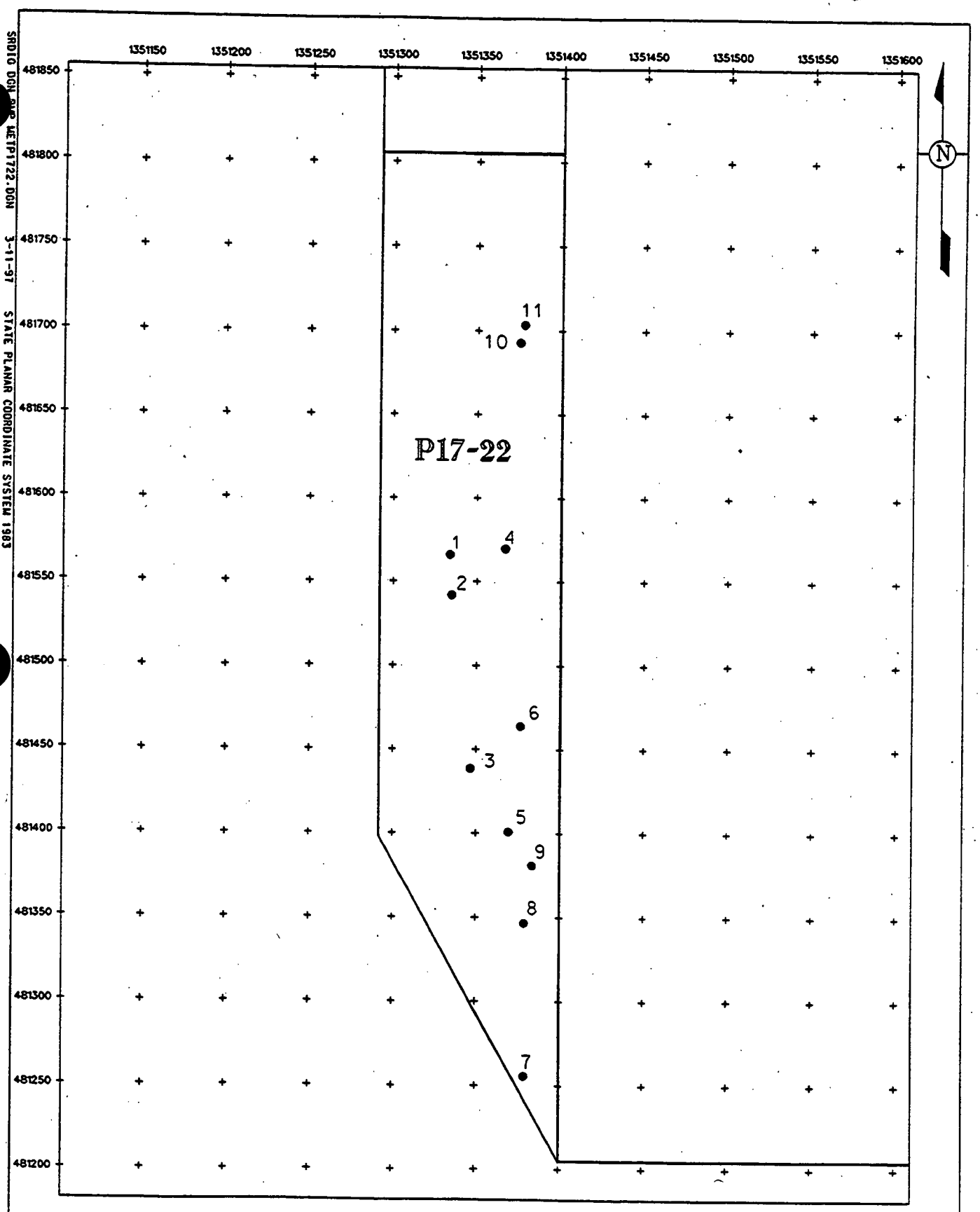
Map	Sample ID	Certification Analytes		Ecological COCs			
		Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	O20-00C-1-M	7.9 -	1.4 -	23100 -	17.6 -	1100 J	0.23 U
2	O20-00C-2-M	8.5 -	1.2 -	20600 -	20.6 -	853 J	0.38 -
3	O20-00C-4-M	5.9 -	1 U	14500 -	27 -	935 J	0.5 -
3	O20-00C-4-M-D	6 -	0.94 U	15800 -	25.6 -	910 J	0.34 -
4	O20-00C-5-M	7.1 -	0.58 U	10400 -	22.3 -	411 J	0.87 -
5	O20-00C-6-M	8.2 -	0.86 U	12100 -	36 -	739 J	0.87 -
6	O20-00C-7-M	8.8 -	1.1 U	16700 -	33.4 -	1140 J	0.58 -
7	O20-00C-8A-M	12 -	1.2 -	21600 -	19.6 -	1130 J	0.6 -
7	O20-00C-8A-M-D	12.1 -	1.2 -	18900 -	21.3 -	1060 J	0.63 -
8	O20-00C-8B-M	6.9 -	0.91 U	13600 -	36.1 -	975 J	0.44 -
9	O20-00C-10-M	7.3 -	0.86 U	13500 -	33 -	710 J	0.81 -
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200** *	**1500** *	**10** *
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9
	Hits	9	3	9	9	9	8
	Max	**12.05**	**1.40**	**23100**	**36.1**	**1140**	**0.87**
	Mean	8.08	0.72	16156	27.3	883	0.57
	St.Dev.	1.73	0.42	4319	7.4	235	0.26
	UCL	**8.88**	**0.91**	**18166**	**30.7**	**992**	**0.69**
	t-Stat	6.79	5.57	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

E-837



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P17-22 METALS MAP OF DATA POINTS

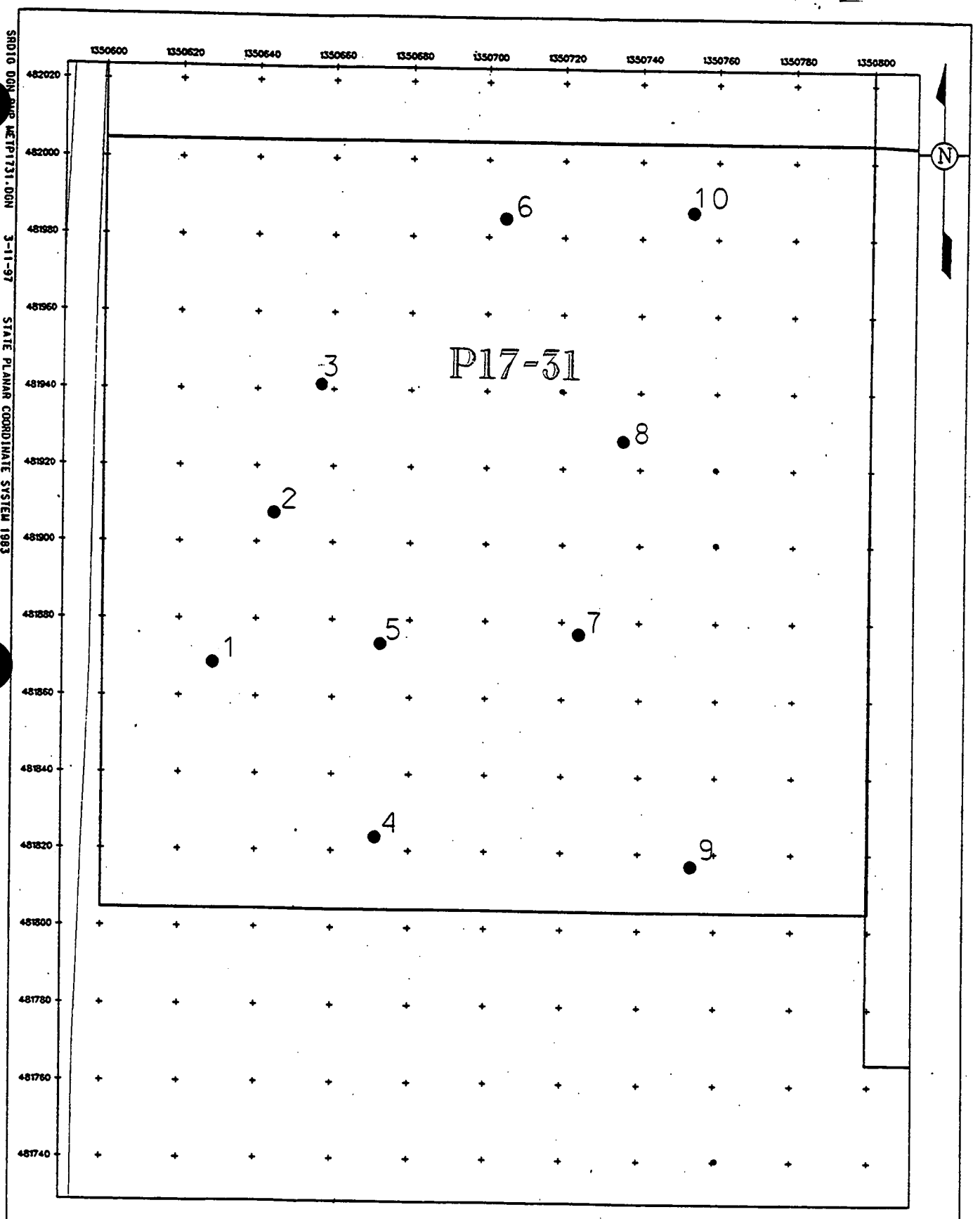
Certification Unit: P17-22 11:25 AM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic	Certification Analytes: Beryllium	Ecological COCs: Aluminum	Ecological COCs: Manganese	Ecological COCs: Molybdenum
1	P17-22C2-M-1	12.7 J	1.4 U	16300 -		0.99 U
2	P17-22C2-M-2	8.6 J	0.83 U	7090 -	2190 J	0.98 U
3	P17-22C2-M-3	10.4 J	1.2 U	12300 -		0.99 U
4	P17-22C2-M-4	7.8 J	0.65 U	5880 -		0.94 U
5	P17-22C2-M-5	7.7 J	0.75 U	7450 -		1 U
6	P17-22C2-M-6	9 J	1.2 U	12000 -		0.97 U
7	P17-22C2-M-7	10.1 J	1.1 U	14000 -		0.9 U
8	P17-22C2-M-8	6.7 J	0.75 U	7590 -		0.9 U
9	P17-22C2-M-9	9.3 J	0.88 U	7150 -	1540 J	0.9 U
10	P17-22C2-M-10	7.7 J	0.84 U	9530 -		1 U
11	P17-22C2-M-11	7.5 J	0.8 U	7130 -		0.98 U
11	P17-22C2-M-11-D	7.3 J	0.83 U	9100 -		1 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	814	n/a
	Background 95%	8.2	0.6	11880	1348	n/a
	Samples	11	11	11	2	11
	Hits	11	0	11	2	0
	Max	**14.80**	**0.81**	**16300**	**2190**	**0.99**
	Mean	9.53	0.51	10502	1865	0.52
	St.Dev.	2.40	0.15	3836	460	0.16
	UCL	**10.52**	**0.57**	**12089**	**2865**	**0.59**
	t-Stat	3.41	21.49	--	--	--
	Prob.	0.3%	0.0%	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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SCALE

35 17.5 0 35 FEET

P17-31 METALS MAP OF DATA POINTS

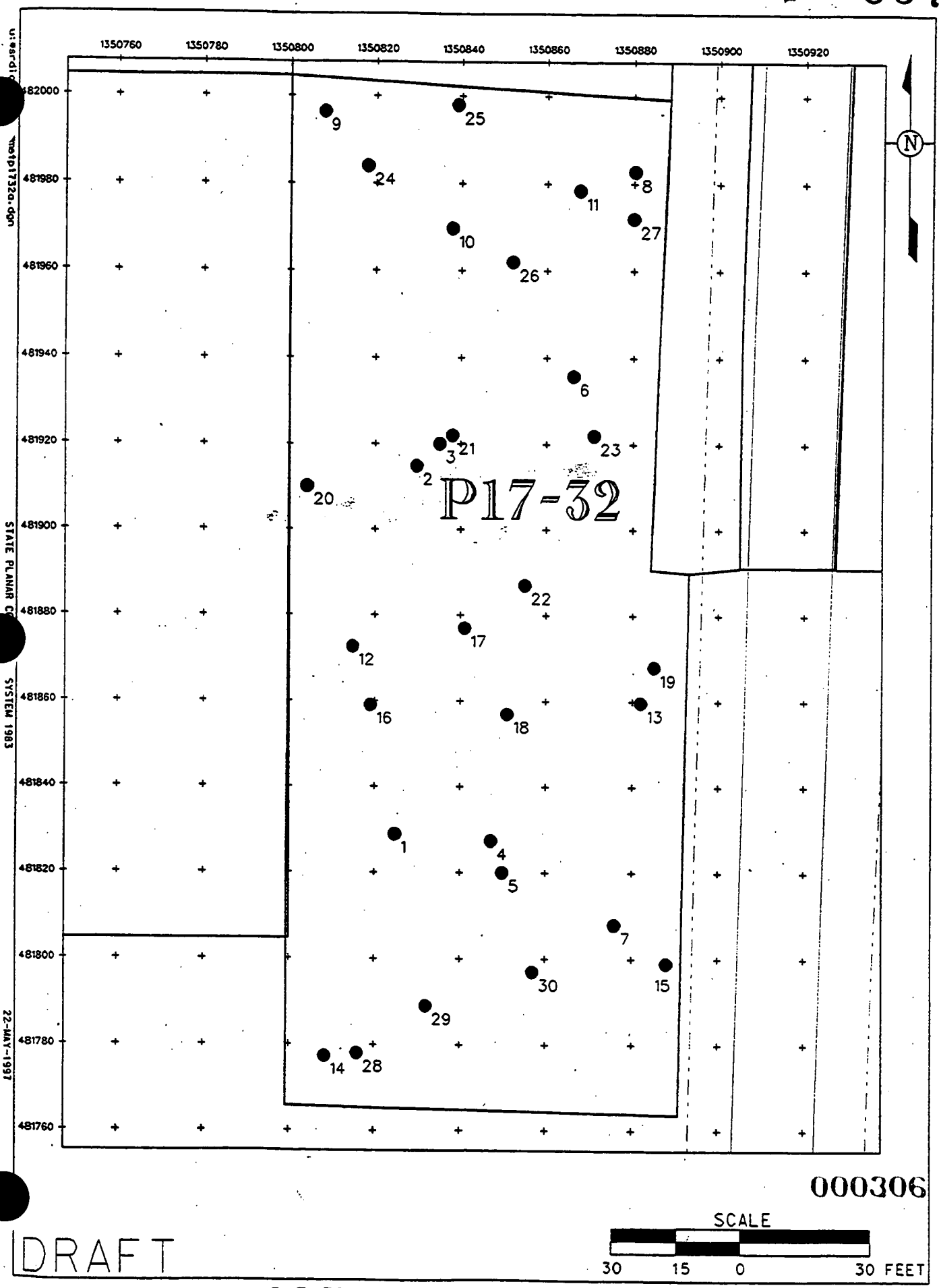
Certification Unit: P17-31 11:26 AM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	P17-31C-628868	5.3 J	0.45 U	44 U	7250 -	7.2 -	480 J	4.2 U
2	P17-31C-644907	5.5 J	0.26 U	45 U	4030 -	8.4 -	395 J	4.4 U
2	P17-31C-644907-D	3.4 J	0.22 U	45 U	3550 -	4.8 -	244 J	4.4 U
3	P17-31C-656941	4.5 J	0.35 U	45 U	5680 -	5.6 -	365 J	4.3 U
4	P17-31C-671823	6.2 -	0.61 U	48 U	7360 -	15.2 -	915 J	0.94 U
5	P17-31C-672873	10.8 J	0.76 U	50 U	12200 -	19.7 -	841 J	1.4 -
6	P17-31C-704984	6.5 J	0.51 U	43 U	9020 -	12.4 -	543 J	1.1 -
7	P17-31C-724876	8.4 -	0.5 U	47 U	7150 -	17.2 -	809 J	0.91 U
8	P17-31C-735927	7.3 J	0.65 U	46 U	9130 -	14.6 -	638 J	0.96 -
9	P17-31C-753816	8.6 -	0.7 U	46 U	9780 -	18 -	552 J	1.2 -
10	P17-31C-753986	7 J	0.49 U	43 U	7650 -	7.8 -	529 J	4.2 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	10	10	10	10	10
	Hits	10	0	0	10	10	10	4
	Max	**10.80**	**0.38**	**25.0**	**12200**	**19.7**	**915**	**2.20**
	Mean	6.91	0.26	22.9	7901	12.4	599	1.41
	St.Dev.	1.99	0.08	1.1	2308	5.3	200	0.69
	UCL	**7.77**	**0.30**	**23.3**	**8911**	**14.7**	**687**	**1.71**
	t-Stat	8.11	49.13	306.14	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000306

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SCALE

30 15 0 30 FEET

P17-32 METALS MAP OF DATA POINTS

ORIGINAL FAILED CU RESULTS

Certification Unit: P17-32

03:39 PM 25-Jun-97

		Certification Analytes		Ecological COCs			
Map	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P17-32C-824828	10.3 J	0.96 -	13200 -	15.7 -	668 -	0.94 U
2	P17-32C-829914	14.8 J	0.71 U	14800 -	16.6 -	205 -	1.3 -
3	P17-32C-835920	16.9 -	1.1 U	24800 -	19.9 -	438 J	1.5 U
4	P17-32C-847827	10.7 J	0.62 U	11500 -	16 -	324 -	0.94 U
5	P17-32C-850820	14.1 -	2.3 -	23800 -	17.6 -	1080 J	1.2 U
6	P17-32C-866935	7.1 -	0.47 U	6280 -	17.1 -	2080 -	1.4 -
7	P17-32C-876808	13.8 -	0.64 U	17200 -	15.6 -	171 J	1.1 -
8	P17-32C-880982	7.4 -	0.45 U	8830 -	15.8 -	771 -	0.91 U
9	P17-32C2-M-1	10.8 -	0.81 -	11100 -		422 J	1.1 U
10	P17-32C2-M-2	14.6 -	0.65 -	11900 -		108 J	1.6 U
11	P17-32C2-M-3	16.0 -	0.95 -	16400 -		241 J	3.2 U
12	P17-32C2-M-4	7.1 -	0.72 -	7610 -		776 J	1 U
13	P17-32C2-M-5	13.9 -	0.79 -	7480 -		849 J	1.2 U
14	P17-32C2-M-6	7.5 -	0.73 -	7650 -		713 J	0.92 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	14	14	14	8	14	14
	Hits	14	8	14	8	14	3
	Max	**16.90**	**2.30**	**24800**	**19.9**	**2080**	**1.60**
	Mean	11.79	0.71	13039	16.8	632	0.79
	St.Dev.	3.52	0.53	5858	1.4	511	0.39
	UCL	**13.05**	**0.90**	**15153**	**17.5**	**816**	**0.93**
	t-Stat	0.23	5.64	--	--	--	--
	Prob.	41.1%	0.0%	--	--	--	--
	Pass/Fail	**Fail**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

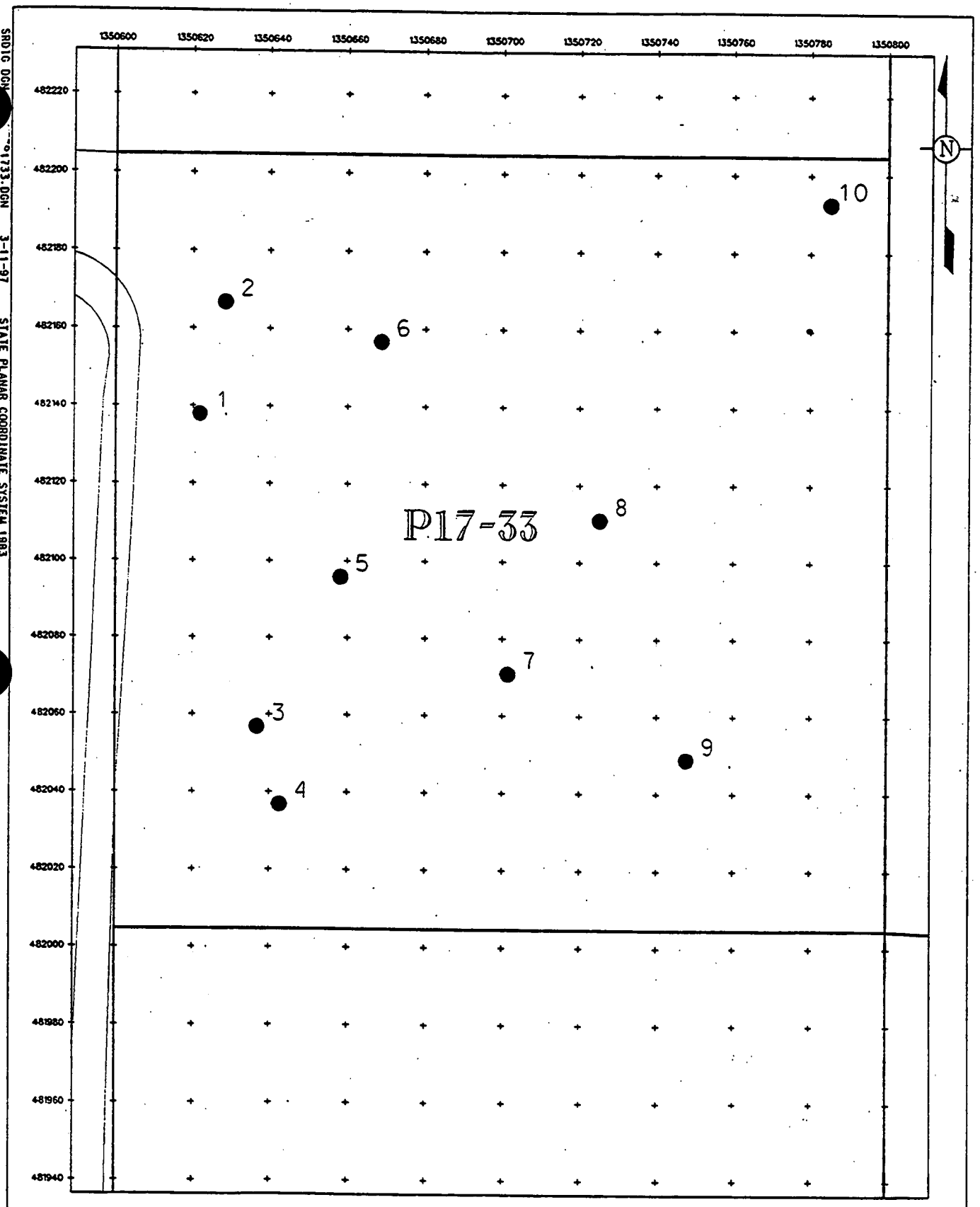
Certification Unit: P17-32 10:49 AM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P17-32C-824828		0.96 -	13200 -	15.7 -	668 -	0.94 U
2	P17-32C-829914		0.71 U	14800 -	16.6 -	205 -	1.3 -
3	P17-32C-835920		1.1 U	24800 -	19.9 -	438 J	1.5 U
4	P17-32C-847827		0.62 U	11500 -	16 -	324 -	0.94 U
5	P17-32C-850820		2.3 -	23800 -	17.6 -	1080 J	1.2 U
6	P17-32C-866935		0.47 U	6280 -	17.1 -	2080 -	1.4 -
7	P17-32C-876808		0.64 U	17200 -	15.6 -	171 J	1.1 -
8	P17-32C-880982		0.45 U	8830 -	15.8 -	771 -	0.91 U
9	P17-32C2-M-1		0.81 -	11100 -		422 J	1.1 U
10	P17-32C2-M-2		0.65 -	11900 -		108 J	1.6 U
11	P17-32C2-M-3		0.95 -	16400 -		241 J	3.2 U
12	P17-32C2-M-4		0.72 -	7610 -		776 J	1 U
13	P17-32C2-M-5		0.79 -	7480 -		849 J	1.2 U
14	P17-32C2-M-6		0.73 -	7650 -		713 J	0.92 U
15	P17-32INV2-M-10	11.3 -					
16	P17-32INV2-M-11	7.7 -					
17	P17-32INV2-M-12	11 -					
18	P17-32INV2-M-13	11.3 -					
19	P17-32INV2-M-14	8.6 -					
20	P17-32INV2-M-15	5 -					
20	P17-32INV2-M-15-D	4.5 -					
21	P17-32INV2-M-16	11 -					
22	P17-32INV2-M-17	10.5 -					
23	P17-32INV2-M-18	12 -					
	P17-32INV2-M-19	6.5 -					
	P17-32INV2-M-20	7 -					
	P17-32INV2-M-21	11.6 -					
	P17-32INV2-M-22	9.8 -					
28	P17-32INV2-M-7	4.6 -					
29	P17-32INV2-M-8	5.8 -					
30	P17-32INV2-M-9	8.5 -					
	FRL (* = BTV)	12	1.5	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	16	14	14	8	14	14
	Hits	16	8	14	8	14	3
	Max	12.00	2.30	24800	19.9	2080	1.60
	Mean	9.17	0.71	13039	16.8	632	0.79
	St.Dev.	2.29	0.53	5858	1.4	511	0.39
	UCL	9.94	0.90	15153	17.5	816	0.93
	t-Stat	4.94	5.64	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	Pass	Pass	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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35 17.5 0 35 FEET

000309

P17-33 METALS MAP OF DATA POINTS

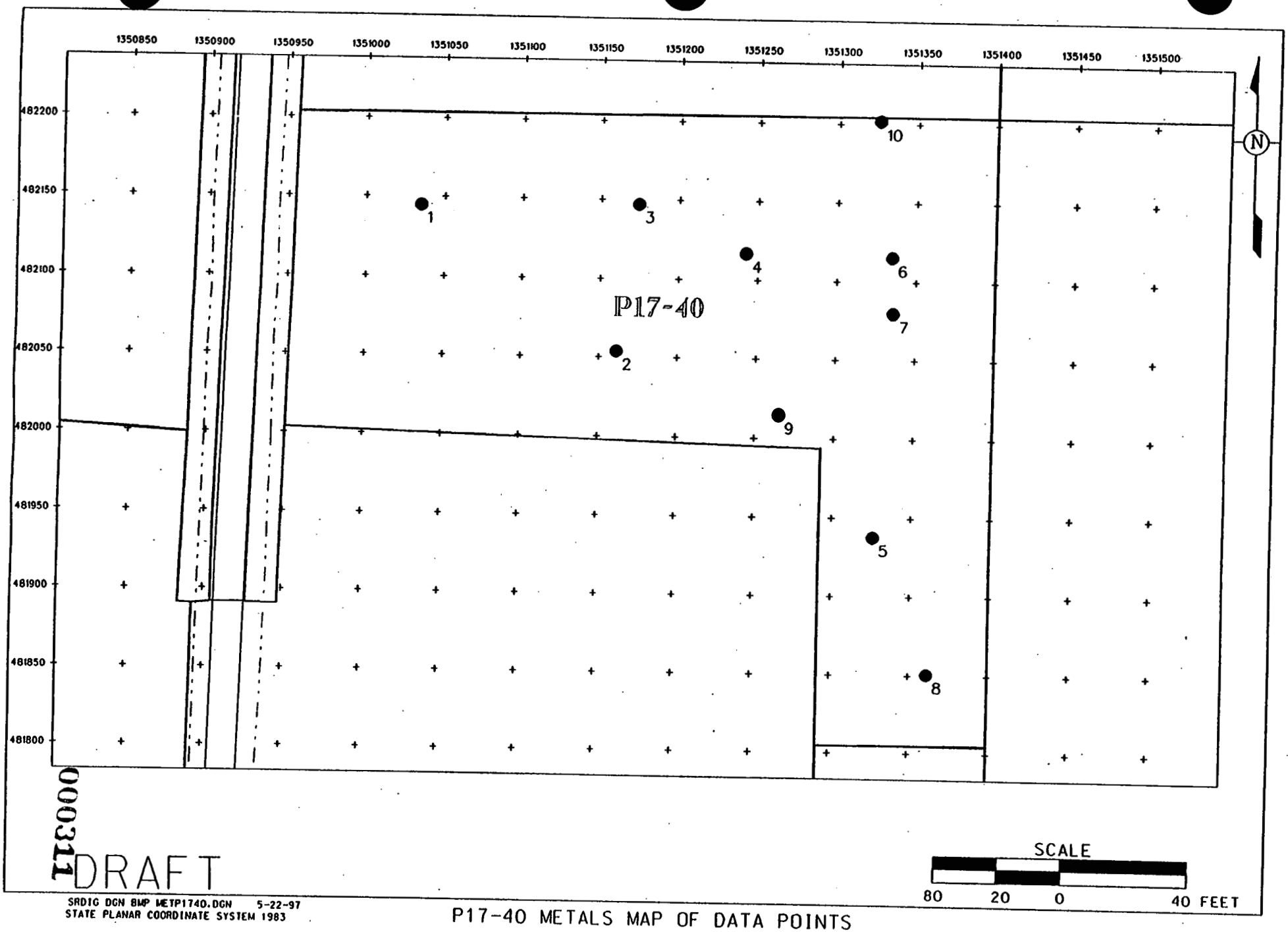
Certification Unit: P17-33 11:28 AM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
	P17-33C-621137	5.5 -	0.8 U	47 U	7920 -	8.8 J	503 -	4.4 U
2	P17-33C-628166	8.5 -	0.87 -	49 U	12100 -	18 J	591 -	1.3 -
3	P17-33C-636056	5.8 -	0.74 U	44 U	7230 -	12.5 J	559 -	4.1 U
4	P17-33C-642036	7.5 J	0.68 -	43 U	10100 -	10.2 J	414 -	1.7 -
5	P17-33C-658095	4.9 -	0.83 U	43 U	7670 -	6.9 J	823 -	4 U
6	P17-33C-668156	7.5 -	0.9 U	45 U	9460 -	15.1 J	690 -	4.3 U
7	P17-33C-701070	6.9 J	0.72 U	48 U	9020 -	16.8 J	508 -	1.3 -
8	P17-33C-725110	8.8 -	0.87 -	48 U	11800 -	19.1 J	864 -	1.4 -
9	P17-33C-747048	5.3 -	0.79 U	44 U	8230 -	7 J	433 -	4.1 U
10	P17-33C-785192	5.6 -	0.87 U	45 U	10200 -	8.2 J	717 -	4.3 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	10	10	10	10	10
	Hits	10	3	0	10	10	10	4
	Max	**8.80**	**0.87**	**24.5**	**12100**	**19.1**	**864**	**2.20**
	Mean	6.63	0.52	22.8	9373	12.3	610	1.83
	St.Dev.	1.40	0.20	1.1	1686	4.7	157	0.37
	UCL	**7.24**	**0.61**	**23.3**	**10110**	**14.3**	**679**	**1.99**
	t-Stat	12.15	15.18	305.25	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000311

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SRDIG DGN BMP METP1740.DGN 5-22-97
STATE PLANAR COORDINATE SYSTEM 1983

P17-40 METALS MAP OF DATA POINTS

837

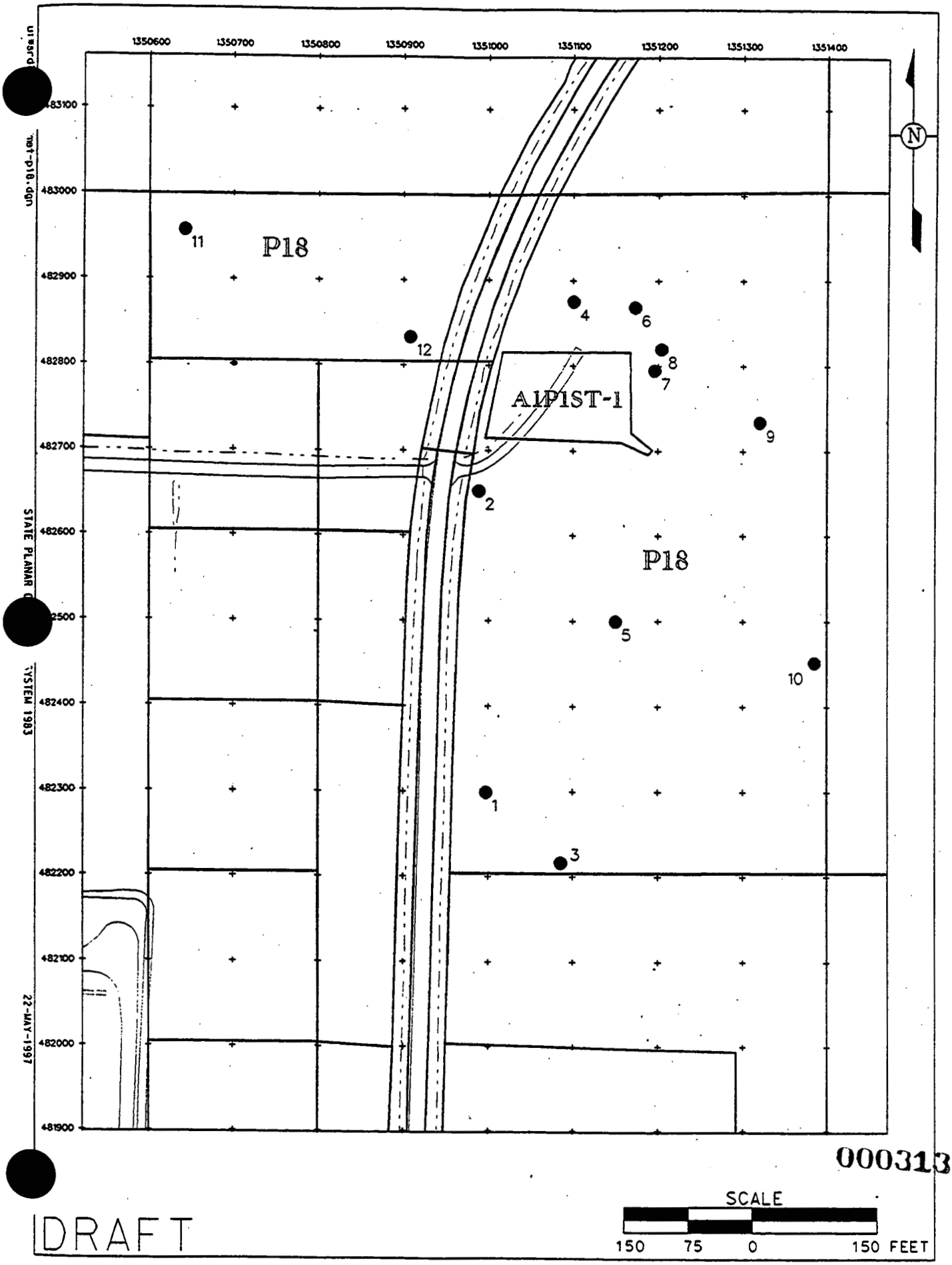
Certification Unit: P17-40 11:29 AM 22-May-97

Map	Sample ID	Certification Analytes		Ecological COCs			
		Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P17-40C-034144	10.2 -	0.76 -	13000 -		544 J	1.1 U
2	P17-40C-161053	10.1 -	0.85 U	9270 -	19.4 -	722 -	0.96 U
3	P17-40C-173146	7.1 -	0.55 U	6870 -	15.8 -	616 J	0.95 U
4	P17-40C-242116	10.7 -	0.78 U	12700 -	19.2 -	819 -	0.93 U
5	P17-40C-326937	9.1 -	0.86 -	8930 -		996 J	1.1 U
6	P17-40C-334115	8 -	0.69 U	6480 -	18.1 -	606 -	0.93 U
7	P17-40C-355079	7.9 -	0.78 U	7580 -	16.2 -	991 -	0.93 U
7	P17-40C-355079-D	7.7 -	0.8 U	8110 -	15.1 -	795 -	0.95 U
8	P17-40C-361850	8.8 -	0.76 U	8770 -	21.6 -	1130 -	0.91 U
9	P17-40C2-M-2	8.8 J	0.88 U	9610 -			0.97 U
10	P18C-325201	7.8 -	0.67 U	9860 -	15.6 -	695 J	0.93 U
	FRL (* = BTV)	12	1.5	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	10	10	10	7	9	10
	Hits	10	2	10	7	9	0
	Max	**10.70**	**0.86**	**13000**	**21.6**	**1130**	**0.55**
	Mean	8.84	0.46	9334	17.9	780	0.49
	St.Dev.	1.20	0.19	2161	2.3	196	0.03
	UCL	**9.36**	**0.54**	**10279**	**19.2**	**871**	**0.50**
	t-Stat	8.36	17.16	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000313

DRAFT

SCALE

150 75 0 150 FEET

P18 METALS MAP OF DATA POINTS

E-837

Certification Unit: P18

11:50 AM 22-May-97

Map	Sample ID	Certification Analytes		Ecological COCs			
		Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P18-12C-997298	5.8 -	0.47 U	6040 -	14.5 -	616 J	0.94 U
2	P18-32C-989652	7.5 J	1.1 U	11800 -	9.7 -	560 J	1.1 -
3	P18C-086216	11.3 -	0.98 U	14600 -	25.7 -	829 J	2.2 -
4	P18C-100875	6 -	0.5 U	5430 -	15.2 -	684 J	1.1 -
5	P18C-150499	10.6 J	1.1 -	14500 -	18.7 -	1010 J	1 U
6	P18C-173868	9.8 -	0.64 U	12500 -	23.1 -	865 J	0.59 -
7	P18C-195794	8.3 J	0.73 U	9700 -	16.2 -	837 J	0.94 U
8	P18C-203819	8.1 -	0.67 U	8080 -	37 -	691 J	0.91 -
9	P18C-319733	13.8 J	0.87 U	6900 -	25.8 -	1380 J	1.1 -
10	P18C-384451	15.1 J	1 -	8960 -	34.4 -	5470 J	2 -
11	P18C-642957	6.9 U	1.1 -	10500 -		420 J	1.3 U
12	P18C-908837	7.5 -	0.93 -	6660 -		907 J	1.2 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	12	12	12	10	12	12
	Hits	11	4	12	10	12	7
	Max	**15.1**	**1.10**	**14600**	**37.0**	**5470**	**2.20**
	Mean	8.9	0.59	9639	22.0	1189	0.97
	St.Dev.	3.4	0.34	3188	8.9	1370	0.58
	UCL	**10.3**	**0.73**	**10894**	**25.9**	**1728**	**1.20**
	t-Stat	3.15	9.24	--	--	--	--
	Prob.	0.5%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

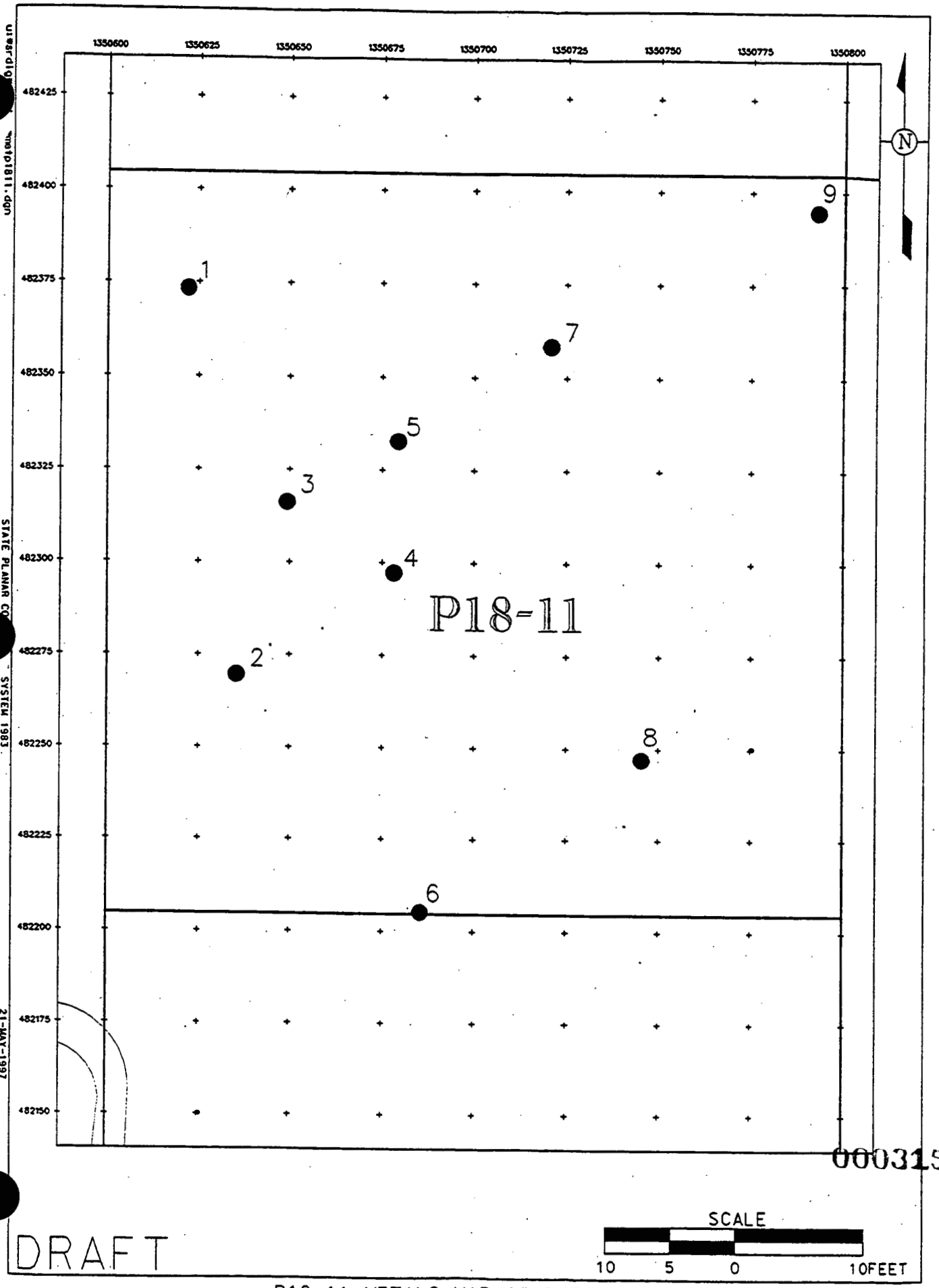
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000315

P18-11 METALS MAP OF DATA POINTS

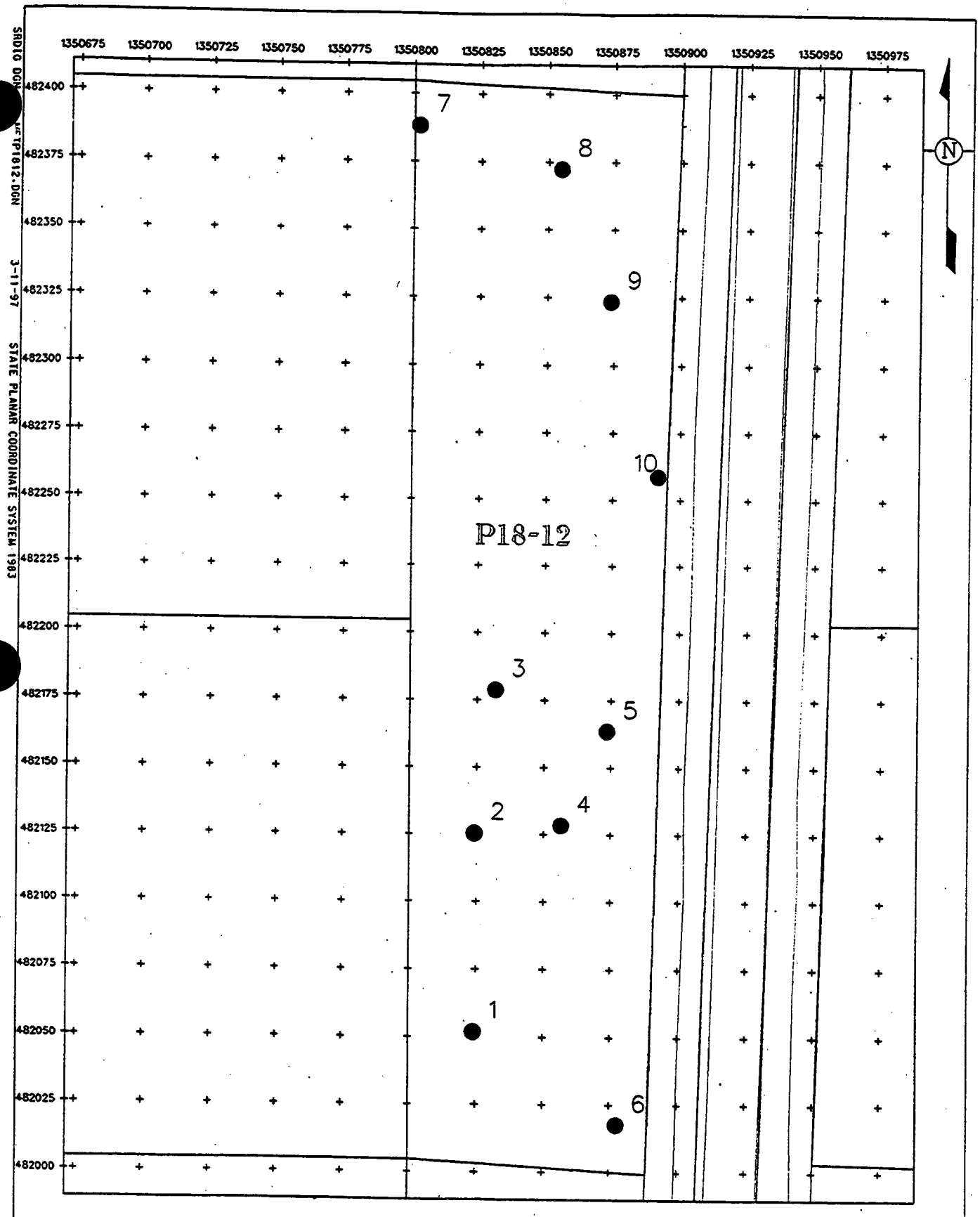
Certification Unit: P18-11 11:57 AM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
	P18-11C-621373	5.4 J	0.41 U	47 UJ	6770 -	7.3 -	427 -	1.6 -
2	P18-11C-635269	11.2 J	0.79 U	47 UJ	12200 -	13.6 -	519 -	0.91 U
3	P18-11C-649316	11.7 J	0.47 U	45 UJ	5870 -	7.5 -	600 -	3.1 -
4	P18-11C-678297	8.9 -	0.64 U	47 UJ	12100 -	18.7 -	1240 -	0.92 U
5	P18-11C-679332	5 J	0.44 U	45 UJ	7140 -	6.1 -	410 -	1.7 -
6	P18-11C-685205	12.3 J	0.79 U	50 UJ	12900 -	10.5 -	564 -	1.8 -
7	P18-11C-720358	7.4 J	0.53 U	47 UJ	9230 -	11.7 -	472 -	0.92 U
8	P18-11C-745247	6.1 J	0.37 U	47 UJ	6520 -	7.3 -	391 -	2.6 -
9	P18-11C-792394	6 J	0.59 U	46 UJ	11100 -	8.5 -	460 -	1.1 -
	FRL (* = BTV)	12	1.5	130	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9	9
	Hits	9	0	0	9	9	9	6
	Max	12.30	0.40	25.0	12900	18.7	1240	3.10
	Mean	8.22	0.28	23.4	9314	10.1	565	1.48
	St.Dev.	2.88	0.08	0.7	2807	4.0	263	0.96
	UCL	9.56	0.32	23.7	10621	12.0	687	1.92
	t-Stat	3.93	46.90	431.81	--	--	--	--
	Prob.	0.2%	0.0%	0.0%	--	--	--	--
	Pass/Fail	Pass	Pass	Pass	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000317

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SCALE

50 25 0 50 FEET

P18-12 METALS MAP OF DATA POINTS

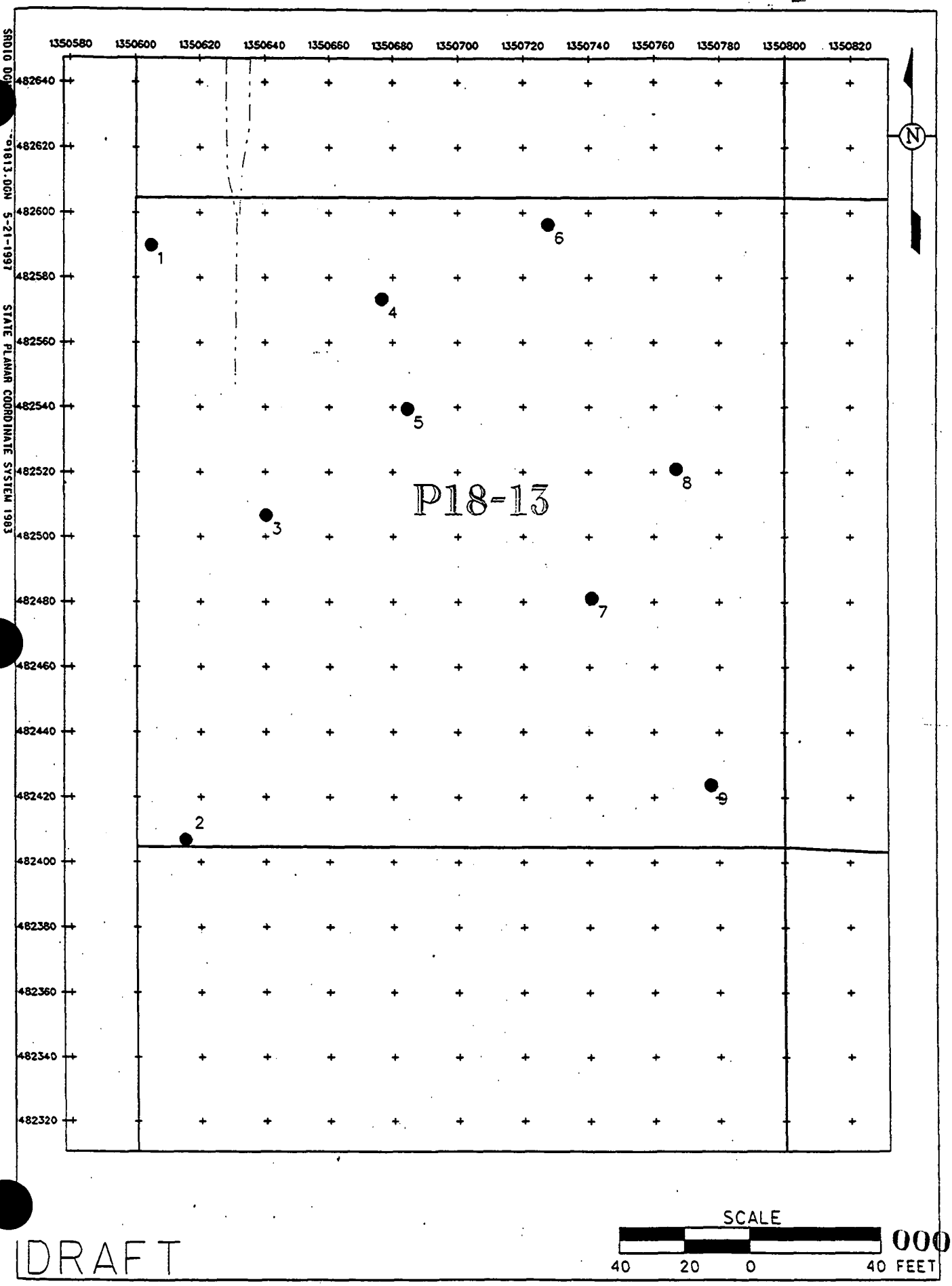
Certification Unit: P18-12 11:58 AM 22-May-97

		Certification Analytes		Ecological COCs			
ip	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P17-34C-824051	6.9 -	0.59 U	10800 -	13.5 -	561 -	1.3 U
2	P17-34C-824125	7.7 -	0.73 U	13600 -	11.8 -	585 J	0.77 -
3	P17-34C-831178	6.3 J	0.51 U	9430 -	8.7 -	606 -	1.7 U
4	P17-34C-856128	16.6 J	1.2 U	18600 -	33.7 -	2050 -	2.4 U
5	P17-34C-873163	14.4 J	2 -	19100 -	14.1 -	753 -	2.3 U
6	P17-34C-877017	10.4 -	0.45 U	12000 -	15.4 -	489 -	0.93 U
7	P18-12C-801388	4.9 J	0.51 U	8280 -	6.7 -	410 -	2.1 U
8	P18-12C-854372	12.9 J	2.2 -	20800 -	17.1 -	961 -	2 U
9	P18-12C-873323	11.3 J	0.63 U	13600 -	22.4 -	1250 -	2 U
10	P18-12C-891258	6.3 -	0.49 U	11600 -	11 -	714 -	0.98 U
	FRL (* = BTV)	12	1.5	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	10	10	10	10	10	10
	Hits	10	2	10	10	10	1
	Max	**16.60**	**2.20**	**20800**	**33.7**	**2050**	**1.20**
	Mean	9.77	0.68	13781	15.4	838	0.86
	St.Dev.	3.96	0.76	4306	7.8	492	0.26
	UCL	**11.50**	**1.01**	**15664**	**18.8**	**1053**	**0.98**
	t-Stat	1.78	3.43	--	--	--	--
	Prob.	5.4%	0.4%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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000319

P18-13 METALS MAP OF DATA POINTS

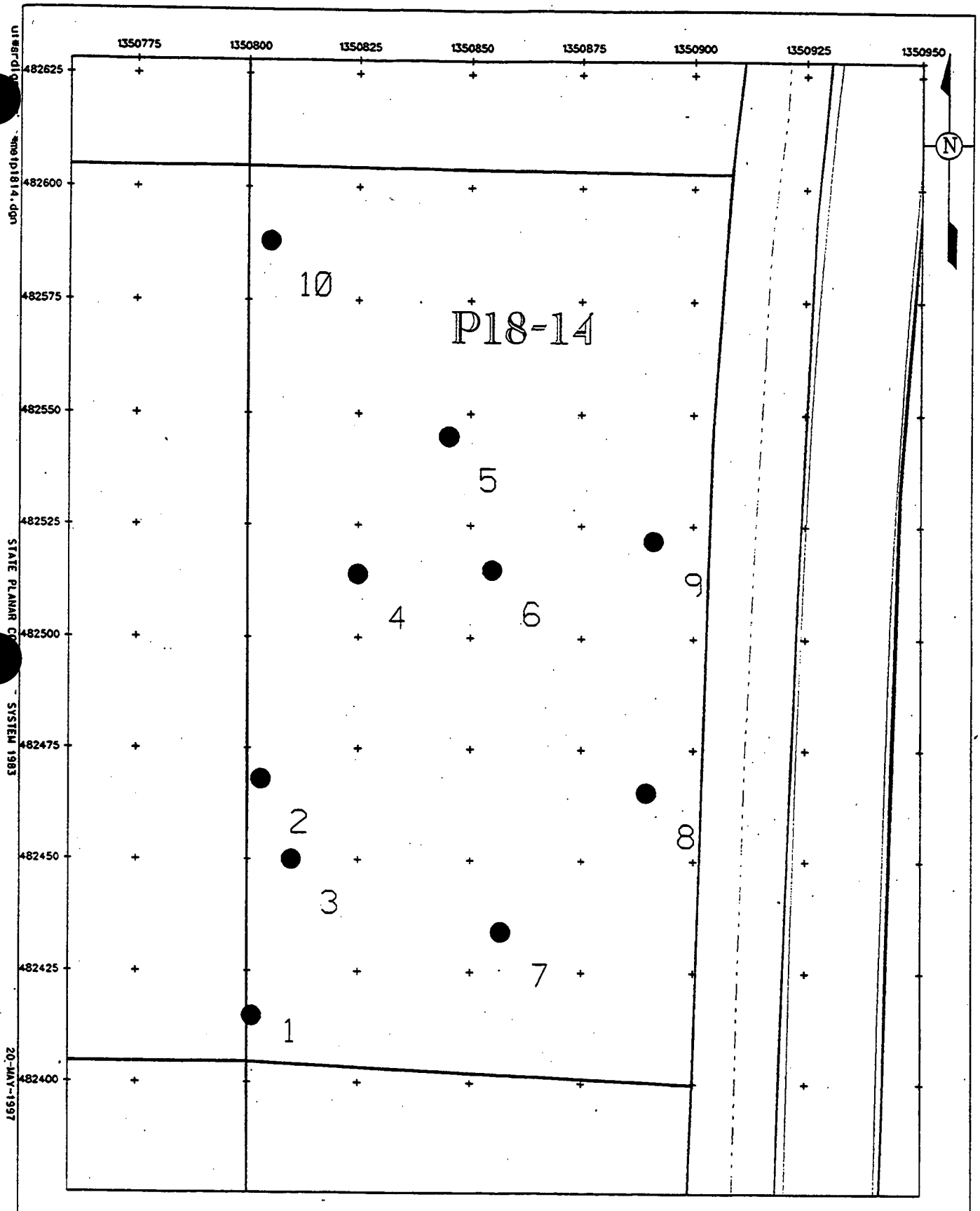
Certification Unit: P18-13 01:45 PM 22-May-97

ap	Sample ID	Certification Analytes			Ecological COCs			
		Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	P18-13C-604590	10 J	0.81 U	50 UJ	13600 -	13.9 -	700 -	0.96 U
2	P18-13C-615406	6.1 J	0.45 U	46 UJ	7170 -	7.5 -	447 -	1.3 -
3	P18-13C-640506	12.8 J	1.2 -	53 UJ	17200 -	14.6 -	615 -	1 U
4	P18-13C-676573	6.4 J	0.44 U	49 UJ	8260 -	12.6 -	495 -	0.95 U
5	P18-13C-684539	7.6 -	0.57 U	49 UJ	9040 -	13.2 -	537 -	0.94 U
6	P18-13C-727596	4.8 J	0.32 U	44 UJ	4060 -	7.5 -	347 -	1.1 -
7	P18-13C-740481	7.8 -	0.66 U	51 UJ	11000 -	14.3 -	645 -	0.97 U
8	P18-13C-766516	8.3 -	0.71 U	48 UJ	12400 -	11.4 -	593 -	0.93 U
9	P18-13C-777423	4.6 J	0.42 U	47 UJ	7360 -	6.4 -	283 -	0.91 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9	9
	Hits	9	1	0	9	9	9	2
	Max	**12.80**	**1.20**	**26.5**	**17200**	**14.6**	**700**	**1.30**
	Mean	7.60	0.38	24.3	10010	11.3	518	0.64
	St.Dev.	2.59	0.32	1.3	3965	3.3	139	0.32
	UCL	**8.81**	**0.53**	**24.9**	**11856**	**12.8**	**583**	**0.79**
	t-Stat	5.09	10.58	235.14	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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000321

P18-14 METALS MAP OF DATA POINTS

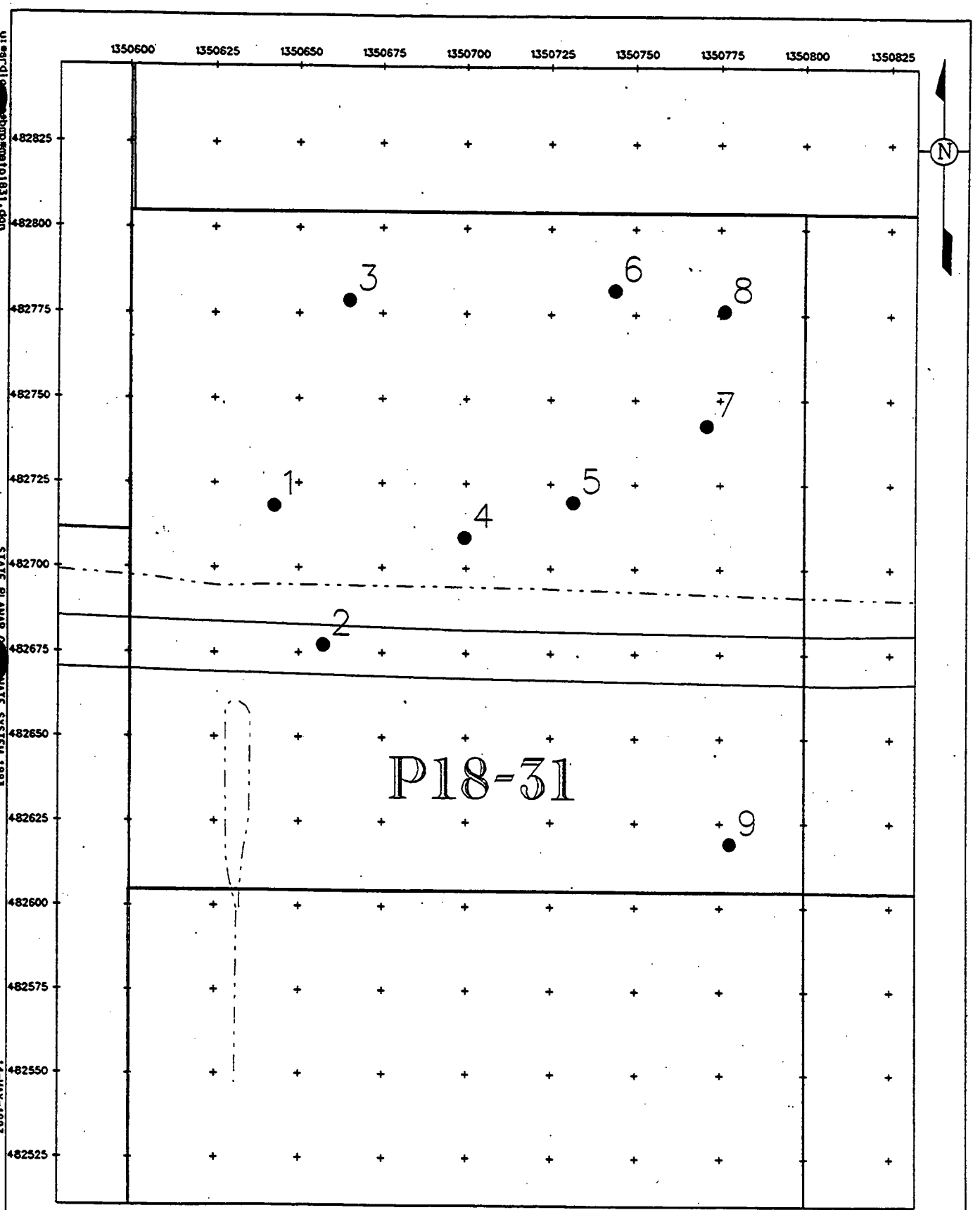
Certification Unit: P18-14 11:59 AM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P18-14C-801415	10.5 J	0.73 U	14600 -	11.3 -	610 -	1.7 -
2	P18-14C-803468	5.1 J	0.56 U	11900 -	7.7 -	287 -	0.89 U
3	P18-14C-810450	7.4 J	0.76 U	14600 -	9.5 -	565 -	1.3 -
4	P18-14C-825514	11.5 J	1.2 -	26100 -	15.5 -	822 -	1.4 -
5	P18-14C-845544	7.7 -	0.55 U	10900 -	15.8 -	701 J	0.69 U
6	P18-14C-855515	8.7 -	0.73 U	13400 -	12.3 -	609 J	0.85 U
7	P18-14C-857434	11.4 J	1.1 J	23700 -	15.2 -	856 J	1.9 -
7	P18-14C-857434-D	12.3 J	0.78 UJ	20800 -	16.8 -	442 J	2.1 -
8	P18-14C-889465	13 -	0.72 -	16800 -	16.3 -	520 -	1.1 U
9	P18-14C-891521	11.3 -	0.66 U	15000 -	13.9 -	443 J	1.2 U
10	P18-14C2-1-M	11.3 -	0.59 -	13300 -		258 -	1.7 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	10	10	10	9	10	10
	Hits	10	4	10	9	10	4
	Max	**13.0**	**1.20**	**26100**	**16.3**	**822**	**2.00**
	Mean	9.8	0.52	15885	13.1	546	0.96
	St.Dev.	2.5	0.29	4754	3.1	177	0.59
	UCL	**10.9**	**0.65**	**17964**	**14.6**	**624**	**1.22**
	t-Stat	2.75	10.48	--	--	--	--
	Prob.	1.1%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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40 20 0 40 FEET

000323

P18-31 METALS MAP OF DATA POINTS

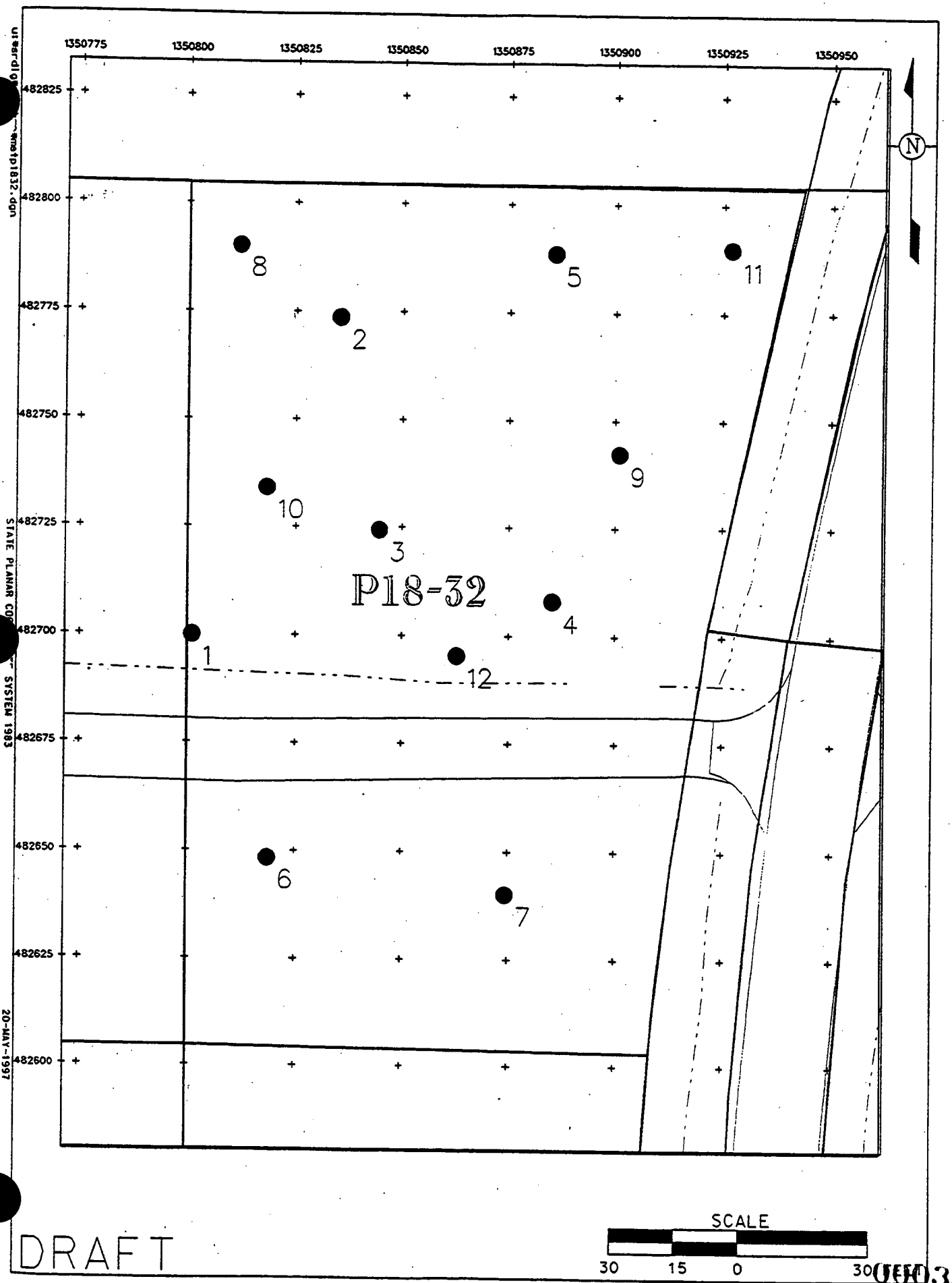
Certification Unit: P18-31 12:01 PM 22-May-97

ap	Sample ID	Certification Analytes		Ecological COCs			
		Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P18-31C-642718	8.6 -	0.8 U	13600 -	23.5 -	636 -	1.4 U
2	P18-31C-657677	6.5 -	0.61 U	10100 -	15.1 -	578 -	0.43 -
3	P18-31C-665778	5.9 -	0.47 U	7210 -	22.6 -	284 -	1.1 U
4	P18-31C-699708	7.3 -	0.79 U	15100 -	23 -	737 -	1.7 U
5	P18-31C-731719	8.3 -	0.84 U	15900 -	23.9 -	784 J	0.69 -
6	P18-31C-744782	5.5 -	0.51 U	8860 -	24 -	267 J	0.65 -
7	P18-31C-771742	8.2 -	0.91 U	12700 -	23.8 -	581 -	1.2 U
8	P18-31C-776776	6.5 -	0.73 U	11100 -	24.9 -	469 J	0.57 -
9	P18-31C-778619	4.4 J	0.28 U	5790 -	9.7 -	331 -	0.9 -
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9
	Hits	9	0	9	9	9	5
	Max	**8.60**	**0.46**	**15900**	**24.9**	**784**	**0.90**
	Mean	6.80	0.33	11151	21.2	519	0.66
	St.Dev.	1.42	0.10	3485	5.2	192	0.15
	UCL	**7.46**	**0.38**	**12774**	**23.6**	**608**	**0.73**
	t-Stat	10.98	33.96	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



P18-32 METALS MAP OF DATA POINTS

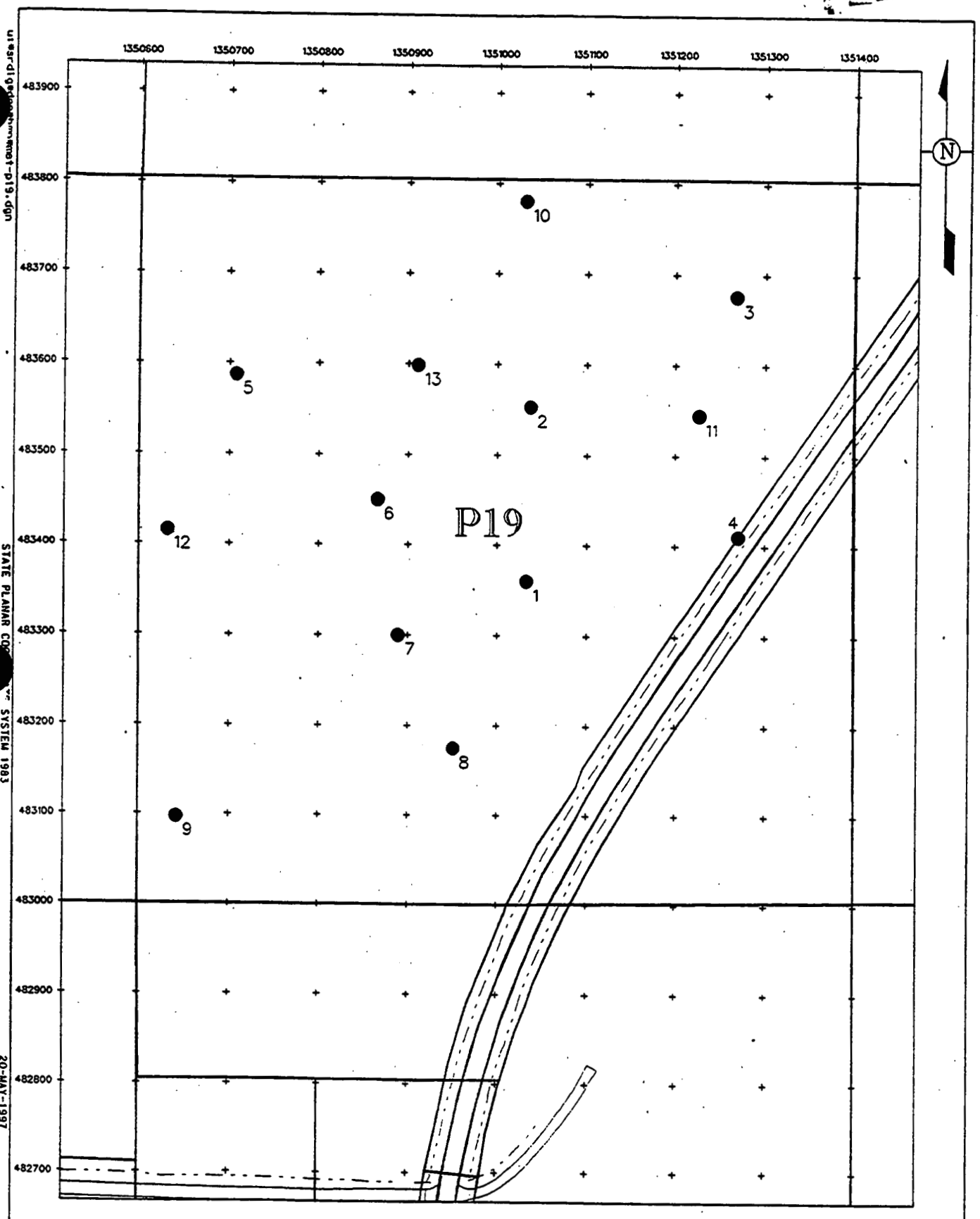
Certification Unit: P18-32 12:01 PM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P18-32C-801699	10.1 -	0.79 U	14200 -	24 -	575 -	1.4 U
2	P18-32C-835773	7.3 -	0.91 U	14100 -	25.8 -	548 -	1.4 U
3	P18-32C-844724	9.8 -	1.7 U	16000 J	28.1 -	1060 -	5.4 UJ
4	P18-32C-885708	9.2 -	0.94 U	12900 -	26.6 -	783 -	2.1 U
5	P18-32C-885788	5.6 -	0.3 U	5770 -	21.6 -	372 -	1.5 U
6	P18-32C2-1-MP	5.5 -	0.59 -	8770 -	18.3 -	693 -	1.4 U
7	P18-32C2-2-MP	10.1 -	0.74 -	10100 -	21.9 -	2110 -	1 U
8	P18-32C2-M-1	5.9 -	1 -	12800 -	21.8 J	466 -	1 UJ
9	P18-32C2-M-2	6.2 -	0.61 -	7140 -	22.9 J	534 -	1.2 UJ
10	P18-32C2-M-3	9 -	1.1 -	16900 -	16.8 J	882 -	1 UJ
11	P18-32C2-M-4	6.3 J	0.57 -	7290 -	17.9 J	612 -	1 UJ
11	P18-32C2-M-4-D	5.8 UJ	0.59 -	7700 -	26.3 J	614 -	1.3 UJ
12	P18-32C2-M-5	7.2 -	1.1 -	12300 -	18.5 J	838 -	1.1 UJ
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	12	12	12	12	12	12
	Hits	12	7	12	12	12	0
	Max	**10.1**	**1.10**	**16900**	**28.1**	**2110**	**2.70**
	Mean	7.5	0.67	11540	22.4	790	0.82
	St.Dev.	2.0	0.30	3631	3.4	459	0.61
	UCL	**8.3**	**0.79**	**12969**	**23.7**	**970**	**1.06**
	t-Stat	7.69	9.70	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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SCALE

150 75 0 150 FEET

000327

P19 METALS MAP OF DATA POINTS

Certification Unit: P19

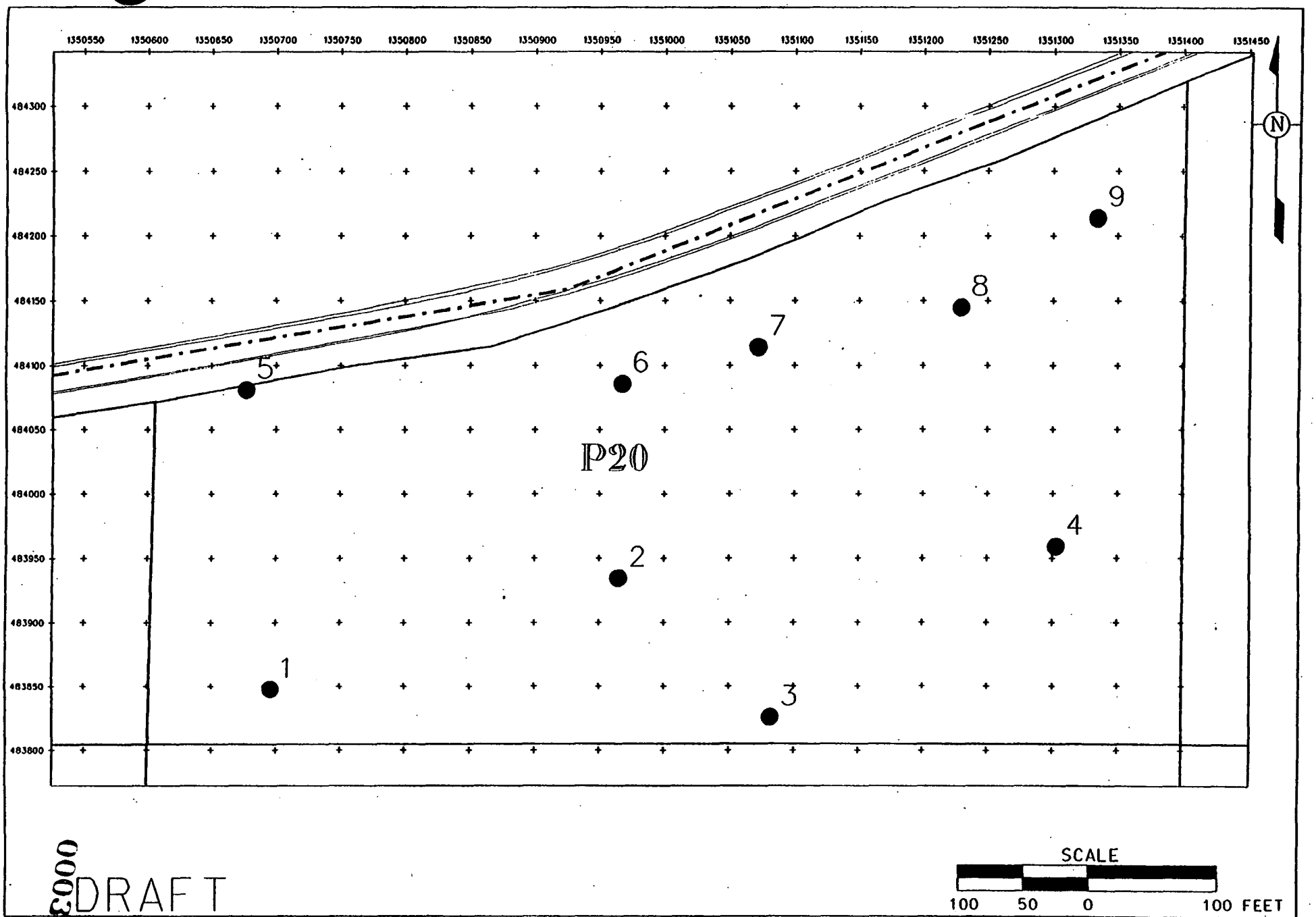
12:02 PM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	P19C-033360	7.5 -	0.86 U	12200 -	26.8 -	1050 -	1.1 -
2	P19C-037553	5.8 -	0.88 U	13000 -	25.1 -	1230 J	0.5 U
3	P19C-267676	8.3 -	0.93 U	13600 -	26 -	1460 -	1.3 -
4	P19C-270410	7.3 -	0.52 U	7990 -	18.1 -	674 J	0.72 U
5	P19C-707586	8.1 J	1.1 U	20700 -	21.5 -	1480 -	1 -
6	P19C-866450	7.8 -	1 U	15500 -	27.9 -	1160 -	2.4 -
7	P19C-889299	4.5 J	0.3 U	4470 -	9.5 -	369 -	1.7 -
8	P19C-951174	7.9 -	0.82 U	9660 -	27.1 -	1000 -	1.5 -
9	P19C2-M-1	5 U	0.4 -	4330 -	21.9 J	193 -	1.2 UJ
10	P19C2-M-2	7.3 -	1.2 -	14300 -	16.4 J	1600 -	1.1 UJ
11	P19C2-M-3	5.4 U	0.65 -	7920 -	29 J	708 -	1.5 UJ
12	P19C2-M-4	8.4 -	1.1 -	10900 -	31.1 J	1240 -	1.3 UJ
13	P19C2-M-5	6.3 -	1.2 -	15700 -	16.7 J	1320 -	1.1 UJ
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	13	13	13	13	13	13
	Hits	11	5	13	13	13	6
	Max	**8.4**	**1.20**	**20700**	**31.1**	**1600**	**2.40**
	Mean	6.5	0.60	11559	22.9	1037	0.98
	St.Dev.	2.0	0.35	4681	6.2	435	0.61
	UCL	**7.3**	**0.73**	**13320**	**25.2**	**1201**	**1.21**
	t-Stat	9.70	9.37	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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STATE PLANAR COORDINATE SYSTEM 1983

20-MAY-1997

P20 METALS MAP OF DATA POINTS

000389

Certification Unit: P20

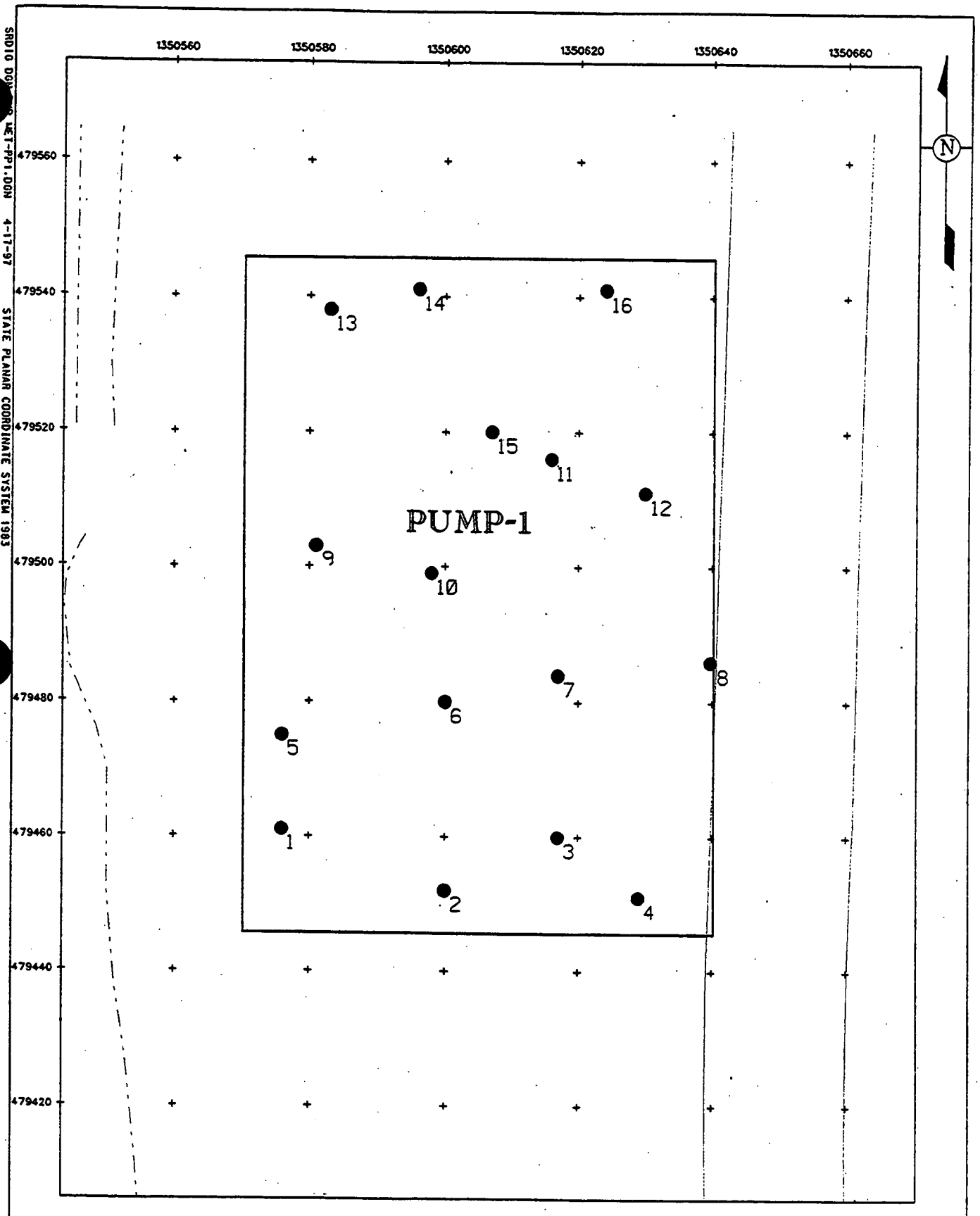
12:03 PM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic		Certification Analytes: Beryllium		Ecological COCs: Aluminum		Ecological COCs: Lead		Ecological COCs: Manganese		Ecological COCs: Molybdenum	
1	P20-00C-1-M	3.1	-	0.44	U	6340	-	16.5	-	654	J	0.63	-
2	P20-00C-12-M	6.8	-	1.1	U	15300	-	27.3	-	1530	J	0.32	U
3	P20-00C-2-M	6.4	-	0.89	U	12400	-	26.2	-	1240	J	0.56	-
4	P20-00C-3-M	6.5	-	0.95	U	13700	-	18.7	-	1580	J	0.33	U
5	P20-00C-4-M	5.8	-	0.82	U	11600	-	20.7	-	1330	J	0.39	-
6	P20-00C-5-M	5.9	-	1	-	17200	-	47.9	-	1040	J	0.25	U
7	P20-00C-6-M	6.3	-	1	U	16200	-	26	-	1250	J	0.27	-
8	P20-00C-7-M	8.8	J	1.3	UJ	17100	J	33.6	J	1610	J	0.4	UJ
9	P20-00C-8-M	9.8	-	1	U	16600	-	29.4	-	1080	J	0.84	-
	FRL (* = BTV)	**12**		**1.5**		**10103**		**200**	*	**1500**	*	**10**	*
	Background UCL	5.6		0.6		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		11880		26.4		1348		n/a	
	Samples	9		9		9		9		9		9	
	Hits	9		1		9		9		9		5	
	Max	**9.80**		**1.00**		**17200**		**47.9**		**1610**		**0.84**	
	Mean	6.60		0.53		14049		27.4		1257		0.37	
	St.Dev.	1.89		0.21		3539		9.4		306		0.25	
	UCL	**7.48**		**0.63**		**15697**		**31.7**		**1400**		**0.49**	
	t-Stat	8.56		13.78		--		--		--		--	
	Prob.	0.0%		0.0%		--		--		--		--	
	Pass/Fail	**Pass**		**Pass**		--		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



SRDIO DGN: 6_MET-PP1.DGN 4-17-97 STATE PLANAR COORDINATE SYSTEM 1983

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PUMP-1 METALS MAP OF DATA POINTS

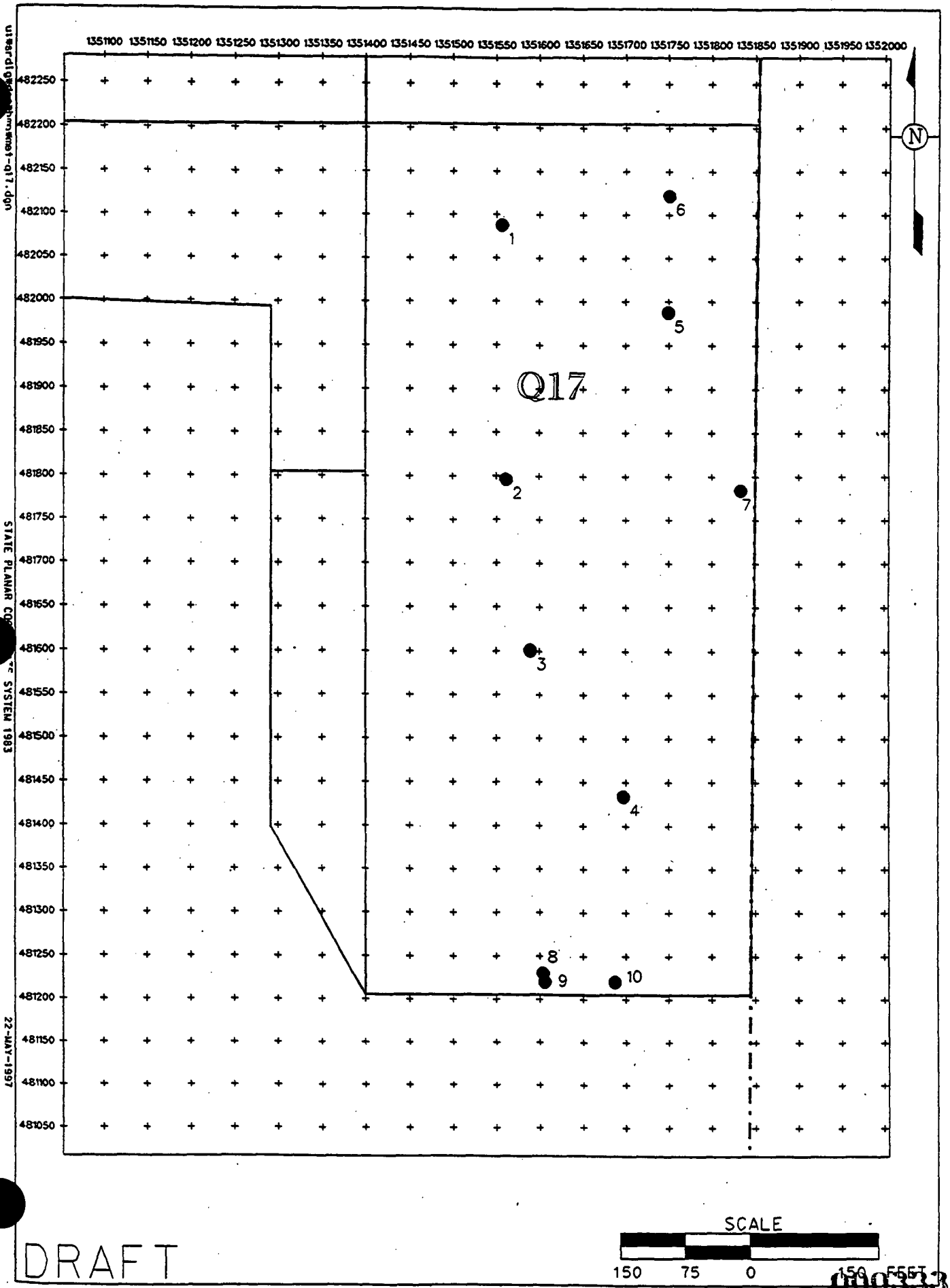
Certification Unit: PUMP-1 12:04 PM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	PUMP1-C-1-MP	8 -	1.4 U	43 U	13800 J	19.4 -	1010 J	1 UJ
2	PUMP1-C-2-MP	9.1 -	0.93 U	38 U	15200 J	13.9 -	503 J	0.92 UJ
3	PUMP1-C-3-MP	8.5 -	0.9 U		13200 J	16.2 -	633 J	0.97 UJ
4	PUMP1-C-4-MP	10.7 -	1.1 U	42 U	16300 J	20.7 -	1070 J	1.1 UJ
5	PUMP1-C-5-MP	8 -	1.5 U	44 U	17600 J	17 -	1380 J	1.1 UJ
6	PUMP1-C-6-MP	8.6 -	1.1 U	40 U	16700 J	15.4 -	766 J	0.96 UJ
7	PUMP1-C-7-MP	8.2 -	0.9 U	39 U	13300 J	14.9 -	659 J	0.95 UJ
8	PUMP1-C-8-MP	10 -	1 U	38 U	15500 J	16.3 -	844 J	0.93 UJ
9	PUMP1-C-9-MP	10.2 -	1.2 U	39 U	16400 J	16.7 -	875 J	0.95 UJ
10	PUMP1-C-10-MP	9.3 -	0.92 U	37 U	15300 J	18 -	658 J	0.89 UJ
11	PUMP1-C-11-MP	9.2 -	0.92 U	38 U	11300 J	15.8 -	663 J	0.93 UJ
11	PUMP1-C-11-MP-D	9.9 -	1 U	40 U	15100 J	16.6 -	672 J	0.98 UJ
12	PUMP1-C-12-MP	8.2 -	0.86 U	39 U	13500 J	13.6 -	554 J	0.96 UJ
13	PUMP1-C-13-MP	7.2 -	0.75 U	38 U	10600 J	17.9 -	564 J	0.92 UJ
14	PUMP1-C-14-MP	12.6 -	1.1 U	39 U	16600 J	29.2 -	909 J	0.95 UJ
15	PUMP1-C-15-MP	7.9 -	0.76 U	40 U	12000 J	28.9 -	871 J	0.98 UJ
16	PUMP1-C-16-MP	8.5 -	0.95 U	37 U	15200 J	13.9 -	736 J	0.9 UJ
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	15	16	16	16	16
	Hits	16	0	0	16	16	16	0
	Max	**12.6**	**0.75**	**22.00**	**17600**	**29.2**	**1380**	**0.55**
	Mean	9.0	0.51	19.73	14650	18.0	794	0.48
	St.Dev.	1.3	0.10	1.03	1928	4.7	227	0.03
	UCL	**9.5**	**0.55**	**20.09**	**15296**	**19.6**	**870**	**0.49**
	t-Stat	8.83	38.08	413.50	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



Q17 METALS MAP OF DATA POINTS

Certification Unit: Q17 10:20 AM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic		Certification Analytes: Beryllium		Ecological COCs: Aluminum		Ecological COCs: Lead		Ecological COCs: Manganese		Ecological COCs: Molybdenum	
1	Q17C-556087	9.5	-	1.1	-	13100	-	19	-	2430	J	1.8	U
2	Q17C-561796	8.7	-	0.75	U	9940	-	19.1	-	1450	J	0.97	-
3	Q17C-589600	7.4	-	0.51	U	9300	-	17.8	-	796	J	0.99	U
4	Q17C-697433	9.1	-	0.7	-	9470	-	18.9	-	702	J	0.95	U
5	Q17C-749987	6.9	-	0.57	U	9310	-	14.9	-	618	J	1.5	U
6	Q17C-750121	15.2	-	0.49	U	15600	J	20.2	-	340	-	4.6	UJ
7	Q17C-833783	6.3	-	0.57	U	7950	-	16.7	-	1100	J	1.5	U
8	Q17C2-M-1	12.5	J	1	U	11600	-					0.98	U
9	Q17C2-M-2	11.5	J	1	U	15400	-					1	U
9	Q17C2-M-2-D	10.1	J	0.84	U	11000	-					0.98	U
10	Q17C2-M-3	9.2	J	0.79	U	8430	-					0.93	U
10	Q17C2-M-3-D	9.6	J	0.96	U	9390	-			1750	J	0.97	U
	FRL (* = BTV)	**12**		**1.5**		**10103**		**200**	*	**1500**	*	**10**	*
	Background UCL	5.6		0.6		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		11880		26.4		1348		n/a	
	Samples	10		10		10		7		8		10	
	Hits	10		2		10		7		8		2	
	Max	**15.20**		**1.10**		**15600**		**20.2**		**2430**		**4.60**	
	Mean	9.58		0.46		10838		18.1		1148		1.04	
	St.Dev.	2.69		0.26		2436		1.8		692		1.26	
	UCL	**10.76**		**0.58**		**11903**		**19.1**		**1495**		**1.59**	
	t-Stat	2.84		12.42		--		--		--		--	
	Prob.	1.0%		0.0%		--		--		--		--	
	Pass/Fail	**Pass**		**Pass**		--		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

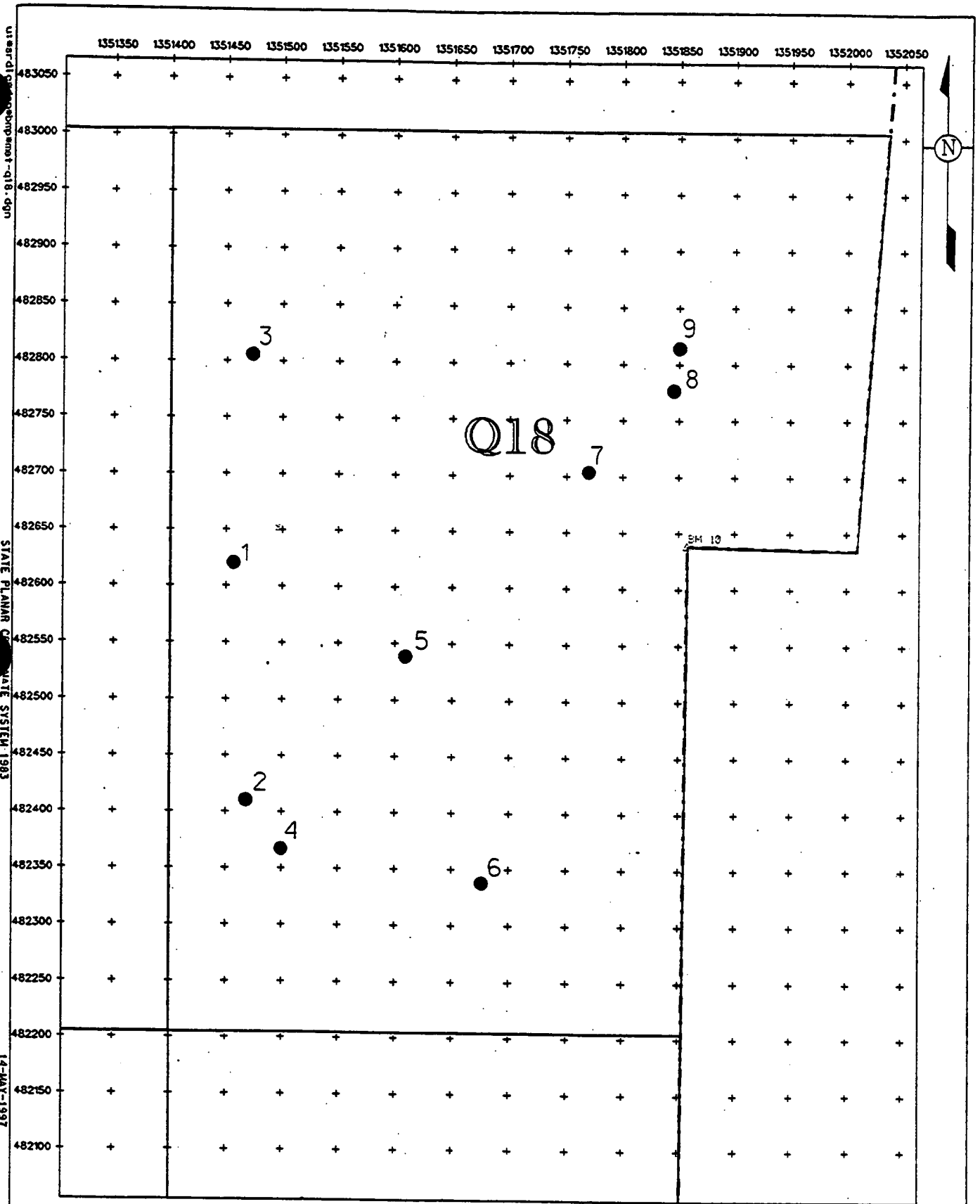
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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Q18 METALS MAP OF DATA POINTS

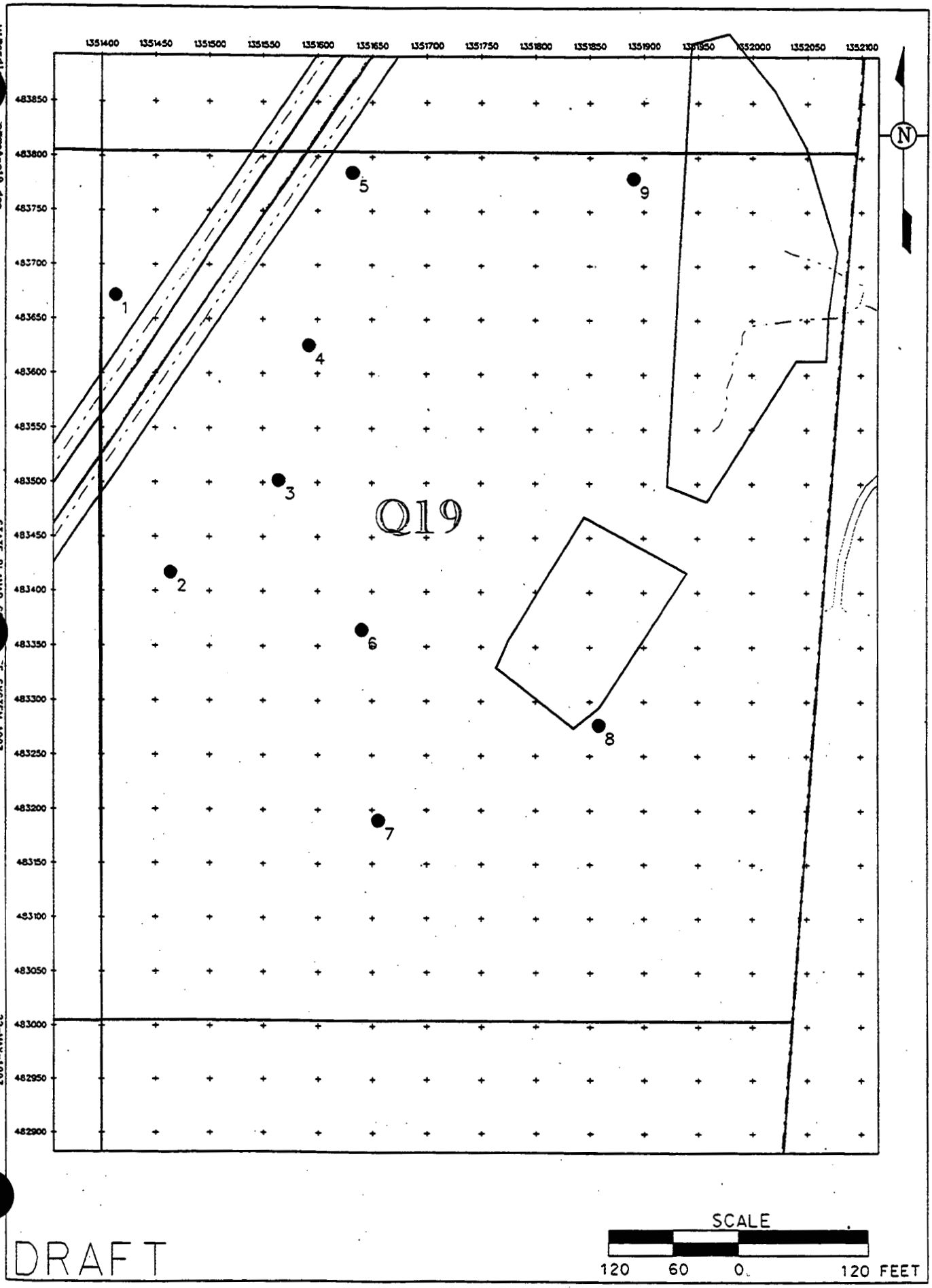
Certification Unit: Q18 01:59 PM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic	Certification Analytes: Beryllium	Ecological COCs: Aluminum	Ecological COCs: Lead	Ecological COCs: Manganese	Ecological COCs: Molybdenum
1	Q18C-456620	7.5 -	0.58 U	7770 -	18 -	619 J	0.95 U
2	Q18C-468410	11.7 -	0.99 -	13900 -	15.5 -	1460 J	1 U
3	Q18C-472805	9.6 -	0.58 U	9590 -	21.4 -	881 J	0.98 U
4	Q18C-499367	4.3 -	0.34 U	4760 -	12.3 -	798 J	0.93 U
5	Q18C-609538	9.2 -	0.83 -	10700 -	20.7 -	1010 J	1.3 U
6	Q18C-676337	10.9 -	0.82 -	10600 -	22.9 -	1040 J	2.1 U
7	Q18C-770703	7.6 -	0.57 U	9820 -	19.1 -	681 J	1.1 U
8	Q18C-845776	11.2 -	0.45 U	13400 -	15.6 -	220 J	1.5 U
9	Q18C-850814	10.8 -	0.74 -	9590 -	17.5 -	1430 J	2.2 U
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9
	Hits	9	4	9	9	9	0
	Max	**11.70**	**0.99**	**13900**	**22.9**	**1460**	**1.10**
	Mean	9.20	0.52	10014	18.1	904	0.67
	St.Dev.	2.38	0.32	2748	3.3	391	0.25
	UCL	**10.31**	**0.67**	**11294**	**19.7**	**1087**	**0.79**
	t-Stat	3.53	9.19	--	--	--	--
	Prob.	0.4%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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P19 METALS MAP OF DATA POINTS

Certification Unit: Q19 10:33 AM 22-May-97

Map	Sample ID	Certification Analytes: Arsenic		Certification Analytes: Beryllium		Ecological COCs: Aluminum		Ecological COCs: Lead		Ecological COCs: Manganese		Ecological COCs: Molybdenum	
1	Q19C-413672	8.7	J	0.89	J	11000	-					1	U
2	Q19C-464417	9	-	0.76	U	9950	-	19.4	J	781	-	0.98	U
3	Q19C-564505	9	-	0.81	-	9310	-	24.2	J	3220	J	1.7	-
4	Q19C-592626	7.9	-	0.8	U	10000	-	20.1	-	1150	J	1.1	-
5	Q19C-631785	10.3	-	0.95	-	19600	-	15.3	J	821	J	1.5	-
6	Q19C-640364	7.6	-	0.66	U	7190	-	56.3	J	1380	-	0.93	U
7	Q19C-655190	7.3	-	0.67	U	7970	-	19.8	J	736	-	0.92	U
8	Q19C-858287	10.9	-	0.96	-	22000	-	15.6	J	317	J	1.5	-
9	Q19C-890780	8	-	0.79	-	13100	-	16.8	J	714	J	1.1	-
	FRL (* = BTV)	12		1.5		10103		200	*	1500	*	10	*
	Background UCL	5.6		0.6		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		11880		26.4		1348		n/a	
	Samples	9		9		9		8		8		9	
	Hits	9		5		9		8		8		5	
	Max	**10.90**		**0.96**		**22000**		**56.3**		**3220**		**1.70**	
	Mean	8.74		0.65		12236		23.4		1140		0.98	
	St.Dev.	1.22		0.28		5175		13.6		897		0.51	
	UCL	**9.31**		**0.78**		**14645**		**30.2**		**1589**		**1.22**	
	t-Stat	8.02		9.12		--		--		--		--	
	Prob.	0.0%		0.0%		--		--		--		--	
	Pass/Fail	**Pass**		**Pass**		--		--		--		--	

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KEY

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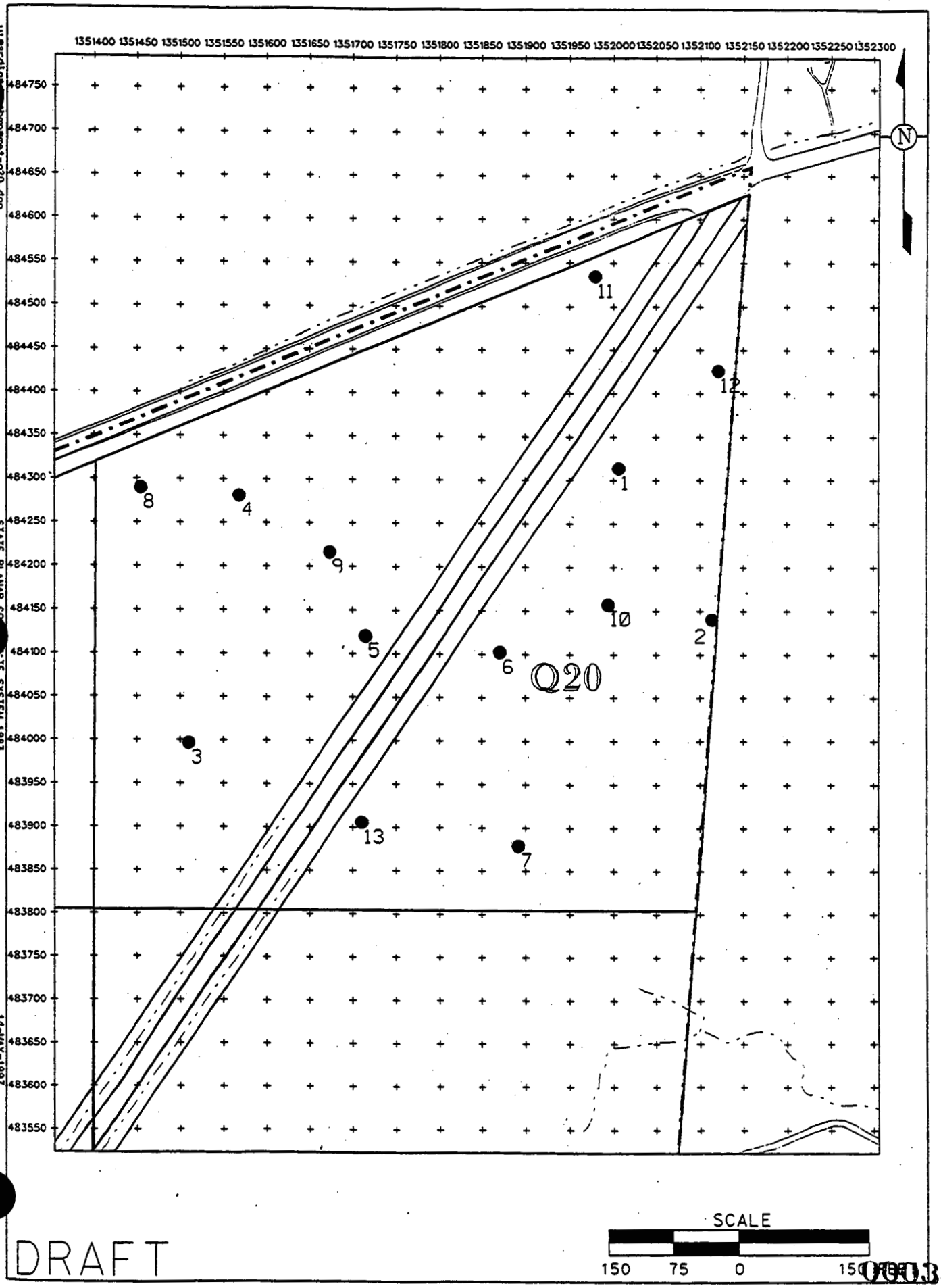
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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Q20 METALS MAP OF DATA POINTS

Certification Unit: Q20 12:38 PM 22-May-97

		Certification Analytes		Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aluminum	Lead	Manganese	Molybdenum
1	Q20C-006313	6.7 -	0.88 -	12100 -	26.3 -	1260 -	0.48 U
2	Q20C-113140	2.8 -	1 -	6230 -	8.7 -	927 -	0.48 U
3	Q20C-509996	8 -	1.1 -	14900 -	29.2 -	1560 -	0.72 U
4	Q20C-567281	8.4 -	0.93 -	15700 -	24.6 -	1270 -	0.55 U
5	Q20C-714120	6.8 -	0.91 -	14100 -	24.5 -	1400 -	0.7 U
6	Q20C-870102	8 -	0.89 -	11900 -	26.9 -	1170 -	0.74 U
7	Q20C-891879	6.6 -	0.69 -	10800 -	22.7 J	426 J	1.2 -
8	Q20C2-M-1	5 U	1.2 -	13400 -	31.9 J	1780 -	1.2 UJ
9	Q20C2-M-2	4.1 UJ	1 J	10700 J	28.2 J	1420 J	1.7 UJ
10	Q20C2-M-3	8.5 -	1.2 -	13300 -		1610 -	1.2 UJ
11	Q20C2-M-4	7 U	1.1 -	13600 -		1060 -	1.3 UJ
12	Q20C2-M-5	8 -	1.2 -	13900 -		942 -	1.3 UJ
13	Q20C2-M-6	8.3 -	1.4 -	19400 -		1110 -	1.2 UJ
	FRL (* = BTV)	**12**	**1.5**	**10103**	**200** *	**1500** *	**10** *
	Background UCL	5.6	0.6	8812	18.9	814	n/a
	Background 95%	8.2	0.6	11880	26.4	1348	n/a
	Samples	13	13	13	9	13	13
	Hits	10	13	13	9	13	1
	Max	**8.5**	**1.40**	**19400**	**31.9**	**1780**	**1.20**
	Mean	6.2	1.04	13079	24.8	1226	0.54
	St.Dev.	2.5	0.19	3060	6.6	353	0.28
	UCL	**7.1**	**1.11**	**14230**	**27.9**	**1358**	**0.64**
	t-Stat	8.43	8.93	--	--	--	--
	Prob.	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	--	--	--	--

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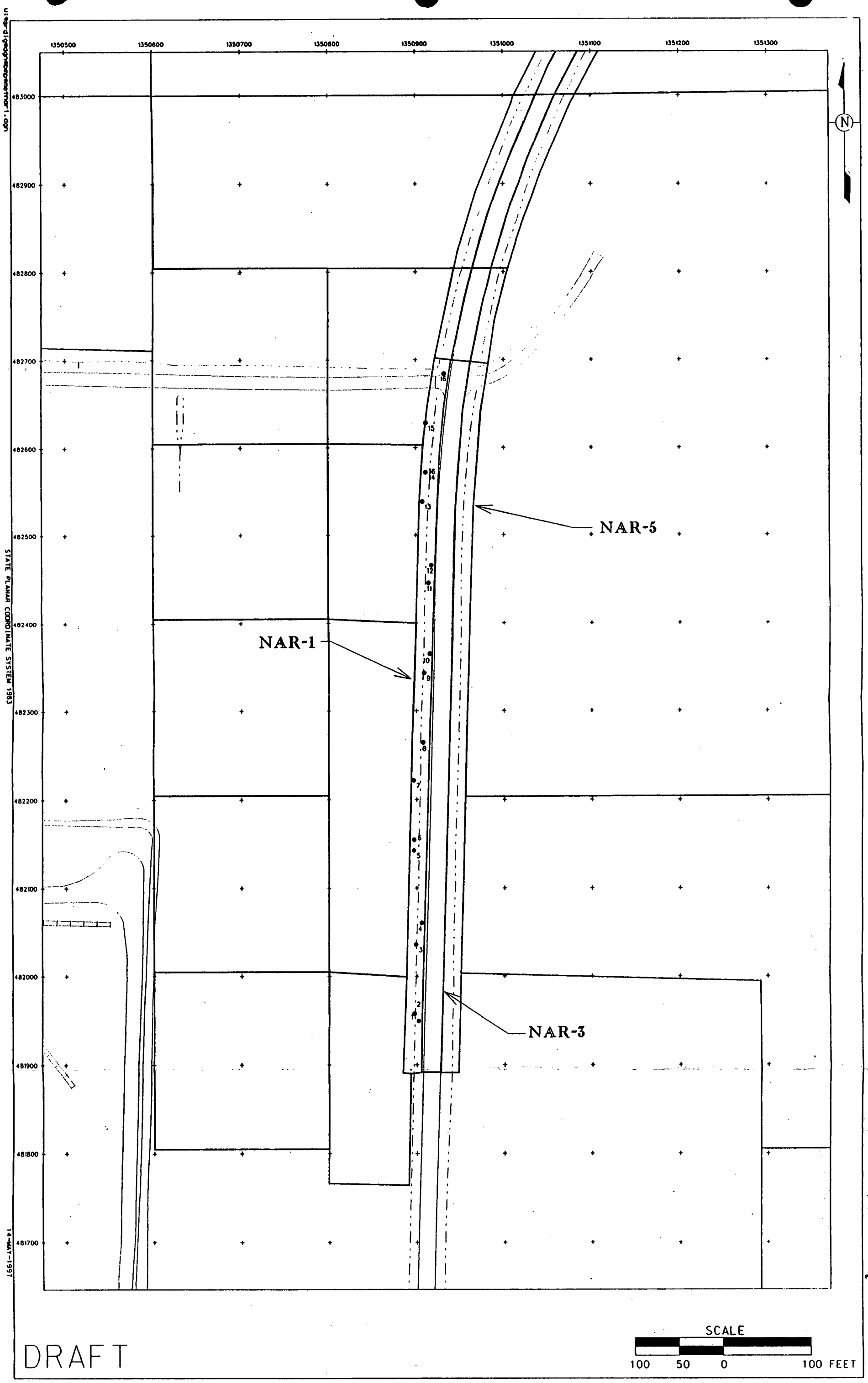
KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



NAR-1 PCBs MAP OF DATA POINTS

000342

Certification Unit: NAR-1 11:13 AM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	NAR-1-1C-MP	12.5 J	0.77 -	41 U	15900 -	16 -	333 -	0.98 UJ
2	NAR-1-2C-MP	6 J	0.59 -	39 U	8200 -	10.2 -	647 -	0.94 UJ
3	NAR-1-3C-MP	7.5 J	0.62 -	39 UJ	8810 -	14.6 -	671 -	0.95 UJ
4	NAR-1-4C-MP	11 J	0.95 -	41 U	13400 -	11.8 -	702 -	0.98 U
5	NAR-1-5C-MP	9.9 -	0.51 -	41 U	10600 -	14.7 -	349 -	1.3 U
6	NAR-1-6C-MP	10.2 -	0.56 -	41 U	15500 -	15.2 -	198 -	1.2 U
7	NAR-1-7C-MP	15.5 -	1.3 -	43 U	24700 -	15.9 -	316 -	1.2 U
8	NAR-1-8C-MP	6.8 -	0.75 U	38 U	8490 -	7.2 -	518 J	0.92 U
9	NAR-1-9C-MP	14 J	1.5 -	42 U	13800 -	17.2 -	542 -	1 UJ
10	NAR-1-10C-MP	8.8 J	1.2 -	40 U	23400 -	16.5 -	170 -	0.97 U
11	NAR-1-11C-MP	7.5 J	0.67 -	41 UJ	9870 -	12.2 -	769 -	1 UJ
12	NAR-1-12C-MP	12.6 J	1.1 -	42 UJ	16600 -	17.1 -	514 -	1 UJ
13	NAR-1-13C-MP	15.5 -	1.5 -	42 U	23900 -	21.1 -	1810 -	1 U
14	NAR-1-14C-MP	11.5 -	1.2 -	44 U	23900 -	15.8 -	275 -	1.1 U
15	NAR-1-15C-MP	10.4 -	1.8 -	42 U	18700 -	18.6 -	1770 -	1 U
16	NAR-1-16C-MP	12.8 J	0.99 -	42 U	21100 -	15.1 -	539 -	1 U
16	NAR-1-16C-MP-D	14.8 J	0.83 -	41 UJ	21400 -	17.6 -	455 -	1 U
	FRL (* = BTV)	12	1.5	130	10103	200 *	1500 *	10 *
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	16	16	16	16	16
	Hits	16	15	0	16	16	16	0
	Max	15.5	1.80	22.0	24700	21.1	1810	0.65
	Mean	10.8	0.97	20.5	16064	15.0	630	0.52
	St.Dev.	3.0	0.42	0.8	5989	3.3	487	0.05
	UCL	11.9	1.11	20.8	18071	16.2	793	0.54
	t-Stat	1.53	5.05	572.34	--	--	--	--
	Prob.	7.3%	0.0%	0.0%	--	--	--	--
	Pass/Fail	Pass	Pass	Pass	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

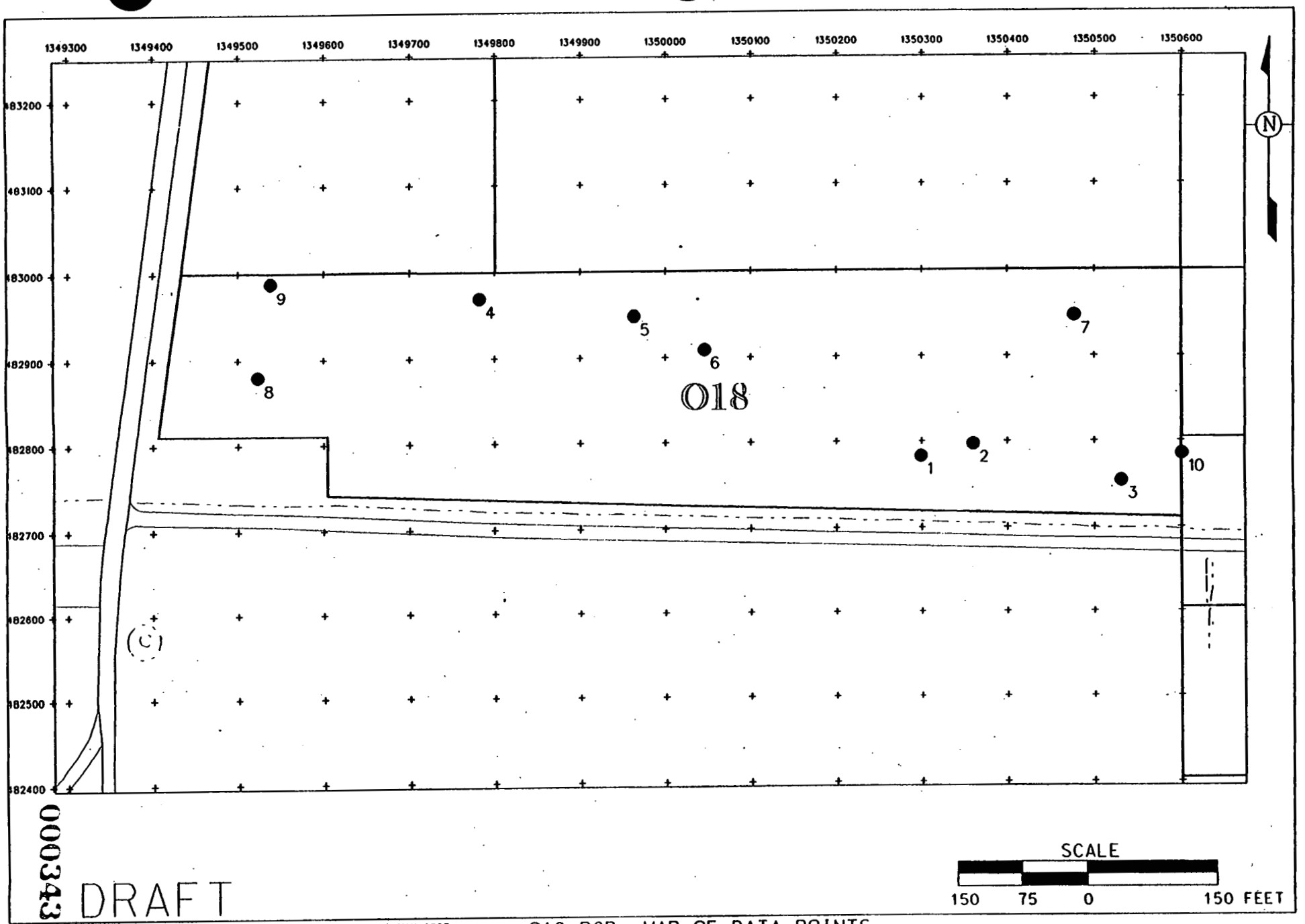
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



000343

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STATE PLANAR COORDINATE SYSTEM 1983

20-MAY-1997

018 PCBs MAP OF DATA POINTS

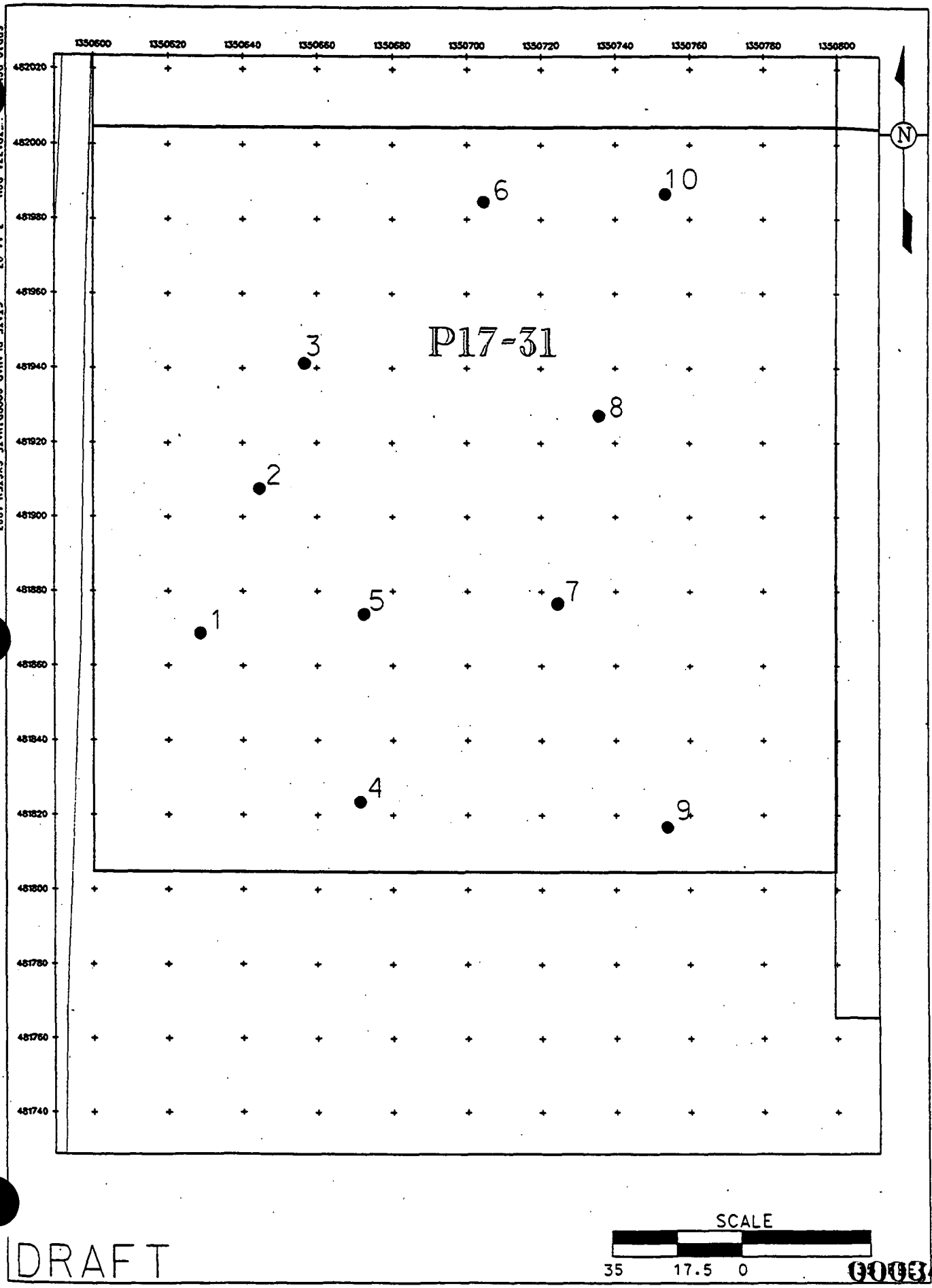
Certification Unit: O18 02:47 PM 23-Mar-97

ip	Sample ID	Certification Analytes: Arsenic	Beryllium	Aroclor-1260	Ecological COCs: Aluminum	Lead	Manganese	Molybdenum
1	O18-00C-5-MP	7.5 -	0.68 U	64 U	11200 -	24.2 -	750 -	0.91 U
2	O18-00C-6-MP	7.9 -	0.72 U	57 U	11700 -	25.4 -	607 -	1.2 U
3	O18-00C-7-MP	8.5 -	0.81 U	58 U	10800 -	24.3 -	804 -	0.93 U
4	O18-00C-9-MP	5.9 -	0.73 U	61 U	9510 -	23.1 -	554 -	0.54 U
5	O18-00C-10-MP	7.8 -	0.69 U	61 U	10200 -	22.4 -	389 -	0.83 U
6	O18-00C-11-MP	9.1 -	0.77 U	62 U	9920 -	27.2 -	649 -	0.84 U
7	O18-00C-14-MP	5.8 -	0.36 U	58 U	6880 -	23.8 -	375 -	1 U
8	O18-00C-15-MP	7.3 -	0.77 U	55 U	10200 -	23.4 -	660 -	0.7 U
9	O18-00C-16-MP	7.8 -	0.66 U	58 U	9650 -	30.1 -	764 -	1.1 U
10	P18-31C-601785	5.3 -	0.38 U		6860 -	21.5 -	524 -	1.7 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	9	10	10	10	10
	Hits	10	0	0	10	10	10	0
	Max	**9.10**	**0.41**	**32.0**	**11700**	**30.1**	**804**	**0.85**
	Mean	7.29	0.33	29.7	9692	24.5	608	0.49
	St.Dev.	1.24	0.08	1.4	1635	2.5	149	0.16
	UCL	**7.83**	**0.36**	**30.3**	**10407**	**25.6**	**673**	**0.56**
	t-Stat	12.03	46.88	212.84	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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000345

P17-31 PCBs MAP OF DATA POINTS

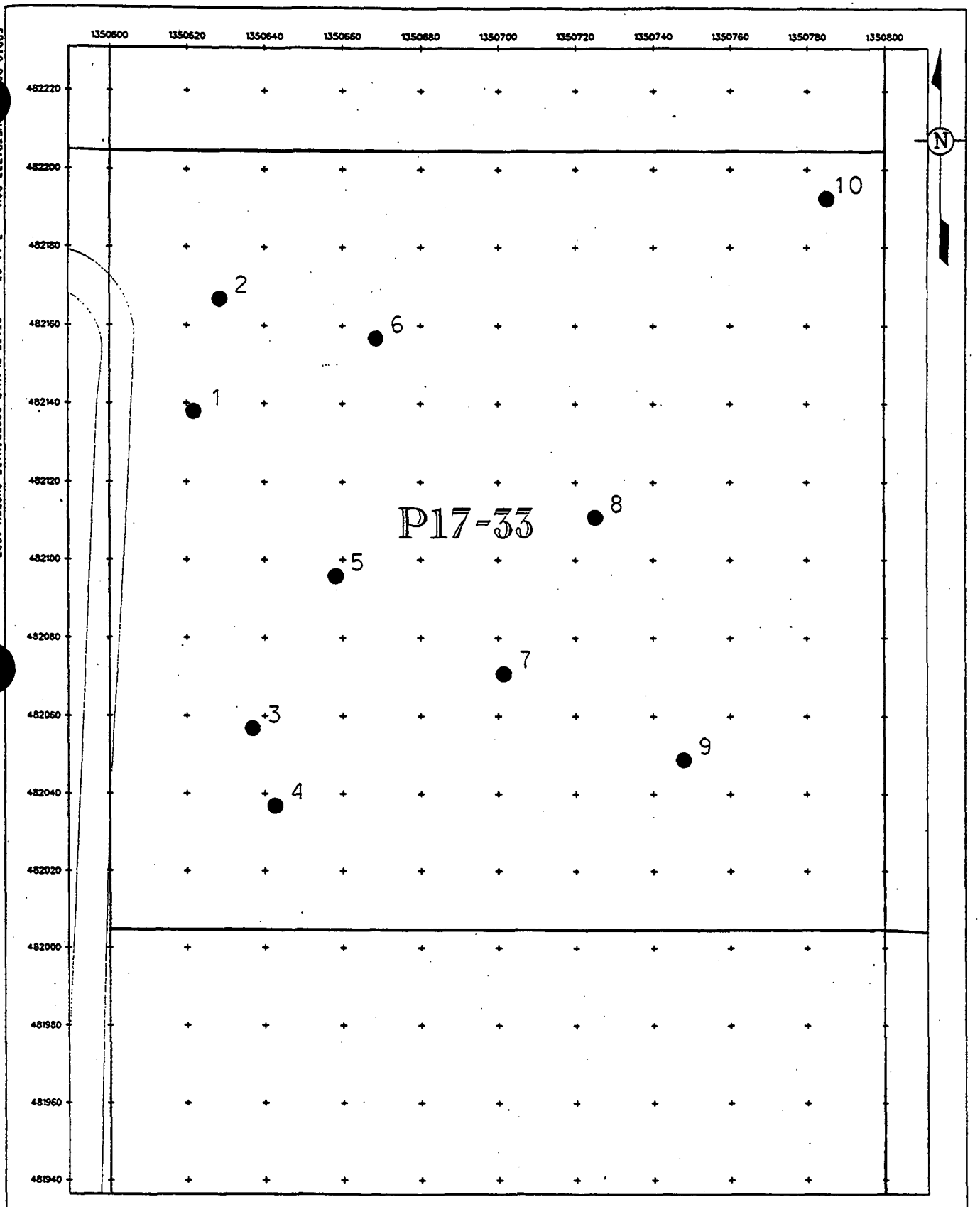
Certification Unit: P17-31 11:26 AM 22-May-97

ap	Sample ID	Certification Analytes: Arsenic	Beryllium	Aroclor-1260	Ecological COCs: Aluminum	Lead	Manganese	Molybdenum
1	P17-31C-628868	5.3 J	0.45 U	44 U	7250 -	7.2 -	480 J	4.2 U
2	P17-31C-644907	5.5 J	0.26 U	45 U	4030 -	8.4 -	395 J	4.4 U
2	P17-31C-644907-D	3.4 J	0.22 U	45 U	3550 -	4.8 -	244 J	4.4 U
3	P17-31C-656941	4.5 J	0.35 U	45 U	5680 -	5.6 -	365 J	4.3 U
4	P17-31C-671823	6.2 -	0.61 U	48 U	7360 -	15.2 -	915 J	0.94 U
5	P17-31C-672873	10.8 J	0.76 U	50 U	12200 -	19.7 -	841 J	1.4 -
6	P17-31C-704984	6.5 J	0.51 U	43 U	9020 -	12.4 -	543 J	1.1 -
7	P17-31C-724876	8.4 -	0.5 U	47 U	7150 -	17.2 -	809 J	0.91 U
8	P17-31C-735927	7.3 J	0.65 U	46 U	9130 -	14.6 -	638 J	0.96 -
9	P17-31C-753816	8.6 -	0.7 U	46 U	9780 -	18 -	552 J	1.2 -
10	P17-31C-753986	7 J	0.49 U	43 U	7650 -	7.8 -	529 J	4.2 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	10	10	10	10	10
	Hits	10	0	0	10	10	10	4
	Max	**10.80**	**0.38**	**25.0**	**12200**	**19.7**	**915**	**2.20**
	Mean	6.91	0.26	22.9	7901	12.4	599	1.41
	St.Dev.	1.99	0.08	1.1	2308	5.3	200	0.69
	UCL	**7.77**	**0.30**	**23.3**	**8911**	**14.7**	**687**	**1.71**
	t-Stat	8.11	49.13	306.14	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



P17-33 PCBs MAP OF DATA POINTS

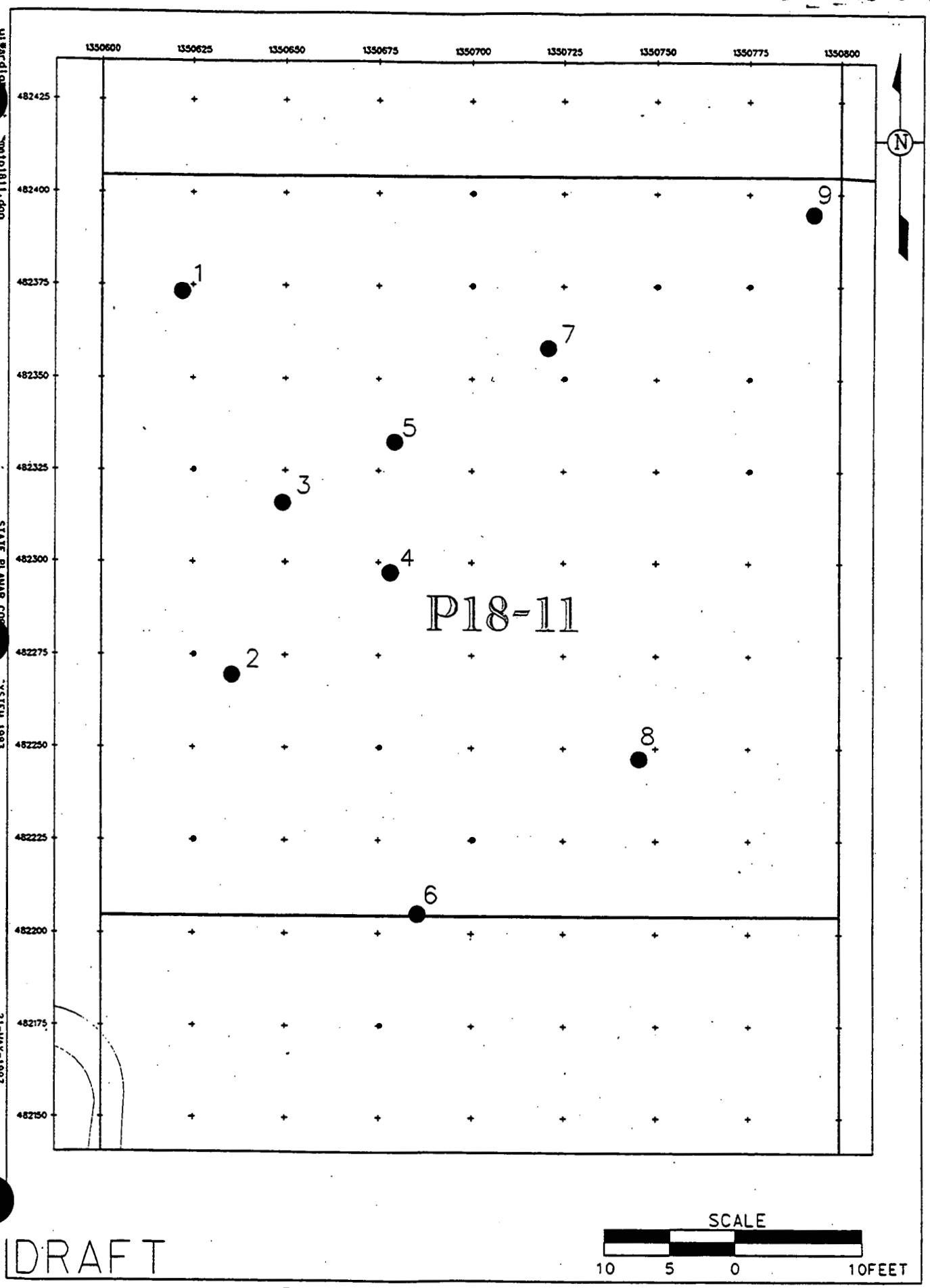
Certification Unit: P17-33 11:28 AM 22-May-97

		Certification Analytes			Ecological COCs			
p	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	P17-33C-621137	5.5 -	0.8 U	47 U	7920 -	8.8 J	503 -	4.4 U
2	P17-33C-628166	8.5 -	0.87 -	49 U	12100 -	18 J	591 -	1.3 -
3	P17-33C-636056	5.8 -	0.74 U	44 U	7230 -	12.5 J	559 -	4.1 U
4	P17-33C-642036	7.5 J	0.68 -	43 U	10100 -	10.2 J	414 -	1.7 -
5	P17-33C-658095	4.9 -	0.83 U	43 U	7670 -	6.9 J	823 -	4 U
6	P17-33C-668156	7.5 -	0.9 U	45 U	9460 -	15.1 J	690 -	4.3 U
7	P17-33C-701070	6.9 J	0.72 U	48 U	9020 -	16.8 J	508 -	1.3 -
8	P17-33C-725110	8.8 -	0.87 -	48 U	11800 -	19.1 J	864 -	1.4 -
9	P17-33C-747048	5.3 -	0.79 U	44 U	8230 -	7 J	433 -	4.1 U
10	P17-33C-785192	5.6 -	0.87 U	45 U	10200 -	8.2 J	717 -	4.3 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	10	10	10	10	10	10	10
	Hits	10	3	0	10	10	10	4
	Max	**8.80**	**0.87**	**24.5**	**12100**	**19.1**	**864**	**2.20**
	Mean	6.63	0.52	22.8	9373	12.3	610	1.83
	St.Dev.	1.40	0.20	1.1	1686	4.7	157	0.37
	UCL	**7.24**	**0.61**	**23.3**	**10110**	**14.3**	**679**	**1.99**
	t-Stat	12.15	15.18	305.25	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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P18-11 PCBs MAP OF DATA POINTS

Certification Unit: P18-11 11:57 AM 22-May-97

		Certification Analytes			Ecological COCs			
p	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	P18-11C-621373	5.4 J	0.41 U	47 UJ	6770 -	7.3 -	427 -	1.6 -
2	P18-11C-635269	11.2 J	0.79 U	47 UJ	12200 -	13.6 -	519 -	0.91 U
3	P18-11C-649316	11.7 J	0.47 U	45 UJ	5870 -	7.5 -	600 -	3.1 -
4	P18-11C-678297	8.9 -	0.64 U	47 UJ	12100 -	18.7 -	1240 -	0.92 U
5	P18-11C-679332	5 J	0.44 U	45 UJ	7140 -	6.1 -	410 -	1.7 -
6	P18-11C-685205	12.3 J	0.79 U	50 UJ	12900 -	10.5 -	564 -	1.8 -
7	P18-11C-720358	7.4 J	0.53 U	47 UJ	9230 -	11.7 -	472 -	0.92 U
8	P18-11C-745247	6.1 J	0.37 U	47 UJ	6520 -	7.3 -	391 -	2.6 -
9	P18-11C-792394	6 J	0.59 U	46 UJ	11100 -	8.5 -	460 -	1.1 -
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9	9
	Hits	9	0	0	9	9	9	6
	Max	**12.30**	**0.40**	**25.0**	**12900**	**18.7**	**1240**	**3.10**
	Mean	8.22	0.28	23.4	9314	10.1	565	1.48
	St.Dev.	2.88	0.08	0.7	2807	4.0	263	0.96
	UCL	**9.56**	**0.32**	**23.7**	**10621**	**12.0**	**687**	**1.92**
	t-Stat	3.93	46.90	431.81	--	--	--	--
	Prob.	0.2%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

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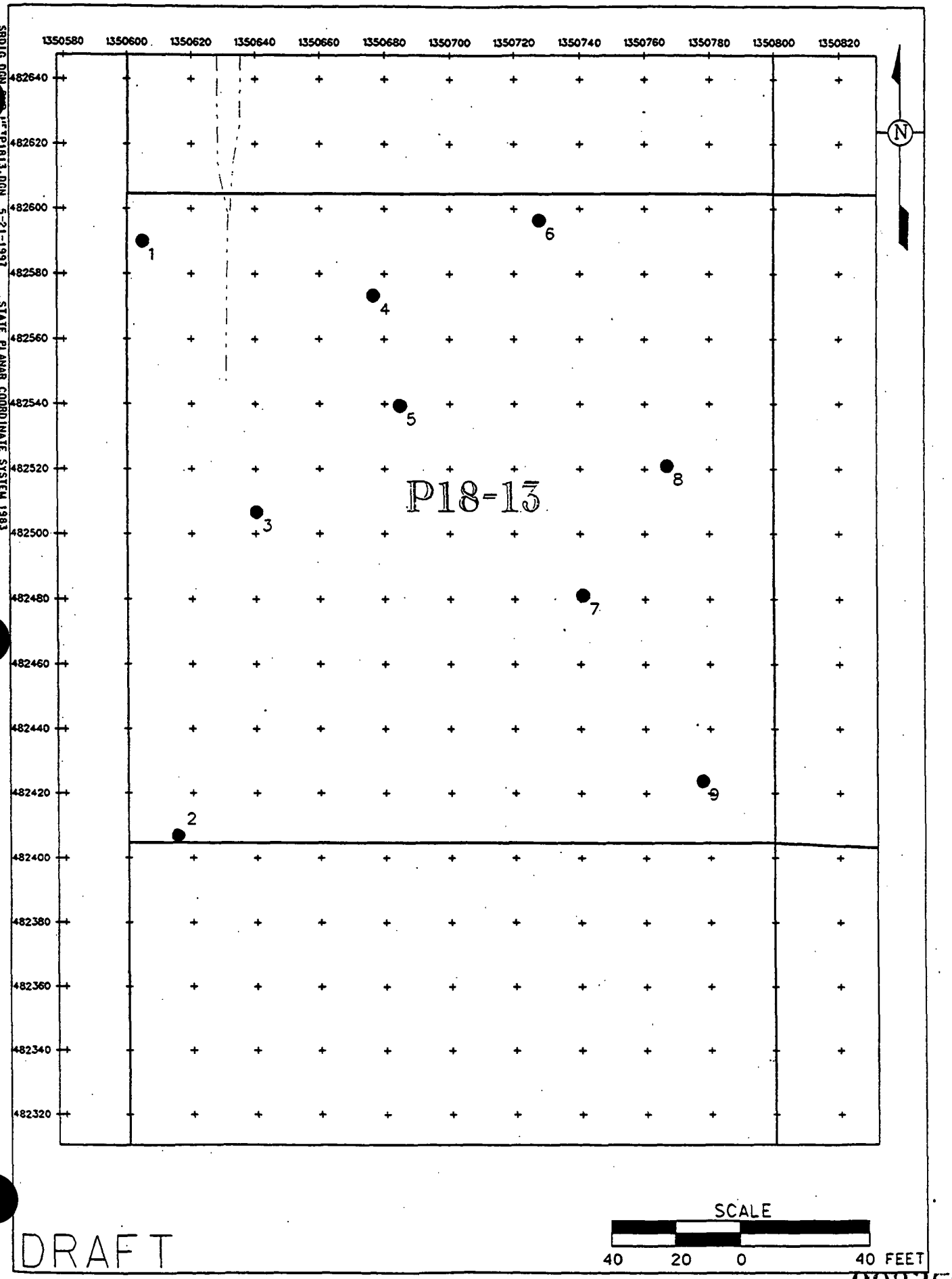
KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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P18-13 PCBs MAP OF DATA POINTS

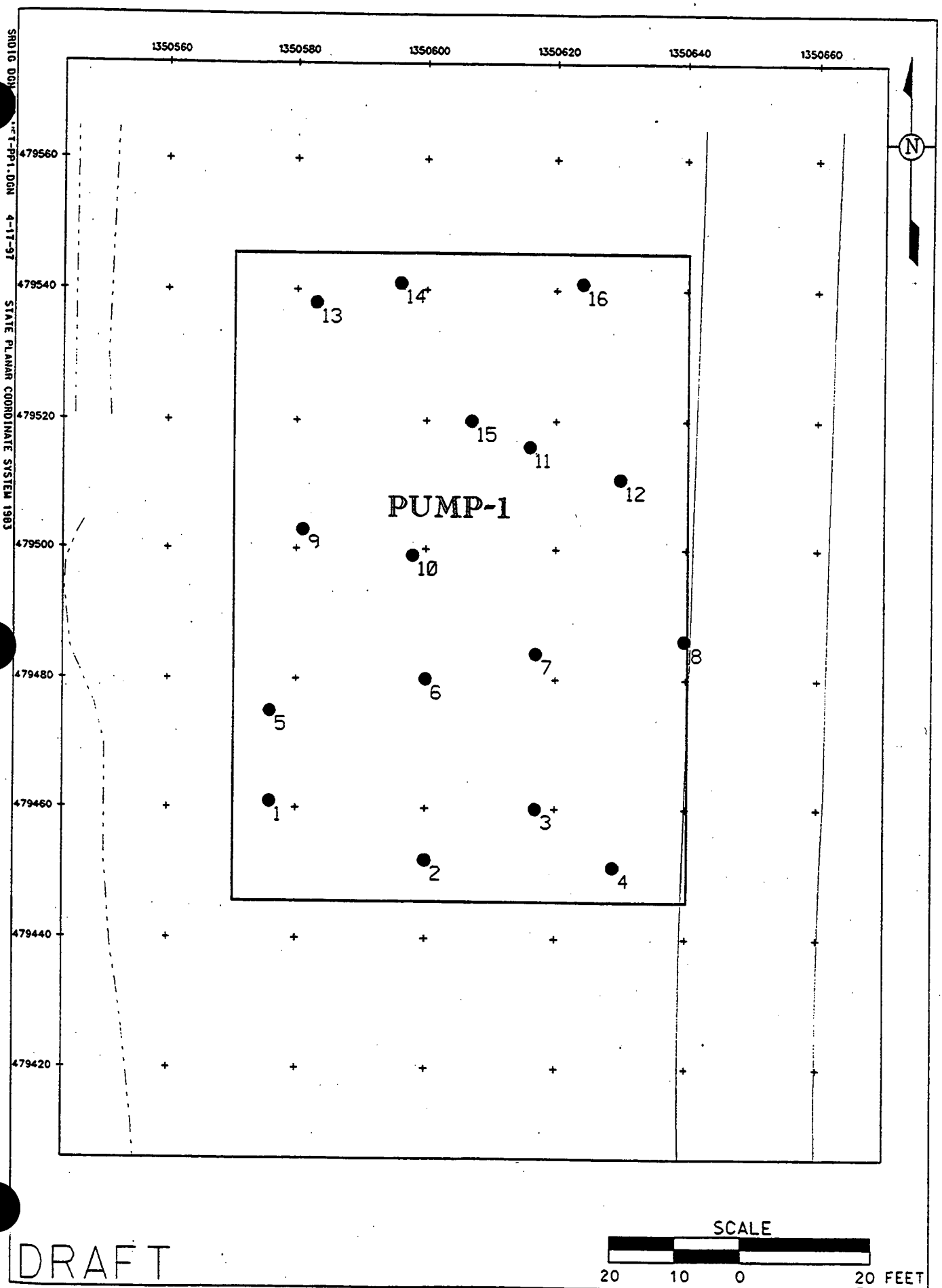
Certification Unit: P18-13 01:45 PM 22-May-97

Map	Sample ID	Certification Analytes			Ecological COCs			
		Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	P18-13C-604590	10 J	0.81 U	50 UJ	13600 -	13.9 -	700 -	0.96 U
2	P18-13C-615406	6.1 J	0.45 U	46 UJ	7170 -	7.5 -	447 -	1.3 -
3	P18-13C-640506	12.8 J	1.2 -	53 UJ	17200 -	14.6 -	615 -	1 U
4	P18-13C-676573	6.4 J	0.44 U	49 UJ	8260 -	12.6 -	495 -	0.95 U
5	P18-13C-684539	7.6 -	0.57 U	49 UJ	9040 -	13.2 -	537 -	0.94 U
6	P18-13C-727596	4.8 J	0.32 U	44 UJ	4060 -	7.5 -	347 -	1.1 -
7	P18-13C-740481	7.8 -	0.66 U	51 UJ	11000 -	14.3 -	645 -	0.97 U
8	P18-13C-766516	8.3 -	0.71 U	48 UJ	12400 -	11.4 -	593 -	0.93 U
9	P18-13C-777423	4.6 J	0.42 U	47 UJ	7360 -	6.4 -	283 -	0.91 U
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	9	9	9	9	9	9	9
	Hits	9	1	0	9	9	9	2
	Max	**12.80**	**1.20**	**26.5**	**17200**	**14.6**	**700**	**1.30**
	Mean	7.60	0.38	24.3	10010	11.3	518	0.64
	St.Dev.	2.59	0.32	1.3	3965	3.3	139	0.32
	UCL	**8.81**	**0.53**	**24.9**	**11856**	**12.8**	**583**	**0.79**
	t-Stat	5.09	10.58	235.14	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.



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PUMP-1 PCBs MAP OF DATA POINTS

Certification Unit: PUMP-1 12:04 PM 22-May-97

		Certification Analytes			Ecological COCs			
	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
1	PUMP1-C-1-MP	8 -	1.4 U	43 U	13800 J	19.4 -	1010 J	1 UJ
2	PUMP1-C-2-MP	9.1 -	0.93 U	38 U	15200 J	13.9 -	503 J	0.92 UJ
3	PUMP1-C-3-MP	8.5 -	0.9 U		13200 J	16.2 -	633 J	0.97 UJ
4	PUMP1-C-4-MP	10.7 -	1.1 U	42 U	16300 J	20.7 -	1070 J	1.1 UJ
5	PUMP1-C-5-MP	8 -	1.5 U	44 U	17600 J	17 -	1380 J	1.1 UJ
6	PUMP1-C-6-MP	8.6 -	1.1 U	40 U	16700 J	15.4 -	766 J	0.96 UJ
7	PUMP1-C-7-MP	8.2 -	0.9 U	39 U	13300 J	14.9 -	659 J	0.95 UJ
8	PUMP1-C-8-MP	10 -	1 U	38 U	15500 J	16.3 -	844 J	0.93 UJ
9	PUMP1-C-9-MP	10.2 -	1.2 U	39 U	16400 J	16.7 -	875 J	0.95 UJ
10	PUMP1-C-10-MP	9.3 -	0.92 U	37 U	15300 J	18 -	658 J	0.89 UJ
11	PUMP1-C-11-MP	9.2 -	0.92 U	38 U	11300 J	15.8 -	663 J	0.93 UJ
11	PUMP1-C-11-MP-D	9.9 -	1 U	40 U	15100 J	16.6 -	672 J	0.98 UJ
12	PUMP1-C-12-MP	8.2 -	0.86 U	39 U	13500 J	13.6 -	554 J	0.96 UJ
13	PUMP1-C-13-MP	7.2 -	0.75 U	38 U	10600 J	17.9 -	564 J	0.92 UJ
14	PUMP1-C-14-MP	12.6 -	1.1 U	39 U	16600 J	29.2 -	909 J	0.95 UJ
15	PUMP1-C-15-MP	7.9 -	0.76 U	40 U	12000 J	28.9 -	871 J	0.98 UJ
16	PUMP1-C-16-MP	8.5 -	0.95 U	37 U	15200 J	13.9 -	736 J	0.9 UJ
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	15	16	16	16	16
	Hits	16	0	0	16	16	16	0
	Max	**12.6**	**0.75**	**22.00**	**17600**	**29.2**	**1380**	**0.55**
	Mean	9.0	0.51	19.73	14650	18.0	794	0.48
	St.Dev.	1.3	0.10	1.03	1928	4.7	227	0.03
	UCL	**9.5**	**0.55**	**20.09**	**15296**	**19.6**	**870**	**0.49**
	t-Stat	8.83	38.08	413.50	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

APPENDIX B - DATA SUMMARY TABLES
A1PI CERTIFICATION REPORT
KEY AND EXAMPLE CALCULATION

This Appendix contains all the data used to support the statistics presented in Appendix A. The following is a key and brief description of the fields presented in this Appendix.

CU Name The name of the Certification Unit as described in Section 2.0. There are 81 CUs including Q18-40A and Q18-40B. The Appendix is sorted by CU Name.

Parameter This field lists the COC. The COCs presented in this Appendix include: aroclor-1260, arsenic, beryllium, cesium-137, total uranium, radium-226, radium-228, thorium-228, thorium-230, and thorium-232. Presented in Appendix C are the ecological COCs: aluminum, manganese, molybdenum.

CU Type This field lists the type of CU, and where this data is presented in Appendix A. For example, A1PIST-1 arsenic results are presented in the A1PIST-1 metals CU, while A1PIST-1 radium-226 results are presented in the radiological CU.

Sample ID The unique number assigned to each discrete sample point in the field.

Suffix For some results multiple analytical runs were performed in accordance with the analytical requirements. For example, if the original run of the sample shows a matrix problem, the sample is re-run. Both the original analysis and the re-run are reported and presented in Appendix B. In the case noted above, the original run would have a suffix of "None" while the re-analysis would have a suffix of "RE." During the validation process the best sample result is determined, and a validation qualifier is added to both sets of data to cue the user which result to use. One result is either rejected (R) or marked as (Z).

Northing The Northing coordinate, which allows the user the map the data with the Easting coordinate.

Easting The Easting coordinate, which allows the used to map the data with the Northing coordinate.

Sample Date The sample collection date in the field.

Lab Result The actual analytical value reported by the laboratory.

Lab TPU Total Propagated Uncertainty (TPU). This value represents the uncertainty associated with the reported result. TPU includes the counting error, as well as uncertainty from other laboratory measurements and data reduction. (Applicable to radiological parameters only)

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Qualifier The qualifier reported from the lab. For inorganic and organic data these qualifiers are consistent with the CLP Qualifiers. For radiological parameters non-detect values are assigned a U qualifier.

Lab Units The units in which the Laboratory Result is reported.

Val. Result The result based on the validation process. During the validation process, sample results may be adjusted. For example, if the laboratory result is less than the associated Minimum Detectable Concentration (MDC), the validation result becomes the MDC value.

Lab TPU Validation TPU - The TPU based on the validation process.

Qualifier Validation Qualifier - The qualifier assigned as a result of the data validation process. The following qualifiers may be assigned to the data:

- \- No qualification; the positive result or detection limit is confident as reported.
- **J** Positive result is estimated or imprecise; data point is usable for decision-making purposes. Positive results less than the contract required reporting limit are also qualified in this manner.
- **R** Positive result or detection limit is considered unreliable - data point should NOT be used for decision-making purposes
- **U** Undetected result at the stated limit of detection; useable for decision-making purposes
- **UJ** Undetected result; detection limit is considered estimated or imprecise; useable for decision-making purposes
- **Z** This result, or detection limit in this analysis is not the best one to use; another analysis (e.g., the dilution or re-analysis) contains a more confident and usable result.

Units The units corresponding to the validation result.

Duplicate of The sample number of which this result is a duplicate of. These are field duplicate results.

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EXAMPLE CALCULATION

The data presented in this Appendix requires various data reduction steps in order to calculate the statistics used for certification as presented in Appendix A. The following is an example of the data reduction process for CU Q18-40 for total uranium. The following table will be used to describe the process. Note that all the columns in the table can be found in Appendix B, with the exception of G and N. The "MDC" (Minimum Detectable Concentration) data (Column G) is part of the data package as reported from the laboratory, and "Value for Stats" (Column N) is part of the statistics data reduction.

			Laboratory Data				Validation Data			Total Uranium Data			Value
Sample ID	Suffix	Parameter	Result	Units	Qualifier	MDC	Result	Qualifier	Units	Result	Units	Qualifier	for Stats
Q18-40C-811654	NONE	Uranium-238	2.57	pCi/g	U	3.9	3.9	U	pCi/g	11.7	ug/kg	U	5.8
Q18-40C-870874	NONE	Uranium-238	2.97	pCi/g	U	4.8	4.8	U	pCi/g	14.4	ug/kg	U	7.2
Q18-40C-872764	NONE	Uranium-238	.53	pCi/g	U	3	3	U	pCi/g	9.0	ug/kg	U	4.5
Q18-40C-891658	NONE	Uranium-238	2.81	pCi/g	U	2.9	2.9	U	pCi/g	8.7	ug/kg	U	4.3
Q18-40C-898975	NONE	Uranium-238	3.25	pCi/g	U	4.3	4.3	U	pCi/g	12.9	ug/kg	U	6.4
Q18-40C-914679	NONE	Uranium-238	7.56	pCi/g		6.6	7.56	J	pCi/g	22.7	ug/kg	J	22.7
Q18-40C-920785	NONE	Uranium-238	-1.6	pCi/g	U	2.6	2.6	U	pCi/g	7.8	ug/kg	U	3.9
Q18-40C-926871	NONE	Uranium-238	.575	pCi/g	U	3.2	3.2	U	pCi/g	9.6	ug/kg	U	4.8
Q18-40C-977977	NONE	Uranium-238	2.39	pCi/g	U	3.7	3.7	U	pCi/g	11.1	ug/kg	U	6.9
Q18-40C-977977-D	NONE	Uranium-238	2.33	pCi/g	U	5.5	5.5	U	pCi/g	16.5	ug/kg	U	N/A
Q18-40C-981808	NONE	Uranium-238	-.223	pCi/g	U	2.6	2.6	U	pCi/g	7.8	ug/kg	U	3.9
Q18-40C-986850	NONE	Uranium-238	.41	pCi/g	U	3.2	3.2	U	pCi/g	9.6	ug/kg	U	4.8
Q18-40C-987728	NONE	Uranium-238	1.59	pCi/g	U	4.4	4.4	U	pCi/g	13.2	ug/kg	U	6.6
Column A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*	*M*	*N*

DATA REDUCTION PROCESS

1. The laboratory reports the data in columns D, E, F, and G. In this example the parameter is uranium-238, which is used to calculate total uranium. Note that the "U" qualifier (non-detect) is assigned to all the results except Q18-40C-914679.

2. The laboratory data is then evaluated during the data validation process, and the validators then provide columns H, I, and J. Note that the validation results are different than the validation result. For each radionuclide the laboratory reports the measured activity (result) and the associated MDC. The MDC can be considered as the limit of detection, which is sample specific and is provided in the data package. For A1PI the analytical contractual requirements set the Highest Allowable Minimum Detectable Concentration (HAMDC) as one-half the FRL, except uranium-238 (used to calculate total uranium) which was set at 8 pCi/g. Also, the contractual requirements dictated that when the measured activity for a sample was below the sample MDC, the laboratory reported the measurement activity (not the MDC) as the result. During the validation process, the result was adjusted to the MDC, which

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accounts for the difference. For example, in sample Q18-40C-811654 the reported laboratory result for uranium-238 is 2.57 pCi/g, however the MDC is 3.9 pCi/g. Therefore the validators adjusted the result to the MDC.

3. In A1PI, the total uranium value was calculated from the gamma uranium-238 measurement using the following formula:

   Total Uranium (mg/kg)= 2.998544 x gamma uranium-238 measurement (pCi/g).

   For example, in sample Q18-40C-811654 the total uranium result is 11.7 ug/kg, which is calculated from the validation result of 3.9 pCi/g. The data qualifier from uranium-238 data is carried over and assigned to the total uranium result. This information is provided in Columns K, L, and M. Also note that since the total uranium value is a calculated result from the uranium-238 result, in Appendix A the laboratory fields are marked as N/A.

4. In order to calculate the certification statistics the following actions are taken:
   a. For the statistics the validated data is used, not the laboratory data.
   b. If multiple analyses are available as a result of re-runs (results will have different suffix codes) the validation qualifiers are used to determine the best value.
   c. One-half of the reported value is used for non-detects (U). For example, for sample Q18-40C-811654 the value used for the statistics is 5.8 ug/kg.
   d. Duplicate samples are averaged. For example, for sample Q18-40C-977977 a field duplicate (Q18-40C-977977-D) is also reported. The value used for the statistics is the average of these two numbers.

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Arsenic	Metals	A1P1ST1-11C-M	NONE	482779	1351110	11-Mar-97	6.8	N/A		mg/kg	6.8	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-12C-M	NONE	482786	1351160	11-Mar-97	9.2	N/A		mg/kg	9.2	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-13C-M	NONE	482810	1351050	11-Mar-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-13C-M-D	NONE	482810	1351050	11-Mar-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	A1P1ST1-13C-M
A1P1ST-1	Arsenic	Metals	A1P1ST1-14C-M	NONE	482792	1351052	11-Mar-97	9	N/A		mg/kg	9	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-15C-M	NONE	482815	1351122	11-Mar-97	6.1	N/A		mg/kg	6.1	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-16C-M	NONE	482806	1351131	11-Mar-97	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-2C-M	NONE	482729	1351058	12-Mar-97	9.6	N/A	N	mg/kg	9.6	N/A	J	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-3C-M	NONE	482722	1351092	12-Mar-97	7.8	N/A	N	mg/kg	7.8	N/A	J	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-4C-M	NONE	482702	1351179	12-Mar-97	10.2	N/A	N	mg/kg	10.2	N/A	J	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-5C-M	NONE	482761	1351024	11-Mar-97	10.3	N/A		mg/kg	10.3	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-6C-M	NONE	482739	1351045	11-Mar-97	9.4	N/A		mg/kg	9.4	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-7C-M	NONE	482751	1351117	11-Mar-97	10	N/A		mg/kg	10	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	7.1	N/A	N	mg/kg	7.1	N/A	J	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-10C-M	NONE	482766	1351075	11-Mar-97	0.8	N/A		mg/kg	0.8	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-11C-M	NONE	482779	1351110	11-Mar-97	0.71	N/A		mg/kg	0.71	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-12C-M	NONE	482786	1351160	11-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-13C-M	NONE	482810	1351050	11-Mar-97	0.84	N/A		mg/kg	0.84	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-13C-M-D	NONE	482810	1351050	11-Mar-97	0.77	N/A		mg/kg	0.77	N/A	-	mg/kg	A1P1ST1-13C-M
A1P1ST-1	Beryllium	Metals	A1P1ST1-14C-M	NONE	482792	1351052	11-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-15C-M	NONE	482815	1351122	11-Mar-97	0.6	N/A	B	mg/kg	0.6	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-16C-M	NONE	482806	1351131	11-Mar-97	0.88	N/A		mg/kg	0.88	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-2C-M	NONE	482729	1351058	12-Mar-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-3C-M	NONE	482722	1351092	12-Mar-97	0.87	N/A		mg/kg	0.87	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-4C-M	NONE	482702	1351179	12-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-5C-M	NONE	482761	1351024	11-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-6C-M	NONE	482739	1351045	11-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-7C-M	NONE	482751	1351117	11-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
A1P1ST-1	Beryllium	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
A1P1ST-1	Arsenic	Metals	A1P1ST1-10C-M	NONE	482766	1351075	11-Mar-97	6.3	N/A		mg/kg	6.3	N/A	-	mg/kg	
A1P1ST-1	Moisture	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	15.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	16.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	17.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	17.6	N/A	N/A	Percent	0	N/A	N/A	Percent	A1P1ST1-13C-R
A1P1ST-1	Moisture	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	19.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	17.62	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	17.75	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	20.24	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	21.2	N/A	N/A	Percent	0	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Moisture	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	19.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	12.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	13.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
A1P1ST-1	Moisture	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	18.7	N/A	N/A	Percent	18.7	N/A	N/A	Percent	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	1.1	0.14		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	1.1	0.16		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	1.2	0.16		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	1.4	0.15		pCi/g	1.4	0	-	pCi/g	A1P1ST1-13C-R
A1P1ST-1	Radium-226	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	1.3	0.15		pCi/g	1.3	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	1.5	0.14		pCi/g	1.5	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	1.2	0.19		pCi/g	1.24	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	1.3	0.21		pCi/g	1.32	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	1.2	0.19		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	1.5	0.17		pCi/g	1.5	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	1.6	0.19		pCi/g	1.6	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	1.1	0.16		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	1.2	0.15		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Radium-226	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	1.4	0.27		pCi/g	1.41	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	0.97	0.27		pCi/g	0.97	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	0.93	0.26		pCi/g	0.93	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	1.5	0.39		pCi/g	1.5	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	1.3	0.35		pCi/g	1.3	0	-	pCi/g	A1P1ST1-13C-R
A1P1ST-1	Radium-228	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	1.1	0.34		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	1.4	0.37		pCi/g	1.4	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	1.4	0.37		pCi/g	1.4	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	1.3	0.26		pCi/g	1.33	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	1.4	0.31		pCi/g	1.38	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	1.2	0.25		pCi/g	1.22	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	1.2	0.38		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	1.2	0.36		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Radium-228	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	1.1	0.24		pCi/g	1.11	0	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	0.98	0.34		pCi/g	0.98	0	J	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	1.1	0.43		pCi/g	1.1	0	J	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	1.5	0.57		pCi/g	1.5	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	1.4	0.52		pCi/g	1.4	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	1.4	0.55		pCi/g	1.4	1	-	pCi/g	A1P1ST1-13C-R
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	1.4	0.55		pCi/g	1.4	1	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	1.3	0.55		pCi/g	1.3	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	1.4	0.53		pCi/g	1.4	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	1.2	0.26		pCi/g	1.19	0	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	1.2	0.27		pCi/g	1.23	0	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	1.3	0.27		pCi/g	1.3	0	J	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	1.7	0.64		pCi/g	1.7	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	1.5	0.54		pCi/g	1.5	1	-	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	0.98	0.38		pCi/g	0.98	0	J	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	1.2	0.45		pCi/g	1.2	0	J	pCi/g	
A1P1ST-1	Thorium-228	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	1.3	0.29		pCi/g	1.3	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	0.76	0.26		pCi/g	0.76	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	0.84	0.32		pCi/g	0.84	0	J	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	1.3	0.5		pCi/g	1.3	1	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	1.1	0.44		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	1.3	0.49		pCi/g	1.3	0	-	pCi/g	A1P1ST1-13C-R
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	1.2	0.46		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	1.1	0.49		pCi/g	1.1	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	1.4	0.52		pCi/g	1.4	1	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	1.1	0.23		pCi/g	1.15	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	1	0.22		pCi/g	1.03	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	1.1	0.22		pCi/g	1.15	0	J	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	1.6	0.59		pCi/g	1.6	1	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	0.86	0.33		pCi/g	0.86	0	-	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	1	0.39		pCi/g	1	0	J	pCi/g	
A1P1ST-1	Thorium-232	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	1.2	0.24		pCi/g	1.19	0	-	pCi/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	U	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	N/A	N/A	N/A	ug/g	2.91	2	U	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	N/A	N/A	N/A	ug/g	6.3	2	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	N/A	N/A	N/A	ug/g	3.9	2	J	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	N/A	N/A	N/A	ug/g	4.8	2	-	ug/g	A1P1ST1-13C-R
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	N/A	N/A	N/A	ug/g	3.9	2	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	N/A	N/A	N/A	ug/g	5.1	2	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	N/A	N/A	N/A	ug/g	6.3	2	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	N/A	N/A	N/A	ug/g	9.51	4	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	N/A	N/A	N/A	ug/g	8.91	6	J	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	N/A	N/A	N/A	ug/g	24.45	6	-	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	J	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	N/A	N/A	N/A	ug/g	3	2	U	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
A1P1ST-1	Uranium, Total	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	N/A	N/A	N/A	ug/g	2.84	4	U	ug/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-10C-R	NONE	482766	1351075	11-Mar-97	0.26	0.62	U	pCi/g	1.1	1	U	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-11C-R	NONE	482779	1351110	11-Mar-97	0.94	0.6	U	pCi/g	0.97	1	U	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-12C-R	NONE	482786	1351160	11-Mar-97	2.1	0.78		pCi/g	2.1	1	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-13C-R	NONE	482810	1351050	11-Mar-97	1.3	0.76		pCi/g	1.3	1	J	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-13C-R-D	NONE	482810	1351050	11-Mar-97	1.6	0.57		pCi/g	1.6	1	-	pCi/g	A1P1ST1-13C-R
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-14C-R	NONE	482792	1351052	11-Mar-97	1.3	0.58		pCi/g	1.3	1	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-15C-R	NONE	482815	1351122	11-Mar-97	1.7	0.73		pCi/g	1.7	1	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-16C-R	NONE	482806	1351131	11-Mar-97	2.1	0.82		pCi/g	2.1	1	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-2C-R	NONE	482729	1351058	12-Mar-97	3.2	1.4		pCi/g	3.17	1	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-3C-R	NONE	482722	1351092	12-Mar-97	3	2		pCi/g	2.97	2	J	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-4C-R	NONE	482702	1351179	12-Mar-97	8.2	2		pCi/g	8.15	2	-	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-5C-R	NONE	482761	1351024	11-Mar-97	1.1	0.7	U	pCi/g	1.1	1	J	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-6C-R	NONE	482739	1351045	11-Mar-97	0.86	0.74	U	pCi/g	1.2	1	U	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-7C-R	NONE	482751	1351117	11-Mar-97	0.58	0.62	U	pCi/g	1	1	U	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-8C-R	NONE	482747	1351130	11-Mar-97	0.21	0.69	U	pCi/g	1.2	1	U	pCi/g	
A1P1ST-1	Uranium-238	Radiological	A1P1ST1-9C-R	NONE	482770	1351023	12-Mar-97	0.83	1.3	U	pCi/g	0.95	1	U	pCi/g	
N19	Arsenic	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	9.9	N/A		mg/kg	9.9	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	6.7	N/A		mg/kg	6.7	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	7.9	N/A		mg/kg	7.9	N/A	J	mg/kg	N19-00C-12-M
N19	Arsenic	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	7	N/A		mg/kg	7	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	11.8	N/A		mg/kg	11.8	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	7.6	N/A		mg/kg	7.6	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	4.7	N/A		mg/kg	4.7	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	6.6	N/A		mg/kg	6.6	N/A	-	mg/kg	
N19	Arsenic	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	5	N/A		mg/kg	5	N/A	-	mg/kg	
N19	Beryllium	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	0.81	N/A		mg/kg	0.81	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	0.59	N/A	U	mg/kg	0.59	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	0.63	N/A	B	mg/kg	0.63	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	0.77	N/A	B	mg/kg	0.77	N/A	UJ	mg/kg	N19-00C-12-M
N19	Beryllium	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	2	N/A		mg/kg	2	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	0.66	N/A		mg/kg	0.66	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	0.67	N/A	B	mg/kg	0.67	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	0.66	N/A	B	mg/kg	0.66	N/A	U	mg/kg	
N19	Beryllium	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	0.47	N/A	B	mg/kg	0.47	N/A	U	mg/kg	
N19	Arsenic	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	8.2	N/A		mg/kg	8.2	N/A	-	mg/kg	
N19	Moisture	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	28.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	28.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	26.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	28.8	N/A	N/A	Percent	0	N/A	N/A	Percent	N19-00C-12-R
N19	Moisture	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	29.6	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
N19	Moisture	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	27.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	23.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	27.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	27.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	25.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	29.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	30.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Moisture	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	29.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
N19	Radium-226	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	1.4	0.19		pCi/g	1.38	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	1.4	0.17		pCi/g	1.39	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	1.4	0.16		pCi/g	1.36	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	1.3	0.19		pCi/g	1.34	0	-	pCi/g	N19-00C-12-R
N19	Radium-226	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	1.2	0.16		pCi/g	1.18	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	1.5	0.2		pCi/g	1.48	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	1.5	0.18		pCi/g	1.47	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	1.4	0.18		pCi/g	1.43	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	1.6	0.18		pCi/g	1.65	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	1.4	0.16		pCi/g	1.37	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	1.5	0.16		pCi/g	1.51	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
N19	Radium-226	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	1.5	0.17		pCi/g	1.49	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	1.5	0.41		pCi/g	1.47	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	1.3	0.38		pCi/g	1.33	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	1.4	0.37		pCi/g	1.41	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	1.3	0.37		pCi/g	1.28	0	-	pCi/g	N19-00C-12-R
N19	Radium-228	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	1.4	0.4		pCi/g	1.39	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	1	0.33		pCi/g	1.06	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	1.1	0.36		pCi/g	1.08	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	1.4	0.4		pCi/g	1.41	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	1.4	0.39		pCi/g	1.43	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	1.4	0.37		pCi/g	1.36	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	1.2	0.37		pCi/g	1.24	0	-	pCi/g	
N19	Radium-228	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	1.2	0.35		pCi/g	1.17	0	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	1.6	0.67		pCi/g	1.58	1	J	pCi/g	
N19	Thorium-228	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	1.3	0.46		pCi/g	1.28	0	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	1.6	0.58		pCi/g	1.58	1	J	pCi/g	
N19	Thorium-228	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	1.3	0.45		pCi/g	1.33	0	-	pCi/g	N19-00C-12-R
N19	Thorium-228	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	2.2	0.8		pCi/g	2.13	1	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	1.4	0.51		pCi/g	1.37	1	J	pCi/g	
N19	Thorium-228	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	1.5	0.64		pCi/g	1.54	1	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	1.5	0.59		pCi/g	1.55	1	J	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
N19	Thorium-228	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	1.3	0.52		pCi/g	1.3	1	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	1.4	0.65		pCi/g	1.45	1	J	pCi/g	
N19	Thorium-228	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	1.4	0.52		pCi/g	1.38	1	J	pCi/g	
N19	Thorium-228	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	1.1	0.46		pCi/g	1.13	0	-	pCi/g	
N19	Thorium-228	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	1.6	0.61		pCi/g	1.64	1	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	1.3	0.55		pCi/g	1.3	1	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	1.1	0.39		pCi/g	1.07	0	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	1.2	0.46		pCi/g	1.22	0	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	1.2	0.42		pCi/g	1.25	0	-	pCi/g	N19-00C-12-R
N19	Thorium-232	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	1.7	0.64		pCi/g	1.71	1	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	1.2	0.44		pCi/g	1.16	0	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	1.2	0.51		pCi/g	1.22	1	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	1.4	0.52		pCi/g	1.35	1	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	1.1	0.44		pCi/g	1.09	0	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	1.2	0.54		pCi/g	1.2	1	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	1	0.39		pCi/g	1.01	0	J	pCi/g	
N19	Thorium-232	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	1	0.42		pCi/g	1.04	0	-	pCi/g	
N19	Thorium-232	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	1	0.4		pCi/g	1.06	0	-	pCi/g	
N19	Uranium, Total	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	N/A	N/A	N/A	ug/g	14.51	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	N/A	N/A	N/A	ug/g	13.18	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	N/A	N/A	N/A	ug/g	11.46	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	N/A	N/A	N/A	ug/g	11.26	2	-	ug/g	N19-00C-12-R
N19	Uranium, Total	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	N/A	N/A	N/A	ug/g	16.9	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	N/A	N/A	N/A	ug/g	5.22	2	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	N/A	N/A	N/A	ug/g	19.09	4	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	N/A	N/A	N/A	ug/g	23.81	4	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	N/A	N/A	N/A	ug/g	8.09	2	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	N/A	N/A	N/A	ug/g	13.32	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	N/A	N/A	N/A	ug/g	7.37	2	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	N/A	N/A	N/A	ug/g	12.71	3	-	ug/g	
N19	Uranium, Total	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	N/A	N/A	N/A	ug/g	9.63	3	-	ug/g	
N19	Uranium-238	Radiological	N19-00C-1-R	NONE	483019.03	1349467.49	27-Feb-97	4.8	1		pCi/g	4.84	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-11-R	NONE	483728.46	1349586.13	27-Feb-97	4.4	0.96		pCi/g	4.4	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-12-R	NONE	483628.24	1349737.67	27-Feb-97	3.8	0.9		pCi/g	3.82	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-12-R-D	NONE	483628.24	1349737.67	27-Feb-97	3.8	0.82		pCi/g	3.76	1	-	pCi/g	N19-00C-12-R
N19	Uranium-238	Radiological	N19-00C-14-R	NONE	483885.37	1349693.18	27-Feb-97	5.6	1		pCi/g	5.64	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-15-R	NONE	484014.63	1349584.44	27-Feb-97	1.7	0.77		pCi/g	1.74	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-2-R	NONE	483047.01	1349722.15	27-Feb-97	6.4	1.3		pCi/g	6.37	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-3-R	NONE	483130.1	1349480.78	27-Feb-97	7.9	1.3		pCi/g	7.94	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-5-R	NONE	483317.42	1349575.56	27-Feb-97	2.7	0.57		pCi/g	2.7	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-6-R	NONE	483316.67	1349717.05	27-Feb-97	4.4	1		pCi/g	4.44	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-7-R	NONE	483447.32	1349591.09	4-Mar-97	0.24	0.55	U	pCi/g	2.46	1	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
N19	Uranium-238	Radiological	N19-00C-8-R	NONE	483461.6	1349668.47	4-Mar-97	4.2	0.85		pCi/g	4.24	1	-	pCi/g	
N19	Uranium-238	Radiological	N19-00C-9-R	NONE	483497.16	1349568.14	27-Feb-97	3.2	0.88		pCi/g	3.21	1	-	pCi/g	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	41	N/A	U	ug/kg	41	N/A	Z	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-11C-MP	RE	482445.45	1350914.05	9-Mar-97	41	N/A	U	ug/kg	41	N/A	UJ	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	42	N/A	U	ug/kg	42	N/A	Z	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-12C-MP	RE	482465.37	1350917.54	9-Mar-97	42	N/A	U	ug/kg	42	N/A	UJ	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	42	N/A	U	ug/kg	42	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	44	N/A	U	ug/kg	44	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	42	N/A	U	ug/kg	42	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	42	N/A	U	ug/kg	42	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	41	N/A	U	ug/kg	41	N/A	UJ	ug/kg	NAR-1-16C-MP
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	41	N/A	U	ug/kg	41	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	39	N/A	U	ug/kg	39	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	39	N/A	U	ug/kg	39	N/A	Z	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-3C-MP	RE	482035.7	1350898.99	8-Mar-97	39	N/A	U	ug/kg	39	N/A	UJ	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	41	N/A	U	ug/kg	41	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	41	N/A	U	ug/kg	41	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	41	N/A	U	ug/kg	41	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	38	N/A	U	ug/kg	38	N/A	U	ug/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	42	N/A	U	ug/kg	42	N/A	U	ug/kg	
NAR-1	Arsenic	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	8.8	N/A	N	mg/kg	8.8	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	7.5	N/A	N	mg/kg	7.5	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	12.6	N/A	N	mg/kg	12.6	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	15.5	N/A		mg/kg	15.5	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	11.5	N/A		mg/kg	11.5	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	10.4	N/A		mg/kg	10.4	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	12.8	N/A	N	mg/kg	12.8	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	14.8	N/A	N	mg/kg	14.8	N/A	J	mg/kg	NAR-1-16C-MP
NAR-1	Arsenic	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	12.5	N/A	N	mg/kg	12.5	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	6	N/A	N	mg/kg	6	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	7.5	N/A	N	mg/kg	7.5	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	11	N/A	N	mg/kg	11	N/A	J	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	9.9	N/A		mg/kg	9.9	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	15.5	N/A		mg/kg	15.5	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	6.8	N/A		mg/kg	6.8	N/A	-	mg/kg	
NAR-1	Arsenic	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	14	N/A	N	mg/kg	14	N/A	J	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	0.67	N/A		mg/kg	0.67	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Beryllium	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	1.8	N/A		mg/kg	1.8	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	0.99	N/A		mg/kg	0.99	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	0.83	N/A		mg/kg	0.83	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Beryllium	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	0.77	N/A		mg/kg	0.77	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	0.59	N/A		mg/kg	0.59	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	0.62	N/A		mg/kg	0.62	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	0.95	N/A		mg/kg	0.95	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	0.51	N/A	B	mg/kg	0.51	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	0.56	N/A	B	mg/kg	0.56	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
NAR-1	Beryllium	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-1	Aroclor-1260	Metals/PCB	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	40	N/A	U	ug/kg	40	N/A	U	ug/kg	
NAR-1	Moisture	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	18.04	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	16	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	20.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	20.34	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	23.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	19.86	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	19.47	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	19.14	N/A	N/A	Percent	0	N/A	N/A	Percent	NAR-1-16C-R
NAR-1	Moisture	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	14.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	18.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	14.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	15	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	19.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	19.27	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	21.63	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Moisture	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	19.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-1	Radium-226	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	1.5	0.21		pCi/g	1.48	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	1.3	0.14		pCi/g	1.28	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	1.6	0.16		pCi/g	1.6	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	1.5	0.24		pCi/g	1.53	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	1.3	0.2		pCi/g	1.31	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	1.3	0.19		pCi/g	1.34	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	1.2	0.2		pCi/g	1.22	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	1.3	0.2		pCi/g	1.33	0	-	pCi/g	NAR-1-16C-R
NAR-1	Radium-226	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	0.98	0.12		pCi/g	0.98	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	1	0.12		pCi/g	1	0	-	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Radium-226	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	1	0.14		pCi/g	1	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	1.3	0.16		pCi/g	1.3	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	1.2	0.24		pCi/g	1.25	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	1.1	0.18		pCi/g	1.14	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	1.3	0.2		pCi/g	1.27	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	1	0.15		pCi/g	1.03	0	-	pCi/g	
NAR-1	Radium-226	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	1.3	0.14		pCi/g	1.31	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	1.2	0.26		pCi/g	1.23	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	1.2	0.3		pCi/g	1.19	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	1.4	0.37		pCi/g	1.43	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	1.3	0.28		pCi/g	1.26	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	1.4	0.3		pCi/g	1.38	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	1.2	0.28		pCi/g	1.23	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	1.5	0.28		pCi/g	1.45	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	1.2	0.28		pCi/g	1.23	0	-	pCi/g	NAR-1-16C-R
NAR-1	Radium-228	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	1	0.32		pCi/g	1.01	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	1.1	0.33		pCi/g	1.15	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	0.84	0.26		pCi/g	0.84	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	1.1	0.3		pCi/g	1.11	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	1.3	0.27		pCi/g	1.32	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	1.3	0.27		pCi/g	1.31	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	1.1	0.28		pCi/g	1.15	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	1	0.32		pCi/g	1.01	0	-	pCi/g	
NAR-1	Radium-228	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	1.2	0.32		pCi/g	1.21	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	1.4	0.31		pCi/g	1.36	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	1.3	0.5		pCi/g	1.34	1	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	1.6	0.66		pCi/g	1.55	1	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	1.3	0.28		pCi/g	1.29	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	1.3	0.28		pCi/g	1.3	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	1.3	0.27		pCi/g	1.32	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	1.4	0.31		pCi/g	1.47	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	1.4	0.29		pCi/g	1.38	0	-	pCi/g	NAR-1-16C-R
NAR-1	Thorium-228	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	1.2	0.45		pCi/g	1.2	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	1.3	0.42		pCi/g	1.25	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	1.3	0.47		pCi/g	1.28	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	1.1	0.4		pCi/g	1.06	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	1.1	0.26		pCi/g	1.07	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	1.1	0.26		pCi/g	1.07	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	1.2	0.26		pCi/g	1.15	0	J	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	0.98	0.37		pCi/g	0.98	0	-	pCi/g	
NAR-1	Thorium-228	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	1.3	0.49		pCi/g	1.32	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	1.3	0.25		pCi/g	1.27	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Thorium-232	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	1.2	0.46		pCi/g	1.22	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	1.2	0.52		pCi/g	1.21	1	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	1	0.21		pCi/g	1.04	0	-	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	1.2	0.24		pCi/g	1.24	0	-	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	1.2	0.22		pCi/g	1.21	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	1.1	0.22		pCi/g	1.08	0	-	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	1.1	0.22		pCi/g	1.09	0	-	pCi/g	NAR-1-16C-R
NAR-1	Thorium-232	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	0.93	0.35		pCi/g	0.93	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	1	0.35		pCi/g	1.04	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	0.93	0.34		pCi/g	0.93	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	0.93	0.35		pCi/g	0.93	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	1.2	0.23		pCi/g	1.18	0	-	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	1	0.21		pCi/g	1.05	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	1.1	0.21		pCi/g	1.06	0	J	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	0.76	0.29		pCi/g	0.76	0	-	pCi/g	
NAR-1	Thorium-232	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	1.2	0.44		pCi/g	1.19	0	J	pCi/g	
NAR-1	Uranium, Total	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	N/A	N/A	N/A	ug/g	5.19	4	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	N/A	N/A	N/A	ug/g	2.57	1	-	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	N/A	N/A	N/A	ug/g	2.63	2	U	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	N/A	N/A	N/A	ug/g	5.84	5	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	N/A	N/A	N/A	ug/g	6.82	5	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	N/A	N/A	N/A	ug/g	9.96	5	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	N/A	N/A	N/A	ug/g	10.67	5	-	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	N/A	N/A	N/A	ug/g	5.31	5	J	ug/g	NAR-1-16C-R
NAR-1	Uranium, Total	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	N/A	N/A	N/A	ug/g	3.09	2	U	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	N/A	N/A	N/A	ug/g	2.26	1	-	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	N/A	N/A	N/A	ug/g	3.24	2	U	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	N/A	N/A	N/A	ug/g	3.01	2	U	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	N/A	N/A	N/A	ug/g	7.57	5	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	N/A	N/A	N/A	ug/g	5.48	4	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	N/A	N/A	N/A	ug/g	7.33	4	J	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	N/A	N/A	N/A	ug/g	3.38	3	U	ug/g	
NAR-1	Uranium, Total	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	N/A	N/A	N/A	ug/g	3.62	1	-	ug/g	
NAR-1	Uranium-238	Radiological	NAR-1-10C-R	NONE	482365.4	1350915.09	10-Mar-97	1.7	1.4		pCi/g	1.73	1	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-11C-R	NONE	482445.45	1350914.05	9-Mar-97	0.86	0.31		pCi/g	0.86	0	-	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-12C-R	NONE	482465.37	1350917.54	9-Mar-97	0.49	0.53	U	pCi/g	0.88	1	U	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-13C-R	NONE	482537.99	1350907.43	8-Mar-97	1.9	1.6		pCi/g	1.95	2	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-14C-R	NONE	482571.56	1350911.2	8-Mar-97	2.3	1.6		pCi/g	2.27	2	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-15C-R	NONE	482628.05	1350911.32	8-Mar-97	3.3	1.5		pCi/g	3.32	2	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-16C-R	NONE	482683.78	1350932.28	11-Mar-97	3.6	1.7		pCi/g	3.56	2	-	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-16C-R-D	NONE	482571.56	1350911.2	11-Mar-97	1.8	1.7		pCi/g	1.77	2	J	pCi/g	NAR-1-16C-R
NAR-1	Uranium-238	Radiological	NAR-1-1C-R	NONE	481949.6	1350901.88	8-Mar-97	0.16	0.61	U	pCi/g	1.03	1	U	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Uranium-238	Radiological	NAR-1-2C-R	NONE	481957.72	1350897.07	8-Mar-97	0.75	0.25		pCi/g	0.75	0	-	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-3C-R	NONE	482035.7	1350898.99	8-Mar-97	0.93	0.66	U	pCi/g	1.08	1	U	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-4C-R	NONE	482060.54	1350905.6	10-Mar-97	0.76	0.61	U	pCi/g	1	1	U	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-5C-R	NONE	482142.79	1350896.62	8-Mar-97	2.5	1.6		pCi/g	2.53	2	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-6C-R	NONE	482154.78	1350896.91	8-Mar-97	1.8	1.2		pCi/g	1.83	1	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-7C-R	NONE	482221.81	1350896.56	8-Mar-97	2.4	1.5		pCi/g	2.44	1	J	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-8C-R	NONE	482264.55	1350907.61	25-Mar-97	1	1.1	U	pCi/g	1.13	1	U	pCi/g	
NAR-1	Uranium-238	Radiological	NAR-1-9C-R	NONE	482343.56	1350908.55	9-Mar-97	1.2	0.38		pCi/g	1.21	0	-	pCi/g	
NAR-2	Arsenic	Metals	NAR-2-11C-M	NONE	483938.19	1351639.17	12-Mar-97	17.2	N/A	N	mg/kg	17.2	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-12C-M	NONE	484123.23	1351774.38	12-Mar-97	8.9	N/A	N	mg/kg	8.9	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-13C-M	NONE	484215.39	1351829.08	12-Mar-97	12.8	N/A	N	mg/kg	12.8	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-14C-M	NONE	484369.79	1351925.63	8-Mar-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-15C-M	NONE	484408.77	1351959.06	8-Mar-97	12.6	N/A		mg/kg	12.6	N/A	-	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-16C-M	NONE	484539.33	1352051.63	8-Mar-97	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-1C-M	NONE	482786.46	1350954.27	11-Mar-97	10.4	N/A	N	mg/kg	10.4	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-2C-M	NONE	482960.44	1351017.58	10-Mar-97	14.7	N/A	N	mg/kg	14.7	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-3C-M	NONE	483053.93	1351061.36	10-Mar-97	7	N/A	N	mg/kg	7	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-4C-M	NONE	483202.49	1351147.75	10-Mar-97	7	N/A	N	mg/kg	7	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-5C-M	NONE	483266.47	1351190.11	11-Mar-97	7.3	N/A	N	mg/kg	7.3	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	9	N/A	N	mg/kg	9	N/A	J	mg/kg	NAR-2-5C-M
NAR-2	Arsenic	Metals	NAR-2-6C-M	NONE	483414.75	1351292.17	11-Mar-97	5.7	N/A	N	mg/kg	5.7	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-7C-M	NONE	483494.4	1351350	11-Mar-97	6	N/A	N	mg/kg	6	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-8C-M	NONE	483611.14	1351433.81	11-Mar-97	10.1	N/A	N	mg/kg	10.1	N/A	J	mg/kg	
NAR-2	Arsenic	Metals	NAR-2-9C-M	NONE	483748.36	1351523.63	11-Mar-97	13.6	N/A	N	mg/kg	13.6	N/A	J	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-10C-M	NONE	483799.56	1351553.22	11-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-11C-M	NONE	483938.19	1351639.17	12-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-12C-M	NONE	484123.23	1351774.38	12-Mar-97	0.74	N/A		mg/kg	0.74	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-13C-M	NONE	484215.39	1351829.08	12-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-14C-M	NONE	484369.79	1351925.63	8-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-15C-M	NONE	484408.77	1351959.06	8-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-16C-M	NONE	484539.33	1352051.63	8-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-1C-M	NONE	482786.46	1350954.27	11-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-2C-M	NONE	482960.44	1351017.58	10-Mar-97	0.69	N/A		mg/kg	0.69	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-3C-M	NONE	483053.93	1351061.36	10-Mar-97	0.54	N/A	B	mg/kg	0.54	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-4C-M	NONE	483202.49	1351147.75	10-Mar-97	0.65	N/A		mg/kg	0.65	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-5C-M	NONE	483266.47	1351190.11	11-Mar-97	0.74	N/A		mg/kg	0.74	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	0.88	N/A		mg/kg	0.88	N/A	-	mg/kg	NAR-2-5C-M
NAR-2	Beryllium	Metals	NAR-2-6C-M	NONE	483414.75	1351292.17	11-Mar-97	0.52	N/A	B	mg/kg	0.52	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-7C-M	NONE	483494.4	1351350	11-Mar-97	0.63	N/A		mg/kg	0.63	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-8C-M	NONE	483611.14	1351433.81	11-Mar-97	0.88	N/A		mg/kg	0.88	N/A	-	mg/kg	
NAR-2	Beryllium	Metals	NAR-2-9C-M	NONE	483748.36	1351523.63	11-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-2	Arsenic	Metals	NAR-2-10C-M	NONE	483799.56	1351553.22	11-Mar-97	9.3	N/A	N	mg/kg	9.3	N/A	J	mg/kg	
NAR-2	Moisture	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	21.43	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	20.82	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	16.22	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	20.55	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	20.59	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	18.28	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	17.11	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	20.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	17.75	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	11.19	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	13.36	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	13.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	13.17	N/A	N/A	Percent	0	N/A	N/A	Percent	NAR-2-5C-R
NAR-2	Moisture	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	12.73	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	11.27	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	13.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Moisture	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	21.01	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-2	Radium-226	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	1.5	0.22		pCi/g	1.46	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	1.3	0.19		pCi/g	1.29	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	0.99	0.16		pCi/g	0.99	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	1.2	0.19		pCi/g	1.22	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	1.1	0.19		pCi/g	1.09	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	1.2	0.18		pCi/g	1.24	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	1.3	0.25		pCi/g	1.26	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	1.6	0.24		pCi/g	1.6	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	1.4	0.22		pCi/g	1.44	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	0.76	0.14		pCi/g	0.76	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	0.85	0.14		pCi/g	0.85	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	0.87	0.15		pCi/g	0.87	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	0.86	0.15		pCi/g	0.86	0	-	pCi/g	NAR-2-5C-R
NAR-2	Radium-226	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	0.82	0.14		pCi/g	0.82	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	0.85	0.23		pCi/g	0.85	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	1	0.17		pCi/g	1.03	0	-	pCi/g	
NAR-2	Radium-226	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	1.5	0.22		pCi/g	1.45	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	1.2	0.28		pCi/g	1.23	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	1.4	0.28		pCi/g	1.39	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	0.93	0.2		pCi/g	0.93	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	1.5	0.31		pCi/g	1.46	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	1.3	0.31		pCi/g	1.32	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	1.3	0.25		pCi/g	1.33	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	1.4	0.28		pCi/g	1.38	0	-	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-2	Radium-228	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	1.3	0.27		pCi/g	1.29	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	1.4	0.29		pCi/g	1.43	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	0.63	0.19		pCi/g	0.63	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	0.82	0.2		pCi/g	0.82	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	0.77	0.19		pCi/g	0.77	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	0.83	0.2		pCi/g	0.83	0	-	pCi/g	NAR-2-5C-R
NAR-2	Radium-228	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	0.84	0.21		pCi/g	0.84	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	0.45	0.27		pCi/g	0.45	0	J	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	0.77	0.22		pCi/g	0.77	0	-	pCi/g	
NAR-2	Radium-228	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	1.5	0.29		pCi/g	1.46	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	1.1	0.25		pCi/g	1.1	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	1.1	0.24		pCi/g	1.11	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	0.95	0.23		pCi/g	0.95	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	1.1	0.23		pCi/g	1.05	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	1.2	0.28		pCi/g	1.17	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	0.94	0.26		pCi/g	0.94	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	1.1	0.26		pCi/g	1.08	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	1.4	0.3		pCi/g	1.45	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	1.4	0.31		pCi/g	1.4	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	0.75	0.24		pCi/g	0.75	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	0.7	0.24		pCi/g	0.7	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	0.82	0.22		pCi/g	0.86	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	0.83	0.22		pCi/g	0.83	0	J	pCi/g	NAR-2-5C-R
NAR-2	Thorium-228	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	0.94	0.27		pCi/g	0.99	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	0.73	0.19		pCi/g	0.77	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	0.79	0.26		pCi/g	0.83	0	-	pCi/g	
NAR-2	Thorium-228	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	1.2	0.28		pCi/g	1.28	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	1.1	0.23		pCi/g	1.12	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	1.1	0.23		pCi/g	1.17	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	1.1	0.22		pCi/g	1.08	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	1.1	0.22		pCi/g	1.12	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	1	0.21		pCi/g	1.03	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	1.1	0.23		pCi/g	1.05	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	1.2	0.24		pCi/g	1.18	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	1.1	0.22		pCi/g	1.07	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	1.2	0.24		pCi/g	1.17	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	0.56	0.14		pCi/g	0.57	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	0.88	0.2		pCi/g	0.16	0	J	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	0.77	0.17		pCi/g	0.77	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	0.65	0.16		pCi/g	0.65	0	J	pCi/g	NAR-2-5C-R
NAR-2	Thorium-232	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	0.91	0.22		pCi/g	0.92	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	0.77	0.17		pCi/g	0.78	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-2	Thorium-232	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	0.72	0.22		pCi/g	0.73	0	-	pCi/g	
NAR-2	Thorium-232	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	1.2	0.24		pCi/g	1.18	0	-	pCi/g	
NAR-2	Uranium, Total	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	N/A	N/A	N/A	ug/g	3.51	4	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	N/A	N/A	N/A	ug/g	4.41	5	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	N/A	N/A	N/A	ug/g	3.98	3	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	N/A	N/A	N/A	ug/g	7.39	5	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	N/A	N/A	N/A	ug/g	10.74	6	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	N/A	N/A	N/A	ug/g	7.51	5	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	N/A	N/A	N/A	ug/g	9.03	4	-	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	N/A	N/A	N/A	ug/g	5.48	4	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	N/A	N/A	N/A	ug/g	8.13	5	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	N/A	N/A	N/A	ug/g	3.5	3	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	N/A	N/A	N/A	ug/g	2.71	4	U	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	N/A	N/A	N/A	ug/g	3.8	4	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	N/A	N/A	N/A	ug/g	3.55	4	J	ug/g	NAR-2-5C-R
NAR-2	Uranium, Total	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	N/A	N/A	N/A	ug/g	4.72	4	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	N/A	N/A	N/A	ug/g	7.99	7	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	N/A	N/A	N/A	ug/g	5.09	5	J	ug/g	
NAR-2	Uranium, Total	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	N/A	N/A	N/A	ug/g	5.33	5	J	ug/g	
NAR-2	Uranium-238	Radiological	NAR-2-10C-R	NONE	483799.56	1351553.22	11-Mar-97	1.2	1.5		pCi/g	1.17	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-11C-R	NONE	483938.19	1351639.17	12-Mar-97	1.5	1.5		pCi/g	1.47	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-12C-R	NONE	484123.23	1351774.38	12-Mar-97	1.3	0.89		pCi/g	1.33	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-13C-R	NONE	484215.39	1351829.08	12-Mar-97	2.5	1.7		pCi/g	2.47	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-14C-R	NONE	484369.79	1351925.63	8-Mar-97	3.6	1.9		pCi/g	3.58	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-15C-R	NONE	484408.77	1351959.06	8-Mar-97	2.5	1.7		pCi/g	2.51	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-16C-R	NONE	484539.33	1352051.63	8-Mar-97	3	1.5		pCi/g	3.01	1	-	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-1C-R	NONE	482786.46	1350954.27	11-Mar-97	1.8	1.4		pCi/g	1.83	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-2C-R	NONE	482960.44	1351017.58	10-Mar-97	2.7	1.8		pCi/g	2.71	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-3C-R	NONE	483053.93	1351061.36	10-Mar-97	1.2	1.1		pCi/g	1.17	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-4C-R	NONE	483202.49	1351147.75	10-Mar-97	0.47	1.3	U	pCi/g	0.9	1	U	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-5C-R	NONE	483266.47	1351190.11	11-Mar-97	1.3	1.3		pCi/g	1.27	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-5C-R-D	NONE	483266.47	1351190.11	11-Mar-97	1.2	1.2		pCi/g	1.19	1	J	pCi/g	NAR-2-5C-R
NAR-2	Uranium-238	Radiological	NAR-2-6C-R	NONE	483414.75	1351292.17	11-Mar-97	1.6	1.3		pCi/g	1.58	1	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-7C-R	NONE	483494.4	1351350	11-Mar-97	2.7	2.3		pCi/g	2.66	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-8C-R	NONE	483611.14	1351433.81	11-Mar-97	1.7	1.5		pCi/g	1.7	2	J	pCi/g	
NAR-2	Uranium-238	Radiological	NAR-2-9C-R	NONE	483748.36	1351523.63	11-Mar-97	1.8	1.7		pCi/g	1.78	2	J	pCi/g	
NAR-3	Arsenic	Metals	NAR-3-11C-M	NONE	482424.89	1350936.56	9-Mar-97	7.8	N/A	N	mg/kg	7.8	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-12C-M	NONE	482499.19	1350925.38	11-Mar-97	8	N/A	N	mg/kg	8	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-13C-M	NONE	482542.69	1350940.65	11-Mar-97	9.5	N/A	N	mg/kg	9.5	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-14C-M	NONE	482597.05	1350935.27	11-Mar-97	7.8	N/A	N	mg/kg	7.8	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-15C-M	NONE	482629.6	1350949.77	13-Mar-97	10.7	N/A		mg/kg	10.7	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-3	Arsenic	Metals	NAR-3-16C-M	NONE	482677.38	1350946.43	11-Mar-97	11.6	N/A	N	mg/kg	11.6	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-1C-M	NONE	481901.5	1350911.32	8-Mar-97	6.4	N/A	N	mg/kg	6.4	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-2C-M	NONE	481998.34	1350913.08	8-Mar-97	5.3	N/A	N	mg/kg	5.3	N/A	UJ	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-3C-M	NONE	482018.06	1350924.56	11-Mar-97	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-3C-M-D	NONE	482018.06	1350924.56	11-Mar-97	8.9	N/A		mg/kg	8.9	N/A	-	mg/kg	NAR-3-3C-M
NAR-3	Arsenic	Metals	NAR-3-4C-M	NONE	482083	1350928.16	8-Mar-97	6.6	N/A	N	mg/kg	6.6	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-5C-M	NONE	482129.01	1350928.29	8-Mar-97	10.5	N/A	N	mg/kg	10.5	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-6C-M	NONE	482194.31	1350929.88	8-Mar-97	12.3	N/A	N	mg/kg	12.3	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-7C-M	NONE	482208.96	1350931.25	8-Mar-97	6.9	N/A	N	mg/kg	6.9	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-8C-M	NONE	482283.13	1350925.07	8-Mar-97	5.6	N/A	N	mg/kg	5.6	N/A	UJ	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-9C-M	NONE	482303.08	1350927.56	9-Mar-97	12.9	N/A	N	mg/kg	12.9	N/A	J	mg/kg	
NAR-3	Arsenic	Metals	NAR-3-10C-M	NONE	482394.95	1350933.82	9-Mar-97	12.9	N/A	N	mg/kg	12.9	N/A	J	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-10C-M	NONE	482394.95	1350933.82	9-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-11C-M	NONE	482424.89	1350936.56	9-Mar-97	0.84	N/A		mg/kg	0.84	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-12C-M	NONE	482499.19	1350925.38	11-Mar-97	0.67	N/A		mg/kg	0.67	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-13C-M	NONE	482542.69	1350940.65	11-Mar-97	0.99	N/A		mg/kg	0.99	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-14C-M	NONE	482597.05	1350935.27	11-Mar-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-15C-M	NONE	482629.6	1350949.77	13-Mar-97	1.7	N/A		mg/kg	1.7	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-16C-M	NONE	482677.38	1350946.43	11-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-1C-M	NONE	481901.5	1350911.32	8-Mar-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-2C-M	NONE	481998.34	1350913.08	8-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-3C-M	NONE	482018.06	1350924.56	11-Mar-97	0.98	N/A		mg/kg	0.98	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-3C-M-D	NONE	482018.06	1350924.56	11-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	NAR-3-3C-M
NAR-3	Beryllium	Metals	NAR-3-4C-M	NONE	482083	1350928.16	8-Mar-97	0.51	N/A	B	mg/kg	0.51	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-5C-M	NONE	482129.01	1350928.29	8-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-6C-M	NONE	482194.31	1350929.88	8-Mar-97	1.6	N/A		mg/kg	1.6	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-7C-M	NONE	482208.96	1350931.25	8-Mar-97	0.64	N/A		mg/kg	0.64	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-8C-M	NONE	482283.13	1350925.07	8-Mar-97	0.68	N/A		mg/kg	0.68	N/A	-	mg/kg	
NAR-3	Beryllium	Metals	NAR-3-9C-M	NONE	482303.08	1350927.56	9-Mar-97	0.69	N/A		mg/kg	0.69	N/A	-	mg/kg	
NAR-3	Moisture	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	17	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	16.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	16.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	18.95	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	13.15	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	19.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	20.89	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	12	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	16.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	15.53	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	15.62	N/A	N/A	Percent	0	N/A	N/A	Percent	NAR-3-3C-R
NAR-3	Moisture	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	16.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	14.3	N/A	N/A	Percent	0	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-3	Moisture	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	16.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	20.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Moisture	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	21.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-3	Radium-226	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	1.4	0.15		pCi/g	1.38	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	1.4	0.15		pCi/g	1.37	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	1.1	0.19		pCi/g	1.13	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	1.5	0.28		pCi/g	1.48	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	0.94	0.15		pCi/g	0.94	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	1.4	0.2		pCi/g	1.35	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	1.3	0.19		pCi/g	1.29	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	0.87	0.13		pCi/g	0.87	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	1	0.13		pCi/g	1	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	1.3	0.18		pCi/g	1.28	0	-	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	1.1	0.19		pCi/g	1.14	0	-	pCi/g	NAR-3-3C-R
NAR-3	Radium-226	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	1.3	0.14		pCi/g	1.32	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	1.3	0.16		pCi/g	1.32	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	0.99	0.12		pCi/g	0.99	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	1.2	0.13		pCi/g	1.19	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	1.5	0.17		pCi/g	1.53	0	J	pCi/g	
NAR-3	Radium-226	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	1.6	0.17		pCi/g	1.6	0	J	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	1.5	0.37		pCi/g	1.46	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	1.5	0.37		pCi/g	1.5	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	1.1	0.25		pCi/g	1.1	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	1.2	0.26		pCi/g	1.16	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	0.73	0.21		pCi/g	0.73	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	1.4	0.27		pCi/g	1.36	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	1.4	0.26		pCi/g	1.41	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	0.83	0.23		pCi/g	0.83	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	0.84	0.26		pCi/g	0.84	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	1	0.27		pCi/g	1.05	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	1.2	0.27		pCi/g	1.16	0	-	pCi/g	NAR-3-3C-R
NAR-3	Radium-228	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	1.1	0.32		pCi/g	1.12	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	1.1	0.37		pCi/g	1.1	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	1.1	0.27		pCi/g	1.06	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	0.89	0.26		pCi/g	0.89	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	1.4	0.34		pCi/g	1.4	0	-	pCi/g	
NAR-3	Radium-228	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	1.6	0.43		pCi/g	1.64	0	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	1.5	0.65		pCi/g	1.52	1	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	1.8	0.74		pCi/g	1.77	1	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	0.98	0.25		pCi/g	0.98	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	1.1	0.27		pCi/g	1.11	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-3	Thorium-228	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	0.85	0.23		pCi/g	0.85	0	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	1.1	0.24		pCi/g	1.17	0	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	1.1	0.28		pCi/g	1.14	0	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	1.1	0.45		pCi/g	1.08	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	0.95	0.44		pCi/g	0.95	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	1	0.28		pCi/g	1.01	0	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	1.1	0.28		pCi/g	1.13	0	-	pCi/g	NAR-3-3C-R
NAR-3	Thorium-228	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	1.3	0.5		pCi/g	1.31	1	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	1.1	0.43		pCi/g	1.14	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	1.3	0.49		pCi/g	1.3	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	1.1	0.39		pCi/g	1.06	0	J	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	1.6	0.55		pCi/g	1.62	1	-	pCi/g	
NAR-3	Thorium-228	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	1.6	0.55		pCi/g	1.55	1	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	1.3	0.55		pCi/g	1.29	1	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	1.4	0.59		pCi/g	1.42	1	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	1.1	0.22		pCi/g	1.1	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	0.94	0.21		pCi/g	0.95	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	0.91	0.19		pCi/g	0.92	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	1.3	0.25		pCi/g	1.35	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	1.1	0.23		pCi/g	1.06	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	0.82	0.35		pCi/g	0.82	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	0.7	0.33		pCi/g	0.7	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	0.99	0.22		pCi/g	1	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	1	0.21		pCi/g	1	0	-	pCi/g	NAR-3-3C-R
NAR-3	Thorium-232	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	1	0.4		pCi/g	1.03	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	1.1	0.4		pCi/g	1.06	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	0.94	0.36		pCi/g	0.94	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	0.91	0.34		pCi/g	0.91	0	J	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	1.5	0.5		pCi/g	1.48	0	-	pCi/g	
NAR-3	Thorium-232	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	1.4	0.48		pCi/g	1.35	0	J	pCi/g	
NAR-3	Uranium, Total	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	N/A	N/A	N/A	ug/g	1.81	1	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	N/A	N/A	N/A	ug/g	1.66	1	-	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	N/A	N/A	N/A	ug/g	6.54	4	J	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	N/A	N/A	N/A	ug/g	2.79	4	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	N/A	N/A	N/A	ug/g	2.15	3	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	N/A	N/A	N/A	ug/g	3.59	5	J	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	N/A	N/A	N/A	ug/g	1.81	3	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	N/A	N/A	N/A	ug/g	1.17	1	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	N/A	N/A	N/A	ug/g	2.68	2	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	N/A	N/A	N/A	ug/g	3.15	4	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	N/A	N/A	N/A	ug/g	6.28	4	J	ug/g	NAR-3-3C-R
NAR-3	Uranium, Total	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	N/A	N/A	N/A	ug/g	3.43	2	U	ug/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-3	Uranium, Total	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	N/A	N/A	N/A	ug/g	3.38	2	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	N/A	N/A	N/A	ug/g	2.47	1	-	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	N/A	N/A	N/A	ug/g	3.44	2	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	N/A	N/A	N/A	ug/g	1.21	1	U	ug/g	
NAR-3	Uranium, Total	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	N/A	N/A	N/A	ug/g	3.75	2	U	ug/g	
NAR-3	Uranium-238	Radiological	NAR-3-10C-R	NONE	482394.95	1350933.82	9-Mar-97	0.43	0.36	U	pCi/g	0.6	0	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-11C-R	NONE	482424.89	1350936.56	9-Mar-97	0.55	0.27		pCi/g	0.55	0	-	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-12C-R	NONE	482499.19	1350925.38	11-Mar-97	2.2	1.4		pCi/g	2.18	1	J	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-13C-R	NONE	482542.69	1350940.65	11-Mar-97	0.69	1.3	U	pCi/g	0.93	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-14C-R	NONE	482597.05	1350935.27	11-Mar-97	0.5	1.1	U	pCi/g	0.72	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-15C-R	NONE	482629.6	1350949.77	13-Mar-97	1.2	1.6		pCi/g	1.2	2	J	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-16C-R	NONE	482677.38	1350946.43	11-Mar-97	0.34	0.98	U	pCi/g	0.6	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-1C-R	NONE	481901.5	1350911.32	8-Mar-97	0.23	0.23	U	pCi/g	0.39	0	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-2C-R	NONE	481998.34	1350913.08	8-Mar-97	-0.37	0.52	U	pCi/g	0.89	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-3C-R	NONE	482018.06	1350924.56	11-Mar-97	0.92	1.5	U	pCi/g	1.05	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-3C-R-D	NONE	482018.06	1350924.56	11-Mar-97	2.1	1.2		pCi/g	2.09	1	J	pCi/g	NAR-3-3C-R
NAR-3	Uranium-238	Radiological	NAR-3-4C-R	NONE	482083	1350928.16	8-Mar-97	0.16	0.68	U	pCi/g	1.15	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-5C-R	NONE	482129.01	1350928.29	8-Mar-97	-0.02	0.66	U	pCi/g	1.13	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-6C-R	NONE	482194.31	1350929.88	8-Mar-97	0.83	0.34		pCi/g	0.83	0	-	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-7C-R	NONE	482208.96	1350931.25	8-Mar-97	-0.14	0.68	U	pCi/g	1.15	1	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-8C-R	NONE	482283.13	1350925.07	8-Mar-97	0.23	0.24	U	pCi/g	0.4	0	U	pCi/g	
NAR-3	Uranium-238	Radiological	NAR-3-9C-R	NONE	482303.08	1350927.56	9-Mar-97	0.73	0.75	U	pCi/g	1.25	1	U	pCi/g	
NAR-4	Arsenic	Metals	NAR-4-10C-M	NONE	483888.04	1351625.94	11-Mar-97	4.8	N/A		mg/kg	4.8	N/A	U	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-10C2-M	NONE	483888.04	1351625.94	11-Mar-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-11C-M	NONE	484001.41	1351719	12-Mar-97	19.1	N/A		mg/kg	19.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-11C2-M	NONE	484001.41	1351719	12-Mar-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-12C-M	NONE	484033.83	1351726.34	12-Mar-97	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-12C2-M	NONE	484033.83	1351726.34	12-Mar-97	6.8	N/A		mg/kg	6.8	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-12C3-M	NONE	484033.83	1351726.34	12-Mar-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-13C-M	NONE	484251.01	1351871.1	12-Mar-97	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-13C2-M	NONE	484251.01	1351871.1	12-Mar-97	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-13C3-M	NONE	484251.01	1351871.1	20-Mar-97	6	N/A		mg/kg	6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C-M	NONE	484364.1	1351962.77	12-Mar-97	14.1	N/A		mg/kg	14.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C2-M	NONE	484364.1	1351962.77	12-Mar-97	9.7	N/A		mg/kg	9.7	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C3-M	NONE	484364.1	1351962.77	20-Mar-97	5.1	N/A	•	mg/kg	5.1	N/A	J	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C3-M-D	NONE	484364.1	1351962.77	20-Mar-97	8.8	N/A	•	mg/kg	8.8	N/A	J	mg/kg	NAR-4-14C3-M
NAR-4	Arsenic	Metals	NAR-4-14C4-M	NONE	484364.1	1351962.77	20-Mar-97	6.6	N/A	•	mg/kg	6.6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C5-M	NONE	484364.1	1351962.77	20-Mar-97	6.1	N/A	•	mg/kg	6.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C6-M	NONE	484364.1	1351962.77	20-Mar-97	7.3	N/A	•	mg/kg	7.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C7-M	NONE	484364.1	1351962.77	20-Mar-97	8.4	N/A	•	mg/kg	8.4	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-14C8-M	NONE	484364.1	1351962.77	20-Mar-97	11.6	N/A	•	mg/kg	11.6	N/A	-	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Arsenic	Metals	NAR-4-15C-M	NONE	484455.12	1352022.74	12-Mar-97	9.7	N/A		mg/kg	9.7	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C10-M	NONE	484455.12	1352022.75	20-Mar-97	5.5	N/A	*	mg/kg	5.5	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C11-M	NONE	484455.12	1352022.75	20-Mar-97	3.7	N/A	*	mg/kg	3.7	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C2-M	NONE	484455.12	1352022.75	12-Mar-97	6.3	N/A		mg/kg	6.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C3-M	NONE	484455.12	1352022.75	20-Mar-97	4.3	N/A	*	mg/kg	4.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C4-M	NONE	484455.12	1352022.75	20-Mar-97	3.9	N/A	*	mg/kg	3.9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C5-M	NONE	484455.12	1352022.75	20-Mar-97	3.7	N/A	*	mg/kg	3.7	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C6-M	NONE	484455.12	1352022.75	20-Mar-97	3.3	N/A	*	mg/kg	3.3	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C7-M	NONE	484455.12	1352022.75	20-Mar-97	2.4	N/A	*	mg/kg	2.4	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C8-M	NONE	484455.12	1352022.75	20-Mar-97	4.2	N/A	*	mg/kg	4.2	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-15C9-M	NONE	484455.12	1352022.75	20-Mar-97	3.8	N/A	*	mg/kg	3.8	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C-M	NONE	484528.99	1352072.39	12-Mar-97	7	N/A		mg/kg	7	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C10-M	NONE	484528.99	1352072.39	20-Mar-97	9	N/A		mg/kg	9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C11-M	NONE	484528.99	1352072.39	20-Mar-97	7.4	N/A		mg/kg	7.4	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C2-M	NONE	484528.99	1352072.39	12-Mar-97	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C3-M	NONE	484528.99	1352072.39	20-Mar-97	9	N/A		mg/kg	9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C4-M	NONE	484528.99	1352072.39	20-Mar-97	8.9	N/A		mg/kg	8.9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C5-M	NONE	484528.99	1352072.39	20-Mar-97	10.1	N/A		mg/kg	10.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C6-M	NONE	484528.99	1352072.39	20-Mar-97	9	N/A		mg/kg	9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C7-M	NONE	484528.99	1352072.39	20-Mar-97	5.6	N/A		mg/kg	5.6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C8-M	NONE	484528.99	1352072.39	20-Mar-97	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-16C9-M	NONE	484528.99	1352072.39	20-Mar-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-1C-M	NONE	482790.51	1350966.7	11-Mar-97	12.1	N/A		mg/kg	12.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-2C-M	NONE	482863.19	1351002.28	12-Mar-97	8.9	N/A		mg/kg	8.9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-3C-M	NONE	483002.36	1351049.19	12-Mar-97	9.2	N/A		mg/kg	9.2	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-4C-M	NONE	483181.3	1351160.27	13-Mar-97	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-5C-M	NONE	483244.77	1351205	13-Mar-97	6.9	N/A		mg/kg	6.9	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-6C-M	NONE	483392.56	1351292.92	11-Mar-97	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-7C-M	NONE	483454.22	1351342.8	13-Mar-97	5.1	N/A		mg/kg	5.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-8C-M	NONE	483599.5	1351429.6	11-Mar-97	4.6	N/A		mg/kg	4.6	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-8C2-M	NONE	483599.5	1351429.6	11-Mar-97	8.1	N/A		mg/kg	8.1	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-9C-M	NONE	483704.32	1351514.61	12-Mar-97	12	N/A		mg/kg	12	N/A	-	mg/kg	
NAR-4	Arsenic	Metals	NAR-4-9C-M-D	NONE	483704.32	1351514.61	12-Mar-97	9.7	N/A		mg/kg	9.7	N/A	-	mg/kg	NAR-4-9C-M
NAR-4	Arsenic	Metals	NAR-4-9C2-M	NONE	483704.32	1351514.61	12-Mar-97	11.4	N/A		mg/kg	11.4	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-10C-M	NONE	483888.04	1351625.94	11-Mar-97	0.92	N/A		mg/kg	0.92	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-10C2-M	NONE	483888.04	1351625.94	11-Mar-97	0.61	N/A		mg/kg	0.61	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-11C-M	NONE	484001.41	1351719	12-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-11C2-M	NONE	484001.41	1351719	12-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-12C-M	NONE	484033.83	1351726.34	12-Mar-97	0.77	N/A		mg/kg	0.77	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-12C2-M	NONE	484033.83	1351726.34	12-Mar-97	0.68	N/A		mg/kg	0.68	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-12C3-M	NONE	484033.83	1351726.34	12-Mar-97	0.86	N/A		mg/kg	0.86	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-13C-M	NONE	484251.01	1351871.1	12-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Beryllium	Metals	NAR-4-13C2-M	NONE	484251.01	1351871.1	12-Mar-97	0.64	N/A		mg/kg	0.64	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-13C3-M	NONE	484251.01	1351871.1	20-Mar-97	0.78	N/A		mg/kg	0.78	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C-M	NONE	484364.1	1351962.77	12-Mar-97	1.6	N/A		mg/kg	1.6	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C2-M	NONE	484364.1	1351962.77	12-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C3-M	NONE	484364.1	1351962.77	20-Mar-97	1.7	N/A	•	mg/kg	1.7	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C3-M-D	NONE	484364.1	1351962.77	20-Mar-97	1.1	N/A	•	mg/kg	1.1	N/A	-	mg/kg	NAR-4-14C3-M
NAR-4	Beryllium	Metals	NAR-4-14C4-M	NONE	484364.1	1351962.77	20-Mar-97	0.79	N/A	•	mg/kg	0.79	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C5-M	NONE	484364.1	1351962.77	20-Mar-97	0.84	N/A	•	mg/kg	0.84	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C6-M	NONE	484364.1	1351962.77	20-Mar-97	1.7	N/A	•	mg/kg	1.7	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C7-M	NONE	484364.1	1351962.77	20-Mar-97	1.3	N/A	•	mg/kg	1.3	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-14C8-M	NONE	484364.1	1351962.77	20-Mar-97	1.4	N/A	•	mg/kg	1.4	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C-M	NONE	484455.12	1352022.74	12-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C10-M	NONE	484455.12	1352022.75	20-Mar-97	1	N/A	•	mg/kg	1	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C11-M	NONE	484455.12	1352022.75	20-Mar-97	1.4	N/A	•	mg/kg	1.4	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C2-M	NONE	484455.12	1352022.75	12-Mar-97	0.8	N/A		mg/kg	0.8	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C3-M	NONE	484455.12	1352022.75	20-Mar-97	0.86	N/A	•	mg/kg	0.86	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C4-M	NONE	484455.12	1352022.75	20-Mar-97	0.89	N/A	•	mg/kg	0.89	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C5-M	NONE	484455.12	1352022.75	20-Mar-97	1.1	N/A	•	mg/kg	1.1	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C6-M	NONE	484455.12	1352022.75	20-Mar-97	0.76	N/A	•	mg/kg	0.76	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C7-M	NONE	484455.12	1352022.75	20-Mar-97	0.84	N/A	•	mg/kg	0.84	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C8-M	NONE	484455.12	1352022.75	20-Mar-97	1.2	N/A	•	mg/kg	1.2	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-15C9-M	NONE	484455.12	1352022.75	20-Mar-97	0.89	N/A	•	mg/kg	0.89	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C-M	NONE	484528.99	1352072.39	12-Mar-97	0.6	N/A		mg/kg	0.6	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C10-M	NONE	484528.99	1352072.39	20-Mar-97	0.88	N/A		mg/kg	0.88	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C11-M	NONE	484528.99	1352072.39	20-Mar-97	0.96	N/A		mg/kg	0.96	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C2-M	NONE	484528.99	1352072.39	12-Mar-97	0.83	N/A		mg/kg	0.83	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C3-M	NONE	484528.99	1352072.39	20-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C4-M	NONE	484528.99	1352072.39	20-Mar-97	0.98	N/A		mg/kg	0.98	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C5-M	NONE	484528.99	1352072.39	20-Mar-97	0.8	N/A		mg/kg	0.8	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C6-M	NONE	484528.99	1352072.39	20-Mar-97	0.89	N/A		mg/kg	0.89	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C7-M	NONE	484528.99	1352072.39	20-Mar-97	0.61	N/A		mg/kg	0.61	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C8-M	NONE	484528.99	1352072.39	20-Mar-97	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-16C9-M	NONE	484528.99	1352072.39	20-Mar-97	0.78	N/A		mg/kg	0.78	N/A	U	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-1C-M	NONE	482790.51	1350966.7	11-Mar-97	0.92	N/A		mg/kg	0.92	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-2C-M	NONE	482863.19	1351002.28	12-Mar-97	2.1	N/A		mg/kg	2.1	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-3C-M	NONE	483002.36	1351049.19	12-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-4C-M	NONE	483181.3	1351160.27	13-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-5C-M	NONE	483244.77	1351205	13-Mar-97	0.82	N/A		mg/kg	0.82	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-6C-M	NONE	483392.56	1351292.92	11-Mar-97	0.68	N/A		mg/kg	0.68	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-7C-M	NONE	483454.22	1351342.8	13-Mar-97	0.83	N/A		mg/kg	0.83	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-8C-M	NONE	483599.5	1351429.6	11-Mar-97	0.38	N/A	B	mg/kg	0.38	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-8C2-M	NONE	483599.5	1351429.6	11-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Beryllium	Metals	NAR-4-9C-M	NONE	483704.32	1351514.61	12-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-4	Beryllium	Metals	NAR-4-9C-M-D	NONE	483704.32	1351514.61	12-Mar-97	1.4	N/A		mg/kg	1.4	N/A	-	mg/kg	NAR-4-9C-M
NAR-4	Beryllium	Metals	NAR-4-9C2-M	NONE	483704.32	1351514.61	12-Mar-97	1.6	N/A		mg/kg	1.6	N/A	-	mg/kg	
NAR-4	Moisture	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	16.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	13.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	19	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	17.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	12.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	16.5	N/A	N/A	Percent	16.5	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	16.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	14.3	N/A	N/A	Percent	14.3	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	12	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	12.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	NAR-4-14C3-R
NAR-4	Moisture	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	14	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	14.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	16.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	17.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	17.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	18.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	17	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	16.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	11.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	15.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	14	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	12	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	12.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	13.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	12.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	14.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	14.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	11.93	N/A	N/A	Percent	11.93	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	16.17	N/A	N/A	Percent	16.17	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	13	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	15.06	N/A	N/A	Percent	15.06	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	14.48	N/A	N/A	Percent	14.48	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	14.35	N/A	N/A	Percent	14.35	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	13.82	N/A	N/A	Percent	13.82	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	13.87	N/A	N/A	Percent	13.87	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Moisture	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	11.86	N/A	N/A	Percent	11.86	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	10.91	N/A	N/A	Percent	10.91	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	17.22	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	21.14	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	18.42	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	12.95	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	13.01	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	12.98	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	10.98	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	14.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	12.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	18.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Moisture	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	18.7	N/A	N/A	Percent	0	N/A	N/A	Percent	NAR-4-9C-R
NAR-4	Moisture	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	17.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-4	Radium-226	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	1.1	0.16		pCi/g	1.12	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	1.3	0.17		pCi/g	1.31	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	1.5	0.19		pCi/g	1.49	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	1.2	0.14		pCi/g	1.21	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	1.3	0.16		pCi/g	1.25	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	1.2	0.14		pCi/g	1.19	0	R	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-12C2-R	RE	484033.83	1351726.34	12-Mar-97	0.1	0.12	U	pCi/g	1	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	1.3	0.16		pCi/g	1.41	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	1.3	0.15		pCi/g	1.32	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	0.91	0.16		pCi/g	0.91	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	1.4	0.16		pCi/g	1.39	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	0.91	0.13		pCi/g	0.91	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.18		pCi/g	1.25	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	0.81	0.12		pCi/g	0.81	0	J	pCi/g	NAR-4-14C3-R
NAR-4	Radium-226	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.14		pCi/g	1.15	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	0.95	0.15		pCi/g	0.95	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	1.4	0.16		pCi/g	1.45	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.14		pCi/g	1.26	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.17		pCi/g	1.29	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	1.4	0.19		pCi/g	1.37	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	1.1	0.13		pCi/g	1.08	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	1.4	0.18		pCi/g	1.4	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	1.1	0.12		pCi/g	1.09	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	1.5	0.19		pCi/g	1.46	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.14		pCi/g	1.16	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	0.97	0.14		pCi/g	0.97	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.14		pCi/g	1.03	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Radium-226	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.13		pCi/g	1.02	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	0.88	0.16		pCi/g	0.88	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.17		pCi/g	1.03	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	1.3	0.17		pCi/g	1.34	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	1.2	0.2		pCi/g	1.18	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	1.1	0.19		pCi/g	1.12	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	1.3	0.15		pCi/g	1.29	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.16		pCi/g	1.03	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	1.4	0.21		pCi/g	1.4	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.16		pCi/g	1	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	0.94	0.16		pCi/g	0.94	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.16		pCi/g	1.01	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	0.98	0.21		pCi/g	0.98	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	0.83	0.13		pCi/g	0.83	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	1.4	0.21		pCi/g	1.38	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	1.5	0.23		pCi/g	1.55	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	1.3	0.2		pCi/g	1.3	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	0.97	0.15		pCi/g	0.98	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	0.86	0.15		pCi/g	0.86	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	0.83	0.17		pCi/g	0.83	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	0.76	0.13		pCi/g	0.76	0	-	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	1.3	0.16		pCi/g	1.27	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	1.2	0.14		pCi/g	1.22	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	1.4	0.18		pCi/g	1.41	0	J	pCi/g	
NAR-4	Radium-226	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	1.5	0.18		pCi/g	1.49	0	J	pCi/g	NAR-4-9C-R
NAR-4	Radium-226	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	1.5	0.15		pCi/g	1.49	0	J	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	0.88	0.32		pCi/g	0.88	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	0.97	0.28		pCi/g	0.97	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	1.2	0.32		pCi/g	1.22	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	1	0.29		pCi/g	1.02	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	1.3	0.39		pCi/g	1.27	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	1.2	0.34		pCi/g	1.21	0	R	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-12C2-R	RE	484033.83	1351726.34	12-Mar-97	1	0.28		pCi/g	1.01	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	0.97	0.25		pCi/g	0.97	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	1.2	0.35		pCi/g	1.25	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	1	0.29		pCi/g	1	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	1	0.23		pCi/g	1.04	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	1.3	0.34		pCi/g	1.33	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	0.84	0.23		pCi/g	0.84	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	1.1	0.33		pCi/g	1.06	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	0.74	0.23		pCi/g	0.74	0	-	pCi/g	NAR-4-14C3-R
NAR-4	Radium-228	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	1.1	0.29		pCi/g	1.11	0	-	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Radium-228	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	0.8	0.27		pCi/g	0.8	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	1.4	0.38		pCi/g	1.36	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.33		pCi/g	1.34	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.34		pCi/g	1.18	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	1.4	0.37		pCi/g	1.37	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	1.1	0.29		pCi/g	1.1	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	1.1	0.35		pCi/g	1.13	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	0.95	0.27		pCi/g	0.96	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	1.3	0.35		pCi/g	1.29	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	0.92	0.25		pCi/g	0.92	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	0.66	0.25		pCi/g	0.66	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	0.94	0.27		pCi/g	0.95	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.27		pCi/g	1.02	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	0.81	0.31		pCi/g	0.81	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	1.1	0.3		pCi/g	1.06	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	1.2	0.33		pCi/g	1.23	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.26		pCi/g	1.05	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	0.97	0.26		pCi/g	0.97	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	1	0.33		pCi/g	1.05	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	0.97	0.2		pCi/g	0.97	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.29		pCi/g	1.04	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	1.3	0.28		pCi/g	1.31	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	1	0.23		pCi/g	1.01	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	0.95	0.23		pCi/g	0.95	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	0.99	0.23		pCi/g	0.99	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	0.69	0.18		pCi/g	0.69	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	1.5	0.31		pCi/g	1.49	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	1.2	0.25		pCi/g	1.2	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	1.2	0.27		pCi/g	1.24	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	0.9	0.25		pCi/g	0.9	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	0.61	0.19		pCi/g	0.61	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	1	0.23		pCi/g	1.02	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	0.85	0.17		pCi/g	0.85	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	0.89	0.29		pCi/g	0.89	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	0.88	0.26		pCi/g	0.88	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	1.2	0.35		pCi/g	1.18	0	-	pCi/g	
NAR-4	Radium-228	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	1.3	0.32		pCi/g	1.28	0	-	pCi/g	NAR-4-9C-R
NAR-4	Radium-228	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	1.3	0.34		pCi/g	1.33	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	1.2	0.47		pCi/g	1.24	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	0.85	0.35		pCi/g	0.85	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	1.5	0.56		pCi/g	1.5	1	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	1.4	0.52		pCi/g	1.4	1	J	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Thorium-228	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	1.4	0.55		pCi/g	1.42	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	1.2	0.4		pCi/g	1.2	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	0.92	0.25		pCi/g	0.92	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	1.4	0.51		pCi/g	1.35	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	1.3	0.45		pCi/g	1.26	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	0.85	0.25		pCi/g	0.85	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	1.5	0.57		pCi/g	1.51	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	0.93	0.36		pCi/g	0.93	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.51		pCi/g	1.25	1	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	1.1	0.49		pCi/g	1.13	0	-	pCi/g	NAR-4-14C3-R
NAR-4	Thorium-228	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.45		pCi/g	1.22	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.4		pCi/g	1.16	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.46		pCi/g	1.28	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.49		pCi/g	1.32	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	1.4	0.53		pCi/g	1.41	1	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	1.5	0.56		pCi/g	1.52	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.43		pCi/g	1.2	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	1.7	0.62		pCi/g	1.66	1	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	0.98	0.37		pCi/g	0.98	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	1.3	0.56		pCi/g	1.3	1	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.5		pCi/g	1.21	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.52		pCi/g	1.16	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	1.3	0.49		pCi/g	1.28	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.46		pCi/g	1.21	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	0.97	0.36		pCi/g	0.97	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.41		pCi/g	1.2	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	1.5	0.49		pCi/g	1.46	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	0.71	0.2		pCi/g	0.71	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	1.1	0.25		pCi/g	1.07	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	1.1	0.49		pCi/g	1.15	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	1.2	0.26		pCi/g	1.17	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	0.92	0.29		pCi/g	0.92	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	0.89	0.25		pCi/g	0.89	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	0.83	0.24		pCi/g	0.83	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	0.82	0.24		pCi/g	0.82	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	0.88	0.27		pCi/g	0.88	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	0.9	0.23		pCi/g	0.9	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	1.2	0.24		pCi/g	1.24	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	1.4	0.3		pCi/g	1.43	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	1	0.25		pCi/g	1.07	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	0.77	0.21		pCi/g	0.81	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	0.9	0.2		pCi/g	0.92	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Thorium-228	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	1.4	0.27		pCi/g	1.38	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	0.9	0.22		pCi/g	0.93	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	0.93	0.36		pCi/g	0.93	0	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	0.88	0.38		pCi/g	0.88	0	-	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	1.5	0.56		pCi/g	1.51	1	J	pCi/g	
NAR-4	Thorium-228	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	1.6	0.62		pCi/g	1.6	1	-	pCi/g	NAR-4-9C-R
NAR-4	Thorium-228	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	1.4	0.58		pCi/g	1.39	1	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	1.1	0.42		pCi/g	1.09	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	0.84	0.35		pCi/g	0.84	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	1.2	0.46		pCi/g	1.21	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	1	0.39		pCi/g	1	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	1.1	0.44		pCi/g	1.13	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	0.92	0.32		pCi/g	0.92	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	1	0.23		pCi/g	1.07	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	1.2	0.44		pCi/g	1.16	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	0.85	0.2		pCi/g	0.89	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	1.2	0.46		pCi/g	1.22	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	0.69	0.27		pCi/g	0.69	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.48		pCi/g	1.16	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	0.94	0.41		pCi/g	0.94	0	-	pCi/g	NAR-4-14C3-R
NAR-4	Thorium-232	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	1	0.39		pCi/g	1.03	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	0.95	0.32		pCi/g	0.95	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	1.1	0.4		pCi/g	1.11	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.45		pCi/g	1.21	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	1.2	0.45		pCi/g	1.19	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	1.2	0.45		pCi/g	1.22	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	1.1	0.38		pCi/g	1.06	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.45		pCi/g	1.19	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	0.86	0.33		pCi/g	0.86	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	1.2	0.5		pCi/g	1.18	1	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.42		pCi/g	1	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	0.76	0.35		pCi/g	0.76	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.4		pCi/g	1.03	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	1	0.39		pCi/g	1.01	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	0.84	0.32		pCi/g	0.84	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	0.97	0.33		pCi/g	0.97	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	1.2	0.42		pCi/g	1.23	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	0.85	0.19		pCi/g	0.88	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	0.95	0.21		pCi/g	0.99	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	0.9	0.39		pCi/g	0.9	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	0.9	0.2		pCi/g	0.93	0	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Thorium-232	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	0.94	0.24		pCi/g	0.97	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	0.86	0.2		pCi/g	0.9	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	0.67	0.17		pCi/g	0.7	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	0.82	0.19		pCi/g	0.84	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	0.84	0.21		pCi/g	0.88	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	0.7	0.16		pCi/g	0.74	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	1.1	0.21		pCi/g	1.12	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	1.2	0.24		pCi/g	1.21	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	1.1	0.22		pCi/g	1.13	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	0.81	0.19		pCi/g	0.81	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	0.9	0.18		pCi/g	0.91	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	1.2	0.23		pCi/g	1.19	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	0.77	0.18		pCi/g	0.78	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	0.82	0.32		pCi/g	0.82	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	0.83	0.36		pCi/g	0.83	0	-	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	1.3	0.48		pCi/g	1.27	0	J	pCi/g	
NAR-4	Thorium-232	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	1.3	0.51		pCi/g	1.32	1	-	pCi/g	NAR-4-9C-R
NAR-4	Thorium-232	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	1.3	0.56		pCi/g	1.35	1	-	pCi/g	
NAR-4	Uranium, Total	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	N/A	N/A	N/A	ug/g	3.65	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	N/A	N/A	N/A	ug/g	1.62	1	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	N/A	N/A	N/A	ug/g	1.44	1	-	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	N/A	N/A	N/A	ug/g	1.74	2	R	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-12C2-R	RE	484033.83	1351726.34	12-Mar-97	N/A	N/A	N/A	ug/g	0.95	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	N/A	N/A	N/A	ug/g	2.74	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	N/A	N/A	N/A	ug/g	3.18	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	N/A	N/A	N/A	ug/g	1.65	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	N/A	N/A	N/A	ug/g	1.26	1	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	2.92	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	0.98	1	J	ug/g	NAR-4-14C3-R
NAR-4	Uranium, Total	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	1.53	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	4.07	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	3.23	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	1.98	1	-	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	N/A	N/A	N/A	ug/g	3.81	2	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	2.88	1	-	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	3.43	3	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	N/A	N/A	N/A	ug/g	2.1	1	-	ug/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Uranium, Total	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	2.92	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	1.16	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	3.91	2	-	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	2.21	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	1.65	1	-	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	3.06	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	N/A	N/A	N/A	ug/g	2.18	1	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	3.39	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	4.6	4	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	N/A	N/A	N/A	ug/g	2.67	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	1.72	3	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	3.35	4	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	3.58	5	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	3.46	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	2.54	3	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	2.58	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	N/A	N/A	N/A	ug/g	2.7	3	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	N/A	N/A	N/A	ug/g	2.76	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	N/A	N/A	N/A	ug/g	2.64	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	N/A	N/A	N/A	ug/g	6.28	5	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	N/A	N/A	N/A	ug/g	5.1	4	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	N/A	N/A	N/A	ug/g	6.46	4	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	N/A	N/A	N/A	ug/g	5.22	5	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	N/A	N/A	N/A	ug/g	3.95	2	J	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	N/A	N/A	N/A	ug/g	3.9	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	N/A	N/A	N/A	ug/g	3	2	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	N/A	N/A	N/A	ug/g	3.9	4	U	ug/g	
NAR-4	Uranium, Total	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	N/A	N/A	N/A	ug/g	1.38	1	-	ug/g	NAR-4-9C-R
NAR-4	Uranium, Total	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	N/A	N/A	N/A	ug/g	1.12	1	-	ug/g	
NAR-4	Uranium-238	Radiological	NAR-4-10C-R	NONE	483888.04	1351625.94	12-Mar-97	1.2	0.76		pCi/g	1.22	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-10C2-R	NONE	483888.04	1351625.94	11-Mar-97	0.4	0.64	U	pCi/g	1.07	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-11C-R	NONE	484001.41	1351719	12-Mar-97	0.54	0.31		pCi/g	0.54	0	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-11C2-R	NONE	484001.41	1351719	12-Mar-97	0.48	0.21		pCi/g	0.48	0	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-12C-R	NONE	484033.83	1351726.34	12-Mar-97	1.1	0.72	U	pCi/g	1.16	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-12C2-R	NONE	484033.83	1351726.34	12-Mar-97	0.58	0.75	U	pCi/g	0.58	1	R	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-12C2-R	RE	484033.83	1351726.34	12-Mar-97	0.01	0.19	U	pCi/g	0.32	0	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-12C3-R	NONE	484033.83	1351726.34	12-Mar-97	0.4	1.2	U	pCi/g	0.91	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-13C-R	NONE	484251.01	1351871.1	12-Mar-97	0.95	0.75	U	pCi/g	1.23	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-13C2-R	NONE	484251.01	1351871.1	12-Mar-97	0	0.69	U	pCi/g	1.17	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-13C3-R	NONE	484251.01	1351871.1	12-Mar-97	0.71	1.5	U	pCi/g	1.06	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C-R	NONE	484364.1	1351962.77	12-Mar-97	0.52	0.33	U	pCi/g	0.55	0	U	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Uranium-238	Radiological	NAR-4-14C2-R	NONE	484364.1	1351962.77	12-Mar-97	0.42	0.23		pCi/g	0.42	0	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C3-R	NONE	484364.1	1351962.77	20-Mar-97	0.67	0.59	U	pCi/g	0.97	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C3-R-D	NONE	484364.1	1351962.77	20-Mar-97	0.33	0.17		pCi/g	0.33	0	J	pCi/g	NAR-4-14C3-R
NAR-4	Uranium-238	Radiological	NAR-4-14C4-R	NONE	484364.1	1351962.77	20-Mar-97	0.35	0.31	U	pCi/g	0.51	0	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C5-R	NONE	484364.1	1351962.77	20-Mar-97	1.1	0.83		pCi/g	1.36	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C6-R	NONE	484364.1	1351962.77	20-Mar-97	0.86	0.66	U	pCi/g	1.08	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C7-R	NONE	484364.1	1351962.77	20-Mar-97	0.66	0.25	U	pCi/g	0.66	0	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-14C8-R	NONE	484364.1	1351962.77	20-Mar-97	1.3	0.7		pCi/g	1.27	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C-R	NONE	484455.12	1352022.74	12-Mar-97	1.1	0.6		pCi/g	1.1	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C10-R	NONE	484455.12	1352022.75	20-Mar-97	0.96	0.34		pCi/g	0.96	0	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C11-R	NONE	484455.12	1352022.75	20-Mar-97	0.09	1.1	U	pCi/g	1.15	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C2-R	NONE	484455.12	1352022.75	12-Mar-97	0.7	0.29		pCi/g	0.7	0	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C3-R	NONE	484455.12	1352022.75	20-Mar-97	0.74	0.59	U	pCi/g	0.98	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C4-R	NONE	484455.12	1352022.75	20-Mar-97	0.03	0.36	U	pCi/g	0.39	0	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C5-R	NONE	484455.12	1352022.75	20-Mar-97	1.3	0.61		pCi/g	1.3	1	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C6-R	NONE	484455.12	1352022.75	20-Mar-97	0.5	0.45	U	pCi/g	0.74	0	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C7-R	NONE	484455.12	1352022.75	20-Mar-97	0.55	0.27		pCi/g	0.55	0	-	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C8-R	NONE	484455.12	1352022.75	20-Mar-97	0.75	0.62		pCi/g	1.02	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-15C9-R	NONE	484455.12	1352022.75	20-Mar-97	0.21	0.43		pCi/g	0.73	0	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C-R	NONE	484528.99	1352072.39	12-Mar-97	0.83	0.69	U	pCi/g	1.14	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C10-R	NONE	484528.99	1352072.39	20-Mar-97	0.46	1.4	U	pCi/g	1.13	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C11-R	NONE	484528.99	1352072.39	20-Mar-97	1.5	1.4		pCi/g	1.53	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C2-R	NONE	484528.99	1352072.39	12-Mar-97	-0.04	0.52	U	pCi/g	0.89	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C3-R	NONE	484528.99	1352072.39	20-Mar-97	0.51	0.91	U	pCi/g	0.57	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C4-R	NONE	484528.99	1352072.39	20-Mar-97	1.1	1.4	U	pCi/g	1.12	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C5-R	NONE	484528.99	1352072.39	20-Mar-97	0.43	1.5	U	pCi/g	1.19	2	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C6-R	NONE	484528.99	1352072.39	20-Mar-97	0.06	1.4	U	pCi/g	1.16	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C7-R	NONE	484528.99	1352072.39	20-Mar-97	0.59	0.96	U	pCi/g	0.85	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C8-R	NONE	484528.99	1352072.39	20-Mar-97	0.72	1.2	U	pCi/g	0.86	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-16C9-R	NONE	484528.99	1352072.39	20-Mar-97	0.9	1.1		pCi/g	0.9	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-1C-R	NONE	482790.51	1350966.7	11-Mar-97	0.33	1.2	U	pCi/g	0.92	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-2C-R	NONE	482863.19	1351002.28	12-Mar-97	0.76	1.3	U	pCi/g	0.88	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-3C-R	NONE	483002.36	1351049.19	12-Mar-97	2.1	1.6		pCi/g	2.09	2	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-4C-R	NONE	483181.3	1351160.27	13-Mar-97	1.7	1.3		pCi/g	1.7	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-5C-R	NONE	483244.77	1351205	13-Mar-97	2.2	1.5		pCi/g	2.16	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-6C-R	NONE	483392.56	1351292.92	11-Mar-97	1.7	1.7		pCi/g	1.74	2	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-7C-R	NONE	483454.22	1351342.8	13-Mar-97	1.3	0.74		pCi/g	1.32	1	J	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-8C-R	NONE	483599.5	1351429.6	11-Mar-97	0.89	0.77	U	pCi/g	1.27	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-8C2-R	NONE	483599.5	1351429.6	11-Mar-97	0.08	0.6	U	pCi/g	1.01	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-9C-R	NONE	483704.32	1351514.61	12-Mar-97	1.1	1.2	U	pCi/g	1.25	1	U	pCi/g	
NAR-4	Uranium-238	Radiological	NAR-4-9C-R-D	NONE	483704.32	1351514.61	12-Mar-97	0.46	0.2		pCi/g	0.46	0	-	pCi/g	NAR-4-9C-R
NAR-4	Uranium-238	Radiological	NAR-4-9C2-R	NONE	483704.32	1351514.61	12-Mar-97	0.37	0.19		pCi/g	0.38	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-5	Arsenic	Metals	NAR-5-10C-M	NONE	482398.36	1350957.91	17-Mar-97	14.7	N/A		mg/kg	14.7	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-11C-M	NONE	482410.58	1350949.21	17-Mar-97	12.8	N/A		mg/kg	12.8	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-12C-M	NONE	482492.45	1350955.22	17-Mar-97	11.9	N/A		mg/kg	11.9	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-13C-M	NONE	482512.45	1350955.71	17-Mar-97	12.9	N/A		mg/kg	12.9	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-14C-M	NONE	482557.55	1350959.42	17-Mar-97	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-15C-M	NONE	482627.45	1350967.64	13-Mar-97	10.4	N/A	N	mg/kg	10.4	N/A	J	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-16C-M	NONE	482664.3	1350965.63	19-Mar-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-1C-M	NONE	481905.56	1350943.81	19-Mar-97	4.8	N/A		mg/kg	4.8	N/A	J	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-1C-M-D	NONE	481905.56	1350943.81	19-Mar-97	8	N/A		mg/kg	8	N/A	J	mg/kg	NAR-5-1C-M
NAR-5	Arsenic	Metals	NAR-5-2C-M	NONE	481949.77	1350935.89	19-Mar-97	12.2	N/A		mg/kg	12.2	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-3C-M	NONE	482019.62	1350942.61	19-Mar-97	9.9	N/A		mg/kg	9.9	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-4C-M	NONE	482096.55	1350946.5	19-Mar-97	6.2	N/A		mg/kg	6.2	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-5C-M	NONE	482108.52	1350947.79	19-Mar-97	8.2	N/A		mg/kg	8.2	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-6C-M	NONE	482194.81	1350936.91	19-Mar-97	13.6	N/A		mg/kg	13.6	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-7C-M	NONE	482211.49	1350950.32	19-Mar-97	11.8	N/A		mg/kg	11.8	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-8C-M	NONE	482258.57	1350947.48	19-Mar-97	11.9	N/A		mg/kg	11.9	N/A	-	mg/kg	
NAR-5	Arsenic	Metals	NAR-5-9C-M	NONE	482337.55	1350949.42	17-Mar-97	9.3	N/A		mg/kg	9.3	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-10C-M	NONE	482398.36	1350957.91	17-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-11C-M	NONE	482410.58	1350949.21	17-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-12C-M	NONE	482492.45	1350955.22	17-Mar-97	1.6	N/A		mg/kg	1.6	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-13C-M	NONE	482512.45	1350955.71	17-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-14C-M	NONE	482557.55	1350959.42	17-Mar-97	0.71	N/A		mg/kg	0.71	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-15C-M	NONE	482627.45	1350967.64	13-Mar-97	1.3	N/A		mg/kg	1.3	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-16C-M	NONE	482664.3	1350965.63	19-Mar-97	0.6	N/A	B	mg/kg	0.6	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-1C-M	NONE	481905.56	1350943.81	19-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-1C-M-D	NONE	481905.56	1350943.81	19-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	NAR-5-1C-M
NAR-5	Beryllium	Metals	NAR-5-2C-M	NONE	481949.77	1350935.89	19-Mar-97	1.4	N/A		mg/kg	1.4	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-3C-M	NONE	482019.62	1350942.61	19-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-4C-M	NONE	482096.55	1350946.5	19-Mar-97	0.59	N/A		mg/kg	0.59	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-5C-M	NONE	482108.52	1350947.79	19-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-6C-M	NONE	482194.81	1350936.91	19-Mar-97	0.86	N/A		mg/kg	0.86	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-7C-M	NONE	482211.49	1350950.32	19-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-8C-M	NONE	482258.57	1350947.48	19-Mar-97	0.87	N/A		mg/kg	0.87	N/A	-	mg/kg	
NAR-5	Beryllium	Metals	NAR-5-9C-M	NONE	482337.55	1350949.42	17-Mar-97	0.9	N/A		mg/kg	0.9	N/A	-	mg/kg	
NAR-5	Moisture	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	17.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	19.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	21.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	17.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	18.84	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	19.07	N/A	N/A	Percent	19.07	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-5	Moisture	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	14.95	N/A	N/A	Percent	14.95	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	13.92	N/A	N/A	Percent	13.92	N/A	N/A	Percent	NAR-5-1C-R
NAR-5	Moisture	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	20.21	N/A	N/A	Percent	20.21	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	14.31	N/A	N/A	Percent	14.31	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	12.59	N/A	N/A	Percent	12.59	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	18.62	N/A	N/A	Percent	18.62	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	18.03	N/A	N/A	Percent	18.03	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	19.25	N/A	N/A	Percent	19.25	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	19.72	N/A	N/A	Percent	19.72	N/A	N/A	Percent	
NAR-5	Moisture	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	16.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-5	Radium-226	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	1.6	0.21		pCi/g	1.63	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	1.5	0.17		pCi/g	1.52	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	1.7	0.16		pCi/g	1.72	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	1.6	0.16		pCi/g	1.61	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	1.4	0.15		pCi/g	1.44	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	1.4	0.23		pCi/g	1.43	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	1.3	0.21		pCi/g	1.34	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	0.85	0.14		pCi/g	0.85	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	0.8	0.15		pCi/g	0.8	0	-	pCi/g	NAR-5-1C-R
NAR-5	Radium-226	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	1.5	0.2		pCi/g	1.47	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	0.95	0.16		pCi/g	0.95	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	0.86	0.14		pCi/g	0.86	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	1.2	0.18		pCi/g	1.21	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	1.4	0.2		pCi/g	1.4	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	1.3	0.2		pCi/g	1.33	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	1.5	0.28		pCi/g	1.48	0	-	pCi/g	
NAR-5	Radium-226	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	1.2	0.14		pCi/g	1.17	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	1.5	0.42		pCi/g	1.53	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	1.4	0.35		pCi/g	1.36	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	1.3	0.35		pCi/g	1.32	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	1.5	0.36		pCi/g	1.49	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	1.4	0.35		pCi/g	1.4	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	1.4	0.29		pCi/g	1.4	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	1.3	0.28		pCi/g	1.33	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	0.88	0.23		pCi/g	0.88	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	0.9	0.22		pCi/g	0.9	0	-	pCi/g	NAR-5-1C-R
NAR-5	Radium-228	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	1.2	0.25		pCi/g	1.2	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	0.81	0.21		pCi/g	0.81	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	0.88	0.23		pCi/g	0.88	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	1.1	0.24		pCi/g	1.05	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	1.2	0.25		pCi/g	1.25	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	1.3	0.29		pCi/g	1.34	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-5	Radium-228	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	1.3	0.33		pCi/g	1.28	0	-	pCi/g	
NAR-5	Radium-228	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	1.2	0.31		pCi/g	1.19	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	1.3	0.47		pCi/g	1.25	0	J	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	1.4	0.54		pCi/g	1.4	1	J	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	1.4	0.52		pCi/g	1.39	1	J	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	1.6	0.66		pCi/g	1.56	1	J	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	1.4	0.52		pCi/g	1.4	1	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	1.3	0.24		pCi/g	1.28	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	1.4	0.32		pCi/g	1.45	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	0.78	0.23		pCi/g	0.79	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	0.77	0.23		pCi/g	0.78	0	-	pCi/g	NAR-5-1C-R
NAR-5	Thorium-228	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	1.1	0.25		pCi/g	1.09	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	0.85	0.22		pCi/g	0.85	0	J	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	0.87	0.23		pCi/g	0.87	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	1.2	0.27		pCi/g	1.24	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	1.2	0.28		pCi/g	1.2	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	1.3	0.29		pCi/g	1.28	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	1.2	0.29		pCi/g	1.2	0	-	pCi/g	
NAR-5	Thorium-228	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	1.3	0.49		pCi/g	1.3	0	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	1	0.39		pCi/g	1.04	0	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	1.2	0.45		pCi/g	1.17	0	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	1.1	0.43		pCi/g	1.14	0	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	1.3	0.55		pCi/g	1.31	1	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	1.3	0.48		pCi/g	1.28	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	1.2	0.22		pCi/g	1.2	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	1.3	0.26		pCi/g	1.25	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	0.67	0.17		pCi/g	0.67	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	0.75	0.18		pCi/g	0.75	0	-	pCi/g	NAR-5-1C-R
NAR-5	Thorium-232	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	0.99	0.21		pCi/g	0.99	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	0.79	0.17		pCi/g	0.79	0	J	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	0.89	0.2		pCi/g	0.89	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	1.1	0.23		pCi/g	1.09	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	1.1	0.24		pCi/g	1.09	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	0.94	0.21		pCi/g	0.94	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	1.1	0.23		pCi/g	1.07	0	-	pCi/g	
NAR-5	Thorium-232	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	0.97	0.37		pCi/g	0.97	0	J	pCi/g	
NAR-5	Uranium, Total	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	N/A	N/A	N/A	ug/g	6.01	2	-	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	N/A	N/A	N/A	ug/g	1.45	1	U	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	N/A	N/A	N/A	ug/g	3.33	2	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	N/A	N/A	N/A	ug/g	2.33	1	-	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	N/A	N/A	N/A	ug/g	3.08	1	-	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	N/A	N/A	N/A	ug/g	6.35	5	J	ug/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-5	Uranium, Total	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	N/A	N/A	N/A	ug/g	6.92	5	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	N/A	N/A	N/A	ug/g	4.31	4	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	N/A	N/A	N/A	ug/g	4.03	5	J	ug/g	NAR-5-1C-R
NAR-5	Uranium, Total	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	N/A	N/A	N/A	ug/g	3.87	4	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	N/A	N/A	N/A	ug/g	2.9	3	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	N/A	N/A	N/A	ug/g	2.71	3	U	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	N/A	N/A	N/A	ug/g	5.35	4	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	N/A	N/A	N/A	ug/g	16.65	6	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	N/A	N/A	N/A	ug/g	7.19	6	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	N/A	N/A	N/A	ug/g	11.53	8	J	ug/g	
NAR-5	Uranium, Total	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	N/A	N/A	N/A	ug/g	2.72	1	-	ug/g	
NAR-5	Uranium-238	Radiological	NAR-5-10C-R	NONE	482398.36	1350957.91	17-Mar-97	2	0.79		pCi/g	2.01	1	-	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-11C-R	NONE	482410.58	1350949.21	17-Mar-97	0.45	0.3	U	pCi/g	0.49	0	U	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-12C-R	NONE	482492.45	1350955.22	17-Mar-97	1.1	0.68	U	pCi/g	1.11	1	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-13C-R	NONE	482512.45	1350955.71	17-Mar-97	0.78	0.35		pCi/g	0.78	0	-	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-14C-R	NONE	482557.55	1350959.42	17-Mar-97	1	0.4		pCi/g	1.03	0	-	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-15C-R	NONE	482627.45	1350967.64	13-Mar-97	2.1	1.7		pCi/g	2.12	2	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-16C-R	NONE	482664.3	1350965.63	19-Mar-97	2.3	1.6		pCi/g	2.31	2	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-1C-R	NONE	481905.56	1350943.81	19-Mar-97	1.4	1.3		pCi/g	1.44	1	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-1C-R-D	NONE	481905.56	1350943.81	19-Mar-97	1.3	1.6		pCi/g	1.34	2	J	pCi/g	NAR-5-1C-R
NAR-5	Uranium-238	Radiological	NAR-5-2C-R	NONE	481949.77	1350935.89	19-Mar-97	1.3	1.3		pCi/g	1.29	1	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-3C-R	NONE	482019.62	1350942.61	19-Mar-97	0.97	1.1		pCi/g	0.97	1	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-4C-R	NONE	482096.55	1350946.5	19-Mar-97	0.75	1.2	U	pCi/g	0.9	1	U	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-5C-R	NONE	482108.52	1350947.79	19-Mar-97	1.8	1.2		pCi/g	1.78	1	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-6C-R	NONE	482194.81	1350936.91	19-Mar-97	5.6	2.1		pCi/g	5.55	2	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-7C-R	NONE	482211.49	1350950.32	19-Mar-97	2.4	2		pCi/g	2.4	2	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-8C-R	NONE	482258.57	1350947.48	19-Mar-97	3.8	2.6		pCi/g	3.84	3	J	pCi/g	
NAR-5	Uranium-238	Radiological	NAR-5-9C-R	NONE	482337.55	1350949.42	17-Mar-97	0.91	0.29		pCi/g	0.91	0	-	pCi/g	
NAR-6	Arsenic	Metals	NAR-6-10C-M	NONE	483859.7	1351639.43	25-Mar-97	9.5	N/A		mg/kg	9.5	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-11C-M	NONE	483949.37	1351692.46	12-Mar-97	8.3	N/A	N	mg/kg	8.3	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-12C-M	NONE	484086.81	1351798.09	12-Mar-97	11.3	N/A	N	mg/kg	11.3	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-13C-M	NONE	484216.88	1351873.47	12-Mar-97	10	N/A	N	mg/kg	10	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-14C-M	NONE	484359.62	1351973.02	12-Mar-97	12.2	N/A	N	mg/kg	12.2	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	9.2	N/A		mg/kg	9.2	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	9.3	N/A		mg/kg	9.3	N/A	-	mg/kg	NAR-6-16C-M
NAR-6	Arsenic	Metals	NAR-6-1C-M	NONE	482702.33	1350979.53	19-Mar-97	2.7	N/A	•	mg/kg	2.7	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-2C-M	NONE	482893.38	1351029.09	13-Mar-97	12.6	N/A	N	mg/kg	12.6	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-3C-M	NONE	483013.78	1351075.1	13-Mar-97	4.2	N/A	N	mg/kg	4.2	N/A	UJ	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-4C-M	NONE	483122.71	1351144.09	17-Mar-97	6.1	N/A		mg/kg	6.1	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-5C-M	NONE	483294.77	1351260.94	17-Mar-97	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-6	Arsenic	Metals	NAR-6-6C-M	NONE	483337.96	1351282.73	13-Mar-97	5.4	N/A	N	mg/kg	5.4	N/A	UJ	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-7C-M	NONE	483465.2	1351373.07	17-Mar-97	6	N/A		mg/kg	6	N/A	-	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-8C-M	NONE	483606.32	1351460.69	12-Mar-97	6.7	N/A	N	mg/kg	6.7	N/A	J	mg/kg	
NAR-6	Arsenic	Metals	NAR-6-9C-M	NONE	483695.95	1351520.94	13-Mar-97	11.6	N/A	N	mg/kg	11.6	N/A	J	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-10C-M	NONE	483859.7	1351639.43	25-Mar-97	1.3	N/A		mg/kg	1.3	N/A	U	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-11C-M	NONE	483949.37	1351692.46	12-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-12C-M	NONE	484086.81	1351798.09	12-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-13C-M	NONE	484216.88	1351873.47	12-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-14C-M	NONE	484359.62	1351973.02	12-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	0.82	N/A		mg/kg	0.82	N/A	U	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	0.96	N/A		mg/kg	0.96	N/A	U	mg/kg	NAR-6-16C-M
NAR-6	Beryllium	Metals	NAR-6-1C-M	NONE	482702.33	1350979.53	19-Mar-97	0.97	N/A	•	mg/kg	0.97	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-2C-M	NONE	482893.38	1351029.09	13-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-3C-M	NONE	483013.78	1351075.1	13-Mar-97	0.62	N/A		mg/kg	0.62	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-4C-M	NONE	483122.71	1351144.09	17-Mar-97	0.65	N/A		mg/kg	0.65	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-5C-M	NONE	483294.77	1351260.94	17-Mar-97	0.61	N/A		mg/kg	0.61	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-6C-M	NONE	483337.96	1351282.73	13-Mar-97	0.64	N/A		mg/kg	0.64	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-7C-M	NONE	483465.2	1351373.07	17-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-8C-M	NONE	483606.32	1351460.69	12-Mar-97	0.73	N/A		mg/kg	0.73	N/A	-	mg/kg	
NAR-6	Beryllium	Metals	NAR-6-9C-M	NONE	483695.95	1351520.94	13-Mar-97	1.5	N/A		mg/kg	1.5	N/A	-	mg/kg	
NAR-6	Moisture	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	23.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	19.02	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	17.41	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	18.48	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	14.89	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	16.51	N/A	N/A	Percent	16.51	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	16.37	N/A	N/A	Percent	16.37	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	16.59	N/A	N/A	Percent	16.59	N/A	N/A	Percent	NAR-6-16C-R
NAR-6	Moisture	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	23.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	14.27	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	12.56	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	12.13	N/A	N/A	Percent	12.13	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	14.47	N/A	N/A	Percent	14.47	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	12.96	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	13.68	N/A	N/A	Percent	13.68	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	13.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Moisture	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	14.85	N/A	N/A	Percent	0	N/A	N/A	Percent	
NAR-6	Radium-226	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	1.2	0.17		pCi/g	1.22	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	1.3	0.21		pCi/g	1.31	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	1.2	0.18		pCi/g	1.17	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	1.2	0.18		pCi/g	1.19	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-6	Radium-226	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	0.8	0.17		pCi/g	0.8	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	1.4	0.21		pCi/g	1.36	2	J	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	1	0.17		pCi/g	1.01	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	1.1	0.16		pCi/g	1.06	0	-	pCi/g	NAR-6-16C-R
NAR-6	Radium-226	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	1.5	0.18		pCi/g	1.51	0	J	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	0.89	0.14		pCi/g	0.89	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	0.79	0.13		pCi/g	0.79	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	0.86	0.15		pCi/g	0.86	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	0.74	0.14		pCi/g	0.74	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	0.71	0.15		pCi/g	0.72	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	0.87	0.15		pCi/g	0.87	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	0.79	0.16		pCi/g	0.79	0	-	pCi/g	
NAR-6	Radium-226	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	0.99	0.16		pCi/g	0.99	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	1.2	0.33		pCi/g	1.19	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	1.2	0.28		pCi/g	1.25	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	1.3	0.3		pCi/g	1.32	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	1.2	0.26		pCi/g	1.2	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	0.9	0.24		pCi/g	0.9	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	1.2	0.29		pCi/g	1.25	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	0.96	0.23		pCi/g	0.96	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	0.98	0.2		pCi/g	0.98	0	-	pCi/g	NAR-6-16C-R
NAR-6	Radium-228	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	1.4	0.37		pCi/g	1.36	0	J	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	1	0.2		pCi/g	1.02	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	0.72	0.22		pCi/g	0.72	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	0.89	0.25		pCi/g	0.89	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	0.81	0.2		pCi/g	0.81	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	0.86	0.21		pCi/g	0.86	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	0.89	0.26		pCi/g	0.89	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	0.83	0.2		pCi/g	0.83	0	-	pCi/g	
NAR-6	Radium-228	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	0.94	0.21		pCi/g	0.94	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	1.4	0.53		pCi/g	1.38	1	J	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	1.2	0.25		pCi/g	1.15	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	1.1	0.25		pCi/g	1.14	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	1.4	0.27		pCi/g	1.37	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	0.67	0.18		pCi/g	0.67	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	1.1	0.28		pCi/g	1.06	0	J	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	0.96	0.23		pCi/g	0.96	0	J	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	1.1	0.25		pCi/g	1.05	0	J	pCi/g	NAR-6-16C-R
NAR-6	Thorium-228	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	1.6	0.65		pCi/g	1.56	1	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	0.74	0.2		pCi/g	0.74	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	0.82	0.21		pCi/g	0.82	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	0.63	0.18		pCi/g	0.63	0	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-6	Thorium-228	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	0.85	0.24		pCi/g	0.85	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	0.64	0.2		pCi/g	0.64	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	0.84	0.23		pCi/g	0.85	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	0.85	0.23		pCi/g	0.85	0	-	pCi/g	
NAR-6	Thorium-228	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	0.93	0.23		pCi/g	0.93	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	1.1	0.42		pCi/g	1.1	0	J	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	0.99	0.21		pCi/g	1.02	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	0.91	0.2		pCi/g	0.94	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	1.1	0.22		pCi/g	1.16	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	0.81	0.17		pCi/g	0.84	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	0.81	0.2		pCi/g	0.85	0	J	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	0.84	0.18		pCi/g	0.88	0	J	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	0.98	0.21		pCi/g	1.01	0	J	pCi/g	NAR-6-16C-R
NAR-6	Thorium-232	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	1.2	0.52		pCi/g	1.23	1	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	0.85	0.19		pCi/g	0.88	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	0.67	0.16		pCi/g	0.7	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	0.68	0.15		pCi/g	0.68	0	J	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	0.66	0.17		pCi/g	0.66	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	0.84	0.18		pCi/g	0.87	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	0.95	0.21		pCi/g	0.95	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	0.79	0.18		pCi/g	0.79	0	-	pCi/g	
NAR-6	Thorium-232	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	0.7	0.17		pCi/g	0.74	0	-	pCi/g	
NAR-6	Uranium, Total	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	N/A	N/A	N/A	ug/g	5.02	2	-	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	N/A	N/A	N/A	ug/g	3.71	3	U	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	N/A	N/A	N/A	ug/g	4.68	5	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	N/A	N/A	N/A	ug/g	3.47	4	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	N/A	N/A	N/A	ug/g	3.45	5	U	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	N/A	N/A	N/A	ug/g	8.15	6	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	N/A	N/A	N/A	ug/g	5.25	3	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	N/A	N/A	N/A	ug/g	3.6	3	J	ug/g	NAR-6-16C-R
NAR-6	Uranium, Total	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	N/A	N/A	N/A	ug/g	7.26	2	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	N/A	N/A	N/A	ug/g	3.81	2	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	N/A	N/A	N/A	ug/g	3.09	4	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	N/A	N/A	N/A	ug/g	5.14	4	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	N/A	N/A	N/A	ug/g	4.11	5	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	N/A	N/A	N/A	ug/g	2.94	3	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	N/A	N/A	N/A	ug/g	3.22	4	U	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	N/A	N/A	N/A	ug/g	5.78	5	J	ug/g	
NAR-6	Uranium, Total	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	N/A	N/A	N/A	ug/g	2.72	4	U	ug/g	
NAR-6	Uranium-238	Radiological	NAR-6-10C-R	NONE	483859.7	1351639.43	25-Mar-97	1.7	0.75		pCi/g	1.68	1	-	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-11C-R	NONE	483949.37	1351692.46	12-Mar-97	0	0.98	U	pCi/g	1.24	1	U	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-12C-R	NONE	484086.81	1351798.09	12-Mar-97	1.6	1.5		pCi/g	1.56	2	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-6	Uranium-238	Radiological	NAR-6-13C-R	NONE	484216.88	1351873.47	12-Mar-97	1.2	1.4		pCi/g	1.16	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-14C-R	NONE	484359.62	1351973.02	12-Mar-97	0.83	1.6	U	pCi/g	1.15	2	U	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-15C-R	NONE	484487.4	1352069.74	20-Mar-97	2.7	2.2		pCi/g	2.72	2	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-16C-R	NONE	484508.16	1352080.08	20-Mar-97	1.8	1.2		pCi/g	1.75	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-16C-R-D	NONE	484508.16	1352080.08	20-Mar-97	1.2	0.88		pCi/g	1.2	1	J	pCi/g	NAR-6-16C-R
NAR-6	Uranium-238	Radiological	NAR-6-1C-R	NONE	482702.33	1350979.53	19-Mar-97	2.4	0.8		pCi/g	2.42	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-2C-R	NONE	482893.38	1351029.09	13-Mar-97	1.3	0.7		pCi/g	1.27	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-3C-R	NONE	483013.78	1351075.1	13-Mar-97	1	1.2		pCi/g	1.03	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-4C-R	NONE	483122.71	1351144.09	17-Mar-97	1.7	1.4		pCi/g	1.71	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-5C-R	NONE	483294.77	1351260.94	17-Mar-97	1.4	1.5		pCi/g	1.37	2	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-6C-R	NONE	483337.96	1351282.73	13-Mar-97	0.98	1.1		pCi/g	0.98	1	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-7C-R	NONE	483465.2	1351373.07	17-Mar-97	0.17	1.3	U	pCi/g	1.07	1	U	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-8C-R	NONE	483606.32	1351460.69	12-Mar-97	1.9	1.7		pCi/g	1.93	2	J	pCi/g	
NAR-6	Uranium-238	Radiological	NAR-6-9C-R	NONE	483695.95	1351520.94	13-Mar-97	0.3	1.3	U	pCi/g	0.91	1	U	pCi/g	
O18	Aroclor-1260	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	61	N/A	U	ug/kg	61	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	62	N/A	U	ug/kg	62	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	58	N/A	U	ug/kg	58	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	55	N/A	U	ug/kg	55	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	58	N/A	U	ug/kg	58	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	64	N/A	U	ug/kg	64	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	57	N/A	U	ug/kg	57	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	58	N/A	U	ug/kg	58	N/A	U	ug/kg	
O18	Aroclor-1260	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	61	N/A	U	ug/kg	61	N/A	U	ug/kg	
O18	Arsenic	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	9.1	N/A		mg/kg	9.1	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
O18	Arsenic	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	5.9	N/A		mg/kg	5.9	N/A	-	mg/kg	
O18	Arsenic	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	5.3	N/A	•	mg/kg	5.3	N/A	-	mg/kg	
O18	Beryllium	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	0.69	N/A	B	mg/kg	0.69	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	0.77	N/A	B	mg/kg	0.77	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	0.36	N/A	B	mg/kg	0.36	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	0.77	N/A		mg/kg	0.77	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	0.66	N/A	B	mg/kg	0.66	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	0.68	N/A	B	mg/kg	0.68	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	0.72	N/A	B	mg/kg	0.72	N/A	U	mg/kg	
O18	Beryllium	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	0.81	N/A		mg/kg	0.81	N/A	U	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O18	Beryllium	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	0.73	N/A	B	mg/kg	0.73	N/A	U	mg/kg	
O18	Beryllium	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	0.38	N/A	B	mg/kg	0.38	N/A	U	mg/kg	
O18	Moisture	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	23.36	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	27.35	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	26.75	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	25.98	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	24.19	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	24.02	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	22.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	22.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	21.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	25.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	26	N/A	N/A	Percent	0	N/A	N/A	Percent	O18-00C-7-R
O18	Moisture	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	22.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Moisture	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	25.84	N/A	N/A	Percent	0	N/A	N/A	Percent	
O18	Radium-226	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	1	0.22		pCi/g	1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	1.1	0.19		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	1	0.21		pCi/g	1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	1.1	0.19		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	1.2	0.19		pCi/g	1.2	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	1.2	0.19		pCi/g	1.2	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	O18-00C-7-R
O18	Radium-226	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	1	0.17		pCi/g	1	0	-	pCi/g	
O18	Radium-226	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	1.3	0.29		pCi/g	1.3	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	1.3	0.28		pCi/g	1.3	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	1.5	0.3		pCi/g	1.5	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	1.2	0.24		pCi/g	1.2	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	1.2	0.25		pCi/g	1.2	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	1.3	0.25		pCi/g	1.3	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	1.3	0.27		pCi/g	1.3	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	1.1	0.26		pCi/g	1.1	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	1.1	0.25		pCi/g	1.1	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	1.2	0.29		pCi/g	1.2	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	1.1	0.26		pCi/g	1.1	0	-	pCi/g	O18-00C-7-R
O18	Radium-228	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	1.3	0.29		pCi/g	1.3	0	-	pCi/g	
O18	Radium-228	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	1.1	0.25		pCi/g	1.1.	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	0.95	0.25		pCi/g	1.09	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O18	Thorium-228	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	1.2	0.32		pCi/g	1.27	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	1.4	0.32		pCi/g	1.44	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	0.91	0.28		pCi/g	0.94	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	0.86	0.26		pCi/g	1	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	0.85	0.26		pCi/g	0.99	0	J	pCi/g	
O18	Thorium-228	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	1.4	0.33		pCi/g	1.38	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	1	0.29		pCi/g	1.05	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	1.2	0.31		pCi/g	1.22	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	1.5	0.31		pCi/g	1.47	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	1.2	0.3		pCi/g	1.22	0	-	pCi/g	O18-00C-7-R
O18	Thorium-228	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	1.2	0.34		pCi/g	1.36	0	-	pCi/g	
O18	Thorium-228	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	1.1	0.29		pCi/g	1.08	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	1.1	0.23		pCi/g	1.09	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	1.3	0.27		pCi/g	1.34	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	1.2	0.24		pCi/g	1.2	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	1.1	0.24		pCi/g	1.1	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	1	0.22		pCi/g	1.03	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	0.94	0.21		pCi/g	0.96	0	J	pCi/g	
O18	Thorium-232	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	1.1	0.26		pCi/g	1.14	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	0.95	0.22		pCi/g	1	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	1.2	0.26		pCi/g	1.21	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	1.4	0.26		pCi/g	1.43	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	1.2	0.26		pCi/g	1.25	0	-	pCi/g	O18-00C-7-R
O18	Thorium-232	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	1.2	0.26		pCi/g	1.18	0	-	pCi/g	
O18	Thorium-232	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	1.1	0.25		pCi/g	1.18	0	-	pCi/g	
O18	Uranium, Total	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	N/A	N/A	N/A	ug/g	29.99	9	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	N/A	N/A	N/A	ug/g	32.98	7	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	N/A	N/A	N/A	ug/g	32.98	10	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	N/A	N/A	N/A	ug/g	27.59	7	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	N/A	N/A	N/A	ug/g	26.69	7	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	N/A	N/A	N/A	ug/g	24.89	6	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	N/A	N/A	N/A	ug/g	25.79	8	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	N/A	N/A	N/A	ug/g	24.89	7	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	N/A	N/A	N/A	ug/g	20.99	7	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	N/A	N/A	N/A	ug/g	41.98	10	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	N/A	N/A	N/A	ug/g	38.98	10	-	ug/g	O18-00C-7-R
O18	Uranium, Total	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	N/A	N/A	N/A	ug/g	35.98	10	-	ug/g	
O18	Uranium, Total	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	N/A	N/A	N/A	ug/g	35.98	8	-	ug/g	
O18	Uranium-238	Radiological	O18-00C-1-R	NONE	482792	1349643	19-Feb-97	10	2.9		pCi/g	10	3	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-10-R	NONE	482948	1349963	20-Feb-97	11	2.4		pCi/g	11	2	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-11-R	NONE	482909	1350046	20-Feb-97	11	3.3		pCi/g	11	3	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-14-R	NONE	482947	1350477	20-Feb-97	9.2	2.4		pCi/g	9.2	2	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O18	Uranium-238	Radiological	O18-00C-15-R	NONE	482880	1349523	19-Feb-97	8.9	2.4		pCi/g	8.9	2	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-16-R	NONE	482988	1349538	19-Feb-97	8.3	2		pCi/g	8.3	2	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-3-R	NONE	482772	1350022	19-Feb-97	8.6	2.6		pCi/g	8.6	3	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-5-R	NONE	482783	1350299	20-Feb-97	8.3	2.4		pCi/g	8.3	2	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-6-R	NONE	482797	1350360	20-Feb-97	7	2.4		pCi/g	7	2	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-7-R	NONE	482754	1350531	20-Feb-97	14	3.4		pCi/g	14	3	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-7-R-D	NONE	482754	1350531	20-Feb-97	13	3.2		pCi/g	13	3	-	pCi/g	O18-00C-7-R
O18	Uranium-238	Radiological	O18-00C-8-R	NONE	482977	1349628	19-Feb-97	12	3.2		pCi/g	12	3	-	pCi/g	
O18	Uranium-238	Radiological	O18-00C-9-R	NONE	482969	1349782	19-Feb-97	12	2.7		pCi/g	12	3	-	pCi/g	
O19	Arsenic	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	6.1	N/A		mg/kg	6.1	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	7	N/A		mg/kg	7	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	7.1	N/A		mg/kg	7.1	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	5	N/A		mg/kg	5	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	7.1	N/A		mg/kg	7.1	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	4.9	N/A		mg/kg	4.9	N/A	-	mg/kg	
O19	Arsenic	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	6.2	N/A		mg/kg	6.2	N/A	-	mg/kg	
O19	Beryllium	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	0.74	N/A	B	mg/kg	0.74	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	0.64	N/A	B	mg/kg	0.64	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	0.97	N/A		mg/kg	0.97	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	0.83	N/A	B	mg/kg	0.83	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	0.61	N/A	B	mg/kg	0.61	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	0.77	N/A		mg/kg	0.77	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	0.65	N/A	B	mg/kg	0.65	N/A	U	mg/kg	
O19	Beryllium	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	0.78	N/A		mg/kg	0.78	N/A	U	mg/kg	
O19	Moisture	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	26	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	28.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	35.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-15-R	NONE	483782	1350317	28-Jan-97	29	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-16-R	NONE	483722	1350431	28-Jan-97	25.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	29.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	24.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	23.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	32.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	23.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Moisture	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	28	N/A	N/A	Percent	0	N/A	N/A	Percent	
O19	Radium-226	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	1.02	0.3		pCi/g	1.02	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	0.83	0.21		pCi/g	0.83	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O19	Radium-226	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	1.32	0.3		pCi/g	1.32	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	1.42	0.33		pCi/g	1.42	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-15-R	NONE	483782	1350317	28-Jan-97	1.29	0.35		pCi/g	1.29	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-16-R	NONE	483722	1350431	28-Jan-97	1.37	0.34		pCi/g	1.37	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	1.08	0.28		pCi/g	1.08	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	1.09	0.35		pCi/g	1.09	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	1.15	0.29		pCi/g	1.15	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	0.95	0.28		pCi/g	0.95	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	1.04	0.25		pCi/g	1.04	0	-	pCi/g	
O19	Radium-226	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	1.27	0.28		pCi/g	1.27	0	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	2.05	0.63		pCi/g	2.05	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	0.88	0.48		pCi/g	0.88	0	J	pCi/g	
O19	Radium-228	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	1.51	0.47		pCi/g	1.51	0	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	1	0.64		pCi/g	1	1	J	pCi/g	
O19	Radium-228	Radiological	O19-00C-15-R	NONE	483782	1350317	28-Jan-97	1.65	0.61		pCi/g	1.65	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-16-R	NONE	483722	1350431	28-Jan-97	1.5	0.61		pCi/g	1.5	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	1.28	0.56		pCi/g	1.28	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	1.08	0.59		pCi/g	1.08	1	J	pCi/g	
O19	Radium-228	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	1.08	0.63		pCi/g	1.08	1	J	pCi/g	
O19	Radium-228	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	1.46	0.6		pCi/g	1.46	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	1.33	0.59		pCi/g	1.33	1	-	pCi/g	
O19	Radium-228	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	1.51	0.53		pCi/g	1.15	1	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	1.35	0.11		pCi/g	1.35	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	1.22	0.1		pCi/g	1.22	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	1.42	0.11		pCi/g	1.42	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	1.47	0.11		pCi/g	1.47	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-15-R	RE	483782	1350317	28-Jan-97	1.21	0.09		pCi/g	1.21	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-16-R	RE	483722	1350431	28-Jan-97	1.18	0.09		pCi/g	1.18	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	1.26	0.11		pCi/g	1.26	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	1.16	0.1		pCi/g	1.16	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	1.34	0.1		pCi/g	1.34	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	1.37	0.1		pCi/g	1.37	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	1.36	0.1		pCi/g	1.36	0	-	pCi/g	
O19	Thorium-228	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	1.25	0.1		pCi/g	1.25	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	1.27	0.1		pCi/g	1.27	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	1.15	0.09		pCi/g	1.15	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	1.17	0.1		pCi/g	1.17	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	1.32	0.1		pCi/g	1.32	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-15-R	RE	483782	1350317	28-Jan-97	1.19	0.09		pCi/g	1.19	0	J	pCi/g	
O19	Thorium-232	Radiological	O19-00C-16-R	RE	483722	1350431	28-Jan-97	1.11	0.09		pCi/g	1.11	0	J	pCi/g	
O19	Thorium-232	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	1.17	0.1		pCi/g	1.17	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	1.08	0.09		pCi/g	1.08	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O19	Thorium-232	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	1.18	0.09		pCi/g	1.18	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	1.18	0.09		pCi/g	1.18	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	1.25	0.1		pCi/g	1.25	0	-	pCi/g	
O19	Thorium-232	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	1.11	0.09		pCi/g	1.11	0	-	pCi/g	
O19	Uranium, Total	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	N/A	N/A	N/A	ug/g	33.28	17	J	ug/g	
O19	Uranium, Total	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	N/A	N/A	N/A	ug/g	21.62	10	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	N/A	N/A	N/A	ug/g	35.98	13	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	N/A	N/A	N/A	ug/g	20.09	13	U	ug/g	
O19	Uranium, Total	Radiological	O19-00C-15-R	NONE	483782	1350317	28-Jan-97	N/A	N/A	N/A	ug/g	17.69	11	U	ug/g	
O19	Uranium, Total	Radiological	O19-00C-16-R	NONE	483722	1350431	28-Jan-97	N/A	N/A	N/A	ug/g	28.26	12	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	N/A	N/A	N/A	ug/g	30.89	11	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	N/A	N/A	N/A	ug/g	24.77	11	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	N/A	N/A	N/A	ug/g	17.93	11	J	ug/g	
O19	Uranium, Total	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	N/A	N/A	N/A	ug/g	26.9	10	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	N/A	N/A	N/A	ug/g	24.26	10	-	ug/g	
O19	Uranium, Total	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	N/A	N/A	N/A	ug/g	20.69	8	-	ug/g	
O19	Uranium-238	Radiological	O19-00C-1-R	NONE	483003	1349951	20-Jan-97	11.1	5.7		pCi/g	11.1	6	J	pCi/g	
O19	Uranium-238	Radiological	O19-00C-10-R	NONE	483483	1350025	23-Jan-97	7.21	3.2		pCi/g	7.21	3	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-11-R	NONE	483575	1350329	23-Jan-97	12	4.3		pCi/g	12	4	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-14-R	NONE	483655	1350024	23-Jan-97	6.34	4.3	U	pCi/g	6.7	4	U	pCi/g	
O19	Uranium-238	Radiological	O19-00C-15-R	NONE	483782	1350317	28-Jan-97	5.89	3.8	U	pCi/g	5.9	4	U	pCi/g	
O19	Uranium-238	Radiological	O19-00C-16-R	NONE	483722	1350431	28-Jan-97	9.43	4		pCi/g	9.43	4	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-4-R	NONE	483155	1350463	20-Jan-97	10.3	3.6		pCi/g	10.3	4	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-5-R	NONE	483205	1349940	20-Jan-97	8.26	3.6		pCi/g	8.26	4	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-6-R	NONE	483263	1350015	23-Jan-97	5.98	3.6		pCi/g	5.98	4	J	pCi/g	
O19	Uranium-238	Radiological	O19-00C-7-R	NONE	483367	1350228	20-Jan-97	8.97	3.2		pCi/g	8.97	3	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-8-R	NONE	483348	1350452	20-Jan-97	8.09	3.4		pCi/g	8.09	3	-	pCi/g	
O19	Uranium-238	Radiological	O19-00C-9-R	NONE	483436	1349945	23-Jan-97	6.9	2.8		pCi/g	6.9	3	-	pCi/g	
O20	Arsenic	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	5.9	N/A		mg/kg	5.9	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	6	N/A		mg/kg	6	N/A	-	mg/kg	O20-00C-4-M
O20	Arsenic	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	7.1	N/A		mg/kg	7.1	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	8.2	N/A		mg/kg	8.2	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	8.8	N/A		mg/kg	8.8	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	12	N/A		mg/kg	12	N/A	-	mg/kg	
O20	Arsenic	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	12.1	N/A		mg/kg	12.1	N/A	-	mg/kg	O20-00C-8A-M
O20	Arsenic	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	6.9	N/A		mg/kg	6.9	N/A	-	mg/kg	
O20	Beryllium	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	1.4	N/A		mg/kg	1.4	N/A	-	mg/kg	
O20	Beryllium	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	0.86	N/A		mg/kg	0.86	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O20	Beryllium	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
O20	Beryllium	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
O20	Beryllium	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	0.94	N/A		mg/kg	0.94	N/A	U	mg/kg	O20-00C-4-M
O20	Beryllium	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	0.58	N/A	B	mg/kg	0.58	N/A	U	mg/kg	
O20	Beryllium	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	0.86	N/A		mg/kg	0.86	N/A	U	mg/kg	
O20	Beryllium	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
O20	Beryllium	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
O20	Beryllium	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	O20-00C-8A-M
O20	Beryllium	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	0.91	N/A		mg/kg	0.91	N/A	U	mg/kg	
O20	Moisture	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	27.73	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	31.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	27.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	25.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	29.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	32	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	26.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	26.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	34	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	35.3	N/A	N/A	Percent	0	N/A	N/A	Percent	O20-00C-6-R
O20	Moisture	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	34.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-7B-R	NONE	484091	1349880	27-Jan-97	39.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	23	N/A	N/A	Percent	0	N/A	N/A	Percent	
O20	Moisture	Radiological	O20HS-1-R-13-D	NONE	484092.7	1349877.1	9-Apr-97	19.4	N/A	N/A	Percent	19.4	N/A	N/A	Percent	O20HS-1-R-13
O20	Radium-226	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	0.99	0.18		pCi/g	0.99	0	-	pCi/g	
O20	Radium-226	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	0.76	0.38		pCi/g	0.76	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	1.37	0.38		pCi/g	1.37	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	0.84	0.38		pCi/g	0.84	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	1.09	0.34		pCi/g	1.09	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	0.89	0.35		pCi/g	0.89	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	1.33	0.38		pCi/g	1.33	0	-	pCi/g	
O20	Radium-226	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	1.05	0.46		pCi/g	1.05	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	1.28	0.31		pCi/g	1.28	0	-	pCi/g	
O20	Radium-226	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	1.39	0.31		pCi/g	1.39	0	-	pCi/g	O20-00C-6-R
O20	Radium-226	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	1.16	0.29		pCi/g	1.16	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-7B-R	NONE	484091	1349880	27-Jan-97	1.38	0.32		pCi/g	1.38	0	J	pCi/g	
O20	Radium-226	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	0.59	0.22		pCi/g	0.59	0	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-13-R	NONE	483889.5	1349816.5	23-May-97	1.61	1		pCi/g	1.61	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-14-R	NONE	484023.7	1350044.6	23-May-97	1.15	1		pCi/g	1.15	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-15-R	NONE	483821.1	1349965.9	23-May-97	1.51	1		pCi/g	1.51	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-16-R	NONE	483865.97	1350154.4	23-May-97	1.49	1		pCi/g	1.49	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-17-R	NONE	483816.1	1350265.9	23-May-97	1.49	1		pCi/g	1.49	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-18-R	NONE	483849.58	1350658.9	23-May-97	1.4	1		pCi/g	1.4	1	J	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O20	Radium-228	Radiological	O20-00C-19-R	NONE	483913.2	1350800.9	23-May-97	1.35	1		pCi/g	1.35	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	1.3	0.27		pCi/g	1.27	0	-	pCi/g	
O20	Radium-228	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	1.95	0.88		pCi/g	1.95	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	1.7	0.68		pCi/g	1.7	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	1.7	0.84		pCi/g	1.7	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	2.46	0.85		pCi/g	2.46	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	1.6	0.9		pCi/g	1.6	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	1.51	0.62		pCi/g	1.51	1	-	pCi/g	
O20	Radium-228	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	1.99	0.89		pCi/g	1.99	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	1.89	0.71		pCi/g	1.89	1	-	pCi/g	
O20	Radium-228	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	1.85	0.61		pCi/g	1.85	1	-	pCi/g	O20-00C-6-R
O20	Radium-228	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	1.65	0.56		pCi/g	1.65	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-7B-R	NONE	484091	1349880	27-Jan-97	1.24	0.65		pCi/g	1.24	1	J	pCi/g	
O20	Radium-228	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	0.84	0.52		pCi/g	0.84	1	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	0.77	0.33		pCi/g	0.8	0	-	pCi/g	
O20	Thorium-228	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	1.47	0.11		pCi/g	1.47	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	1.39	0.11		pCi/g	1.39	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	1.45	0.11		pCi/g	1.45	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	1.66	0.12		pCi/g	1.66	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	1.45	0.11		pCi/g	1.45	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	1.45	0.11		pCi/g	1.45	0	-	pCi/g	
O20	Thorium-228	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	1.34	0.11		pCi/g	1.34	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	1.37	0.11		pCi/g	1.37	0	-	pCi/g	
O20	Thorium-228	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	1.47	0.11		pCi/g	1.47	0	-	pCi/g	O20-00C-6-R
O20	Thorium-228	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	1.2	0.1		pCi/g	1.2	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-7B-R	RE	484091	1349880	27-Jan-97	1.08	0.09		pCi/g	1.08	0	J	pCi/g	
O20	Thorium-228	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	1.16	0.1		pCi/g	1.16	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	0.94	0.28		pCi/g	0.98	0	-	pCi/g	
O20	Thorium-232	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	1.45	0.11		pCi/g	1.45	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	1.4	0.11		pCi/g	1.4	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	1.15	0.09		pCi/g	1.15	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	1.61	0.12		pCi/g	1.61	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	1.39	0.11		pCi/g	1.39	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	1.33	0.11		pCi/g	1.33	0	-	pCi/g	
O20	Thorium-232	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	1.34	0.1		pCi/g	1.34	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	1.32	0.1		pCi/g	1.32	0	-	pCi/g	
O20	Thorium-232	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	1.22	0.09		pCi/g	1.22	0	-	pCi/g	O20-00C-6-R
O20	Thorium-232	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	1.11	0.09		pCi/g	1.11	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-7B-R	RE	484091	1349880	27-Jan-97	1.04	0.08		pCi/g	1.04	0	J	pCi/g	
O20	Thorium-232	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	1.22	0.1		pCi/g	1.22	0	J	pCi/g	
O20	Uranium, Total	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	N/A	N/A	N/A	ug/g	21.98	7	-	ug/g	
O20	Uranium, Total	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	N/A	N/A	N/A	ug/g	38.38	14	J	ug/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O20	Uranium, Total	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	N/A	N/A	N/A	ug/g	21.29	13	UJ	ug/g	
O20	Uranium, Total	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	N/A	N/A	N/A	ug/g	22.79	14	UJ	ug/g	
O20	Uranium, Total	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	N/A	N/A	N/A	ug/g	52.77	18	J	ug/g	
O20	Uranium, Total	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	N/A	N/A	N/A	ug/g	47.38	15	J	ug/g	
O20	Uranium, Total	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	N/A	N/A	N/A	ug/g	13.79	9	U	ug/g	
O20	Uranium, Total	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	N/A	N/A	N/A	ug/g	32.38	15	J	ug/g	
O20	Uranium, Total	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	N/A	N/A	N/A	ug/g	29.6	12	-	ug/g	
O20	Uranium, Total	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	N/A	N/A	N/A	ug/g	28.25	14	-	ug/g	O20-00C-6-R
O20	Uranium, Total	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	N/A	N/A	N/A	ug/g	17.09	11	UJ	ug/g	
O20	Uranium, Total	Radiological	O20-00C-7B-R	NONE	484091	1349880	27-Jan-97	N/A	N/A	N/A	ug/g	205.4	23	J	ug/g	
O20	Uranium, Total	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	N/A	N/A	N/A	ug/g	12.29	8	UJ	ug/g	
O20	Uranium, Total	Radiological	O20HS-1-R-13	NONE	484092.7	1349877.1	9-Apr-97	N/A	N/A	N/A	ug/g	12.81	2	-	ug/g	
O20	Uranium-238	Radiological	O20-00C-1-R	NONE	483998	1349867	21-Feb-97	7.3	2.5		pCi/g	7.33	2	-	pCi/g	
O20	Uranium-238	Radiological	O20-00C-10-R	NONE	484006	1350453	27-Jan-97	12.8	4.6		pCi/g	12.8	5	J	pCi/g	
O20	Uranium-238	Radiological	O20-00C-12A-R	NONE	484089	1350947	27-Jan-97	4.57	4.5		pCi/g	7.1	5	UJ	pCi/g	
O20	Uranium-238	Radiological	O20-00C-12B-R	NONE	484068	1350812	27-Jan-97	3.12	4.8	U	pCi/g	7.6	5	UJ	pCi/g	
O20	Uranium-238	Radiological	O20-00C-2-R	NONE	483925	1350171	27-Jan-97	17.6	6		pCi/g	17.6	6	J	pCi/g	
O20	Uranium-238	Radiological	O20-00C-3-R	NONE	483953	1350267	27-Jan-97	15.8	4.9		pCi/g	15.8	5	J	pCi/g	
O20	Uranium-238	Radiological	O20-00C-4-R	NONE	483817	1350537	23-Jan-97	3.04	3	U	pCi/g	4.6	3	U	pCi/g	
O20	Uranium-238	Radiological	O20-00C-5-R	NONE	483985	1350674	27-Jan-97	10.8	5		pCi/g	10.8	5	J	pCi/g	
O20	Uranium-238	Radiological	O20-00C-6-R	NONE	483878	1350916	23-Jan-97	9.87	4		pCi/g	9.87	4	-	pCi/g	
O20	Uranium-238	Radiological	O20-00C-6-R-D	NONE	483878	1350916	23-Jan-97	9.42	4.6		pCi/g	9.42	5	-	pCi/g	O20-00C-6-R
O20	Uranium-238	Radiological	O20-00C-7A-R	NONE	484007	1349837	27-Jan-97	5.4	3.7	U	pCi/g	5.7	4	UJ	pCi/g	
O20	Uranium-238	Radiological	O20-00C-7B-R	NONE	484091	1349880	27-Jan-97	68.5	7.8		pCi/g	68.5	8	J	pCi/g	
O20	Uranium-238	Radiological	O20-00C-9-R	NONE	484029	1350321	27-Jan-97	1.17	2.6	U	pCi/g	4.1	3	UJ	pCi/g	
P17-22	Arsenic	Metals	P17-22C2-M-1	NONE	481565.63	1351332.6	24-Mar-97	12.7	N/A	N	mg/kg	12.7	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-10	NONE	481692.7	1351373.7	24-Mar-97	7.7	N/A	N	mg/kg	7.7	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-11	NONE	481703.26	1351376.3	24-Mar-97	7.5	N/A	N	mg/kg	7.5	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-11-D	NONE	481703.26	1351376.3	24-Mar-97	7.3	N/A	N	mg/kg	7.3	N/A	J	mg/kg	P17-22C2-M-11
P17-22	Arsenic	Metals	P17-22C2-M-2	NONE	481541.7	1351333.8	24-Mar-97	8.6	N/A	N	mg/kg	8.6	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-3	NONE	481438.69	1351345.5	24-Mar-97	10.4	N/A	N	mg/kg	10.4	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-4	NONE	481569.81	1351365.5	24-Mar-97	7.8	N/A	N	mg/kg	7.8	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-5	NONE	481400.55	1351368.2	24-Mar-97	7.7	N/A	N	mg/kg	7.7	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-6	NONE	481464.29	1351374.9	24-Mar-97	9	N/A	N	mg/kg	9	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-7	NONE	481255.76	1351377.6	24-Mar-97	10.1	N/A	N	mg/kg	10.1	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-8	NONE	481346.64	1351377.3	24-Mar-97	6.7	N/A	N	mg/kg	6.7	N/A	J	mg/kg	
P17-22	Arsenic	Metals	P17-22C2-M-9	NONE	481380.87	1351382.2	24-Mar-97	9.3	N/A	N	mg/kg	9.3	N/A	J	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-1	NONE	481565.63	1351332.6	24-Mar-97	1.4	N/A		mg/kg	1.4	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-10	NONE	481692.7	1351373.7	24-Mar-97	0.84	N/A		mg/kg	0.84	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-11	NONE	481703.26	1351376.3	24-Mar-97	0.8	N/A		mg/kg	0.8	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-11-D	NONE	481703.26	1351376.3	24-Mar-97	0.83	N/A		mg/kg	0.83	N/A	U	mg/kg	P17-22C2-M-11

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-22	Beryllium	Metals	P17-22C2-M-2	NONE	481541.7	1351333.8	24-Mar-97	0.83	N/A		mg/kg	0.83	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-3	NONE	481438.69	1351345.5	24-Mar-97	1.2	N/A		mg/kg	1.2	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-4	NONE	481569.81	1351365.5	24-Mar-97	0.65	N/A		mg/kg	0.65	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-5	NONE	481400.55	1351368.2	24-Mar-97	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-6	NONE	481464.29	1351374.9	24-Mar-97	1.2	N/A		mg/kg	1.2	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-7	NONE	481255.76	1351377.6	24-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-8	NONE	481346.64	1351377.3	24-Mar-97	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
P17-22	Beryllium	Metals	P17-22C2-M-9	NONE	481380.87	1351382.2	24-Mar-97	0.88	N/A		mg/kg	0.88	N/A	U	mg/kg	
P17-22	Moisture	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	18.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-22C2-R-1
P17-22	Moisture	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	16.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	17.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	22	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	23.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	22.3	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-22C2-R-13
P17-22	Moisture	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	18.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	16.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	15.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	16.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	19.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Moisture	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-22	Radium-226	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	1.4	0.2		pCi/g	1.37	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	1.5	0.15		pCi/g	1.52	0	-	pCi/g	P17-22C2-R-1
P17-22	Radium-226	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	1.4	0.15		pCi/g	1.45	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	1.5	0.61		pCi/g	1.06	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	1.3	0.18		pCi/g	1.31	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	1.1	0.15		pCi/g	1.13	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	1.3	0.2		pCi/g	1.33	0	-	pCi/g	P17-22C2-R-13
P17-22	Radium-226	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	1.3	0.14		pCi/g	1.33	0	J	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-2	RE	481523.79	1351333.2	24-Mar-97	1.3	0.14		pCi/g	1.33	0	J	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	1.4	0.19		pCi/g	1.36	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	1.4	0.18		pCi/g	1.43	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	1.2	0.34		pCi/g	1.19	0	J	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-5	RE	481351.74	1351365.3	24-Mar-97	1.2	0.16		pCi/g	1.19	0	J	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	1.4	0.16		pCi/g	1.39	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	1.3	0.14		pCi/g	1.3	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	1.6	0.18		pCi/g	1.62	0	-	pCi/g	
P17-22	Radium-226	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	1.4	0.18		pCi/g	1.44	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	1.4	0.34		pCi/g	1.4	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	1.9	0.47		pCi/g	1.89	0	-	pCi/g	P17-22C2-R-1

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-22	Radium-228	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	1.4	0.34		pCi/g	1.41	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	1.2	0.33		pCi/g	1.16	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	1.3	0.33		pCi/g	1.26	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	1.1	0.32		pCi/g	1.06	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	1.1	0.33		pCi/g	1.13	0	-	pCi/g	P17-22C2-R-13
P17-22	Radium-228	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	1.3	0.34		pCi/g	1.31	0	J	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-2	RE	481523.79	1351333.2	24-Mar-97	1.3	0.34		pCi/g	1.31	0	J	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	1.2	0.34		pCi/g	1.23	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	1.5	0.4		pCi/g	1.51	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	1.2	0.19		pCi/g	1.15	0	J	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-5	RE	481351.74	1351365.3	24-Mar-97	1.2	0.34		pCi/g	1.15	0	J	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	1.4	0.37		pCi/g	1.41	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	1.1	0.45		pCi/g	1.36	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	1.4	0.38		pCi/g	1.43	0	-	pCi/g	
P17-22	Radium-228	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	1.4	0.36		pCi/g	1.36	0	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	1.4	0.48		pCi/g	1.43	0	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	1.4	0.48		pCi/g	1.36	0	-	pCi/g	P17-22C2-R-1
P17-22	Thorium-228	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	1.4	0.53		pCi/g	1.4	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	1.3	0.5		pCi/g	1.33	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	1.3	0.57		pCi/g	1.35	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	1.4	0.59		pCi/g	1.41	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	1.4	0.61		pCi/g	1.36	1	J	pCi/g	P17-22C2-R-13
P17-22	Thorium-228	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	1.3	0.5		pCi/g	1.34	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	1.2	0.46		pCi/g	1.24	0	J	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	1.3	0.56		pCi/g	1.32	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	1.6	0.65		pCi/g	1.57	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	1.5	0.67		pCi/g	1.49	1	J	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	1.3	0.52		pCi/g	1.29	1	-	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	1.6	0.59		pCi/g	1.57	1	J	pCi/g	
P17-22	Thorium-228	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	1.5	0.56		pCi/g	1.49	1	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	1.3	0.45		pCi/g	1.34	0	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	1.1	0.41		pCi/g	1.13	0	-	pCi/g	P17-22C2-R-1
P17-22	Thorium-232	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	1.3	0.48		pCi/g	1.26	0	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	1.2	0.46		pCi/g	1.23	0	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	1.2	0.51		pCi/g	1.2	1	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	1.2	0.5		pCi/g	1.19	1	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	1.2	0.55		pCi/g	1.23	1	J	pCi/g	P17-22C2-R-13
P17-22	Thorium-232	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	1.2	0.47		pCi/g	1.25	0	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	1.2	0.45		pCi/g	1.2	0	J	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	1.4	0.58		pCi/g	1.37	1	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	1.2	0.51		pCi/g	1.22	1	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	1.1	0.48		pCi/g	1.07	0	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-22	Thorium-232	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	1.2	0.49		pCi/g	1.21	0	-	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	1.3	0.51		pCi/g	1.34	1	J	pCi/g	
P17-22	Thorium-232	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	1.2	0.45		pCi/g	1.19	0	-	pCi/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	N/A	N/A	N/A	ug/g	1.71	1	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	N/A	N/A	N/A	ug/g	5.75	3	-	ug/g	P17-22C2-R-1
P17-22	Uranium, Total	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	N/A	N/A	N/A	ug/g	2.97	1	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	N/A	N/A	N/A	ug/g	7.38	2	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	N/A	N/A	N/A	ug/g	18.44	3	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	N/A	N/A	N/A	ug/g	25.64	4	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	N/A	N/A	N/A	ug/g	19.64	4	-	ug/g	P17-22C2-R-13
P17-22	Uranium, Total	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	N/A	N/A	N/A	ug/g	1.56	1	J	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-2	RE	481523.79	1351333.2	24-Mar-97	N/A	N/A	N/A	ug/g	1.56	1	J	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	N/A	N/A	N/A	ug/g	9.96	2	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	N/A	N/A	N/A	ug/g	9.48	2	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	N/A	N/A	N/A	ug/g	12.02	3	J	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-5	RE	481351.74	1351365.3	24-Mar-97	N/A	N/A	N/A	ug/g	12.02	3	J	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	N/A	N/A	N/A	ug/g	17.42	3	-	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	N/A	N/A	N/A	ug/g	1.49	1	J	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	N/A	N/A	N/A	ug/g	4.11	3	U	ug/g	
P17-22	Uranium, Total	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	N/A	N/A	N/A	ug/g	14.06	3	-	ug/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-1	NONE	481569.86	1351328.7	24-Mar-97	0.57	0.23		pCi/g	0.57	0	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-1-D	NONE	481569.86	1351328.7	24-Mar-97	1.9	0.86		pCi/g	1.92	1	-	pCi/g	P17-22C2-R-1
P17-22	Uranium-238	Radiological	P17-22C2-R-10	NONE	481469.69	1351392.8	24-Mar-97	0.99	0.48		pCi/g	0.99	0	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-11	NONE	481599.7	1351397.3	24-Mar-97	2.5	0.83		pCi/g	2.46	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-12	NONE	481625.84	1351355.4	24-Mar-97	6.2	1.1		pCi/g	6.15	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-13	NONE	481702.5	1351368.4	24-Mar-97	8.6	1.5		pCi/g	8.55	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-13-D	NONE	481702.5	1351368.4	24-Mar-97	6.6	1.2		pCi/g	6.55	1	-	pCi/g	P17-22C2-R-13
P17-22	Uranium-238	Radiological	P17-22C2-R-2	NONE	481523.79	1351333.2	24-Mar-97	0.52	0.24		pCi/g	0.52	0	J	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-2	RE	481523.79	1351333.2	24-Mar-97	0.52	0.24		pCi/g	0.52	0	J	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-3	NONE	481477.66	1351338.9	24-Mar-97	3.3	0.82		pCi/g	3.32	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-4	NONE	481402.76	1351342.1	24-Mar-97	3.2	0.82		pCi/g	3.16	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-5	NONE	481351.74	1351365.3	24-Mar-97	4	0.87		pCi/g	4.01	1	J	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-5	RE	481351.74	1351365.3	24-Mar-97	4	0.89		pCi/g	4.01	1	J	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-6	NONE	481331.39	1351374.8	24-Mar-97	5.8	1.1		pCi/g	5.81	1	-	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-7	NONE	481444.59	1351375	24-Mar-97	0.5	0.3		pCi/g	0.5	0	J	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-8	NONE	481229.54	1351388.5	24-Mar-97	1.2	0.84	U	pCi/g	1.37	1	U	pCi/g	
P17-22	Uranium-238	Radiological	P17-22C2-R-9	NONE	481453.87	1351390.3	24-Mar-97	4.7	0.95		pCi/g	4.69	1	-	pCi/g	
P17-31	Aroclor-1260	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	44	N/A	U	ug/kg	44	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	45	N/A	U	ug/kg	45	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	45	N/A	U	ug/kg	45	N/A	U	ug/kg	P17-31C-644907
P17-31	Aroclor-1260	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	45	N/A	U	ug/kg	45	N/A	U	ug/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Aroclor-1260	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	48	N/A	U	ug/kg	48	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	50	N/A	U	ug/kg	50	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	47	N/A	U	ug/kg	47	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	46	N/A	U	ug/kg	46	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	46	N/A	U	ug/kg	46	N/A	U	ug/kg	
P17-31	Aroclor-1260	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
P17-31	Arsenic	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	5.3	N/A		mg/kg	5.3	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	5.5	N/A		mg/kg	5.5	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	3.4	N/A		mg/kg	3.4	N/A	J	mg/kg	P17-31C-644907
P17-31	Arsenic	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	4.5	N/A		mg/kg	4.5	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	6.2	N/A		mg/kg	6.2	N/A	-	mg/kg	
P17-31	Arsenic	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	10.8	N/A		mg/kg	10.8	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	6.5	N/A		mg/kg	6.5	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
P17-31	Arsenic	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	7.3	N/A		mg/kg	7.3	N/A	J	mg/kg	
P17-31	Arsenic	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
P17-31	Arsenic	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	7	N/A		mg/kg	7	N/A	J	mg/kg	
P17-31	Beryllium	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	0.45	N/A	B	mg/kg	0.45	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	0.26	N/A	B	mg/kg	0.26	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	0.22	N/A	B	mg/kg	0.22	N/A	U	mg/kg	P17-31C-644907
P17-31	Beryllium	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	0.35	N/A	B	mg/kg	0.35	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	0.61	N/A		mg/kg	0.61	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	0.76	N/A		mg/kg	0.76	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	0.5	N/A	B	mg/kg	0.5	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	0.65	N/A		mg/kg	0.65	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	0.7	N/A		mg/kg	0.7	N/A	U	mg/kg	
P17-31	Beryllium	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	0.49	N/A	B	mg/kg	0.49	N/A	U	mg/kg	
P17-31	Moisture	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	13	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	17.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	17.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	13.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	15.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	14.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	11.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	11	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	16.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	13.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Moisture	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	21	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-31	Radium-226	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	0.9	0.14		pCi/g	0.9	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	0.95	0.11		pCi/g	0.95	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Radium-226	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	1.6	0.09		pCi/g	1.6	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	1.5	0.17		pCi/g	1.5	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	1.5	0.19		pCi/g	1.5	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	1.2	0.16		pCi/g	1.2	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	0.85	0.11		pCi/g	0.85	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	1	0.15		pCi/g	1	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	1.4	0.13		pCi/g	1.4	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	1.6	0.16		pCi/g	1.6	0	-	pCi/g	
P17-31	Radium-226	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	1.6	0.17		pCi/g	1.6	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	1.1	0.21		pCi/g	1.08	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	0.94	0.27		pCi/g	0.94	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	1.4	0.41		pCi/g	1.4	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	1.3	0.33		pCi/g	1.3	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	1.1	0.36		pCi/g	1.1	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	0.98	0.28		pCi/g	0.98	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	1.2	0.36		pCi/g	1.2	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	0.91	0.25		pCi/g	0.91	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	0.91	0.3		pCi/g	0.91	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	1.3	0.32		pCi/g	1.3	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	1.6	0.44		pCi/g	1.6	0	-	pCi/g	
P17-31	Radium-228	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	1.2	0.29		pCi/g	1.44	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	1	0.45		pCi/g	1	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	1.2	0.51		pCi/L	1.2	1	-	pCi/L	
P17-31	Thorium-228	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	1.2	0.45		pCi/g	1.2	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	1.1	0.43		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	1.1	0.51		pCi/g	1.1	1	J	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	1.1	0.43		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	0.75	0.31		pCi/g	0.75	0	J	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	0.74	0.3		pCi/g	0.74	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	1.1	0.46		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	1.2	0.45		pCi/g	1.2	0	-	pCi/g	
P17-31	Thorium-228	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	1.4	0.54		pCi/g	1.4	1	J	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	1.2	0.23		pCi/g	1.18	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	0.83	0.37		pCi/g	0.83	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	1.3	0.57		pCi/L	1.3	1	-	pCi/L	
P17-31	Thorium-232	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	1.1	0.39		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	1.1	0.41		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	1	0.46		pCi/g	1	0	J	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	1.1	0.42		pCi/g	1.1	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	0.8	0.32		pCi/g	0.8	0	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Thorium-232	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	0.75	0.29		pCi/g	0.75	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	1.4	0.03		pCi/g	1	0	J	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
P17-31	Thorium-232	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	1.3	0.49		pCi/g	1.3	0	J	pCi/g	
P17-31	Uranium, Total	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	N/A	N/A	N/A	ug/g	25	6	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	N/A	N/A	N/A	ug/g	10.8	3	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	N/A	N/A	N/A	ug/g	4.5	3	J	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	N/A	N/A	N/A	ug/g	9	2	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	N/A	N/A	N/A	ug/g	7.2	3	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	N/A	N/A	N/A	ug/g	12.29	3	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	N/A	N/A	N/A	ug/g	13.79	3	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	N/A	N/A	N/A	ug/g	7.2	2	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	N/A	N/A	N/A	ug/g	6.3	3	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	N/A	N/A	N/A	ug/g	5.1	2	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	N/A	N/A	N/A	ug/g	5.7	2	-	ug/g	
P17-31	Uranium, Total	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	N/A	N/A	N/A	ug/g	3	2	J	ug/g	
P17-31	Uranium-238	Radiological	P17-31C-617931	NONE	481931.69	1350617.54	10-Dec-96	8.3	2		pCi/g	8.34	2	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-629859	NONE	481859.55	1350629.41	10-Dec-96	3.6	0.89		pCi/g	3.6	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-671888	NONE	481888.56	1350671.64	10-Dec-96	1.5	0.89		pCi/g	1.5	1	J	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-686817	NONE	481817.96	1350686.5	10-Dec-96	3	0.78		pCi/g	3	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-712816	NONE	481816.84	1350712.41	10-Dec-96	2.4	0.87		pCi/g	2.4	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-717890	NONE	481890.68	1350717.61	10-Dec-96	4.1	0.93		pCi/g	4.1	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-725916	NONE	481916.9	1350725.43	10-Dec-96	4.6	0.96		pCi/g	4.6	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-741994	NONE	481994.72	1350741.53	10-Dec-96	2.4	0.59		pCi/g	2.4	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-769970	NONE	481970.46	1350769.37	10-Dec-96	2.1	0.87		pCi/g	2.1	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-784863	NONE	481863.88	1350784.3	10-Dec-96	1.7	0.74		pCi/g	1.7	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-791838	NONE	481838.71	1350791.6	10-Dec-96	1.9	0.67		pCi/g	1.9	1	-	pCi/g	
P17-31	Uranium-238	Radiological	P17-31C-795925	NONE	481925.63	1350795.47	10-Dec-96	1	0.56		pCi/g	1	1	J	pCi/g	
P17-32	Arsenic	Metals	P17-32INV2-M-10	NONE	481799	1350888	23-Apr-97	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-11	NONE	481859	1350819	22-Apr-97	7.7	N/A		mg/kg	7.7	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-12	NONE	481877	1350841	22-Apr-97	11	N/A		mg/kg	11	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-13	NONE	481857	1350851	22-Apr-97	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-14	NONE	481868	1350885	23-Apr-97	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-15	NONE	481910	1350804	22-Apr-97	5	N/A		mg/kg	5	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-15-	NONE	481910	1350804	22-Apr-97	4.5	N/A		mg/kg	4.5	N/A	-	mg/kg	P17-32INV2-M-15
P17-32	Arsenic	Metals	P17-32INV2-M-16	NONE	481922	1350838	22-Apr-97	11	N/A		mg/kg	11	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-17	NONE	481887	1350855	22-Apr-97	10.5	N/A		mg/kg	10.5	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-18	NONE	481922	1350871	22-Apr-97	12	N/A		mg/kg	12	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-19	NONE	481984	1350818	22-Apr-97	6.5	N/A		mg/kg	6.5	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-20	NONE	481998	1350839	22-Apr-97	7	N/A		mg/kg	7	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-21	NONE	481962	1350852	22-Apr-97	11.6	N/A		mg/kg	11.6	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-32	Arsenic	Metals	P17-32INV2-M-22	NONE	481972	1350880	22-Apr-97	9.8	N/A		mg/kg	9.8	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-7	NONE	481778	1350816	22-Apr-97	4.6	N/A		mg/kg	4.6	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-8	NONE	481789	1350832	22-Apr-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
P17-32	Arsenic	Metals	P17-32INV2-M-9	NONE	481797	1350857	22-Apr-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C-824828	NONE	481828.87	1350824.7	18-Dec-96	0.96	N/A		mg/kg	0.96	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C-829914	NONE	481914.84	1350829.58	18-Dec-96	0.71	N/A		mg/kg	0.71	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C-835920	NONE	481920	1350835	16-Jan-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C-847827	NONE	481827.36	1350847.33	18-Dec-96	0.62	N/A		mg/kg	0.62	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C-850820	NONE	481820	1350850	16-Jan-97	2.3	N/A		mg/kg	2.3	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C-866935	NONE	481935.76	1350866.23	18-Dec-96	0.47	N/A	B	mg/kg	0.47	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C-876808	NONE	481808	1350876	18-Dec-96	0.64	N/A		mg/kg	0.64	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C-880982	NONE	481982.82	1350880.29	18-Dec-96	0.45	N/A	B	mg/kg	0.45	N/A	U	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-1	NONE	481996.38	1350807.74	21-Mar-97	0.81	N/A		mg/kg	0.81	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-2	NONE	481969.69	1350837.79	21-Mar-97	0.65	N/A		mg/kg	0.65	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-3	NONE	481978.48	1350867.59	21-Mar-97	0.95	N/A		mg/kg	0.95	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-4	NONE	481872.61	1350814.77	21-Mar-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-5	NONE	481859.7	1350881.95	21-Mar-97	0.79	N/A		mg/kg	0.79	N/A	-	mg/kg	
P17-32	Beryllium	Metals	P17-32C2-M-6	NONE	481777.29	1350808.32	21-Mar-97	0.73	N/A		mg/kg	0.73	N/A	-	mg/kg	
P17-32	Moisture	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	17.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	15	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	18.52	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	22.03	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	21.72	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-32C-835924
P17-32	Moisture	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	19.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	18.47	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	22.31	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	18.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	18.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	16	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	22	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Moisture	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	18.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-32	Radium-226	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	1.4	0.14		pCi/g	1.4	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	1.3	0.18		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	0.91	0.14		pCi/g	0.91	0	J	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	1.3	0.19		pCi/g	1.29	0	J	pCi/g	P17-32C-835924
P17-32	Radium-226	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	1.1	0.15		pCi/g	1.07	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	1.2	0.18		pCi/g	1.25	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	1.1	0.15		pCi/g	1.1	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	1.2	0.13		pCi/g	1.2	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-32	Radium-226	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	1.3	0.2		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-226	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	1.3	0.15		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	1.5	0.4		pCi/g	1.5	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	1.3	0.39		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	1.3	0.25		pCi/g	1.26	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	1.4	0.25		pCi/g	1.4	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	1.5	0.27		pCi/g	1.47	0	-	pCi/g	P17-32C-835924
P17-32	Radium-228	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	1.3	0.24		pCi/g	1.35	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	1.5	0.27		pCi/g	1.53	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	1.5	0.46		pCi/g	1.5	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	1.3	0.22		pCi/g	1.26	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	1.2	0.29		pCi/g	1.2	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	1.3	0.38		pCi/g	1.3	0	-	pCi/g	
P17-32	Radium-228	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	1.4	0.4		pCi/g	1.4	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	1.2	0.46		pCi/g	1.2	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	1.2	0.3		pCi/g	1.3	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	1.5	0.35		pCi/g	1.55	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	1.7	0.38		pCi/g	1.76	0	Z	pCi/g	P17-32C-835924
P17-32	Thorium-228	Radiological	P17-32C-835924-D	RE	481924	1350835	16-Jan-97	1.4	0.28		pCi/g	1.41	0	-	pCi/g	P17-32C-835924
P17-32	Thorium-228	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	1.5	0.59		pCi/g	1.5	1	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	1.4	0.31		pCi/g	1.52	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	1.2	0.27		pCi/g	1.28	0	J	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	1.3	0.46		pCi/g	1.3	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	1.2	0.28		pCi/g	1.32	0	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	1.4	0.65		pCi/g	1.4	1	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	1.3	0.51		pCi/g	1.3	1	-	pCi/g	
P17-32	Thorium-228	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	1.2	0.57		pCi/g	1.2	1	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	1.1	0.43		pCi/L	1.1	0	-	pCi/L	
P17-32	Thorium-232	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	1.1	0.41		pCi/g	1.1	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	1.3	0.25		pCi/g	1.25	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	1.4	0.29		pCi/g	1.36	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	1.3	0.28		pCi/g	1.29	0	Z	pCi/g	P17-32C-835924
P17-32	Thorium-232	Radiological	P17-32C-835924-D	RE	481924	1350835	16-Jan-97	1.3	0.25		pCi/g	1.27	0	-	pCi/g	P17-32C-835924
P17-32	Thorium-232	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	1.6	0.59		pCi/g	1.6	1	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	1.3	0.25		pCi/g	1.25	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	1.1	0.21		pCi/g	1.07	0	J	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	1.4	0.46		pCi/g	1.4	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	1.1	0.22		pCi/g	1.11	0	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	1.4	0.59		pCi/g	1.4	1	-	pCi/g	
P17-32	Thorium-232	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	1.6	0.59		pCi/g	1.6	1	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-32	Thorium-232	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	1.2	0.57		pCi/g	1.2	1	-	pCi/g	
P17-32	Uranium, Total	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	N/A	N/A	N/A	ug/g	11.99	2	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	N/A	N/A	N/A	ug/g	12.59	5	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	N/A	N/A	N/A	ug/g	17.51	4	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	N/A	N/A	N/A	ug/g	20.46	5	-	ug/g	P17-32C-835924
P17-32	Uranium, Total	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	N/A	N/A	N/A	ug/g	14.09	4	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	N/A	N/A	N/A	ug/g	10.21	5	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	N/A	N/A	N/A	ug/g	3.9	2	J	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	N/A	N/A	N/A	ug/g	12.31	4	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	N/A	N/A	N/A	ug/g	5.1	1	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	N/A	N/A	N/A	ug/g	25.49	4	-	ug/g	
P17-32	Uranium, Total	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	N/A	N/A	N/A	ug/g	18.29	4	-	ug/g	
P17-32	Uranium-238	Radiological	P17-32C-803857	NONE	481857.51	1350803.48	18-Dec-96	0.96	0.7	U	pCi/g	1.2	1	U	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-820936	NONE	481936.79	1350820.9	18-Dec-96	4	0.75		pCi/g	4	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-826838	NONE	481838	1350826	17-Dec-96	4.2	1.6		pCi/g	4.2	2	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-835924	NONE	481924	1350835	16-Jan-97	5.8	1.5		pCi/g	5.84	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-835924-D	NONE	481924	1350835	16-Jan-97	6.8	1.8		pCi/g	6.82	2	-	pCi/g	P17-32C-835924
P17-32	Uranium-238	Radiological	P17-32C-839950	NONE	481950.86	1350839.56	18-Dec-96	2.2	0.55		pCi/g	2.2	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-843800	NONE	481800	1350843	16-Jan-97	4.7	1.5		pCi/g	4.7	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-850822	NONE	481822	1350850	16-Jan-97	3.4	1.6		pCi/g	3.41	2	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-858878	NONE	481878.9	1350858.34	17-Dec-96	1.3	0.82	U	pCi/g	1.3	1	J	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-860812	NONE	481812	1350860	16-Jan-97	4.1	1.4		pCi/g	4.11	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-879990	NONE	481990	1350879	18-Dec-96	1.7	0.45		pCi/g	1.7	0	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-881901	NONE	481901.13	1350881.18	18-Dec-96	8.5	1.3		pCi/g	8.5	1	-	pCi/g	
P17-32	Uranium-238	Radiological	P17-32C-883831	NONE	481831	1350883	18-Dec-96	6.1	1.3		pCi/g	6.1	1	-	pCi/g	
P17-33	Aroclor-1260	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	47	N/A	U	ug/kg	47	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	49	N/A	U	ug/kg	49	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	44	N/A	U	ug/kg	44	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	45	N/A	U	ug/kg	45	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	48	N/A	U	ug/kg	48	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	48	N/A	U	ug/kg	48	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	44	N/A	U	ug/kg	44	N/A	U	ug/kg	
P17-33	Aroclor-1260	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	45	N/A	U	ug/kg	45	N/A	U	ug/kg	
P17-33	Arsenic	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	7.5	N/A		mg/kg	7.5	N/A	J	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-33	Arsenic	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	4.9	N/A		mg/kg	4.9	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	6.9	N/A		mg/kg	6.9	N/A	J	mg/kg	
P17-33	Arsenic	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	8.8	N/A		mg/kg	8.8	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	5.3	N/A		mg/kg	5.3	N/A	-	mg/kg	
P17-33	Arsenic	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	5.6	N/A		mg/kg	5.6	N/A	-	mg/kg	
P17-33	Beryllium	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	0.8	N/A	B	mg/kg	0.8	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	0.87	N/A		mg/kg	0.87	N/A	-	mg/kg	
P17-33	Beryllium	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	0.74	N/A	B	mg/kg	0.74	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	0.68	N/A		mg/kg	0.68	N/A	-	mg/kg	
P17-33	Beryllium	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	0.83	N/A	B	mg/kg	0.83	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	0.9	N/A	B	mg/kg	0.9	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	0.72	N/A		mg/kg	0.72	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	0.87	N/A		mg/kg	0.87	N/A	-	mg/kg	
P17-33	Beryllium	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	0.79	N/A	B	mg/kg	0.79	N/A	U	mg/kg	
P17-33	Beryllium	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	0.87	N/A	B	mg/kg	0.87	N/A	U	mg/kg	
P17-33	Moisture	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	10.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	14.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	12	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-33C-620020
P17-33	Moisture	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	9.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	9.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	9.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	10.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	11.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	9.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	12.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	9.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Moisture	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	12.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-33	Radium-226	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	1	0.11		pCi/g	1	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	0.85	0.11		pCi/g	0.85	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	0.9	0.14		pCi/g	0.9	0	R	pCi/g	P17-33C-620020
P17-33	Radium-226	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	0.89	0.14		pCi/g	0.89	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	0.79	0.79		pCi/g	0.79	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	1	0.15		pCi/g	1	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	0.91	0.13		pCi/g	0.91	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	0.92	0.15		pCi/g	0.92	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	0.44	0.06		pCi/g	0.86	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	0.94	0.16		pCi/g	0.94	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	0.86	0.12		pCi/g	0.97	0	-	pCi/g	
P17-33	Radium-226	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	1.2	0.14		pCi/g	1.2	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-33	Radium-228	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	0.91	0.25		pCi/g	0.91	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	0.71	0.23		pCi/g	0.71	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	0.69	0.25		pCi/g	0.69	0	R	pCi/g	P17-33C-620020
P17-33	Radium-228	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	0.79	0.25		pCi/g	0.79	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	0.87	0.25		pCi/g	0.87	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	1.1	0.32		pCi/g	1.1	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	0.79	0.24		pCi/g	0.79	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	0.83	0.28		pCi/g	0.83	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	1.4	0.39		pCi/g	1.4	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	0.42	0.12		pCi/g	0.85	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	1.1	0.32		pCi/g	1.1	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	0.85	0.23		pCi/g	0.98	0	-	pCi/g	
P17-33	Radium-228	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	0.92	0.26		pCi/g	0.92	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	0.94	0.38		pCi/g	0.94	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	0.65	0.24		pCi/g	0.65	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	0.57	0.23		pCi/g	0.57	0	R	pCi/g	P17-33C-620020
P17-33	Thorium-228	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	0.84	0.33		pCi/g	0.84	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	0.88	0.35		pCi/g	0.88	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	0.67	0.27		pCi/g	0.67	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	0.9	0.37		pCi/g	0.9	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	0.87	0.36		pCi/g	0.87	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	1.2	0.45		pCi/g	1.2	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	0.63	0.25		pCi/g	0.63	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	0.87	0.34		pCi/g	0.87	0	J	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	0.82	0.37		pCi/g	0.82	0	-	pCi/g	
P17-33	Thorium-228	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	0.77	0.31		pCi/g	0.77	0	J	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	0.74	0.3		pCi/g	0.74	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	0.64	0.23		pCi/g	0.64	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	0.53	0.21		pCi/g	0.53	0	R	pCi/g	P17-33C-620020
P17-33	Thorium-232	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	0.76	0.3		pCi/g	0.76	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	0.83	0.32		pCi/g	0.83	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	0.62	0.24		pCi/g	0.62	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	0.88	0.35		pCi/g	0.88	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	0.87	0.35		pCi/g	0.87	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	0.83	0.32		pCi/g	0.83	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	0.74	0.28		pCi/g	0.74	0	J	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	0.83	0.36		pCi/g	0.83	0	-	pCi/g	
P17-33	Thorium-232	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	0.72	0.28		pCi/g	0.72	0	J	pCi/g	
P17-33	Uranium, Total	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	N/A	N/A	N/A	ug/g	11.69	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	N/A	N/A	N/A	ug/g	8.1	2	J	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	N/A	N/A	N/A	ug/g	5.4	2	R	ug/g	P17-33C-620020

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-33	Uranium, Total	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	N/A	N/A	N/A	ug/g	9.6	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	N/A	N/A	N/A	ug/g	9	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	N/A	N/A	N/A	ug/g	9.29	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	N/A	N/A	N/A	ug/g	11.1	3	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	N/A	N/A	N/A	ug/g	8.4	3	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	N/A	N/A	N/A	ug/g	7.5	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	N/A	N/A	N/A	ug/g	7.8	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	N/A	N/A	N/A	ug/g	7.8	2	-	ug/g	
P17-33	Uranium, Total	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	N/A	N/A	N/A	ug/g	6	2	-	ug/g	
P17-33	Uranium-238	Radiological	P17-33C-604181	NONE	482181.8	1350604.32	11-Dec-96	3.9	0.76		pCi/g	3.9	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-620020	NONE	482020.11	1350620.19	11-Dec-96	2.7	0.61		pCi/g	2.7	1	J	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-620020-D	NONE	482020.11	1350620.19	11-Dec-96	1.8	0.59		pCi/g	1.8	1	R	pCi/g	P17-33C-620020
P17-33	Uranium-238	Radiological	P17-33C-634109	NONE	482109.55	1350634.62	11-Dec-96	2.2	0.7		pCi/g	2.2	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-663037	NONE	482037.91	1350663.69	11-Dec-96	3.2	0.82		pCi/g	3.2	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-684068	NONE	482068.92	1350684.67	11-Dec-96	3	0.82		pCi/g	3	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-697110	NONE	482110.69	1350697.18	11-Dec-96	3.1	0.81		pCi/g	3.1	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-720017	NONE	482017.55	1350720.57	11-Dec-96	3.7	0.88		pCi/g	3.7	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-727116	NONE	482116.26	1350727.73	11-Dec-96	2.8	0.91		pCi/g	2.8	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-736082	NONE	482082.89	1350736.49	11-Dec-96	1.1	0.24		pCi/g	2.5	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-747174	NONE	482174.14	1350747.68	11-Dec-96	2.6	0.73		pCi/g	2.6	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-764098	NONE	482098.94	1350764.65	11-Dec-96	2.5	0.54		pCi/g	2.6	1	-	pCi/g	
P17-33	Uranium-238	Radiological	P17-33C-780141	NONE	482141.65	1350780.22	11-Dec-96	2	0.58		pCi/g	2	1	-	pCi/g	
P17-40	Arsenic	Metals	P17-40C-034144	NONE	482144.68	1351034.77	21-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	10.1	N/A		mg/kg	10.1	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	7.1	N/A		mg/kg	7.1	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	10.7	N/A		mg/kg	10.7	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-326937	NONE	481937.67	1351326.26	21-Mar-97	9.1	N/A		mg/kg	9.1	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	8	N/A		mg/kg	8	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	7.7	N/A		mg/kg	7.7	N/A	-	mg/kg	P17-40C-355079
P17-40	Arsenic	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	8.8	N/A		mg/kg	8.8	N/A	-	mg/kg	
P17-40	Arsenic	Metals	P17-40C2-M-2	NONE	482014.61	1351264.91	24-Mar-97	8.8	N/A	N	mg/kg	8.8	N/A	J	mg/kg	
P17-40	Arsenic	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
P17-40	Beryllium	Metals	P17-40C-034144	NONE	482144.68	1351034.77	21-Mar-97	0.76	N/A		mg/kg	0.76	N/A	-	mg/kg	
P17-40	Beryllium	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	0.85	N/A		mg/kg	0.85	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	0.55	N/A	B	mg/kg	0.55	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	0.78	N/A		mg/kg	0.78	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P17-40C-326937	NONE	481937.67	1351326.26	21-Mar-97	0.86	N/A		mg/kg	0.86	N/A	-	mg/kg	
P17-40	Beryllium	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	0.69	N/A		mg/kg	0.69	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	0.78	N/A		mg/kg	0.78	N/A	U	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-40	Beryllium	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	0.8	N/A		mg/kg	0.8	N/A	U	mg/kg	P17-40C-355079
P17-40	Beryllium	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	0.76	N/A		mg/kg	0.76	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P17-40C2-M-2	NONE	482014.61	1351264.91	24-Mar-97	0.88	N/A		mg/kg	0.88	N/A	U	mg/kg	
P17-40	Beryllium	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	0.67	N/A		mg/kg	0.67	N/A	U	mg/kg	
P17-40	Moisture	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	19.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	18.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	22.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	23.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	17.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	17	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	20.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	18.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	21.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	19.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	20.3	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-40C-398021
P17-40	Moisture	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	16.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	17.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	17.9	N/A	N/A	Percent	0	N/A	N/A	Percent	P17-40C2-R-3
P17-40	Moisture	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	11.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Moisture	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	15.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P17-40	Radium-226	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	1.5	0.16		pCi/g	1.5	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	1.6	0.21		pCi/g	1.6	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	1.5	0.16		pCi/g	1.5	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	1.5	0.18		pCi/g	1.5	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	1.6	0.2		pCi/g	1.6	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	1.3	0.13		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	1.8	0.21		pCi/g	1.8	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	1.3	0.13		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	1.2	0.15		pCi/g	1.2	0	-	pCi/g	P17-40C-398021
P17-40	Radium-226	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	1.6	0.16		pCi/g	1.56	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	1.2	0.18		pCi/g	1.25	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	1.4	0.16		pCi/g	1.42	0	-	pCi/g	P17-40C2-R-3
P17-40	Radium-226	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	0.84	0.11		pCi/g	0.84	0	-	pCi/g	
P17-40	Radium-226	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	1.2	0.18		pCi/g	1.2	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	1.3	0.38		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	1.3	0.37		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	1.5	0.42		pCi/g	1.5	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	1.4	0.35		pCi/g	1.4	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	1.2	0.37		pCi/g	1.2	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-40	Radium-228	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	1.3	0.33		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	1.4	0.39		pCi/g	1.4	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	1.3	0.39		pCi/g	1.3	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	P17-40C-398021
P17-40	Radium-228	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	1.7	0.44		pCi/g	1.67	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	1.1	0.35		pCi/g	1.14	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	1.4	0.38		pCi/g	1.44	0	-	pCi/g	P17-40C2-R-3
P17-40	Radium-228	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	0.72	0.24		pCi/g	0.72	0	-	pCi/g	
P17-40	Radium-228	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	1.1	0.36		pCi/g	1.08	0	-	pCi/g	
P17-40	Thorium-228	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	1.2	0.48		pCi/g	1.2	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	1.1	0.43		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	1.3	0.61		pCi/g	1.3	1	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	1.2	0.48		pCi/g	1.2	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	1.4	0.54		pCi/g	1.4	1	-	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	1.4	0.54		pCi/g	1.4	1	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	1.1	0.45		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	1.2	0.48		pCi/g	1.2	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	1.5	0.58		pCi/g	1.5	1	-	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	1.2	0.5		pCi/g	1.2	1	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	1.1	0.44		pCi/g	1.1	0	-	pCi/g	P17-40C-398021
P17-40	Thorium-228	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	1.3	0.51		pCi/g	1.35	1	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	1.3	0.56		pCi/g	1.32	1	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	1.3	0.56		pCi/g	1.34	1	J	pCi/g	P17-40C2-R-3
P17-40	Thorium-228	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	0.94	0.43		pCi/g	0.95	0	J	pCi/g	
P17-40	Thorium-228	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	1.2	0.48		pCi/g	1.2	0	-	pCi/g	
P17-40	Thorium-232	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	1.1	0.41		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	1.1	0.43		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	1.2	0.54		pCi/g	1.2	1	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	1.3	0.5		pCi/g	1.3	1	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	1.3	0.49		pCi/g	1.3	0	-	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	1.4	0.51		pCi/g	1.4	1	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	1.1	0.42		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	1.1	0.43		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	1.3	0.49		pCi/g	1.3	0	-	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	1.1	0.46		pCi/g	1.1	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	1	0.4		pCi/g	1	0	-	pCi/g	P17-40C-398021
P17-40	Thorium-232	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	1	0.39		pCi/g	1.01	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	1.2	0.49		pCi/g	1.15	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	1.1	0.46		pCi/g	1.1	0	J	pCi/g	P17-40C2-R-3
P17-40	Thorium-232	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	0.79	0.36		pCi/g	0.79	0	J	pCi/g	
P17-40	Thorium-232	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	1.2	0.47		pCi/g	1.15	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-40	Uranium, Total	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	N/A	N/A	N/A	ug/g	3.3	2	J	ug/g	
P17-40	Uranium, Total	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	N/A	N/A	N/A	ug/g	9	2	J	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	N/A	N/A	N/A	ug/g	13.49	3	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	N/A	N/A	N/A	ug/g	13.79	3	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	N/A	N/A	N/A	ug/g	8.4	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	N/A	N/A	N/A	ug/g	3.6	2	U	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	N/A	N/A	N/A	ug/g	10.8	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	N/A	N/A	N/A	ug/g	6.3	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	N/A	N/A	N/A	ug/g	10.8	3	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	N/A	N/A	N/A	ug/g	7.5	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	N/A	N/A	N/A	ug/g	8.7	2	-	ug/g	P17-40C-398021
P17-40	Uranium, Total	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	N/A	N/A	N/A	ug/g	9.04	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	N/A	N/A	N/A	ug/g	5.31	2	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	N/A	N/A	N/A	ug/g	7.26	2	-	ug/g	P17-40C2-R-3
P17-40	Uranium, Total	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	N/A	N/A	N/A	ug/g	3.92	1	-	ug/g	
P17-40	Uranium, Total	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	N/A	N/A	N/A	ug/g	7.6	3	J	ug/g	
P17-40	Uranium-238	Radiological	P17-34C-964146	NONE	482146.5	1350964.48	3-Dec-96	1.1	0.6		pCi/g	1.1	1	J	pCi/g	
P17-40	Uranium-238	Radiological	P17-34C-972199	NONE	482199.62	1350972.34	3-Dec-96	3	0.83		pCi/g	3	1	J	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-052114	NONE	482114.11	1351052	4-Dec-96	4.5	1.1		pCi/g	4.5	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-145113	NONE	482113.38	1351145.38	4-Dec-96	4.6	0.94		pCi/g	4.6	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-281110	NONE	482110.58	1351281.39	4-Dec-96	2.8	0.78		pCi/g	2.8	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-289031	NONE	482031.42	1351289.45	4-Dec-96	0.78	0.7		pCi/g	1.2	1	U	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-292103	NONE	482103.44	1351292.74	4-Dec-96	3.6	0.73		pCi/g	3.6	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-368105	NONE	482105.67	1351368.68	4-Dec-96	2.1	0.61		pCi/g	2.1	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-397115	NONE	482115.22	1351397.95	4-Dec-96	3.6	0.99		pCi/g	3.66	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-398021	NONE	482021.7	1351398.92	4-Dec-96	2.5	0.7		pCi/g	2.5	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C-398021-D	NONE	482021.7	1351398.92	4-Dec-96	2.9	0.83		pCi/g	2.9	1	-	pCi/g	P17-40C-398021
P17-40	Uranium-238	Radiological	P17-40C2-R-1	NONE	481920.06	1351358.82	21-Mar-97	3	0.7		pCi/g	3.02	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C2-R-3	NONE	482027.6	1350978.72	24-Mar-97	1.8	0.68		pCi/g	1.77	1	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C2-R-3-D	NONE	482027.6	1350978.72	24-Mar-97	2.4	0.67		pCi/g	2.42	1	-	pCi/g	P17-40C2-R-3
P17-40	Uranium-238	Radiological	P17-40C2-R-4	NONE	482005.62	1351074.84	24-Mar-97	1.3	0.35		pCi/g	1.31	0	-	pCi/g	
P17-40	Uranium-238	Radiological	P17-40C2-R-5	NONE	482001.85	1351120.47	24-Mar-97	2.5	1.1		pCi/g	2.53	1	J	pCi/g	
P18	Arsenic	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
P18	Arsenic	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	7.5	N/A		mg/kg	7.5	N/A	J	mg/kg	
P18	Arsenic	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P18	Arsenic	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	6	N/A		mg/kg	6	N/A	-	mg/kg	
P18	Arsenic	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	10.6	N/A		mg/kg	10.6	N/A	J	mg/kg	
P18	Arsenic	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	9.8	N/A		mg/kg	9.8	N/A	-	mg/kg	
P18	Arsenic	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	8.3	N/A		mg/kg	8.3	N/A	J	mg/kg	
P18	Arsenic	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	8.1	N/A		mg/kg	8.1	N/A	-	mg/kg	
P18	Arsenic	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	13.8	N/A		mg/kg	13.8	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18	Arsenic	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	15.1	N/A		mg/kg	15.1	N/A	J	mg/kg	
P18	Arsenic	Metals	P18C-642957	NONE	482957	1350642	24-Mar-97	6.9	N/A		mg/kg	6.9	N/A	U	mg/kg	
P18	Arsenic	Metals	P18C-908837	NONE	482833	1350908	24-Mar-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P18	Beryllium	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	0.47	N/A	B	mg/kg	0.47	N/A	U	mg/kg	
P18	Beryllium	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	0.98	N/A		mg/kg	0.98	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	0.5	N/A	B	mg/kg	0.5	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
P18	Beryllium	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	0.64	N/A		mg/kg	0.64	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	0.73	N/A		mg/kg	0.73	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	0.67	N/A		mg/kg	0.67	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	0.87	N/A		mg/kg	0.87	N/A	U	mg/kg	
P18	Beryllium	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	1	N/A		mg/kg	1	N/A	-	mg/kg	
P18	Beryllium	Metals	P18C-642957	NONE	482957	1350642	24-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
P18	Beryllium	Metals	P18C-908837	NONE	482833	1350908	24-Mar-97	0.93	N/A		mg/kg	0.93	N/A	-	mg/kg	
P18	Moisture	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	31.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	14.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	28.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	18.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	20.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	24.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	10	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	21.97	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	11.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	20.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	21.74	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	18.41	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Moisture	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	23.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18	Radium-226	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	0.9	0.31		pCi/g	0.9	0	-	pCi/g	
P18	Radium-226	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	1.04	0.35		pCi/g	1.04	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	1.2	0.16		pCi/g	1.2	0	J	pCi/g	
P18	Radium-226	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	1	0.15		pCi/g	1	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	1	0.12		pCi/g	1	0	J	pCi/g	
P18	Radium-226	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	1.1	0.16		pCi/g	1.1	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	1.2	0.22		pCi/g	1.18	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	1.6	0.17		pCi/g	1.6	0	J	pCi/g	
P18	Radium-226	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	1.2	0.15		pCi/g	1.2	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	1.1	0.15		pCi/g	1.09	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	0.91	0.15		pCi/g	0.91	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	1.4	0.14		pCi/g	1.4	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18	Radium-226	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	1	0.17		pCi/g	1.04	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	0.95	0.14		pCi/g	0.95	0	-	pCi/g	
P18	Radium-226	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	1.1	0.14		pCi/g	1.1	0	J	pCi/g	
P18	Radium-228	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	1.13	0.71		pCi/g	1.13	1	J	pCi/g	
P18	Radium-228	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	1.97	0.76		pCi/g	1.97	1	-	pCi/g	
P18	Radium-228	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	1.2	0.33		pCi/g	1.2	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	1.2	0.23		pCi/g	1.2	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	1.1	0.33		pCi/g	1.1	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	0.97	0.29		pCi/g	0.97	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	1.3	0.24		pCi/g	1.27	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	1.2	0.33		pCi/g	1.2	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	0.94	0.32		pCi/g	0.94	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	1.1	0.23		pCi/g	1.09	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	0.74	0.26		pCi/g	0.74	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	1.3	0.35		pCi/g	1.3	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	1.2	0.27		pCi/g	1.15	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	1.2	0.21		pCi/g	1.21	0	-	pCi/g	
P18	Radium-228	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	0.99	0.28		pCi/g	0.99	0	-	pCi/g	
P18	Thorium-228	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	1.1	0.09		pCi/g	1.1	0	-	pCi/g	
P18	Thorium-228	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	1.11	0.09		pCi/g	1.11	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	1.3	0.51		pCi/g	1.3	1	-	pCi/g	
P18	Thorium-228	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	1.2	0.28		pCi/g	1.27	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	1.3	0.51		pCi/g	1.3	1	-	pCi/g	
P18	Thorium-228	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	1.3	0.48		pCi/g	1.3	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	1.5	0.34		pCi/g	1.59	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	1.3	0.53		pCi/g	1.3	1	-	pCi/g	
P18	Thorium-228	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	1.1	0.47		pCi/g	1.1	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	1.4	0.32		pCi/g	1.45	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	0.59	0.25		pCi/g	0.59	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	1.3	0.48		pCi/g	1.3	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	1.3	0.31		pCi/g	1.3	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	1.6	0.36		pCi/g	1.66	0	Z	pCi/g	
P18	Thorium-228	Radiological	P18C-884947	RE	482947.01	1350884.12	26-Dec-96	1.1	0.23		pCi/g	1.12	0	-	pCi/g	
P18	Thorium-228	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	0.13	0.03		pCi/g	1.2	0	J	pCi/g	
P18	Thorium-232	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	1.12	0.09		pCi/g	1.12	0	-	pCi/g	
P18	Thorium-232	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	1	0.08		pCi/g	1	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	1.3	0.5		pCi/g	1.3	1	-	pCi/g	
P18	Thorium-232	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	0.99	0.21		pCi/g	0.99	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	1.1	0.43		pCi/g	1.1	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	1.2	0.25		pCi/g	1.21	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	1.4	0.55		pCi/g	1.4	1	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18	Thorium-232	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	1.1	0.45		pCi/g	1.1	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	1.2	0.25		pCi/g	1.2	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	0.8	0.31		pCi/g	0.8	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	1.4	0.47		pCi/g	1.4	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	0.99	0.23		pCi/g	0.99	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	1.3	0.28		pCi/g	1.34	0	Z	pCi/g	
P18	Thorium-232	Radiological	P18C-884947	RE	482947.01	1350884.12	26-Dec-96	1	0.2		pCi/g	1.02	0	-	pCi/g	
P18	Thorium-232	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	1.1	0.4		pCi/g	1.1	0	-	pCi/g	
P18	Uranium, Total	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	N/A	N/A	N/A	ug/g	12.59	8	U	ug/g	
P18	Uranium, Total	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	N/A	N/A	N/A	ug/g	15.89	10	U	ug/g	
P18	Uranium, Total	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	N/A	N/A	N/A	ug/g	29.69	4	-	ug/g	
P18	Uranium, Total	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	N/A	N/A	N/A	ug/g	24.72	6	-	ug/g	
P18	Uranium, Total	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	N/A	N/A	N/A	ug/g	18.59	3	-	ug/g	
P18	Uranium, Total	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	N/A	N/A	N/A	ug/g	3.9	1	-	ug/g	
P18	Uranium, Total	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	N/A	N/A	N/A	ug/g	38.92	9	-	ug/g	
P18	Uranium, Total	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	N/A	N/A	N/A	ug/g	29.99	5	-	ug/g	
P18	Uranium, Total	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	N/A	N/A	N/A	ug/g	9.29	4	J	ug/g	
P18	Uranium, Total	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	N/A	N/A	N/A	ug/g	21.97	6	-	ug/g	
P18	Uranium, Total	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	N/A	N/A	N/A	ug/g	2.85	2	U	ug/g	
P18	Uranium, Total	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	N/A	N/A	N/A	ug/g	5.1	2	-	ug/g	
P18	Uranium, Total	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	N/A	N/A	N/A	ug/g	27.09	7	-	ug/g	
P18	Uranium, Total	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	N/A	N/A	N/A	ug/g	20.47	4	-	ug/g	
P18	Uranium, Total	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	N/A	N/A	N/A	ug/g	20.69	4	-	ug/g	
P18	Uranium-238	Radiological	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	3.86	2.8	U	pCi/g	4.2	3	U	pCi/g	
P18	Uranium-238	Radiological	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	4.95	3.5	U	pCi/g	5.3	4	U	pCi/g	
P18	Uranium-238	Radiological	P18C-634755	NONE	482754.59	1350634.73	26-Dec-96	9.9	1.3		pCi/g	9.9	1	-	pCi/g	
P18	Uranium-238	Radiological	P18C-661706	NONE	482706.96	1350661.15	30-Dec-96	8.2	2.1		pCi/g	8.24	2	-	pCi/g	
P18	Uranium-238	Radiological	P18C-670893	NONE	482893.09	1350670.24	26-Dec-96	6.2	0.86		pCi/g	6.2	1	-	pCi/g	
P18	Uranium-238	Radiological	P18C-679450	NONE	482450.37	1350679.53	18-Dec-96	1.3	0.46		pCi/g	1.3	0	-	pCi/g	
P18	Uranium-238	Radiological	P18C-750800	NONE	482800	1350750	16-Jan-97	13	3		pCi/g	12.98	3	-	pCi/g	
P18	Uranium-238	Radiological	P18C-758813	NONE	482813.41	1350758.81	26-Dec-96	10	1.7		pCi/g	10	2	-	pCi/g	
P18	Uranium-238	Radiological	P18C-761655	NONE	482655.15	1350761.93	19-Dec-96	3.1	1.2		pCi/g	3.1	1	J	pCi/g	
P18	Uranium-238	Radiological	P18C-777911	NONE	482911.48	1350777.54	26-Dec-96	7.3	2		pCi/g	7.33	2	-	pCi/g	
P18	Uranium-238	Radiological	P18C-781429	NONE	482429.12	1350781.31	18-Dec-96	0.61	0.57	U	pCi/g	0.95	1	U	pCi/g	
P18	Uranium-238	Radiological	P18C-826521	NONE	482521.23	1350826.59	18-Dec-96	1.7	0.68		pCi/g	1.7	1	-	pCi/g	
P18	Uranium-238	Radiological	P18C-830830	NONE	482830.21	1350830.17	26-Dec-96	9	2.3		pCi/g	9.03	2	-	pCi/g	
P18	Uranium-238	Radiological	P18C-884947	NONE	482947.01	1350884.12	26-Dec-96	6.8	1.5		pCi/g	6.83	1	-	pCi/g	
P18	Uranium-238	Radiological	P18C-987945	NONE	482945.09	1350987.01	26-Dec-96	6.9	1.2		pCi/g	6.9	1	-	pCi/g	
P18-11	Aroclor-1260	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	47	N/A	U	ug/kg	47	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	47	N/A	U	ug/kg	47	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	45	N/A	U	ug/kg	45	N/A	UJ	ug/kg	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-11	Aroclor-1260	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	47	N/A	U	ug/kg	47	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	45	N/A	U	ug/kg	45	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	50	N/A	U	ug/kg	50	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	47	N/A	U	ug/kg	47	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	47	N/A	U	ug/kg	47	N/A	UJ	ug/kg	
P18-11	Aroclor-1260	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	46	N/A	U	ug/kg	46	N/A	UJ	ug/kg	
P18-11	Arsenic	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	5.4	N/A		mg/kg	5.4	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	11.2	N/A		mg/kg	11.2	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	11.7	N/A		mg/kg	11.7	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	8.9	N/A		mg/kg	8.9	N/A	-	mg/kg	
P18-11	Arsenic	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	5	N/A		mg/kg	5	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	12.3	N/A		mg/kg	12.3	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	7.4	N/A		mg/kg	7.4	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	6.1	N/A		mg/kg	6.1	N/A	J	mg/kg	
P18-11	Arsenic	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	6	N/A		mg/kg	6	N/A	J	mg/kg	
P18-11	Beryllium	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	0.41	N/A	B	mg/kg	0.41	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	0.47	N/A	B	mg/kg	0.47	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	0.64	N/A		mg/kg	0.64	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	0.44	N/A	B	mg/kg	0.44	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	0.53	N/A	B	mg/kg	0.53	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	0.37	N/A	B	mg/kg	0.37	N/A	U	mg/kg	
P18-11	Beryllium	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	0.59	N/A		mg/kg	0.59	N/A	U	mg/kg	
P18-11	Moisture	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	12.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	18.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	11.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	20.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	17.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	13.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	15.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	13.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	16.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	13.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	13	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Moisture	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	13.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-11	Radium-226	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	0.76	0.11		pCi/g	0.76	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	0.85	0.12		pCi/g	0.85	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	0.85	0.14		pCi/g	0.85	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	1	0.16		pCi/g	1	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	0.99	0.16		pCi/g	0.99	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	0.91	0.14		pCi/g	0.91	0	-	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-11	Radium-226	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	1.2	0.16		pCi/g	1.2	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	0.85	0.11		pCi/g	0.85	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	1	0.16		pCi/g	1	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	0.88	0.16		pCi/g	0.88	0	-	pCi/g	
P18-11	Radium-226	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	1.1	0.14		pCi/g	1.1	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	0.65	0.2		pCi/g	0.65	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	0.75	0.22		pCi/g	0.75	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	0.93	0.29		pCi/g	0.93	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	1.2	0.35		pCi/g	1.2	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	0.91	0.26		pCi/g	0.91	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	1	0.29		pCi/g	1	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	0.99	0.28		pCi/g	0.99	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	0.52	0.38		pCi/g	1	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	1.1	0.33		pCi/g	1.1	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	0.99	0.32		pCi/g	0.99	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	1.1	0.32		pCi/g	1.1	0	-	pCi/g	
P18-11	Radium-228	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	1.1	0.3		pCi/g	1.1	0	-	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	0.79	0.31		pCi/g	0.79	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	0.79	0.35		pCi/g	0.79	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	0.77	0.37		pCi/g	0.77	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	1.2	0.47		pCi/g	1.2	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	0.98	0.42		pCi/g	0.98	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	0.97	0.34		pCi/g	0.97	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	0.77	0.35		pCi/g	0.77	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	1.6	0.62		pCi/g	1.6	1	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	1	0.45		pCi/g	1	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	0.89	0.34		pCi/g	0.89	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	0.79	0.32		pCi/g	0.79	0	J	pCi/g	
P18-11	Thorium-228	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	1.1	0.47		pCi/g	1.1	0	-	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	0.68	0.26		pCi/g	0.68	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	0.99	0.42		pCi/g	0.99	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	0.75	0.34		pCi/g	0.75	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	1.2	0.47		pCi/g	1.2	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	0.99	0.41		pCi/g	0.99	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	0.99	0.34		pCi/g	0.99	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	0.86	0.38		pCi/g	0.86	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	1.4	0.52		pCi/g	1.4	1	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	1.1	0.44		pCi/g	1.1	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	0.88	0.32		pCi/g	0.88	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	0.73	0.28		pCi/g	0.73	0	J	pCi/g	
P18-11	Thorium-232	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	0.89	0.37		pCi/g	0.89	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-11	Uranium, Total	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	N/A	N/A	N/A	ug/g	2.43	1	U	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	N/A	N/A	N/A	ug/g	9	2	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	N/A	N/A	N/A	ug/g	4.2	2	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	N/A	N/A	N/A	ug/g	18.59	3	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	N/A	N/A	N/A	ug/g	12.29	3	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	N/A	N/A	N/A	ug/g	2.7	2	U	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	N/A	N/A	N/A	ug/g	9.9	2	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	N/A	N/A	N/A	ug/g	7.5	3	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	N/A	N/A	N/A	ug/g	2.88	2	U	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	N/A	N/A	N/A	ug/g	5.1	2	-	ug/g	
P18-11	Uranium, Total	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	N/A	N/A	N/A	ug/g	3.3	2	J	ug/g	
P18-11	Uranium-238	Radiological	P18-11C-608400	NONE	482400.63	1350608.63	17-Dec-96	0.69	0.49	U	pCi/g	0.81	0	U	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-627216	NONE	482216.32	1350627.74	17-Dec-96	3	0.64		pCi/g	3	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-696228	NONE	482228.27	1350696.67	17-Dec-96	1.4	0.64		pCi/g	1.4	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-711283	NONE	482283.57	1350711.2	17-Dec-96	6.2	1		pCi/g	6.2	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-712210	NONE	482210.5	1350712.35	17-Dec-96	4.1	0.88		pCi/g	4.1	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-712303	NONE	482303.24	1350712.75	17-Dec-96	2.2	0.6		pCi/g	2.2	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-721375	NONE	482375.25	1350721.94	17-Dec-96	0.39	0.54	U	pCi/g	0.9	1	U	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-760289	NONE	482289.38	1350760.42	17-Dec-96	3.3	0.79		pCi/g	3.3	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-783383	NONE	482383	1350783	17-Dec-96	2.5	0.89		pCi/g	2.5	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-789320	NONE	482320.67	1350798.39	17-Dec-96	0.79	0.58	U	pCi/g	0.96	1	U	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C-798245	NONE	482245.53	1350798.5	17-Dec-96	1.7	0.79		pCi/g	1.7	1	-	pCi/g	
P18-11	Uranium-238	Radiological	P18-11C2-1-R	NONE	482356.4	1350661.7	11-Mar-97	1.1	0.66	U	pCi/g	1.1	1	J	pCi/g	
P18-12	Arsenic	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	6.9	N/A	•	mg/kg	6.9	N/A	-	mg/kg	
P18-12	Arsenic	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	7.7	N/A		mg/kg	7.7	N/A	-	mg/kg	
P18-12	Arsenic	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	6.3	N/A	•	mg/kg	6.3	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	16.6	N/A	•	mg/kg	16.6	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	14.4	N/A	•	mg/kg	14.4	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	10.4	N/A		mg/kg	10.4	N/A	-	mg/kg	
P18-12	Arsenic	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	4.9	N/A	•	mg/kg	4.9	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	12.9	N/A	•	mg/kg	12.9	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	11.3	N/A	•	mg/kg	11.3	N/A	J	mg/kg	
P18-12	Arsenic	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	6.3	N/A	•	mg/kg	6.3	N/A	-	mg/kg	
P18-12	Beryllium	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	0.59	N/A		mg/kg	0.59	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	0.73	N/A		mg/kg	0.73	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	1.2	N/A		mg/kg	1.2	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	2	N/A		mg/kg	2	N/A	-	mg/kg	
P18-12	Beryllium	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	0.45	N/A	B	mg/kg	0.45	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-12	Beryllium	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	2.2	N/A		mg/kg	2.2	N/A	-	mg/kg	
P18-12	Beryllium	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	0.63	N/A		mg/kg	0.63	N/A	U	mg/kg	
P18-12	Beryllium	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	0.49	N/A	B	mg/kg	0.49	N/A	U	mg/kg	
P18-12	Moisture	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	15	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	13.85	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	21	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	23.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	18.45	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	16	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	13.19	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	22.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	28.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	22.46	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	21.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	22.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	21.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	22.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Moisture	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	22.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-12	Radium-226	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	0.92	0.14		pCi/g	0.92	0	-	pCi/g	
P18-12	Radium-226	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	0.77	0.15		pCi/g	0.77	0	-	pCi/g	
P18-12	Radium-226	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	1.7	0.17		pCi/g	1.7	0	-	pCi/g	
P18-12	Radium-226	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	1.33	0.3		pCi/g	1.33	0	-	pCi/g	
P18-12	Radium-226	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	1.1	0.15		pCi/g	1.11	0	-	pCi/g	
P18-12	Radium-226	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	1.2	0.18		pCi/g	1.2	0	-	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	0.92	0.15		pCi/g	0.92	0	-	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	1.7	0.2		pCi/g	1.7	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	1.6	0.19		pCi/g	1.6	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	1.1	0.21		pCi/g	1.13	0	-	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	1.6	0.16		pCi/g	1.6	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	2	0.19		pCi/g	2	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	1.4	0.14		pCi/g	1.4	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	1.3	0.13		pCi/g	1.3	0	J	pCi/g	
P18-12	Radium-226	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	1.6	0.14		pCi/g	1.6	0	J	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	0.84	0.25		pCi/g	0.84	0	-	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	0.63	0.19		pCi/g	0.63	0	-	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	1.6	0.41		pCi/g	1.6	0	-	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	1.51	0.59		pCi/g	1.51	1	-	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	0.99	0.17		pCi/g	1	0	-	pCi/g	
P18-12	Radium-228	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	1.2	0.37		pCi/g	1.2	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	0.86	0.18		pCi/g	0.86	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	1.4	0.37		pCi/g	1.4	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	1.5	0.4		pCi/g	1.5	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-12	Radium-228	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	1.4	0.26		pCi/g	1.43	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	1.2	0.33		pCi/g	1.2	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	1.6	0.42		pCi/g	1.6	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	1.1	0.31		pCi/g	1.1	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	1.1	0.29		pCi/g	1.1	0	-	pCi/g	
P18-12	Radium-228	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	0.86	0.41		pCi/g	0.86	0	J	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	0.97	0.28		pCi/g	1.08	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	1.6	0.64		pCi/g	1.6	1	-	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	1.28	0.12		pCi/g	1.28	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	1	0.27		pCi/g	1.11	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	1.1	0.46		pCi/g	1.1	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	1.1	0.28		pCi/g	1.16	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	1.3	0.48		pCi/g	1.3	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	1.6	0.75		pCi/g	1.6	1	J	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	1.3	0.33		pCi/g	1.83	0	Z	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-863295	RE	482295.13	1350863.76	26-Dec-96	1.4	0.3		pCi/g	1.38	0	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	1.4	0.6		pCi/g	1.4	1	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	1.4	0.55		pCi/g	1.4	1	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	1.3	0.58		pCi/g	1.3	1	-	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	0.99	0.43		pCi/g	0.99	0	J	pCi/g	
P18-12	Thorium-228	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	1.2	0.48		pCi/g	1.2	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	0.88	0.4		pCi/g	0.88	0	J	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	0.76	0.19		pCi/g	0.76	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	1.5	0.56		pCi/g	1.5	1	-	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	1.43	0.13		pCi/g	1.43	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	0.96	0.21		pCi/g	0.96	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	1.2	0.48		pCi/g	1.2	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	0.79	0.18		pCi/g	0.79	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	1.3	0.46		pCi/g	1.3	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	1.5	0.69		pCi/g	1.5	1	J	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	1.2	0.23		pCi/g	1.22	0	Z	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-863295	RE	482295.13	1350863.76	26-Dec-96	1.4	0.28		pCi/g	1.38	0	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	1.4	0.55		pCi/g	1.4	1	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	1.4	0.54		pCi/g	1.4	1	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	1.2	0.52		pCi/g	1.2	1	-	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	1.2	0.5		pCi/g	1.2	1	J	pCi/g	
P18-12	Thorium-232	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	1.2	0.44		pCi/g	1.2	0	-	pCi/g	
P18-12	Uranium, Total	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	N/A	N/A	N/A	ug/g	9.6	2	J	ug/g	
P18-12	Uranium, Total	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	N/A	N/A	N/A	ug/g	7.04	4	J	ug/g	
P18-12	Uranium, Total	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	N/A	N/A	N/A	ug/g	8.4	2	J	ug/g	
P18-12	Uranium, Total	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	N/A	N/A	N/A	ug/g	14.69	9	U	ug/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-12	Uranium, Total	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	N/A	N/A	N/A	ug/g	5.27	3	J	ug/g	
P18-12	Uranium, Total	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	N/A	N/A	N/A	ug/g	7.5	3	J	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	N/A	N/A	N/A	ug/g	7.95	4	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	N/A	N/A	N/A	ug/g	14.69	3	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	N/A	N/A	N/A	ug/g	7.2	3	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	N/A	N/A	N/A	ug/g	5.53	3	J	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	N/A	N/A	N/A	ug/g	6.9	2	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	N/A	N/A	N/A	ug/g	6	2	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	N/A	N/A	N/A	ug/g	7.8	2	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	N/A	N/A	N/A	ug/g	4.8	2	-	ug/g	
P18-12	Uranium, Total	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	N/A	N/A	N/A	ug/g	4.8	2	-	ug/g	
P18-12	Uranium-238	Radiological	P17-34C-825010	NONE	482010.4	1350825.41	19-Dec-96	3.2	0.72		pCi/g	3.2	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P17-34C-825187	NONE	482187.53	1350825.24	26-Dec-96	2.3	1.2		pCi/g	2.35	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P17-34C-844094	NONE	482094.16	1350844.41	19-Dec-96	2.8	0.72		pCi/g	2.8	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P17-34C-848107	NONE	482107.5	1350848.73	19-Dec-96	3.23	3.1	U	pCi/g	4.9	3	U	pCi/g	
P18-12	Uranium-238	Radiological	P17-34C-868176	NONE	482176.39	1350868.23	30-Dec-96	1.8	0.99		pCi/g	1.76	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P17-34C-880001	NONE	482001.48	1350880.54	19-Dec-96	2.5	0.93		pCi/g	2.5	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-806224	NONE	482224.34	1350806.15	26-Dec-96	2.7	1.2		pCi/g	2.65	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-814384	NONE	482384.2	1350814.69	26-Dec-96	4.9	1		pCi/g	4.9	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-844336	NONE	482336.08	1350844.68	26-Dec-96	2.4	1		pCi/g	2.4	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-863295	NONE	482295.13	1350863.76	26-Dec-96	1.8	1.2		pCi/g	1.84	1	J	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-868305	NONE	482305.41	1350868.04	26-Dec-96	2.3	0.78		pCi/g	2.3	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-872219	NONE	482219.27	1350872.35	26-Dec-96	2	0.75		pCi/g	2	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-890350	NONE	482350.45	1350890.46	26-Dec-96	2.6	0.63		pCi/g	2.6	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-902358	NONE	482358.48	1350895	26-Dec-96	1.6	0.52		pCi/g	1.6	1	-	pCi/g	
P18-12	Uranium-238	Radiological	P18-12C-903278	NONE	482278.3	1350892.94	26-Dec-96	1.6	0.75		pCi/g	1.6	1	-	pCi/g	
P18-13	Arsenic	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	10	N/A		mg/kg	10	N/A	J	mg/kg	
P18-13	Arsenic	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	6.1	N/A		mg/kg	6.1	N/A	J	mg/kg	
P18-13	Arsenic	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	12.8	N/A		mg/kg	12.8	N/A	J	mg/kg	
P18-13	Arsenic	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	6.4	N/A		mg/kg	6.4	N/A	J	mg/kg	
P18-13	Arsenic	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	7.6	N/A		mg/kg	7.6	N/A	-	mg/kg	
P18-13	Arsenic	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	4.8	N/A		mg/kg	4.8	N/A	J	mg/kg	
P18-13	Arsenic	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
P18-13	Arsenic	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
P18-13	Arsenic	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	4.6	N/A		mg/kg	4.6	N/A	J	mg/kg	
P18-13	Beryllium	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	0.81	N/A		mg/kg	0.81	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	0.45	N/A	B	mg/kg	0.45	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
P18-13	Beryllium	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	0.44	N/A	B	mg/kg	0.44	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	0.57	N/A	B	mg/kg	0.57	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	0.32	N/A	B	mg/kg	0.32	N/A	U	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-13	Beryllium	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	0.66	N/A		mg/kg	0.66	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	0.71	N/A		mg/kg	0.71	N/A	U	mg/kg	
P18-13	Beryllium	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	0.42	N/A	B	mg/kg	0.42	N/A	U	mg/kg	
P18-14	Arsenic	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	10.5	N/A		mg/kg	10.5	N/A	J	mg/kg	
P18-14	Arsenic	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	5.1	N/A		mg/kg	5.1	N/A	J	mg/kg	
P18-14	Arsenic	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	7.4	N/A		mg/kg	7.4	N/A	J	mg/kg	
P18-14	Arsenic	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	11.5	N/A		mg/kg	11.5	N/A	J	mg/kg	
P18-14	Arsenic	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	7.7	N/A		mg/kg	7.7	N/A	-	mg/kg	
P18-14	Arsenic	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	8.7	N/A		mg/kg	8.7	N/A	-	mg/kg	
P18-14	Arsenic	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	11.4	N/A		mg/kg	11.4	N/A	J	mg/kg	
P18-14	Arsenic	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	12.3	N/A		mg/kg	12.3	N/A	J	mg/kg	P18-14C-857434
P18-14	Arsenic	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	13	N/A		mg/kg	13	N/A	-	mg/kg	
P18-14	Arsenic	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P18-14	Arsenic	Metals	P18-14C2-1-M	NONE	482588	1350805	11-Mar-97	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P18-14	Beryllium	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	0.73	N/A		mg/kg	0.73	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	0.56	N/A	B	mg/kg	0.56	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	0.76	N/A		mg/kg	0.76	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
P18-14	Beryllium	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	0.55	N/A	B	mg/kg	0.55	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	0.73	N/A		mg/kg	0.73	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	1.1	N/A		mg/kg	1.1	N/A	J	mg/kg	
P18-14	Beryllium	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	0.78	N/A		mg/kg	0.78	N/A	UJ	mg/kg	P18-14C-857434
P18-14	Beryllium	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	0.72	N/A		mg/kg	0.72	N/A	-	mg/kg	
P18-14	Beryllium	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	0.66	N/A	B	mg/kg	0.66	N/A	U	mg/kg	
P18-14	Beryllium	Metals	P18-14C2-1-M	NONE	482588	1350805	11-Mar-97	0.59	N/A		mg/kg	0.59	N/A	-	mg/kg	
P18-20	Moisture	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	16.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	14.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	22.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	17	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	17.9	N/A	N/A	Percent	17.9	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	17.9	N/A	N/A	Percent	17.9	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	22	N/A	N/A	Percent	0	N/A	N/A	Percent	P18-20C-232374
P18-20	Moisture	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	19.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	20.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	17.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	18.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	16.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	21.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	19.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Moisture	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	18	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-20	Radium-226	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	1.5	0.17		pCi/g	1.5	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-20	Radium-226	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	1.1	0.13		pCi/g	1.1	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	1.3	0.15		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	1.2	0.15		pCi/g	1.2	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	1.5	0.16		pCi/g	1.5	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	0.88	0.2		pCi/g	0.88	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	0.88	0.2		pCi/g	0.88	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	1.7	0.18		pCi/g	1.7	0	-	pCi/g	P18-20C-232374
P18-20	Radium-226	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	1.2	0.12		pCi/g	1.2	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	1.2	0.13		pCi/g	1.2	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	1.1	0.12		pCi/g	1.1	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	0.09	0.19	U	pCi/g	0.09	0	Z	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-306477	RE	482477.26	1351306.48	27-Nov-96	1.4	0.2		pCi/g	1.39	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	1.4	0.18		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-226	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	1.3	0.37		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	0.94	0.28		pCi/g	0.94	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	1	0.3		pCi/g	1	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	1.2	0.31		pCi/g	1.2	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	1.4	0.43		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	1.4	0.43		pCi/g	1.4	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	P18-20C-232374
P18-20	Radium-228	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	1.1	0.29		pCi/g	1.1	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	0.79	0.38		pCi/g	0.79	0	Z	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-306477	RE	482477.26	1351306.48	27-Nov-96	1.4	0.61		pCi/g	1.41	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	1.5	0.44		pCi/g	1.5	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	1.3	0.36		pCi/g	1.3	0	-	pCi/g	
P18-20	Radium-228	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	1.4	0.39		pCi/g	1.4	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	1	0.46		pCi/g	1	0	J	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	0.93	0.38		pCi/g	0.95	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	0.89	0.36		pCi/g	0.89	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	1.3	0.5		pCi/g	1.3	1	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	1.2	0.55		pCi/g	1.2	1	J	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	1.23	0.1		pCi/g	1.26	0	J	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	1.23	0.1		pCi/g	1.26	0	J	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	1.4	0.54		pCi/g	1.4	1	J	pCi/g	P18-20C-232374
P18-20	Thorium-228	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	0.96	0.37		pCi/g	0.96	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-20	Thorium-228	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	0.85	0.39		pCi/g	0.85	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	1.4	0.65		pCi/L	1.4	1	-	pCi/L	
P18-20	Thorium-228	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	1	0.45		pCi/g	1	0	J	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	1.1	0.4		pCi/g	1.1	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	1.2	0.49		pCi/g	1.2	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	1.2	0.46		pCi/g	1.2	0	-	pCi/g	
P18-20	Thorium-228	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	1.1	0.45		pCi/g	1.1	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	0.93	0.39		pCi/g	0.93	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	0.93	0.37		pCi/g	0.93	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	0.88	0.34		pCi/g	0.88	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	1.1	0.42		pCi/g	1.1	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	1.1	0.49		pCi/g	1.1	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	1.27	0.09		pCi/g	1.27	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	1.27	0.09		pCi/g	1.27	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	1.1	0.43		pCi/g	1.1	0	J	pCi/g	P18-20C-232374
P18-20	Thorium-232	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	0.99	0.38		pCi/g	0.99	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	1.2	0.49		pCi/g	1.2	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	1.4	0.64		pCi/L	1.4	1	-	pCi/L	
P18-20	Thorium-232	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	0.96	0.4		pCi/g	0.96	0	J	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	1.3	0.46		pCi/g	1.3	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	1.2	0.45		pCi/g	1.2	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	1.3	0.39		pCi/g	1.3	0	-	pCi/g	
P18-20	Thorium-232	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	1.2	0.46		pCi/g	1.2	0	J	pCi/g	
P18-20	Uranium, Total	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	N/A	N/A	N/A	ug/g	19.19	4	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	N/A	N/A	N/A	ug/g	9.9	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	N/A	N/A	N/A	ug/g	5.7	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	N/A	N/A	N/A	ug/g	15.59	3	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	N/A	N/A	N/A	ug/g	5.7	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	N/A	N/A	N/A	ug/g	9		U	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	N/A	N/A	N/A	ug/g	9		U	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	N/A	N/A	N/A	ug/g	9	3	-	ug/g	P18-20C-232374
P18-20	Uranium, Total	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	N/A	N/A	N/A	ug/g	7.2	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	N/A	N/A	N/A	ug/g	10.5	3	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	N/A	N/A	N/A	ug/g	-1.26	3	Z	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-306477	RE	482477.26	1351306.48	27-Nov-96	N/A	N/A	N/A	ug/g	7.34	2	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	N/A	N/A	N/A	ug/g	3.3	2	J	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	N/A	N/A	N/A	ug/g	15.89	3	-	ug/g	
P18-20	Uranium, Total	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	N/A	N/A	N/A	ug/g	12.89	3	-	ug/g	
P18-20	Uranium, Total	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	N/A	N/A	N/A	ug/g	10.5	3	-	ug/g	
P18-20	Uranium-238	Radiological	P18-12C-977297	NONE	482297.69	1350977.83	6-Dec-96	6.4	1.2		pCi/g	6.4	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-006387	NONE	482387.28	1351006.68	27-Nov-96	3.3	0.7		pCi/g	3.3	1	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-20	Uranium-238	Radiological	P18-20C-043443	NONE	482443.33	1351043.12	27-Nov-96	1.9	0.63		pCi/g	1.9	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-103322	NONE	482322.3	1351103.16	27-Nov-96	5.2	0.98		pCi/g	5.2	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-109583	NONE	482583.5	1351109.42	26-Nov-96	1.9	0.74		pCi/g	1.9	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-232374	NONE	482374.52	1351232.4	2-Dec-96	2.51	1.9	U	pCi/g	3	2	U	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-232374	NONE	482374.57	1351232.39	2-Dec-96	2.51	1.9	U	pCi/g	3	2	U	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-232374-D	NONE	482374.52	1351232.4	4-Dec-96	3	1		pCi/g	3	1	-	pCi/g	P18-20C-232374
P18-20	Uranium-238	Radiological	P18-20C-244287	NONE	482287.25	1351244.54	27-Nov-96	2.2	0.66		pCi/g	2.2	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-267570	NONE	482570.8	1351267.51	27-Nov-96	2.4	0.77		pCi/g	2.4	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-269488	NONE	482488.6	1351269.98	27-Nov-96	3.5	0.9		pCi/g	3.5	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-306477	NONE	482477.26	1351306.48	27-Nov-96	-0.42	1	U	pCi/g	-0.42	1	Z	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-306477	RE	482477.26	1351306.48	27-Nov-96	2.4	0.67		pCi/g	2.45	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-343361	NONE	482361.78	1351343.54	27-Nov-96	1.1	0.62		pCi/g	1.1	1	J	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-366527	NONE	482527.18	1351366.9	27-Nov-96	5.3	1.1		pCi/g	5.3	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18-20C-384287	NONE	482287.76	1351384.32	27-Nov-96	4.3	1		pCi/g	4.3	1	-	pCi/g	
P18-20	Uranium-238	Radiological	P18C-998597	NONE	482597.24	1350998.6	6-Dec-96	3.5	0.98		pCi/g	3.5	1	-	pCi/g	
P18-31	Arsenic	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	8.6	N/A	•	mg/kg	8.6	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	6.5	N/A		mg/kg	6.5	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	5.9	N/A	•	mg/kg	5.9	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	7.3	N/A	•	mg/kg	7.3	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	8.2	N/A	•	mg/kg	8.2	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	6.5	N/A		mg/kg	6.5	N/A	-	mg/kg	
P18-31	Arsenic	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	4.4	N/A		mg/kg	4.4	N/A	J	mg/kg	
P18-31	Beryllium	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	0.8	N/A		mg/kg	0.8	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	0.61	N/A	B	mg/kg	0.61	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	0.47	N/A	B	mg/kg	0.47	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	0.84	N/A		mg/kg	0.84	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	0.91	N/A		mg/kg	0.91	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	0.73	N/A		mg/kg	0.73	N/A	U	mg/kg	
P18-31	Beryllium	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	0.28	N/A	B	mg/kg	0.28	N/A	U	mg/kg	
P18-32	Arsenic	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	10.1	N/A	•	mg/kg	10.1	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	7.3	N/A	•	mg/kg	7.3	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	9.8	N/A		mg/kg	9.8	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	9.2	N/A	•	mg/kg	9.2	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	5.6	N/A	•	mg/kg	5.6	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	5.5	N/A		mg/kg	5.5	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	10.1	N/A		mg/kg	10.1	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	5.9	N/A		mg/kg	5.9	N/A	-	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-32	Arsenic	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	6.2	N/A		mg/kg	6.2	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	9	N/A		mg/kg	9	N/A	-	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	6.3	N/A		mg/kg	6.3	N/A	J	mg/kg	
P18-32	Arsenic	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	5.8	N/A		mg/kg	5.8	N/A	UJ	mg/kg	P18-32C2-M-4
P18-32	Arsenic	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
P18-32	Beryllium	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	0.91	N/A		mg/kg	0.91	N/A	U	mg/kg	
P18-32	Beryllium	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	1.7	N/A		mg/kg	1.7	N/A	U	mg/kg	
P18-32	Beryllium	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	0.94	N/A		mg/kg	0.94	N/A	U	mg/kg	
P18-32	Beryllium	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	0.3	N/A	B	mg/kg	0.3	N/A	U	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	0.59	N/A		mg/kg	0.59	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	0.74	N/A		mg/kg	0.74	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	0.61	N/A	B	mg/kg	0.61	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	0.57	N/A	B	mg/kg	0.57	N/A	-	mg/kg	
P18-32	Beryllium	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	0.59	N/A	B	mg/kg	0.59	N/A	-	mg/kg	P18-32C2-M-4
P18-32	Beryllium	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
P18-40	Moisture	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	20	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	11.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	13.8	N/A	N/A	Percent	13.8	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	19.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	20.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	30.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	15.39	N/A	N/A	Percent	0	N/A	N/A	Percent	P18-40C-233817
P18-40	Moisture	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	20.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	23.6	N/A	N/A	Percent	23.6	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	19.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Moisture	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	20.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P18-40	Radium-226	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	1.1	0.15		pCi/g	1.06	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	0.91	0.21		pCi/g	0.91	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	1.2	0.13		pCi/g	1.2	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	1.3	0.14		pCi/g	1.29	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	1.74	0.29		pCi/g	1.74	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	1.3	0.15		pCi/g	1.3	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	1.04	0.23		pCi/g	1.04	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	1.81	0.3		pCi/g	1.81	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	1.45	0.27		pCi/g	1.45	0	-	pCi/g	P18-40C-233817
P18-40	Radium-226	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	1.3	0.14		pCi/g	1.3	0	-	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-40	Radium-226	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	1.79	0.28		pCi/g	1.79	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	1.6	0.19		pCi/g	1.55	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	1.06	0.2		pCi/g	1.06	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	1.38	0.29		pCi/g	1.38	0	-	pCi/g	
P18-40	Radium-226	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	1.3	0.17		pCi/g	1.26	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	1.1	0.2		pCi/g	1.13	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	1.18	0.42		pCi/g	1.18	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	1.1	0.32		pCi/g	1.08	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	1.63	0.57		pCi/g	1.63	1	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	1.1	0.31		pCi/g	1.1	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	1.39	0.38		pCi/g	1.39	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	1.32	0.61		pCi/g	1.32	1	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	0.88	0.54		pCi/g	0.88	1	J	pCi/g	P18-40C-233817
P18-40	Radium-228	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	1.62	0.53		pCi/g	1.62	1	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	1.2	0.38		pCi/g	1.24	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	1.03	0.4		pCi/g	1.03	0	-	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	1.04	0.53		pCi/g	1.04	1	J	pCi/g	
P18-40	Radium-228	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	1.2	0.37		pCi/g	1.2	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	1	0.28		pCi/g	1.29	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	1.05	0.1		pCi/g	1.09	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	1.1	0.54		pCi/g	1.1	1	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	1.4	0.6		pCi/g	1.4	1	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	0.98	0.1		pCi/g	1.03	0	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	1.1	0.5		pCi/g	1.1	1	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	1.11	0.14		pCi/g	1.15	0	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	1.09	0.1		pCi/g	1.13	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	1.07	0.09		pCi/g	1.11	0	-	pCi/g	P18-40C-233817
P18-40	Thorium-228	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	1.7	0.64		pCi/g	1.7	1	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	1.19	0.1		pCi/g	1.22	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	1.6	0.59		pCi/g	1.58	1	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	1.04	0.1		pCi/g	1.08	0	-	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	0.77	0.08		pCi/g	0.82	0	J	pCi/g	
P18-40	Thorium-228	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	1.8	0.68		pCi/g	1.81	1	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	1	0.22		pCi/g	1.04	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	0.98	0.08		pCi/g	0.97	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	1	0.47		pCi/g	1	0	J	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	1.2	0.5		pCi/g	1.15	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	0.9	0.09		pCi/g	0.9	0	J	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	1	0.44		pCi/g	1	0	J	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	0.99	0.12		pCi/g	0.99	0	J	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-40	Thorium-232	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	1.18	0.1		pCi/g	1.17	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	1.17	0.09		pCi/g	1.16	0	-	pCi/g	P18-40C-233817
P18-40	Thorium-232	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	1.4	0.52		pCi/g	1.4	1	J	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	1.23	0.1		pCi/g	1.23	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	1.3	0.48		pCi/g	1.29	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	1.17	0.1		pCi/g	1.16	0	-	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	0.77	0.67		pCi/g	0.76	0	J	pCi/g	
P18-40	Thorium-232	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	1.4	0.53		pCi/g	1.39	1	-	pCi/g	
P18-40	Uranium, Total	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	N/A	N/A	N/A	ug/g	11.9	3	-	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	N/A	N/A	N/A	ug/g	10.2	6	U	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	N/A	N/A	N/A	ug/g	7.2	2	-	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	N/A	N/A	N/A	ug/g	2.67	1	J	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	N/A	N/A	N/A	ug/g	22.22	13	J	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	N/A	N/A	N/A	ug/g	2.82	2	U	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	N/A	N/A	N/A	ug/g	11.1	7	U	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	N/A	N/A	N/A	ug/g	36.88	12	-	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	N/A	N/A	N/A	ug/g	30.89	12	-	ug/g	P18-40C-233817
P18-40	Uranium, Total	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	N/A	N/A	N/A	ug/g	9.6	3	-	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	N/A	N/A	N/A	ug/g	41.38	11	-	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	N/A	N/A	N/A	ug/g	4.43	2	J	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	N/A	N/A	N/A	ug/g	9.6	6	U	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	N/A	N/A	N/A	ug/g	10.5	7	U	ug/g	
P18-40	Uranium, Total	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	N/A	N/A	N/A	ug/g	7.02	3	-	ug/g	
P18-40	Uranium-238	Radiological	P18-40C-057710	NONE	482710.4	1351057.74	26-Nov-96	4	1		pCi/g	3.97	1	-	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-082930	NONE	482930.57	1351082.7	19-Nov-96	2.89	2.1	U	pCi/g	3.4	2	U	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-097665	NONE	482665.73	1351097.36	22-Nov-96	2.4	0.75		pCi/g	2.4	1	-	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-121992	NONE	482992.31	1351121.71	19-Nov-96	0.89	0.46		pCi/g	0.89	0	J	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-133834	NONE	482834.3	1351133.73	19-Nov-96	7.41	4.4		pCi/g	7.41	4	J	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-142613	NONE	482613.35	1351142.56	22-Nov-96	0.9	0.58	U	pCi/g	0.94	1	U	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-217950	NONE	482950.61	1351217.72	19-Nov-96	1.59	2.3	U	pCi/g	3.7	2	U	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-233817	NONE	482817.54	1351233.67	19-Nov-96	12.3	3.9		pCi/g	12.3	4	-	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-233817-D	NONE	482817.54	1351233.67	19-Nov-96	10.3	4		pCi/g	10.3	4	-	pCi/g	P18-40C-233817
P18-40	Uranium-238	Radiological	P18-40C-238686	NONE	482686.39	1351238.31	26-Nov-96	3.2	0.85		pCi/g	3.2	1	-	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-294716	NONE	482716.79	1351294.94	19-Nov-96	13.8	3.8		pCi/g	13.8	4	-	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-333930	NONE	482930.52	1351333.74	19-Nov-96	1.5	0.77		pCi/g	1.48	1	J	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-343874	NONE	482874.71	1351343.73	19-Nov-96	2.22	2	U	pCi/g	3.2	2	U	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-345749	NONE	482749.47	1351345.71	19-Nov-96	2.59	2.2	U	pCi/g	3.5	2	U	pCi/g	
P18-40	Uranium-238	Radiological	P18-40C-399613	NONE	482613.35	1351399.68	26-Nov-96	2.3	0.92		pCi/g	2.34	1	-	pCi/g	
P19	Arsenic	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19	Arsenic	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	8.1	N/A		mg/kg	8.1	N/A	J	mg/kg	
P19	Arsenic	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	4.5	N/A		mg/kg	4.5	N/A	J	mg/kg	
P19	Arsenic	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	5	N/A		mg/kg	5	N/A	U	mg/kg	
P19	Arsenic	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	5.4	N/A		mg/kg	5.4	N/A	U	mg/kg	
P19	Arsenic	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
P19	Arsenic	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	6.3	N/A		mg/kg	6.3	N/A	-	mg/kg	
P19	Beryllium	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	0.86	N/A		mg/kg	0.86	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	0.88	N/A		mg/kg	0.88	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	0.93	N/A		mg/kg	0.93	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	0.52	N/A	B	mg/kg	0.52	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	0.3	N/A	B	mg/kg	0.3	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	0.82	N/A		mg/kg	0.82	N/A	U	mg/kg	
P19	Beryllium	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	0.4	N/A	B	mg/kg	0.4	N/A	-	mg/kg	
P19	Beryllium	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
P19	Beryllium	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	0.65	N/A	B	mg/kg	0.65	N/A	-	mg/kg	
P19	Beryllium	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
P19	Beryllium	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
P19	Moisture	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	23.39	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	23.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	25.26	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	26.66	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	19.58	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	27.27	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	24.59	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	26.12	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	26.86	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	20.58	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	26.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Moisture	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	23.75	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19	Radium-226	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	1.1	0.16		pCi/g	1.08	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	1	0.16		pCi/g	1.02	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	1	0.16		pCi/g	1.02	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	1.1	0.18		pCi/g	1.13	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	0.91	0.13		pCi/g	0.91	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	1.1	0.16		pCi/g	1.07	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	1.2	0.22		pCi/g	1.21	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19	Radium-226	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	0.96	0.14		pCi/g	0.96	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	1.2	0.17		pCi/g	1.16	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	0.98	0.16		pCi/g	0.98	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	1.2	0.16		pCi/g	1.15	0	-	pCi/g	
P19	Radium-226	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	1.1	0.2		pCi/g	1.08	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	1.2	0.23		pCi/g	1.21	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	1.3	0.27		pCi/g	1.33	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	1.1	0.23		pCi/g	1.14	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	1.3	0.27		pCi/g	1.27	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	1.2	0.21		pCi/g	1.22	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	1.3	0.22		pCi/g	1.26	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	1.3	0.22		pCi/g	1.33	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	1.2	0.22		pCi/g	1.21	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	0.97	0.23		pCi/g	0.97	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	1.3	0.25		pCi/g	1.26	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	1.2	0.23		pCi/g	1.23	0	-	pCi/g	
P19	Radium-228	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	1.2	0.23		pCi/g	1.2	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	1.4	0.28		pCi/g	1.58	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	1.2	0.31		pCi/g	1.42	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	1	0.31		pCi/g	1.56	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	0.88	0.31		pCi/g	1.39	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	1	0.33		pCi/g	1.28	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	1.8	0.38		pCi/g	1.99	0	Z	pCi/g	
P19	Thorium-228	Radiological	P19C-832239	RE	483239.48	1350832.81	8-Jan-97	1.1	0.26		pCi/g	1.12	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	0.76	0.24		pCi/g	0.99	0	J	pCi/g	
P19	Thorium-228	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	0.93	0.31		pCi/g	1.44	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	0.97	0.29		pCi/g	1.21	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	1	0.33		pCi/g	1.42	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	1.1	0.32		pCi/g	1.3	0	-	pCi/g	
P19	Thorium-228	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	1.1	0.41		pCi/g	1.53	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	1.1	0.21		pCi/g	1.09	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	1.2	0.24		pCi/g	1.16		-	pCi/g	
P19	Thorium-232	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	1	0.22		pCi/g	1.07	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	1.6	0.32		pCi/g	1.62	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	0.84	0.23		pCi/g	0.88	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	0.92	0.2		pCi/g	0.94		Z	pCi/g	
P19	Thorium-232	Radiological	P19C-832239	RE	483239.48	1350832.81	8-Jan-97	0.94	0.22		pCi/g	0.96	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	1.1	0.22		pCi/g	1.13		J	pCi/g	
P19	Thorium-232	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	1.1	0.23		pCi/g	1.1	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	1.1	0.24		pCi/g	1.13		-	pCi/g	
P19	Thorium-232	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	1.2	0.27		pCi/g	1.24	0	-	pCi/g	
P19	Thorium-232	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	0.96	0.22		pCi/g	0.98		-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19	Thorium-232	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	1	0.3		pCi/g	1.06	0	-	pCi/g	
P19	Uranium, Total	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	N/A	N/A	N/A	ug/g	19.37	5	-	ug/g	
P19	Uranium, Total	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	N/A	N/A	N/A	ug/g	17.86		-	ug/g	
P19	Uranium, Total	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	N/A	N/A	N/A	ug/g	23.21	6	-	ug/g	
P19	Uranium, Total	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	N/A	N/A	N/A	ug/g	23.62	7	-	ug/g	
P19	Uranium, Total	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	N/A	N/A	N/A	ug/g	23.47	5	-	ug/g	
P19	Uranium, Total	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	N/A	N/A	N/A	ug/g	38.11		-	ug/g	
P19	Uranium, Total	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	N/A	N/A	N/A	ug/g	18.5		-	ug/g	
P19	Uranium, Total	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	N/A	N/A	N/A	ug/g	21.02	5	-	ug/g	
P19	Uranium, Total	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	N/A	N/A	N/A	ug/g	20.21		-	ug/g	
P19	Uranium, Total	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	N/A	N/A	N/A	ug/g	17.97	6	-	ug/g	
P19	Uranium, Total	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	N/A	N/A	N/A	ug/g	28.93		-	ug/g	
P19	Uranium, Total	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	N/A	N/A	N/A	ug/g	24.23	6	-	ug/g	
P19	Uranium-238	Radiological	P19C-653510	NONE	483510.73	1350653.83	14-Jan-97	6.5	1.7		pCi/g	6.46	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-716011	NONE	483011.3	1350716.08	8-Jan-97	6	2.1		pCi/g	5.96		-	pCi/g	
P19	Uranium-238	Radiological	P19C-734514	NONE	483514.35	1350734.85	14-Jan-97	7.7	2.2		pCi/g	7.74	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-796728	NONE	483728	1350796	14-Jan-97	7.9	2.3		pCi/g	7.88	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-804489	NONE	483489.54	1350804.4	14-Jan-97	7.8	1.7		pCi/g	7.83	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-832239	NONE	483239.48	1350832.81	8-Jan-97	13	2.6		pCi/g	12.71		-	pCi/g	
P19	Uranium-238	Radiological	P19C-871099	NONE	483099.36	1350871.11	8-Jan-97	6.2	1.8		pCi/g	6.17		-	pCi/g	
P19	Uranium-238	Radiological	P19C-899672	NONE	483672.24	1350899.28	14-Jan-97	7	1.6		pCi/g	7.01	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-902256	NONE	483256.28	1350902.31	8-Jan-97	6.7	1.8		pCi/g	6.74		-	pCi/g	
P19	Uranium-238	Radiological	P19C-902785	NONE	483785	1350902	15-Jan-97	6	1.9		pCi/g	5.99	2	-	pCi/g	
P19	Uranium-238	Radiological	P19C-923140	NONE	483140.25	1350923.42	8-Jan-97	9.6	2.2		pCi/g	9.65		-	pCi/g	
P19	Uranium-238	Radiological	P19C-998543	NONE	483543.33	1350998.13	14-Jan-97	8.1	2		pCi/g	8.08	2	-	pCi/g	
P19-20	Moisture	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	14.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	13.14	N/A	N/A	Percent	0	N/A	N/A	Percent	P19-20C-1-R
P19-20	Moisture	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	22.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	19.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	19.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	21.96	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	19.16	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	17.69	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	15.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	15.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	18.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	15.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	14.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	20.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	15.81	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	16.74	N/A	N/A	Percent	0	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-20	Moisture	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	17.82	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	14.92	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Moisture	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	14.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-20	Radium-226	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	1	0.16		pCi/g	1	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	0.95	0.16		pCi/g	0.95	0	-	pCi/g	P19-20C-1-R
P19-20	Radium-226	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	1.3	0.22		pCi/g	1.3	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	1.2	0.21		pCi/g	1.2	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	1.1	0.19		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	1.2	0.2		pCi/g	1.2	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	1.2	0.18		pCi/g	1.2	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	1.18	0.35		pCi/g	1.18	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	1.5	0.15		pCi/g	1.46	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	1.44	0.37		pCi/g	1.44	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	1.3	0.28		pCi/g	1.3	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	1.06	0.23		pCi/g	1.06	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	1.14	0.23		pCi/g	1.14	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	1.18	0.25		pCi/g	1.18	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	0.98	0.19		pCi/g	0.98	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	1.3	0.22		pCi/g	1.3	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-226	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	1	0.17		pCi/g	1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	1	0.22		pCi/g	1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	0.97	0.23		pCi/g	0.97	0	-	pCi/g	P19-20C-1-R
P19-20	Radium-228	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	1.2	0.3		pCi/g	1.2	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	1.3	0.32		pCi/g	1.3	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	1	0.3		pCi/g	1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	1.1	0.27		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	1.2	0.28		pCi/g	1.2	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	1.1	0.22		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	0.74	0.44		pCi/g	0.74	0	J	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	1.4	0.36		pCi/g	1.4	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	1.3	0.64		pCi/g	1.3	1	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	1.06	0.47		pCi/g	1.06	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	0.91	0.41		pCi/g	0.91	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	1.29	0.48		pCi/g	1.29	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	1.4	0.52		pCi/g	1.4	1	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	1.1	0.28		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	1.1	0.24		pCi/g	1.1	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
P19-20	Radium-228	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	0.96	0.25		pCi/g	0.96	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-20	Radium-228	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	0.85	0.23		pCi/g	0.85	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	0.9	0.24		pCi/g	0.9	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	0.97	0.3		pCi/g	0.97	0	J	pCi/g	P19-20C-1-R
P19-20	Thorium-228	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	1.2	0.32		pCi/g	1.15	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	1.1	0.32		pCi/g	1.08	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	1.3	0.32		pCi/g	1.3	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	1.2	0.28		pCi/g	1.15	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	1.2	0.29		pCi/g	1.21	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	1.4	0.29		pCi/g	1.39	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	1.08	0.1		pCi/g	1.12	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	1.6	0.66		pCi/g	1.63	1	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	1.32	0.12		pCi/g	1.36	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	1.15	0.11		pCi/g	1.19	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	0.99	0.11		pCi/g	1.03	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	1.14	0.1		pCi/g	1.18	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	1.08	0.13		pCi/g	1.12	0	-	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	0.91	0.29		pCi/g	0.91	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	1	0.31		pCi/g	1.01	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	1.3	0.31		pCi/g	1.29	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	1.2	0.31		pCi/g	1.21	0	J	pCi/g	
P19-20	Thorium-228	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	0.75	0.26		pCi/g	0.75	0	J	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	0.94	0.21		pCi/g	1	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	1.2	0.25		pCi/g	1.18	0	-	pCi/g	P19-20C-1-R
P19-20	Thorium-232	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	1.1	0.25		pCi/g	1.11	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	1.1	0.26		pCi/g	1.11	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	1.1	0.25		pCi/g	1.1	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	0.92	0.21		pCi/g	0.94	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	1	0.22		pCi/g	1.05	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	1.1	0.22		pCi/g	1.07	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	1.05	0.09		pCi/g	1.04	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	1.3	0.52		pCi/g	1.27	1	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	1.25	0.11		pCi/g	1.24	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	1.12	0.09		pCi/g	1.11	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	1.03	0.1		pCi/g	1.02	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	1.31	0.1		pCi/g	1.3	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	1.14	0.12		pCi/g	1.13	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	1.1	0.23		pCi/g	1.1	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	1.1	0.26		pCi/g	1.2	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	1	0.24		pCi/g	1.03	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	0.86	0.22		pCi/g	0.89	0	-	pCi/g	
P19-20	Thorium-232	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	0.99	0.24		pCi/g	1.01	0	-	pCi/g	
P19-20	Uranium, Total	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	N/A	N/A	N/A	ug/g	10.8	4	-	ug/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-20	Uranium, Total	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	N/A	N/A	N/A	ug/g	9.9	5	-	ug/g	P19-20C-1-R
P19-20	Uranium, Total	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	N/A	N/A	N/A	ug/g	7.8	5	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	N/A	N/A	N/A	ug/g	9	6	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	N/A	N/A	N/A	ug/g	10.8	6	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	N/A	N/A	N/A	ug/g	18.29	7	-	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	N/A	N/A	N/A	ug/g	3.3	4	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	N/A	N/A	N/A	ug/g	4.5	3	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	N/A	N/A	N/A	ug/g	13.79	9	U	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	N/A	N/A	N/A	ug/g	2.88	1	-	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	N/A	N/A	N/A	ug/g	17.09	11	U	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	N/A	N/A	N/A	ug/g	11.99	8	U	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	N/A	N/A	N/A	ug/g	13.19	8	U	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	N/A	N/A	N/A	ug/g	32.08	11	-	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	N/A	N/A	N/A	ug/g	11.1	7	U	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	N/A	N/A	N/A	ug/g	9.29	6	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	N/A	N/A	N/A	ug/g	4.5	3	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	N/A	N/A	N/A	ug/g	11.1	5	-	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	N/A	N/A	N/A	ug/g	9.6	6	J	ug/g	
P19-20	Uranium, Total	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	N/A	N/A	N/A	ug/g	17.39	7	-	ug/g	
P19-20	Uranium-238	Radiological	P19-20C-1-R	NONE	483039	1351128	24-Feb-97	3.6	1.3		pCi/g	3.6	1	-	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-1-R-D	NONE	483039	1351128	24-Feb-97	3.3	1.6		pCi/g	3.3	2	-	pCi/g	P19-20C-1-R
P19-20	Uranium-238	Radiological	P19-20C-10-R	NONE	483231	1351257	24-Feb-97	2.6	1.6		pCi/g	2.6	2	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-11-R	NONE	483248	1351281	24-Feb-97	3	2.1		pCi/g	3	2	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-12-R	NONE	483260	1351346	24-Feb-97	3.6	2.1		pCi/g	3.6	2	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-13-R	NONE	483264	1351364	24-Feb-97	6.1	2.3		pCi/g	6.1	2	-	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-14-R	NONE	483330	1351305	24-Feb-97	1.1	1.4		pCi/g	1.1	1	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-15-R	NONE	483374	1351355	24-Feb-97	1.5	1.1		pCi/g	1.5	1	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-151040	NONE	483040.33	1351151.69	19-Nov-96	3.7	3	U	pCi/g	4.6	3	U	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-16-R	NONE	483339	1351362	19-Nov-96	0.96	0.39		pCi/g	0.96	0	-	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-190103	NONE	483103.34	1351190.72	19-Nov-96	4.41	3.6	U	pCi/g	5.7	4	U	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-213195	NONE	483195.52	1351213.63	19-Nov-96	3.2	2.6	U	pCi/g	4	3	U	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-297039	NONE	483039.64	1351297.68	19-Nov-96	3.57	2.8	U	pCi/g	4.4	3	U	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-367150	NONE	483149.45	1351367.78	19-Nov-96	10.7	3.8		pCi/g	10.7	4	-	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-377016	NONE	483016.51	1351377.77	19-Nov-96	2.74	2.3	U	pCi/g	3.7	2	U	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-4-R	NONE	483014	1351335	24-Feb-97	3.1	2.1		pCi/g	3.1	2	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-5-R	NONE	483033	1351387	24-Feb-97	1.5	0.86		pCi/g	1.5	1	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-6-R	NONE	483164	1351213	24-Feb-97	3.7	1.9		pCi/g	3.7	2	-	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-8-R	NONE	483120	1351300	24-Feb-97	3.2	1.9		pCi/g	3.2	2	J	pCi/g	
P19-20	Uranium-238	Radiological	P19-20C-9-R	NONE	483143	1351372	24-Feb-97	5.8	2.3		pCi/g	5.8	2	-	pCi/g	
P19-23	Moisture	Radiological	P19-20C-010014	NONE	483014.14	1351010.33	28-Jan-97	21.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-20C-060180	NONE	483180	1351060	28-Jan-97	34.1	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-23	Moisture	Radiological	P19-20C-094298	NONE	483298	1351094	28-Jan-97	29.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-20C-098322	NONE	483322	1351098	28-Jan-97	27.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-20C-163268	NONE	483268.09	1351163.73	28-Jan-97	32.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-20C-174397	NONE	483397	1351174	28-Jan-97	33.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	20.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	26.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	24.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	25.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	24.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	29.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	25.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	21.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	27.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	26.6	N/A	N/A	Percent	0	N/A	N/A	Percent	P19-23C-6-R
P19-23	Moisture	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	25.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Moisture	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	27.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-23	Radium-226	Radiological	P19-20C-010014	NONE	483014.14	1351010.33	28-Jan-97	1.33	0.3		pCi/g	1.33	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-20C-060180	NONE	483180	1351060	28-Jan-97	0.83	0.24		pCi/g	0.83	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-20C-094298	NONE	483298	1351094	28-Jan-97	0.64	0.19		pCi/g	0.64	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-20C-098322	NONE	483322	1351098	28-Jan-97	0.69	0.17		pCi/g	0.69	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-20C-163268	NONE	483268.09	1351163.73	28-Jan-97	1.07	0.3		pCi/g	1.07	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-20C-174397	NONE	483397	1351174	28-Jan-97	1.37	0.33		pCi/g	1.37	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	1.6	0.18		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	1.6	0.18		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	1.3	0.16		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	1.6	0.18		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	1.3	0.18		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	1.6	0.16		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	1.6	0.17		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	1.6	0.17		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	1.6	0.17		pCi/g	1.6	0	-	pCi/g	P19-23C-6-R
P19-23	Radium-226	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	1.5	0.17		pCi/g	1.5	0	-	pCi/g	
P19-23	Radium-226	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	1.6	0.16		pCi/g	1.6	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-010014	NONE	483014.14	1351010.33	28-Jan-97	1.03	0.53		pCi/g	1.03	1	J	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-060180	NONE	483180	1351060	28-Jan-97	1.57	0.53		pCi/g	1.57	1	-	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-094298	NONE	483298	1351094	28-Jan-97	1.07	0.51		pCi/g	1.07	1	-	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-098322	NONE	483322	1351098	28-Jan-97	0.96	0.38		pCi/g	0.96	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-163268	NONE	483268.09	1351163.73	28-Jan-97	1.81	0.63		pCi/g	1.81	1	-	pCi/g	
P19-23	Radium-228	Radiological	P19-20C-174397	NONE	483397	1351174	28-Jan-97	1.61	0.6		pCi/g	1.61	1	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-23	Radium-228	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	1.2	0.31		pCi/g	1.2	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	1.4	0.41		pCi/g	1.4	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	1.3	0.38		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	1.4	0.37		pCi/g	1.4	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	1.5	0.4		pCi/g	1.45	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	1.3	0.35		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	1.4	0.36		pCi/g	1.4	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	1.3	0.33		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	1.3	0.38		pCi/g	1.3	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	1.3	0.35		pCi/g	1.25	0	-	pCi/g	P19-23C-6-R
P19-23	Radium-228	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	1.5	0.37		pCi/g	1.45	0	-	pCi/g	
P19-23	Radium-228	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	1.6	0.41		pCi/g	1.6	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-010014	RE	483014.14	1351010.33	28-Jan-97	1.34	0.12		pCi/g	1.34	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-060180	RE	483180	1351060	28-Jan-97	1.33	0.11		pCi/g	1.33	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-094298	RE	483298	1351094	28-Jan-97	1.26	0.15		pCi/g	1.26	0	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-098322	RE	483322	1351098	28-Jan-97	1.15	0.1		pCi/g	1.15	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-163268	RE	483268.09	1351163.73	28-Jan-97	1.26	0.11		pCi/g	1.26	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-20C-174397	RE	483397	1351174	28-Jan-97	1.25	0.11		pCi/g	1.25	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	1.2	0.43		pCi/g	1.2	0	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	1.3	0.45		pCi/g	1.3	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	1.4	0.62		pCi/g	1.4	1	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	1.4	0.53		pCi/g	1.4	1	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	1.6	0.67		pCi/g	1.6	1	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	1.5	0.67		pCi/g	1.5	1	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	1.2	0.49		pCi/g	1.2	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	1.3	0.48		pCi/g	1.3	0	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	1.4	0.52		pCi/g	1.4	1	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	1.3	0.49		pCi/g	1.3	0	-	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	1.4	0.59		pCi/g	1.4	1	-	pCi/g	P19-23C-6-R
P19-23	Thorium-228	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	1.4	0.6		pCi/g	1.4	1	J	pCi/g	
P19-23	Thorium-228	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	1.5	0.63		pCi/g	1.5	1	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-010014	RE	483014.14	1351010.33	28-Jan-97	1.41	0.11		pCi/g	1.41	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-060180	RE	483180	1351060	28-Jan-97	1.25	0.1		pCi/g	1.25	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-094298	RE	483298	1351094	28-Jan-97	1.25	0.14		pCi/g	1.25	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-098322	RE	483322	1351098	28-Jan-97	1.22	0.1		pCi/g	1.22	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-163268	RE	483268.09	1351163.73	28-Jan-97	1.2	0.1		pCi/g	1.2	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-20C-174397	RE	483397	1351174	28-Jan-97	1.29	0.1		pCi/g	1.29	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	0.94	0.34		pCi/g	0.94	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	1.1	0.38		pCi/g	1.1	0	-	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	1.3	0.57		pCi/g	1.3	1	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	1.2	0.46		pCi/g	1.2	0	J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-23	Thorium-232	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	1.5	0.61		pCi/g	1.5	1	-	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	1.2	0.53		pCi/g	1.2	1	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	1.2	0.48		pCi/g	1.2	0	-	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	1.2	0.44		pCi/g	1.2	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	1.2	0.47		pCi/g	1.2	0	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	1.3	0.48		pCi/g	1.3	0	-	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	1.4	0.6		pCi/g	1.4	1	-	pCi/g	P19-23C-6-R
P19-23	Thorium-232	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	1.4	0.57		pCi/g	1.4	1	J	pCi/g	
P19-23	Thorium-232	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	1.4	0.57		pCi/g	1.4	1	J	pCi/g	
P19-23	Uranium, Total	Radiological	P19-20C-010014	NONE	483014.14	1351010.33	28-Jan-97	N/A	N/A	N/A	ug/g	14.64	9	J	ug/g	
P19-23	Uranium, Total	Radiological	P19-20C-060180	NONE	483180	1351060	28-Jan-97	N/A	N/A	N/A	ug/g	40.54	12	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-20C-094298	NONE	483298	1351094	28-Jan-97	N/A	N/A	N/A	ug/g	23.46	10	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-20C-098322	NONE	483322	1351098	28-Jan-97	N/A	N/A	N/A	ug/g	22.39	7	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-20C-163268	NONE	483268.09	1351163.73	28-Jan-97	N/A	N/A	N/A	ug/g	18.59	12	U	ug/g	
P19-23	Uranium, Total	Radiological	P19-20C-174397	NONE	483397	1351174	28-Jan-97	N/A	N/A	N/A	ug/g	38.26	13	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	N/A	N/A	N/A	ug/g	11.99	3	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	N/A	N/A	N/A	ug/g	10.8	3	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	N/A	N/A	N/A	ug/g	19.79	4	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	N/A	N/A	N/A	ug/g	9.29	2	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	N/A	N/A	N/A	ug/g	15.59	3	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	N/A	N/A	N/A	ug/g	15.89	3	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	N/A	N/A	N/A	ug/g	23.39	4	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	N/A	N/A	N/A	ug/g	8.4	2	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	N/A	N/A	N/A	ug/g	10.8	2	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	N/A	N/A	N/A	ug/g	22.19	4	J	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	N/A	N/A	N/A	ug/g	15.59	3	J	ug/g	P19-23C-6-R
P19-23	Uranium, Total	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	N/A	N/A	N/A	ug/g	11.69	2	-	ug/g	
P19-23	Uranium, Total	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	N/A	N/A	N/A	ug/g	23.69	4	-	ug/g	
P19-23	Uranium-238	Radiological	P19-20C-010014	NONE	483014.14	1351010.33	28-Jan-97	4.88	3		pCi/g	4.88	3	J	pCi/g	
P19-23	Uranium-238	Radiological	P19-20C-060180	NONE	483180	1351060	28-Jan-97	13.5	4		pCi/g	13.52	4	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-20C-094298	NONE	483298	1351094	28-Jan-97	7.82	3.3		pCi/g	7.82	3	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-20C-098322	NONE	483322	1351098	28-Jan-97	7.47	2.5		pCi/g	7.47	3	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-20C-163268	NONE	483268.09	1351163.73	28-Jan-97	8.38	4.1		pCi/g	6.2	4	U	pCi/g	
P19-23	Uranium-238	Radiological	P19-20C-174397	NONE	483397	1351174	28-Jan-97	12.8	4.3		pCi/g	12.76	4	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-1-R	NONE	483059.08	1351037.03	25-Feb-97	4	0.89		pCi/g	4	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-10-R	NONE	483277.44	1351123.22	25-Feb-97	3.6	0.85		pCi/g	3.6	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-11-R	NONE	483324.71	1351200.52	25-Feb-97	6.6	1.3		pCi/g	6.6	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-12-R	NONE	483387.4	1351050.82	25-Feb-97	3.1	0.62		pCi/g	3.1	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-13-R	NONE	483391.35	1351090.53	25-Feb-97	5.2	1.1		pCi/g	5.2	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-14-R	NONE	483373.49	1351118.5	25-Feb-97	5.3	0.97		pCi/g	5.3	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-15-R	NONE	483348.31	1351200.31	25-Feb-97	7.8	1.2		pCi/g	7.8	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-16-R	NONE	483373.62	1351232.77	25-Feb-97	2.8	0.59		pCi/g	2.8	1	-	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-23	Uranium-238	Radiological	P19-23C-3-R	NONE	483143.39	1351073.31	25-Feb-97	3.6	0.64		pCi/g	3.6	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-6-R	NONE	483217.41	1351083.54	25-Feb-97	7.4	1.2		pCi/g	7.4	1	J	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-6-R-D	NONE	483217.41	1351083.54	25-Feb-97	5.2	0.99		pCi/g	5.2	1	J	pCi/g	P19-23C-6-R
P19-23	Uranium-238	Radiological	P19-23C-7-R	NONE	483230.09	1351123.18	25-Feb-97	3.9	0.69		pCi/g	3.9	1	-	pCi/g	
P19-23	Uranium-238	Radiological	P19-23C-9-R	NONE	483284.47	1351065.49	25-Feb-97	7.9	1.4		pCi/g	7.9	1	-	pCi/g	
P19-40	Moisture	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	21	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	16.91	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	26.33	N/A	N/A	Percent	26.33	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	19.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	26.41	N/A	N/A	Percent	26.41	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	16.16	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	24.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	19.48	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	27.24	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	29.1	N/A	N/A	Percent	29.1	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	29.28	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	27.22	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	22.73	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	18.02	N/A	N/A	Percent	0	N/A	N/A	Percent	
P19-40	Moisture	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	25.34	N/A	N/A	Percent	25.34	N/A	N/A	Percent	
P19-40	Radium-226	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	0.96	0.14		pCi/g	0.96	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	1	0.15		pCi/g	1.03	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	1.1	0.18		pCi/g	1.15	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	0.89	0.13		pCi/g	0.89	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	1.4	0.28		pCi/g	1.39	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	0.92	0.13		pCi/g	0.92	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	1.1	0.16		pCi/g	1.07	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	0.91	0.19		pCi/g	0.91	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	1.1	0.16		pCi/g	1.07	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	0.68	0.15		pCi/g	0.69	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	1	0.16		pCi/g	1.02	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	0.99	0.15		pCi/g	0.99	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	1.2	0.23		pCi/g	1.17	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	0.99	0.15		pCi/g	0.99	0	-	pCi/g	
P19-40	Radium-226	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	1.2	0.18		pCi/g	1.18	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	1.1	0.22		pCi/g	1.13	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	1.2	0.22		pCi/g	1.18	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	1.4	0.27		pCi/g	1.4	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	1.2	0.2		pCi/g	1.16	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	1.5	0.43		pCi/g	1.5	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	1.2	0.2		pCi/g	1.17	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-40	Radium-228	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	1.2	0.23		pCi/g	1.17	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	1.2	0.23		pCi/g	1.15	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	1.2	0.23		pCi/g	1.17	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	0.61	0.21		pCi/g	0.61	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	1.2	0.23		pCi/g	1.18	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	1.3	0.27		pCi/g	1.27	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	1.3	0.24		pCi/g	1.27	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	1.1	0.22		pCi/g	1.12	0	-	pCi/g	
P19-40	Radium-228	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	1	0.29		pCi/g	1.04	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	1.3	0.32		pCi/g	1.73	0	Z	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-001567	RE	483567.78	1351001.33	14-Jan-97	1.2	0.25		pCi/g	1.23	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	0.94	0.25		pCi/g	1.36	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	1	0.25		pCi/g	1.04	0	J	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	0.49	0.26		pCi/g	0.97	0	J	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	1.2	0.28		pCi/g	1.21	0	J	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	1	0.32		pCi/g	1.54	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	1.1	0.29		pCi/g	1.35	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	1.2	0.28		pCi/g	1.31	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	0.83	0.25		pCi/g	1.06	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	1	0.26		pCi/g	1.02	0	J	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	0.74	0.35		pCi/g	1.22	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	0.48	0.21		pCi/g	0.82	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	1.2	0.32		pCi/g	1.45	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	0.97	0.32		pCi/g	1.45	0	-	pCi/g	
P19-40	Thorium-228	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	1.2	0.26		pCi/g	1.15	0	J	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	1.2	0.24		pCi/g	1.28	0	Z	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-001567	RE	483567.78	1351001.33	14-Jan-97	1.2	0.22		pCi/g	1.16	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	0.89	0.18		pCi/g	0.92	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	1.1	0.22		pCi/g	1.1	0	J	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	0.91	0.21		pCi/g	0.95	0	J	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	1.1	0.24		pCi/g	1.14	0	J	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	0.91	0.21		pCi/g	0.95	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	1.1	0.22		pCi/g	1.07		-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	1	0.22		pCi/g	1.04	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	1.3	0.24		pCi/g	1.28		-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	1.2	0.24		pCi/g	1.22	0	J	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	1	0.29		pCi/g	1.05	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	0.72	0.17		pCi/g	0.74	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	0.99	0.22		pCi/g	1		-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	1.1	0.25		pCi/g	1.16	0	-	pCi/g	
P19-40	Thorium-232	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	1.1	0.22		pCi/g	1.13	0	J	pCi/g	
P19-40	Uranium, Total	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	N/A	N/A	N/A	ug/g	19.37	6	-	ug/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19-40	Uranium, Total	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	N/A	N/A	N/A	ug/g	17.3	4	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	N/A	N/A	N/A	ug/g	27.33	6	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	N/A	N/A	N/A	ug/g	16.11	5	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	N/A	N/A	N/A	ug/g	13.58	8	J	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	N/A	N/A	N/A	ug/g	7.04	4	J	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	N/A	N/A	N/A	ug/g	21.15		-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	N/A	N/A	N/A	ug/g	17.2	5	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	N/A	N/A	N/A	ug/g	24.22		-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	N/A	N/A	N/A	ug/g	9.18	7	J	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	N/A	N/A	N/A	ug/g	22.53	7	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	N/A	N/A	N/A	ug/g	24.57	6	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	N/A	N/A	N/A	ug/g	22.42		-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	N/A	N/A	N/A	ug/g	19.09	6	-	ug/g	
P19-40	Uranium, Total	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	N/A	N/A	N/A	ug/g	18.5	5	-	ug/g	
P19-40	Uranium-238	Radiological	P19-40C-001567	NONE	483567.78	1351001.33	14-Jan-97	6.5	1.9		pCi/g	6.46	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-009494	NONE	483494.28	1351009.67	14-Jan-97	5.8	1.4		pCi/g	5.77	1	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-018707	NONE	483707	1351018	19-Mar-97	9.1	2.1		pCi/g	9.11	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-046680	NONE	483680.89	1351046.04	14-Jan-97	5.4	1.7		pCi/g	5.37	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-131701	NONE	483701	1351131	19-Mar-97	4.5	2.6		pCi/g	4.53	3	J	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-163578	NONE	483578.06	1351163.3	14-Jan-97	2.3	1.2		pCi/g	2.35	1	J	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-176421	NONE	483421	1351176	8-Jan-97	7.1	1.9		pCi/g	7.05	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-179603	NONE	483603.59	1351179.3	14-Jan-97	5.7	1.7		pCi/g	5.74	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-235537	NONE	483537.45	1351235.34	8-Jan-97	8.1	2		pCi/g	8.08		-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-237489	NONE	483489	1351237	19-Mar-97	3.1	2.2		pCi/g	3.06	2	J	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-252690	NONE	483690.81	1351252.46	14-Jan-97	7.5	2.2		pCi/g	7.51	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-297760	NONE	483760	1351297	14-Jan-97	8.2	2		pCi/g	8.2	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-333523	NONE	483523.65	1351333.49	8-Jan-97	7.5	1.9		pCi/g	7.48		-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-336769	NONE	483769	1351336	15-Jan-97	6.4	2		pCi/g	6.37	2	-	pCi/g	
P19-40	Uranium-238	Radiological	P19-40C-340632	NONE	483632	1351340	19-Mar-97	6.2	1.8		pCi/g	6.17	2	-	pCi/g	
P20	Arsenic	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	3.1	N/A		mg/kg	3.1	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	6.8	N/A		mg/kg	6.8	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	6.4	N/A		mg/kg	6.4	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	6.5	N/A		mg/kg	6.5	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	5.8	N/A		mg/kg	5.8	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	5.9	N/A		mg/kg	5.9	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	6.3	N/A		mg/kg	6.3	N/A	-	mg/kg	
P20	Arsenic	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	8.8	N/A		mg/kg	8.8	N/A	J	mg/kg	
P20	Arsenic	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	9.8	N/A		mg/kg	9.8	N/A	-	mg/kg	
P20	Beryllium	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	0.44	N/A	B	mg/kg	0.44	N/A	U	mg/kg	
P20	Beryllium	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
P20	Beryllium	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	0.89	N/A	B	mg/kg	0.89	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P20	Beryllium	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	0.95	N/A		mg/kg	0.95	N/A	U	mg/kg	
P20	Beryllium	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	0.82	N/A	B	mg/kg	0.82	N/A	U	mg/kg	
P20	Beryllium	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
P20	Beryllium	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
P20	Beryllium	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	1.3	N/A		mg/kg	1.3	N/A	UJ	mg/kg	
P20	Beryllium	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
P20-30	Moisture	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	29.47	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	31.51	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	28.85	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	33	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	29.35	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	26.58	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	30.91	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	20.95	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	40.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	37.18	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	23.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Moisture	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	28.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
P20-30	Radium-226	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	0.97	0.2		pCi/g	0.97	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	1.1	0.17		pCi/g	1.11	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	0.97	0.15		pCi/g	0.97	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	1.22	0.29		pCi/g	1.22	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	0.82	0.13		pCi/g	0.82	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	0.92	0.14		pCi/g	0.91	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	1.1	0.16		pCi/g	1.06	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	1.2	0.17		pCi/g	1.16	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	1.66	0.33		pCi/g	1.66	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	1	0.15		pCi/g	1.02	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	1	0.15		pCi/g	1.01	0	-	pCi/g	
P20-30	Radium-226	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	1	0.16		pCi/g	1.05	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	1.2	0.26		pCi/g	1.22	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	1.3	0.24		pCi/g	1.28	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	1.2	0.25		pCi/g	1.18	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	2.21	0.65		pCi/g	2.21	1	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	1.2	0.22		pCi/g	1.16	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	1.2	0.21		pCi/g	1.23	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	1.2	0.26		pCi/g	1.2	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	1.3	0.25		pCi/g	1.3	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	2.05	0.73		pCi/g	2.05	1	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	1.3	0.24		pCi/g	1.26	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	1.1	0.24		pCi/g	1.11	0	-	pCi/g	
P20-30	Radium-228	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	1.1	0.23		pCi/g	1.07	0	-	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P20-30	Thorium-228	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	1	0.3		pCi/g	1.24	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	1.6	0.38		pCi/g	1.85	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	0.97	0.31		pCi/g	1.23	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	1.42	0.12		pCi/g	1.42	0	J	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	0.92	0.3		pCi/g	1.16	0	J	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	0.91	0.28		pCi/g	1.16	0	J	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	1	0.31		pCi/g	1.27	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	0.65	0.32		pCi/g	0.91	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	1.41	0.11		pCi/g	1.41	0	J	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	0.86	0.27		pCi/g	1.09	0	J	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	1.1	0.29		pCi/g	1.32	0	-	pCi/g	
P20-30	Thorium-228	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	1.3	0.34		pCi/g	1.58	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	1	0.22		pCi/g	1.06	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	1.1	0.25		pCi/g	1.18	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	1.1	0.23		pCi/g	1.13	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	1.42	0.12		pCi/g	1.42	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	1.1	0.22		pCi/g	1.09	0	J	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	1.1	0.22		pCi/g	1.1	0	J	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	1.1	0.25		pCi/g	1.18	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	0.89	0.24		pCi/g	0.93	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	1.32	0.1		pCi/g	1.32	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	0.98	0.2		pCi/g	1.01	0	J	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	0.97	0.21		pCi/g	1.01	0	-	pCi/g	
P20-30	Thorium-232	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	1.1	0.24		pCi/g	1.17	0	-	pCi/g	
P20-30	Uranium, Total	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	N/A	N/A	N/A	ug/g	20.02	6	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	N/A	N/A	N/A	ug/g	23.84	7	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	N/A	N/A	N/A	ug/g	17.01	6	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	N/A	N/A	N/A	ug/g	22.23	8	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	N/A	N/A	N/A	ug/g	26.88	7	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	N/A	N/A	N/A	ug/g	16.52	4	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	N/A	N/A	N/A	ug/g	18.59	6	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	N/A	N/A	N/A	ug/g	19.27	5	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	N/A	N/A	N/A	ug/g	23.31	13	J	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	N/A	N/A	N/A	ug/g	18.95	6	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	N/A	N/A	N/A	ug/g	25.42	7	-	ug/g	
P20-30	Uranium, Total	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	N/A	N/A	N/A	ug/g	20.48	6	-	ug/g	
P20-30	Uranium-238	Radiological	P20-20C-1-R	NONE	483858.16	1351001.15	29-Jan-97	6.7	1.9		pCi/g	6.68	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-10-R	NONE	484042.21	1351184.13	29-Jan-97	8	2.2		pCi/g	7.95	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-11-R	NONE	484076.69	1351291.69	29-Jan-97	5.7	1.9		pCi/g	5.67	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-12-R	NONE	484088.39	1351386.39	29-Jan-97	7.41	2.8		pCi/g	7.41	3	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-13-R	NONE	484145.46	1351034.41	29-Jan-97	9	2.2		pCi/g	8.97	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-14-R	NONE	484141.67	1351186.72	29-Jan-97	5.5	1.4		pCi/g	5.51	1	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P20-30	Uranium-238	Radiological	P20-20C-16-R	NONE	484147.13	1351356.63	29-Jan-97	6.2	1.9		pCi/g	6.2	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-2-R	NONE	483813.16	1351135.73	29-Jan-97	6.4	1.8		pCi/g	6.43	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-4-R	NONE	483865.92	1351331.03	29-Jan-97	7.77	4.2		pCi/g	7.77	4	J	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-5-R	NONE	483962.85	1351074.06	29-Jan-97	6.3	1.9		pCi/g	6.32	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-6-R	NONE	483935.38	1351135.35	29-Jan-97	8.5	2.4		pCi/g	8.48	2	-	pCi/g	
P20-30	Uranium-238	Radiological	P20-20C-8-R	NONE	483924.14	1351375.5	29-Jan-97	6.8	1.9		pCi/g	6.83	2	-	pCi/g	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	43	N/A	U	ug/kg	43	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	37	N/A	U	ug/kg	37	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	38	N/A	U	ug/kg	38	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	40	N/A	U	ug/kg	40	N/A	U	ug/kg	PUMP1-C-11-MP
PUMP-1	Aroclor-1260	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	39	N/A	U	ug/kg	39	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	38	N/A	U	ug/kg	38	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	39	N/A	U	ug/kg	39	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	40	N/A	U	ug/kg	40	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	37	N/A	U	ug/kg	37	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	38	N/A	U	ug/kg	38	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	40	N/A	U	ug/kg	40	N/A	Z	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-3-MP	RE	479460	1350617	7-Mar-97	40	N/A	U	ug/kg	40	N/A	UJ	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	42	N/A	U	ug/kg	42	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	44	N/A	U	ug/kg	44	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	40	N/A	U	ug/kg	40	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	39	N/A	U	ug/kg	39	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	38	N/A	U	ug/kg	38	N/A	U	ug/kg	
PUMP-1	Aroclor-1260	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	39	N/A	U	ug/kg	39	N/A	U	ug/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	8	N/A		mg/kg	8	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	9.3	N/A		mg/kg	9.3	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	9.2	N/A		mg/kg	9.2	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	9.9	N/A		mg/kg	9.9	N/A	-	mg/kg	PUMP1-C-11-MP
PUMP-1	Arsenic	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	8.2	N/A		mg/kg	8.2	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	12.6	N/A		mg/kg	12.6	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	9.1	N/A		mg/kg	9.1	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	10.7	N/A		mg/kg	10.7	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	8	N/A		mg/kg	8	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	8.6	N/A		mg/kg	8.6	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	8.2	N/A		mg/kg	8.2	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	10	N/A		mg/kg	10	N/A	-	mg/kg	
PUMP-1	Arsenic	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Beryllium	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	1.4	N/A		mg/kg	1.4	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	0.92	N/A		mg/kg	0.92	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	0.92	N/A		mg/kg	0.92	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	1	N/A		mg/kg	1	N/A	U	mg/kg	PUMP1-C-11-MP
PUMP-1	Beryllium	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	0.86	N/A		mg/kg	0.86	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	0.76	N/A		mg/kg	0.76	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	0.95	N/A		mg/kg	0.95	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	0.93	N/A		mg/kg	0.93	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	0.9	N/A		mg/kg	0.9	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	1.5	N/A		mg/kg	1.5	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	1.1	N/A		mg/kg	1.1	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	0.9	N/A		mg/kg	0.9	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
PUMP-1	Beryllium	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	1.2	N/A		mg/kg	1.2	N/A	U	mg/kg	
PUMP-1	Cesium-137	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	-0.02	0.1	U	pCi/g	0.1	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	0	0.09	U	pCi/g	0.09	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	0.15	0.07		pCi/g	0.15	0	-	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	0.07	0.08	U	pCi/g	0.1	0	U	pCi/g	PUMP1-C-11-RS
PUMP-1	Cesium-137	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	0.23	0.08		pCi/g	0.23	0	-	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	0.1	0.14	U	pCi/g	0.12	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	0.03	0.07	U	pCi/g	0.09	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	0.15	0.09	U	pCi/g	0.15	0	J	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	0.03	0.08	U	pCi/g	0.09	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	0.28	0.06		pCi/g	0.28	0	-	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	0.15	0.13		pCi/g	0.15	0	J	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	0.11	0.08	U	pCi/g	0.13	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	0.11	0.04		pCi/g	0.11	0	-	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	0.01	0.08	U	pCi/g	0.09	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	0.06	0.1	U	pCi/g	0.1	0	U	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	0.16	0.12		pCi/g	0.16	0	J	pCi/g	
PUMP-1	Cesium-137	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	0.09	0.06	U	pCi/g	0.1	0	U	pCi/g	
PUMP-1	Moisture	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	22.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	13.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	15.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	15.6	N/A	N/A	Percent	0	N/A	N/A	Percent	PUMP1-C-11-RS
PUMP-1	Moisture	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	14.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	14.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	15.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	14.6	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Moisture	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	13.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	16.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	16.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	22.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	16.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	15.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	16.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Moisture	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	12.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
PUMP-1	Radium-226	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	1.6	0.16		pCi/g	1.64	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1.4	0.15		pCi/g	1.4	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	1.3	0.17		pCi/g	1.32	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	1.3	0.14		pCi/g	1.29	0	-	pCi/g	PUMP1-C-11-RS
PUMP-1	Radium-226	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	1.3	0.15		pCi/g	1.33	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	1.2	0.15		pCi/g	1.19	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	1.4	0.15		pCi/g	1.35	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	1.4	0.15		pCi/g	1.37	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	1.3	0.16		pCi/g	1.35	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	1.3	0.15		pCi/g	1.33	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	1.2	0.17		pCi/g	1.22	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	1.3	0.15		pCi/g	1.32	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	1.6	0.18		pCi/g	1.59	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.5	0.19		pCi/g	1.47	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	1.4	0.16		pCi/g	1.43	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	1.5	0.17		pCi/g	1.5	0	-	pCi/g	
PUMP-1	Radium-226	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	1.2	0.16		pCi/g	1.23	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	1.5	0.39		pCi/g	1.47	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1.3	0.34		pCi/g	1.32	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	1.1	0.35		pCi/g	1.06	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	1.4	0.38		pCi/g	1.39	0	-	pCi/g	PUMP1-C-11-RS
PUMP-1	Radium-228	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	1.1	0.3		pCi/g	1.12	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	1.1	0.35		pCi/g	1.11	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	1.2	0.33		pCi/g	1.22	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	1	0.29		pCi/g	1.03	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	1.3	0.35		pCi/g	1.28	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	1.1	0.31		pCi/g	1.11	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	1.2	0.36		pCi/g	1.22	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	1.4	0.38		pCi/g	1.44	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	1.4	0.36		pCi/g	1.42	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.3	0.35		pCi/g	1.31	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	1.3	0.36		pCi/g	1.31	0	-	pCi/g	
PUMP-1	Radium-228	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	1.2	0.38		pCi/g	1.23	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Radium-228	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	1.1	0.35		pCi/g	1.08	0	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	1.4	0.51		pCi/g	1.42	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1.4	0.52		pCi/g	1.39	1	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	1.6	0.61		pCi/g	1.55	1	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	1.3	0.47		pCi/g	1.25	0	J	pCi/g	PUMP1-C-11-RS
PUMP-1	Thorium-228	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	1.3	0.49		pCi/g	1.28	0	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	1.2	0.46		pCi/g	1.24	0	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	1.3	0.51		pCi/g	1.34	1	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	1.3	0.47	U	pCi/g	1.28	0	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	1.3	0.5		pCi/g	1.32	0	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	1.4	0.53		pCi/g	1.42	1	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	1.3	0.51		pCi/g	1.35	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	1.4	0.58		pCi/g	1.37	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	1.6	0.67		pCi/g	1.61	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.2	0.55		pCi/g	1.23	1	J	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	1.3	0.55		pCi/g	1.34	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	1.4	0.55		pCi/g	1.43	1	-	pCi/g	
PUMP-1	Thorium-228	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	1.4	0.54		pCi/g	1.44	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	1.8	0.64		pCi/g	1.8	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1.5	0.56		pCi/g	1.5	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	1.8	0.69		pCi/g	1.78	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	1.6	0.59		pCi/g	1.58	1	-	pCi/g	PUMP1-C-11-RS
PUMP-1	Thorium-230	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	1.6	0.61		pCi/g	1.6	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	1.6	0.6		pCi/g	1.63	1	J	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	1.5	0.55		pCi/g	1.46	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	1.4	0.51		pCi/g	1.41	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	1.5	0.54		pCi/g	1.45	1	J	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	1.8	0.66		pCi/g	1.76	1	J	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	1.6	0.6		pCi/g	1.61	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	1.6	0.68		pCi/g	1.6	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	1.9	0.8		pCi/g	1.92	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.6	0.69		pCi/g	1.56	1	J	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	1.5	0.59		pCi/g	1.46	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	1.6	0.61		pCi/g	1.6	1	-	pCi/g	
PUMP-1	Thorium-230	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	1.7	0.62		pCi/g	1.66	1	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	1.3	0.45		pCi/g	1.26	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1	0.39		pCi/g	1.01	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	1.1	0.45		pCi/g	1.15	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	1.1	0.41		pCi/g	1.08	0	-	pCi/g	PUMP1-C-11-RS
PUMP-1	Thorium-232	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	0.95	0.37		pCi/g	0.95	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	1.1	0.41		pCi/g	1.09	0	J	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	0.94	0.36		pCi/g	0.94	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Thorium-232	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	0.89	0.33		pCi/g	0.89	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	1.1	0.43		pCi/g	1.13	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	1.2	0.45		pCi/g	1.2	0	J	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	1.1	0.43		pCi/g	1.15	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	1.2	0.52		pCi/g	1.2	1	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	1.5	0.63		pCi/g	1.49	1	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.1	0.49		pCi/g	1.08	0	J	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	0.94	0.39		pCi/g	0.94	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	1.1	0.44		pCi/g	1.13	0	-	pCi/g	
PUMP-1	Thorium-232	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	0.94	0.36		pCi/g	0.94	0	-	pCi/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	N/A	N/A	N/A	ug/g	7.81	2	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	N/A	N/A	N/A	ug/g	3.54	1	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	N/A	N/A	N/A	ug/g	11.88	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	N/A	N/A	N/A	ug/g	9.1	3	-	ug/g	PUMP1-C-11-RS
PUMP-1	Uranium, Total	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	N/A	N/A	N/A	ug/g	8.01	2	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	N/A	N/A	N/A	ug/g	8.81	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	N/A	N/A	N/A	ug/g	3.63	2	J	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	N/A	N/A	N/A	ug/g	6.05	1	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	N/A	N/A	N/A	ug/g	6.51	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	N/A	N/A	N/A	ug/g	15	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	N/A	N/A	N/A	ug/g	9.52	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	N/A	N/A	N/A	ug/g	8.49	3	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	N/A	N/A	N/A	ug/g	7.92	2	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	N/A	N/A	N/A	ug/g	3.72	2	J	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	N/A	N/A	N/A	ug/g	6.87	2	-	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	N/A	N/A	N/A	ug/g	6.1	3	J	ug/g	
PUMP-1	Uranium, Total	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	N/A	N/A	N/A	ug/g	10.49	3	-	ug/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-1-RS	NONE	479461	1350576	7-Mar-97	2.6	0.58		pCi/g	2.6	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-10-RS	NONE	479499	1350598	9-Mar-97	1.2	0.41		pCi/g	1.18	0	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-11-RS	NONE	479516	1350616	9-Mar-97	4	1.1		pCi/g	3.96	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-11-RS-D	NONE	479516	1350616	9-Mar-97	3	0.87		pCi/g	3.03	1	-	pCi/g	PUMP1-C-11-RS
PUMP-1	Uranium-238	Radiological	PUMP1-C-12-RS	NONE	479511	1350630	9-Mar-97	2.7	0.58		pCi/g	2.67	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-13-RS	NONE	479538	1350583	9-Mar-97	2.9	0.88		pCi/g	2.94	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-14-RS	NONE	479541	1350596	9-Mar-97	1.2	0.66		pCi/g	1.21	1	J	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-15-RS	NONE	479520	1350607	9-Mar-97	2	0.49		pCi/g	2.02	0	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-16-RS	NONE	479541	1350624	9-Mar-97	2.2	0.86		pCi/g	2.17	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-2-RS	NONE	479452	1350600	7-Mar-97	5	1		pCi/g	5	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-3-RS	NONE	479460	1350617	7-Mar-97	3.2	0.85		pCi/g	3.18	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-4-RS	NONE	479451	1350629	7-Mar-97	2.8	0.92		pCi/g	2.83	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-5-RS	NONE	479475	1350576	7-Mar-97	2.6	0.51		pCi/g	2.64	1	-	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-6-RS	NONE	479480	1350600	7-Mar-97	1.2	0.75	U	pCi/g	1.24	1	J	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-7-RS	NONE	479484	1350617	9-Mar-97	2.3	0.54		pCi/g	2.29	1	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Uranium-238	Radiological	PUMP1-C-8-RS	NONE	479486	1350640	9-Mar-97	2	1.1		pCi/g	2.04	1	J	pCi/g	
PUMP-1	Uranium-238	Radiological	PUMP1-C-9-RS	NONE	479503	1350581	9-Mar-97	3.5	0.95		pCi/g	3.5	1	-	pCi/g	
Q16-33	Moisture	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	24.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	20.3	N/A	N/A	Percent	20.3	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	22	N/A	N/A	Percent	22	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	20.8	N/A	N/A	Percent	20.8	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	24.6	N/A	N/A	Percent	24.6	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	24	N/A	N/A	Percent	24	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	25.1	N/A	N/A	Percent	25.1	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	19	N/A	N/A	Percent	19	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	20.5	N/A	N/A	Percent	20.5	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	21.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	19.6	N/A	N/A	Percent	19.6	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	18.9	N/A	N/A	Percent	18.9	N/A	N/A	Percent	
Q16-33	Moisture	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	17.9	N/A	N/A	Percent	17.9	N/A	N/A	Percent	
Q16-33	Radium-226	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	1.35	0.3		pCi/g	1.35	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	1.03	0.36		pCi/g	1.03	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	1.36	0.28		pCi/g	1.36	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	1.03	0.3		pCi/g	1.03	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	0.99	0.34		pCi/g	0.99	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	1.09	0.15		pCi/g	1.09	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	1.47	0.39		pCi/g	1.47	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	0.9	0.32		pCi/g	0.9	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	1.84	0.53		pCi/g	1.84	1	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	1.44	0.39		pCi/g	1.44	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	1.34	0.32		pCi/g	1.34	0	-	pCi/g	
Q16-33	Radium-226	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	0.69	0.32		pCi/g	0.69	0	-	pCi/g	
Q16-33	Radium-228	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	1.4	0.59		pCi/g	1.4	1	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	1.14	0.57		pCi/g	1.14	1	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	0.62	0.62	U	pCi/g	0.86	1	UJ	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	1.32	0.68		pCi/g	1.32	1	J	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	1.18	0.71		pCi/g	1.18	1	J	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	1.41	0.37		pCi/g	1.41	0	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	1.35	0.74		pCi/g	1.35	1	J	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	1.49	0.68		pCi/g	1.49	1	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	1.61	0.84		pCi/g	1.61	1	J	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	1.71	0.71		pCi/g	1.71	1	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	1.75	0.74		pCi/g	1.75	1	-	pCi/g	
Q16-33	Radium-228	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	0.92	0.49		pCi/g	0.92	0	J	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q16-33	Thorium-228	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	1.3	0.51		pCi/g	1.3	1	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	1.22	0.14		pCi/g	1.25	0	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	1.11	0.1		pCi/g	1.14	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	1.19	0.1		pCi/g	1.22	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	1.11	0.1		pCi/g	1.14	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	1.23	0.1		pCi/g	1.26	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	1.26	0.1		pCi/g	1.29	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	1.12	0.1		pCi/g	1.15	0	-	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	1.46	0.12		pCi/g	1.49	0	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	1.61	0.18		pCi/g	1.64	0	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	1.32	0.14		pCi/g	1.37	0	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	1.24	0.16		pCi/g	1.29	0	J	pCi/g	
Q16-33	Thorium-228	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	1.39	0.11		pCi/g	1.42	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	1.3	0.49		pCi/g	1.3	0	J	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	1.25	0.13		pCi/g	1.25	0	J	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	1.17	0.09		pCi/g	1.17	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	1.24	0.09		pCi/g	1.24	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	1.18	0.09		pCi/g	1.18	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	1.22	0.09		pCi/g	1.22	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	1.21	0.09		pCi/g	1.21	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	1.32	0.1		pCi/g	1.32	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	1.38	0.11		pCi/g	1.38	0	-	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	1.34	0.16		pCi/g	1.34	0	J	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	1.26	0.13		pCi/g	1.26	0	J	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	1.37	0.16		pCi/g	1.37	0	J	pCi/g	
Q16-33	Thorium-232	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	1.22	0.1		pCi/g	1.22	0	-	pCi/g	
Q16-33	Uranium, Total	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	N/A	N/A	N/A	ug/g	29.99	5	-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	N/A	N/A	N/A	ug/g	13.14		U	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	N/A	N/A	N/A	ug/g	23.96		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	N/A	N/A	N/A	ug/g	7.5		U	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	N/A	N/A	N/A	ug/g	33.58		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	N/A	N/A	N/A	ug/g	30.59		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	N/A	N/A	N/A	ug/g	35.23		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	N/A	N/A	N/A	ug/g	29.21		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	N/A	N/A	N/A	ug/g	26.36		-	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	N/A	N/A	N/A	ug/g	15.29		U	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	N/A	N/A	N/A	ug/g	8.7		U	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	N/A	N/A	N/A	ug/g	20.73		J	ug/g	
Q16-33	Uranium, Total	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	N/A	N/A	N/A	ug/g	9.29		U	ug/g	
Q16-33	Uranium-238	Radiological	P17-22C-400417	NONE	481400.42	1351417.86	6-Dec-96	10	1.6		pCi/g	10	2	-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-415297	NONE	481297.49	1351415.57	3-Dec-96	0.34	2.7	U	pCi/g	4.38		U	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-419394	NONE	481394.86	1351419.93	3-Dec-96	7.99	2.3		pCi/g	7.99		-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q16-33	Uranium-238	Radiological	Q16-33C-443311	NONE	481311.33	1351443.58	3-Dec-96	1.31	1.6	U	pCi/g	2.5		U	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-476366	NONE	481366.76	1351476.54	3-Dec-96	11.2	2.6		pCi/g	11.2		-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-478339	NONE	481339.25	1351478.89	3-Dec-96	10.2	3.2		pCi/g	10.2		-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-495260	NONE	481260.39	1351495.92	3-Dec-96	11.8	2.2		pCi/g	11.75		-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-532385	NONE	481385.83	1351532.57	3-Dec-96	9.74	2.5		pCi/g	9.74		-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-534284	NONE	481284.77	1351534.2	3-Dec-96	8.79	2.7		pCi/g	8.79		-	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-540239	NONE	481239.55	1351540.91	3-Dec-96	2.53	3.2	U	pCi/g	5.1		U	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-546349	NONE	481349.7	1351464.7	3-Dec-96	1.27	1.8	U	pCi/g	2.9		U	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-553248	NONE	481248.89	1351553.87	3-Dec-96	6.91	3.9		pCi/g	6.91		J	pCi/g	
Q16-33	Uranium-238	Radiological	Q16-33C-590295	NONE	481295.94	1351590.35	3-Dec-96	1.57	1.9	U	pCi/g	3.1		U	pCi/g	
Q16-34	Moisture	Radiological	Q16-34C-641312	NONE	481312.67	1351641.41	15-Nov-96	17.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-649355	NONE	481355.63	1351649.34	15-Nov-96	17.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-690392	NONE	481392.45	1351690.56	15-Nov-96	17.85	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-709292	NONE	481292.81	1351709.58	15-Nov-96	17.52	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-711328	NONE	481328.92	1351711.24	15-Nov-96	17.03	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-711328-D	NONE	481328.92	1351711.24	15-Nov-96	20.41	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-726243	NONE	481243.52	1351726.71	15-Nov-96	16.32	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-776325	NONE	481325.68	1351776.27	15-Nov-96	17.39	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	19.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-796258	NONE	481258.53	1351796.73	15-Nov-96	18.42	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-815206	NONE	481206.58	1351815.28	15-Nov-96	19.43	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	23	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-1	NONE	481312.67	1351641.41	5-Mar-97	17.28	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-10	NONE	481258.53	1351796.73	5-Mar-97	17.16	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-11	NONE	481206.58	1351815.28	5-Mar-97	18.08	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-2	NONE	481355.63	1351649.34	5-Mar-97	20.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-4	NONE	481292.81	1351709.58	5-Mar-97	15.61	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-5	NONE	481328.92	1351711.24	5-Mar-97	17.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-6	NONE	481328.92	1351711.24	5-Mar-97	17.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-8	NONE	481243.52	1351726.71	5-Mar-97	18.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-9	NONE	481325.68	1351776.27	5-Mar-97	16.08	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Moisture	Radiological	Q16-34C2-R-9-D	NONE	481325.68	1351776.27	5-Mar-97	14.55	N/A	N/A	Percent	0	N/A	N/A	Percent	Q16-34C2-R-9
Q16-34	Moisture	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	16.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q16-34	Radium-226	Radiological	Q16-34C-641312	NONE	481312.67	1351641.41	15-Nov-96	1.1	0.22		pCi/g	1.08		-	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-649355	NONE	481355.63	1351649.34	15-Nov-96	1.3	0.21		pCi/g	1.3		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-690392	NONE	481392.45	1351690.56	15-Nov-96	1.2	0.28		pCi/g	1.2		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-709292	NONE	481292.81	1351709.58	15-Nov-96	1.1	0.21		pCi/g	1.1		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-711328	NONE	481328.92	1351711.24	15-Nov-96	1.1	0.19		pCi/g	1.08		-	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-711328-D	NONE	481328.92	1351711.24	15-Nov-96	1.4	0.23		pCi/g	1.35		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-726243	NONE	481243.52	1351726.71	15-Nov-96	1.2	0.2		pCi/g	1.2		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-776325	NONE	481325.68	1351776.27	15-Nov-96	1.1	0.26		pCi/g	1.1		J	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q16-34	Radium-226	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	1.45	0.3		pCi/g	1.45	0	-	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-796258	NONE	481258.53	1351796.73	15-Nov-96	1.2	0.23		pCi/g	1.16		-	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-815206	NONE	481206.58	1351815.28	15-Nov-96	1.2	.0.2		pCi/g	1.2		J	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	1.08	0.25		pCi/g	1.08	0	-	pCi/g	
Q16-34	Radium-226	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	1.5	0.18		pCi/g	1.47	0	-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-641312	NONE	481312.67	1351641.41	15-Nov-96	1.3	0.34		pCi/g	1.25		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-649355	NONE	481355.63	1351649.34	15-Nov-96	1.4	0.32		pCi/g	1.4		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-690392	NONE	481392.45	1351690.56	15-Nov-96	1.3	0.31		pCi/g	1.3		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-709292	NONE	481292.81	1351709.58	15-Nov-96	1.1	0.33		pCi/g	1.1		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-711328	NONE	481328.92	1351711.24	15-Nov-96	1.4	0.36		pCi/g	1.35		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-711328-D	NONE	481328.92	1351711.24	15-Nov-96	1.3	0.34		pCi/g	1.28		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-726243	NONE	481243.52	1351726.71	15-Nov-96	0.95	0.3		pCi/g	0.95		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-776325	NONE	481325.68	1351776.27	15-Nov-96	0.95	0.35		pCi/g	0.95		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	1.57	0.63		pCi/g	1.57	1	-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-796258	NONE	481258.53	1351796.73	15-Nov-96	1.2	0.42		pCi/g	1.24		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-815206	NONE	481206.58	1351815.28	15-Nov-96	1.4	0.3		pCi/g	1.4		-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	1.36	0.45		pCi/g	1.36	0	-	pCi/g	
Q16-34	Radium-228	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	1.4	0.37		pCi/g	1.43	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	1.26	0.12		pCi/g	1.29	0	J	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	1.39	0.12		pCi/g	1.43	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-1	NONE	481312.67	1351641.41	5-Mar-97	0.92	0.29		pCi/g	1.12	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-10	NONE	481258.53	1351796.73	5-Mar-97	1.1	0.33		pCi/g	1.22	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-11	NONE	481206.58	1351815.28	5-Mar-97	0.71	0.28		pCi/g	0.91	0	J	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-2	NONE	481355.63	1351649.34	5-Mar-97	1	0.28		pCi/g	1.2	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-3	NONE	481392.45	1351690.56	5-Mar-97	1.1	0.27		pCi/g	1.14	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-4	NONE	481292.81	1351709.58	5-Mar-97	1	0.3		pCi/g	1.22	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-5	NONE	481328.92	1351711.24	5-Mar-97	1	0.32		pCi/g	1.2	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-6	NONE	481328.92	1351711.24	5-Mar-97	1.2	0.28		pCi/g	1.32	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-8	NONE	481243.52	1351726.71	5-Mar-97	0.92	0.3		pCi/g	1.12	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-9	NONE	481325.68	1351776.27	5-Mar-97	0.82	0.27		pCi/g	1	0	-	pCi/g	
Q16-34	Thorium-228	Radiological	Q16-34C2-R-9-D	NONE	481325.68	1351776.27	5-Mar-97	0.93	0.29		pCi/g	1.12	0	-	pCi/g	Q16-34C2-R-9
Q16-34	Thorium-228	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	1.4	0.5		pCi/g	1.45	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	1.24	0.1		pCi/g	1.24	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	1.33	0.11		pCi/g	1.32	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-1	NONE	481312.67	1351641.41	5-Mar-97	1.1	0.23		pCi/g	1.06	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-10	NONE	481258.53	1351796.73	5-Mar-97	1.3	0.27		pCi/g	1.31	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-11	NONE	481206.58	1351815.28	5-Mar-97	1.1	0.23		pCi/g	1.1	0	J	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-2	NONE	481355.63	1351649.34	5-Mar-97	1.1	0.23		pCi/g	1.13	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-3	NONE	481392.45	1351690.56	5-Mar-97	0.88	0.22		pCi/g	0.88	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-4	NONE	481292.81	1351709.58	5-Mar-97	0.96	0.21		pCi/g	0.96	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-5	NONE	481328.92	1351711.24	5-Mar-97	0.91	0.21		pCi/g	0.91	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-6	NONE	481328.92	1351711.24	5-Mar-97	1	0.21		pCi/g	1.02	0	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q16-34	Thorium-232	Radiological	Q16-34C2-R-8	NONE	481243.52	1351726.71	5-Mar-97	1.1	0.23		pCi/g	1.05	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-9	NONE	481325.68	1351776.27	5-Mar-97	1	0.22		pCi/g	1.04	0	-	pCi/g	
Q16-34	Thorium-232	Radiological	Q16-34C2-R-9-D	NONE	481325.68	1351776.27	5-Mar-97	0.94	0.2		pCi/g	0.94	0	-	pCi/g	Q16-34C2-R-9
Q16-34	Thorium-232	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	1.1	0.4		pCi/g	1.15	0	-	pCi/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-641312	NONE	481312.67	1351641.41	15-Nov-96	N/A	N/A	N/A	ug/g	9.96		J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-649355	NONE	481355.63	1351649.34	15-Nov-96	N/A	N/A	N/A	ug/g	11.1		J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-690392	NONE	481392.45	1351690.56	15-Nov-96	N/A	N/A	N/A	ug/g	17.69		-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-709292	NONE	481292.81	1351709.58	15-Nov-96	N/A	N/A	N/A	ug/g	8.1		J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-711328	NONE	481328.92	1351711.24	15-Nov-96	N/A	N/A	N/A	ug/g	6.86		J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-711328-D	NONE	481328.92	1351711.24	15-Nov-96	N/A	N/A	N/A	ug/g	45.67		-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-726243	NONE	481243.52	1351726.71	15-Nov-96	N/A	N/A	N/A	ug/g	23.69		-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-776325	NONE	481325.68	1351776.27	15-Nov-96	N/A	N/A	N/A	ug/g	11.39		J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	N/A	N/A	N/A	ug/g	21.83	11	J	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-796258	NONE	481258.53	1351796.73	15-Nov-96	N/A	N/A	N/A	ug/g	15.13		-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-815206	NONE	481206.58	1351815.28	15-Nov-96	N/A	N/A	N/A	ug/g	32.98		-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	N/A	N/A	N/A	ug/g	21.05	10	-	ug/g	
Q16-34	Uranium, Total	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	N/A	N/A	N/A	ug/g	10.93	2	J	ug/g	
Q16-34	Uranium-238	Radiological	Q16-34C-641312	NONE	481312.67	1351641.41	15-Nov-96	3.3	2.2		pCi/g	3.32		J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-649355	NONE	481355.63	1351649.34	15-Nov-96	3.7	2.3		pCi/g	3.7		J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-690392	NONE	481392.45	1351690.56	15-Nov-96	5.9	2.7		pCi/g	5.9		-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-709292	NONE	481292.81	1351709.58	15-Nov-96	2.7	2.1		pCi/g	2.7		J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-711328	NONE	481328.92	1351711.24	15-Nov-96	2.3	1.9		pCi/g	2.29		J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-711328-D	NONE	481328.92	1351711.24	15-Nov-96	15	4.3		pCi/g	15.23		-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-726243	NONE	481243.52	1351726.71	15-Nov-96	7.9	3		pCi/g	7.9		-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-776325	NONE	481325.68	1351776.27	15-Nov-96	3.8	2.5		pCi/g	3.8		J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-795356	NONE	481356.73	1351795.37	19-Nov-96	7.28	3.8		pCi/g	7.28	4	J	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-796258	NONE	481258.53	1351796.73	15-Nov-96	5	2.3		pCi/g	5.05		-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-815206	NONE	481206.58	1351815.28	15-Nov-96	11	3.8		pCi/g	11		-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C-821347	NONE	481325.76	1351833.47	19-Nov-96	7.02	3.5		pCi/g	7.02	4	-	pCi/g	
Q16-34	Uranium-238	Radiological	Q16-34C3-R-1	NONE	481215	1351721	24-Mar-97	3.6	0.82		pCi/g	3.65	1	J	pCi/g	
Q17	Arsenic	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	9.5	N/A		mg/kg	9.5	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	8.7	N/A		mg/kg	8.7	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	7.4	N/A		mg/kg	7.4	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	9.1	N/A		mg/kg	9.1	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	6.9	N/A		mg/kg	6.9	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	6.3	N/A		mg/kg	6.3	N/A	-	mg/kg	
Q17	Arsenic	Metals	Q17C2-M-1	NONE	481230	1351604	24-Mar-97	12.5	N/A	N	mg/kg	12.5	N/A	J	mg/kg	
Q17	Arsenic	Metals	Q17C2-M-2	NONE	481220	1351606	24-Mar-97	11.5	N/A	N	mg/kg	11.5	N/A	J	mg/kg	
Q17	Arsenic	Metals	Q17C2-M-2-D	NONE	481220	1351606	24-Mar-97	10.1	N/A	N	mg/kg	10.1	N/A	J	mg/kg	Q17C2-M-2
Q17	Arsenic	Metals	Q17C2-M-3	NONE	481220	1351687	24-Mar-97	9.2	N/A	N	mg/kg	9.2	N/A	J	mg/kg	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17	Arsenic	Metals	Q17C2-M-3-D	NONE	481220	1351687	24-Mar-97	9.6	N/A	N	mg/kg	9.6	N/A	J	mg/kg	Q17C2-M-3
Q17	Beryllium	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
Q17	Beryllium	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	0.75	N/A		mg/kg	0.75	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	0.51	N/A	B	mg/kg	0.51	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	0.7	N/A		mg/kg	0.7	N/A	-	mg/kg	
Q17	Beryllium	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	0.57	N/A	B	mg/kg	0.57	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	0.49	N/A	U	mg/kg	0.49	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	0.57	N/A	B	mg/kg	0.57	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C2-M-1	NONE	481230	1351604	24-Mar-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C2-M-2	NONE	481220	1351606	24-Mar-97	1	N/A		mg/kg	1	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C2-M-2-D	NONE	481220	1351606	24-Mar-97	0.84	N/A		mg/kg	0.84	N/A	U	mg/kg	Q17C2-M-2
Q17	Beryllium	Metals	Q17C2-M-3	NONE	481220	1351687	24-Mar-97	0.79	N/A		mg/kg	0.79	N/A	U	mg/kg	
Q17	Beryllium	Metals	Q17C2-M-3-D	NONE	481220	1351687	24-Mar-97	0.96	N/A		mg/kg	0.96	N/A	U	mg/kg	Q17C2-M-3
Q17-10	Cesium-137	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	0.22	0.1		pCi/g	0.22		-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	0.45	0.14		pCi/g	0.45	0	-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	0.02	0.07	U	pCi/g	0.11		U	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	0.46	0.16		pCi/g	0.46		-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	0.46	0.16		pCi/g	0.46		-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	0	0.07	U	pCi/g	0.11		U	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	0.19	0.06		pCi/g	0.19		-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	-0.01	0.1		pCi/g	0.16	0	U	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	0.36	0.09		pCi/g	0.36		-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	0	0.03	U	pCi/g	0.04		U	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	0.05	0.04		pCi/g	0.05		J	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	0.2	0.08		pCi/g	0.2	0	-	pCi/g	
Q17-10	Cesium-137	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	0.41	0.1		pCi/g	0.41		-	pCi/g	
Q17-10	Moisture	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	27.3	N/A	N/A	Percent	27.3	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	20.3	N/A	N/A	Percent	20.3	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	16.7	N/A	N/A	Percent	16.7	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	29.3	N/A	N/A	Percent	29.3	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	29.3	N/A	N/A	Percent	29.3	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	21.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	17.63	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	17.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	17.63	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	16.24	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	15.55	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	16.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	15.22	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C2-R-12	NONE	481761.89	1351578.21	5-Mar-97	13.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Moisture	Radiological	Q17-10C2-R-13	NONE	481642.83	1351717.55	5-Mar-97	16.39	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-10	Radium-226	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	1.28	0.29		pCi/g	1.28		-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-10	Radium-226	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	1.14	0.32		pCi/g	1.14	0	-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	0.96	0.26		pCi/g	0.96	0	-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	1.18	0.26		pCi/g	1.18		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	1.18	0.26		pCi/g	1.18		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	1.04	0.23		pCi/g	1.04		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	1.3	0.25		pCi/g	1.26		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.12	0.28		pCi/g	1.12	0	J	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	1.2	0.23		pCi/g	1.22		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	1.1	0.2		pCi/g	1.12		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	1.2	0.2		pCi/g	1.17		-	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	1.37	0.18		pCi/g	1.37	0	J	pCi/g	
Q17-10	Radium-226	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	1.2	0.23		pCi/g	1.21		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	1.58	0.54		pCi/g	1.58		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	1.33	0.49		pCi/g	1.33		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	1.43	0.48		pCi/g	1.43	0	-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	1.27	0.67		pCi/g	1.27		J	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	1.27	0.67		pCi/g	1.27		J	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	1.28	0.53		pCi/g	1.28		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	1.2	0.35		pCi/g	1.19		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.33	0.54		pCi/g	1.33	1	-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	1.4	0.36		pCi/g	1.43		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	1.5	0.34		pCi/g	1.46		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	1.4	0.29		pCi/g	1.41		-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	1.06	0.29		pCi/g	1.06	0	-	pCi/g	
Q17-10	Radium-228	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	1.2	0.32		pCi/g	1.2		-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	1.29	0.17		pCi/g	1.29	0	J	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	1.1	0.11		pCi/g	1.1	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	1.02	0.1		pCi/g	1.05	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	1.28	0.13		pCi/g	1.28	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	1.28	0.13		pCi/g	1.28	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	1.08	0.13		pCi/g	1.08	0	J	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.22	0.14		pCi/g	1.22	0	J	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	1.1	0.18		pCi/g	1.15	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	0.61	0.35		pCi/g	0.15	0	Z	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	1.2	0.2		pCi/g	1.2	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	1.01	0.09		pCi/g	1.01	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	1.1	0.16		pCi/g	1.08	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C2-R-12	NONE	481761.89	1351578.21	5-Mar-97	0.82	0.24		pCi/g	0.97	0	-	pCi/g	
Q17-10	Thorium-228	Radiological	Q17-10C2-R-13	NONE	481642.83	1351717.55	5-Mar-97	0.82	0.27		pCi/g	1.01	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	1.61	0.18		pCi/g	1.61	0	J	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	1.45	0.12		pCi/g	1.45	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	1.22	0.1		pCi/g	1.23	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-10	Thorium-230	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	1.67	0.14		pCi/g	1.67	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	1.67	0.14		pCi/g	1.67	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	1.32	0.14		pCi/g	1.32	0	J	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.26	0.13		pCi/g	1.26	0	J	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	1.5	0.22		pCi/g	1.53	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	1.3	0.29		pCi/g	1.38	0	Z	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	1.7	0.26		pCi/g	1.68	0	-	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	1.29	0.1		pCi/g	1.29	0	J	pCi/g	
Q17-10	Thorium-230	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	1.4	0.19		pCi/g	1.39	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	1.26	0.15		pCi/g	1.26	0	J	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	1.08	0.1		pCi/g	1.08	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	1.12	0.09		pCi/g	1.12	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	1.17	0.11		pCi/g	1.17	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	1.17	0.11		pCi/g	1.17	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	1.15	0.13		pCi/g	1.15	0	J	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.27	0.14		pCi/g	1.27	0	J	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	1.1	0.17		pCi/g	1.14		-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	1.1	0.25		pCi/g	1.12	0	Z	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	1.2	0.2		pCi/g	1.21		-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	1.01	0.09		pCi/g	1.01	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	0.98	0.14		pCi/g	0.98		-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C2-R-12	NONE	481761.89	1351578.21	5-Mar-97	0.88	0.19		pCi/g	0.88	0	-	pCi/g	
Q17-10	Thorium-232	Radiological	Q17-10C2-R-13	NONE	481642.83	1351717.55	5-Mar-97	1.2	0.25		pCi/g	1.17	0	-	pCi/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	N/A	N/A	N/A	ug/g	25.55		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	N/A	N/A	N/A	ug/g	37.48		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	N/A	N/A	N/A	ug/g	11.44		U	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	N/A	N/A	N/A	ug/g	37.63		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	N/A	N/A	N/A	ug/g	37.63		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	N/A	N/A	N/A	ug/g	12.37		U	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	N/A	N/A	N/A	ug/g	30.86		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	N/A	N/A	N/A	ug/g	9.11	6	U	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	N/A	N/A	N/A	ug/g	19.72		-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	N/A	N/A	N/A	ug/g	8.77		J	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	N/A	N/A	N/A	ug/g	9.76		J	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	N/A	N/A	N/A	ug/g	18.24	6	-	ug/g	
Q17-10	Uranium, Total	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	N/A	N/A	N/A	ug/g	23.21		-	ug/g	
Q17-10	Uranium-238	Radiological	Q17-10C-444513	NONE	481513.76	1351444.51	2-Dec-96	8.52	3.8		pCi/g	8.52		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-446405	NONE	481405.61	1351446.61	2-Dec-96	12.5	3.9		pCi/g	12.5		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-507678	NONE	481678.74	1351507.4	2-Dec-96	3.34	2.5	U	pCi/g	3.82		U	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-524504	NONE	481504	1351524	2-Dec-96	12.6	4.7		pCi/g	12.55		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-524504	NONE	481524.05	1351504.35	2-Dec-96	12.6	4.7		pCi/g	12.55		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-533635	NONE	481635.8	1351533.79	2-Dec-96	3.06	2.6	U	pCi/g	4.12		U	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-10	Uranium-238	Radiological	Q17-10C-578761	NONE	481761.89	1351578.21	14-Nov-96	10	3.2		pCi/g	10.29		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-630774	NONE	481774.55	1351630.37	14-Nov-96	1.13	1.9		pCi/g	3.04	2	U	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-685560	NONE	481560.64	1351685.18	15-Nov-96	6.6	2.7		pCi/g	6.58		-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-717642	NONE	481642.83	1351717.55	15-Nov-96	2.9	2.1		pCi/g	2.93		J	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-743541	NONE	481541.88	1351743.53	15-Nov-96	3.3	1.7		pCi/g	3.26		J	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-823709	NONE	481709.66	1351823.52	14-Nov-96	6.08	2.1		pCi/g	6.08	2	-	pCi/g	
Q17-10	Uranium-238	Radiological	Q17-10C-831651	NONE	481651.67	1351831.49	14-Nov-96	7.7	3.1		pCi/g	7.74		-	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	0.17	0.11		pCi/g	0.17		J	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	0.08	0.08	U	pCi/g	0.12		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	0.19	0.14	U	pCi/g	0.2		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	0	0.04	U	pCi/g	0.05		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	0	0.04	U	pCi/g	0.05		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	0.18	0.07		pCi/g	0.18		-	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	0.04	0.04	U	pCi/g	0.06		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	0.02	0.03	U	pCi/g	0.05		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	0.43	0.08		pCi/g	0.43		-	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	0.02	0.03	U	pCi/g	0.04		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	0.05	0.1		pCi/g	0.14		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	0.01	0.06	U	pCi/g	0.08		U	pCi/g	
Q17-30	Cesium-137	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	-0.02	0.04	U	pCi/g	0.05		U	pCi/g	
Q17-30	Moisture	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	15.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	18.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	22.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	20.93	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	20.93	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	18.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	18.74	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	17.18	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	24.21	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	18.03	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	18.98	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	16.55	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	16.87	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C2-R-14	NONE	481819.44	1351631.25	5-Mar-97	18.49	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Moisture	Radiological	Q17-30C2-R-15	NONE	482023.74	1351781.77	5-Mar-97	18.14	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q17-30	Radium-226	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	1.16	0.34		pCi/g	1.16		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	1.33	0.39		pCi/g	1.33		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	0.95	0.35		pCi/g	0.95		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.5	0.24		pCi/g	1.49		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.5	0.24		pCi/g	1.49		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	1.1	0.2		pCi/g	1.09		-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-30	Radium-226	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	1.3	0.21		pCi/g	1.29		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	1.2	0.22		pCi/g	1.24		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	1.3	0.24		pCi/g	1.34		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	1.2	0.2		pCi/g	1.22		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	1.4	0.45		pCi/g	1.37		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.3	0.31		pCi/g	1.33		-	pCi/g	
Q17-30	Radium-226	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	1.3	0.21		pCi/g	1.34		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	1.25	0.53		pCi/g	1.25		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	1.52	0.71		pCi/g	1.52		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	1.14	0.57		pCi/g	1.14		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.4	0.33		pCi/g	1.37		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.4	0.33		pCi/g	1.37		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	1	0.35		pCi/g	1.03		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	1.3	0.33		pCi/g	1.26		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	1.5	0.33		pCi/g	1.45		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	1.3	0.34		pCi/g	1.3		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	1.5	0.3		pCi/g	1.54		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	1.6	0.69		pCi/g	1.65		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.4	0.39		pCi/g	1.43		-	pCi/g	
Q17-30	Radium-228	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	1.2	0.33		pCi/g	1.23		-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	1.16	0.1		pCi/g	1.16	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	1.25	0.12		pCi/g	1.28	0	J	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	1.3	0.12		pCi/g	1.29	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.3	0.2		pCi/g	1.31	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.3	0.2		pCi/g	1.31	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	1.2	0.19		pCi/g	1.17	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	1.1	0.19		pCi/g	1.09	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	-1.5	1.2	U	pCi/g	2.91	1	Z	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	1.2	0.21		pCi/g	1.21	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	1.3	0.27		pCi/g	1.34	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-693998	RE	481998.63	1351693.35	14-Nov-96	0.82	0.3		pCi/g	1.24	0	Z	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	1.2	0.17		pCi/g	1.2	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-715029	RE	482029.67	1351715.57	14-Nov-96	3.1	0.59		pCi/g	3.54	1	Z	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.2	0.24		pCi/g	1.24	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C2-R-14	NONE	481819.44	1351631.25	5-Mar-97	1	0.3		pCi/g	1.19	0	-	pCi/g	
Q17-30	Thorium-228	Radiological	Q17-30C2-R-15	NONE	482023.74	1351781.77	5-Mar-97	1.1	0.33		pCi/g	1.34	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	1.35	0.1		pCi/g	1.35	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	1.41	0.12		pCi/g	1.42	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	1.51	0.11		pCi/g	1.54	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.4	0.21		pCi/g	1.4	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.4	0.21		pCi/g	1.4	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	1.4	0.23		pCi/g	1.47	0	-	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-30	Thorium-230	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	1.3	0.21		pCi/g	1.3	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	2.2	0.52		pCi/g	2.28	1	Z	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	1.8	0.29		pCi/g	1.8	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	1.5	0.29		pCi/g	1.57	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-693998	RE	481998.63	1351693.35	14-Nov-96	1.4	0.28		pCi/g	1.5	0	Z	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	1.4	0.2		pCi/g	1.47	0	-	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-715029	RE	482029.67	1351715.57	14-Nov-96	2	0.37		pCi/g	2.01	0	Z	pCi/g	
Q17-30	Thorium-230	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.6	0.29		pCi/g	1.62	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	1.23	0.1		pCi/g	1.23	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	1.26	0.11		pCi/g	1.26	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	1.28	0.1		pCi/g	1.29	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.1	0.18		pCi/g	1.11		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	1.1	0.18		pCi/g	1.11		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	1.1	0.18		pCi/g	1.14	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	1	0.17		pCi/g	1.02		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	2.1	0.48		pCi/g	2.12	0	Z	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	1.3	0.22		pCi/g	1.32		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	1.3	0.25		pCi/g	1.29		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-693998	RE	481998.63	1351693.35	14-Nov-96	0.96	0.2		pCi/g	0.96	0	Z	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	1.1	0.16		pCi/g	1.13		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-715029	RE	482029.67	1351715.57	14-Nov-96	3.3	0.55		pCi/g	3.31	1	Z	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.3	0.24		pCi/g	1.26		-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C2-R-14	NONE	481819.44	1351631.25	5-Mar-97	0.96	0.22		pCi/g	0.96	0	-	pCi/g	
Q17-30	Thorium-232	Radiological	Q17-30C2-R-15	NONE	482023.74	1351781.77	5-Mar-97	1.2	0.26		pCi/g	1.18	0	-	pCi/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	N/A	N/A	N/A	ug/g	15.77		-	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	N/A	N/A	N/A	ug/g	10.8		U	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	N/A	N/A	N/A	ug/g	13.61		-	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	N/A	N/A	N/A	ug/g	7.7	7	J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	N/A	N/A	N/A	ug/g	7.7	7	J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	N/A	N/A	N/A	ug/g	21.13		-	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	N/A	N/A	N/A	ug/g	10.29		J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	N/A	N/A	N/A	ug/g	9.27		J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	N/A	N/A	N/A	ug/g	22.31		-	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	N/A	N/A	N/A	ug/g	9.5		J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	N/A	N/A	N/A	ug/g	10.29		J	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	N/A	N/A	N/A	ug/g	6.45		U	ug/g	
Q17-30	Uranium, Total	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	N/A	N/A	N/A	ug/g	7.02		J	ug/g	
Q17-30	Uranium-238	Radiological	Q17-30C-457860	NONE	481860.9	1351457.56	27-Nov-96	5.26	2.4		pCi/g	5.26		-	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-465922	NONE	481922.26	1351465.47	27-Nov-96	3.34	2.3	U	pCi/g	3.6		U	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-477106	NONE	482106.81	1351477.56	27-Nov-96	4.54	2.1		pCi/g	4.54		-	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	2.6	2.2		pCi/g	2.57		J	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-571997	NONE	481997.48	1351571.59	14-Nov-96	2.6	2.2		pCi/g	2.57		J	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17-30	Uranium-238	Radiological	Q17-30C-573853	NONE	481853.59	1351573.64	14-Nov-96	7	3.2		pCi/g	7.05		-	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-621146	NONE	482146.74	1351621.44	14-Nov-96	3.4	2.2		pCi/g	3.43		J	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-631819	NONE	481819.44	1351631.25	14-Nov-96	3.1	2.2		pCi/g	3.09		J	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-653173	NONE	482173.71	1351653.41	14-Nov-96	7.4	2.9		pCi/g	7.44		-	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-693998	NONE	481998.63	1351693.35	14-Nov-96	3.2	1.7		pCi/g	3.17		J	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-715029	NONE	482029.67	1351715.57	14-Nov-96	3.4	5.7	U	pCi/g	3.43		J	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-753114	NONE	482114.38	1351753.52	14-Nov-96	1.5	2.2	U	pCi/g	2.15		U	pCi/g	
Q17-30	Uranium-238	Radiological	Q17-30C-781023	NONE	482023.74	1351781.77	14-Nov-96	2.3	2.6		pCi/g	2.34		J	pCi/g	
Q18	Arsenic	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	11.7	N/A		mg/kg	11.7	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	9.6	N/A		mg/kg	9.6	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	4.3	N/A		mg/kg	4.3	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	9.2	N/A		mg/kg	9.2	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	10.9	N/A		mg/kg	10.9	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	7.6	N/A		mg/kg	7.6	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	11.2	N/A		mg/kg	11.2	N/A	-	mg/kg	
Q18	Arsenic	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	10.8	N/A		mg/kg	10.8	N/A	-	mg/kg	
Q18	Beryllium	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	0.58	N/A	B	mg/kg	0.58	N/A	U	mg/kg	
Q18	Beryllium	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	0.99	N/A		mg/kg	0.99	N/A	-	mg/kg	
Q18	Beryllium	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	0.58	N/A	B	mg/kg	0.58	N/A	U	mg/kg	
Q18	Beryllium	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	0.34	N/A	B	mg/kg	0.34	N/A	U	mg/kg	
Q18	Beryllium	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	0.83	N/A		mg/kg	0.83	N/A	-	mg/kg	
Q18	Beryllium	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	0.82	N/A		mg/kg	0.82	N/A	-	mg/kg	
Q18	Beryllium	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	0.57	N/A	B	mg/kg	0.57	N/A	U	mg/kg	
Q18	Beryllium	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	0.45	N/A	B	mg/kg	0.45	N/A	U	mg/kg	
Q18	Beryllium	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	0.74	N/A		mg/kg	0.74	N/A	-	mg/kg	
Q18-10	Moisture	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	18.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	17	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	18.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	19.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	12.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	20.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-588407	NONE	482407.86	1351588.37	14-Nov-96	17.71	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	21.85	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-679345	NONE	482345.76	1351679.18	14-Nov-96	17.48	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-725517	NONE	482517	1351725	14-Nov-96	17.01	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-734434	NONE	482434.92	1351734.17	14-Nov-96	20.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C-747320	NONE	482320.45	1351747.64	14-Nov-96	17.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C2-R-16	NONE	482407.86	1351588.37	5-Mar-97	16.37	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C2-R-17	NONE	482515.57	1351638.68	5-Mar-97	19.63	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C2-R-18	NONE	482345.76	1351679.18	5-Mar-97	14.28	N/A	N/A	Percent	0	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-10	Moisture	Radiological	Q18-10C2-R-19	NONE	482517	1351725	5-Mar-97	19.93	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C2-R-20	NONE	482434.92	1351734.17	5-Mar-97	19.53	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Moisture	Radiological	Q18-10C2-R-21	NONE	482320.45	1351747.64	5-Mar-97	16.41	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-10	Radium-226	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	1.4	0.27		pCi/g	1.4		-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	1.49	0.39		pCi/g	1.49		-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	1.5	0.13		pCi/g	1.5	0	-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	1.5	0.16		pCi/g	1.5	0	-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	0.9	0.35		pCi/g	0.9		-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	1.19	0.35		pCi/g	1.19		-	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-588407	NONE	482407.86	1351588.37	14-Nov-96	1.2	0.22		pCi/g	1.2		J	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	1.4	0.24		pCi/g	1.4		J	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-679345	NONE	482345.76	1351679.18	14-Nov-96	1.1	0.21		pCi/g	1.1		J	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-725517	NONE	482517	1351725	14-Nov-96	1.2	0.25		pCi/g	1.2		J	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-734434	NONE	482434.92	1351734.17	14-Nov-96	1.3	0.35		pCi/g	1.3		J	pCi/g	
Q18-10	Radium-226	Radiological	Q18-10C-747320	NONE	482320.45	1351747.64	14-Nov-96	1.3	0.21		pCi/g	1.3		J	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	1.96	0.55		pCi/g	1.96		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	1.43	0.81		pCi/g	1.43		J	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	1.6	0.41		pCi/g	1.6	0	-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	1.2	0.64		pCi/g	1.2		J	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	1.56	0.83		pCi/g	1.56		J	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-588407	NONE	482407.86	1351588.37	14-Nov-96	1.3	0.39		pCi/g	1.3		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	1.6	0.37		pCi/g	1.6		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-679345	NONE	482345.76	1351679.18	14-Nov-96	1.3	0.31		pCi/g	1.3		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-725517	NONE	482517	1351725	14-Nov-96	1.4	0.29		pCi/g	1.4		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-734434	NONE	482434.92	1351734.17	14-Nov-96	1.4	0.45		pCi/g	1.4		-	pCi/g	
Q18-10	Radium-228	Radiological	Q18-10C-747320	NONE	482320.45	1351747.64	14-Nov-96	1.3	0.38		pCi/g	1.3		-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	1.5	0.22		pCi/g	1.55	0	J	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	1.15	0.11		pCi/g	1.14	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	1.3	0.49		pCi/g	1.3	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	1.3	0.53		pCi/g	1.3	1	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	1.25	0.11		pCi/g	1.24	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	1.35	0.22		pCi/g	1.38	0	J	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	0.84	0.33		pCi/g	1.38	0	Z	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-16	NONE	482407.86	1351588.37	5-Mar-97	0.74	0.28		pCi/g	0.95	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-17	NONE	482515.57	1351638.68	5-Mar-97	1.2	0.28		pCi/g	1.23	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-18	NONE	482345.76	1351679.18	5-Mar-97	1	0.27		pCi/g	1.18	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-19	NONE	482517	1351725	5-Mar-97	0.98	0.32		pCi/g	1.19	0	J	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-20	NONE	482434.92	1351734.17	5-Mar-97	1	0.26		pCi/g	1.18	0	-	pCi/g	
Q18-10	Thorium-228	Radiological	Q18-10C2-R-21	NONE	482320.45	1351747.64	5-Mar-97	0.89	0.35		pCi/g	1.1	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	1.08	0.17		pCi/g	1.08	0	J	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	1.12	0.1		pCi/g	1.13	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-10	Thorium-232	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	1.1	0.44		pCi/g	1.1	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	1.2	0.49		pCi/g	1.2	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	1.1	0.09		pCi/g	1.11	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	1.14	0.18		pCi/g	1.14	0	J	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	1.1	0.24		pCi/g	1.1	0	Z	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-16	NONE	482407.86	1351588.37	5-Mar-97	1.1	0.23		pCi/g	1.05	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-17	NONE	482515.57	1351638.68	5-Mar-97	1.4	0.29		pCi/g	1.38	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-18	NONE	482345.76	1351679.18	5-Mar-97	1	0.21		pCi/g	1.04	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-19	NONE	482517	1351725	5-Mar-97	0.95	0.22		pCi/g	0.95	0	J	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-20	NONE	482434.92	1351734.17	5-Mar-97	1.1	0.21		pCi/g	1.1	0	-	pCi/g	
Q18-10	Thorium-232	Radiological	Q18-10C2-R-21	NONE	482320.45	1351747.64	5-Mar-97	1	0.25		pCi/g	1.03	0	-	pCi/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	N/A	N/A	N/A	ug/g	9.93		J	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	N/A	N/A	N/A	ug/g	13.19	8	U	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	N/A	N/A	N/A	ug/g	18.29	3	-	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	N/A	N/A	N/A	ug/g	21.83		-	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	N/A	N/A	N/A	ug/g	8.1		U	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-588407	NONE	482407.86	1351588.37	14-Nov-96	N/A	N/A	N/A	ug/g	8.4		J	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	N/A	N/A	N/A	ug/g	4.8		U	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-679345	NONE	482345.76	1351679.18	14-Nov-96	N/A	N/A	N/A	ug/g	4.5		J	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-725517	NONE	482517	1351725	14-Nov-96	N/A	N/A	N/A	ug/g	4.5	6	J	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-734434	NONE	482434.92	1351734.17	14-Nov-96	N/A	N/A	N/A	ug/g	11.69		J	ug/g	
Q18-10	Uranium, Total	Radiological	Q18-10C-747320	NONE	482320.45	1351747.64	14-Nov-96	N/A	N/A	N/A	ug/g	7.2		J	ug/g	
Q18-10	Uranium-238	Radiological	Q18-10C-422483	NONE	482483.63	1351422.41	27-Nov-96	3.31	1.9		pCi/g	3.31		J	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-485247	NONE	482247.51	1351485.36	27-Nov-96	3.25	2.8	U	pCi/g	4.4		U	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-487528	NONE	482528.32	1351487.58	22-Nov-96	6.1	0.99		pCi/g	6.1	1	-	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-509599	NONE	482599.83	1351509.49	22-Nov-96	2.2	0.71		pCi/g	2.2	1	-	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-517303	NONE	482303.66	1351517.57	27-Nov-96	7.28	2.7		pCi/g	7.28		-	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-542232	NONE	482232.37	1351542.82	27-Nov-96	2.18	1.7	U	pCi/g	2.7	2	U	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-588407	NONE	482407.86	1351588.37	14-Nov-96	2.8	1.8		pCi/g	2.8		J	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-638515	NONE	482515.57	1351638.68	14-Nov-96	1.2	1.7	U	pCi/g	1.6		U	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-679345	NONE	482345.76	1351679.18	14-Nov-96	1.5	1.5		pCi/g	1.5		J	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-725517	NONE	482517	1351725	14-Nov-96	1.5	2		pCi/g	1.5		J	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-734434	NONE	482434.92	1351734.17	14-Nov-96	3.9	4		pCi/g	3.9		J	pCi/g	
Q18-10	Uranium-238	Radiological	Q18-10C-747320	NONE	482320.45	1351747.64	14-Nov-96	2.4	2.2		pCi/g	2.4		J	pCi/g	
Q18-30	Moisture	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	20.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	20.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	17.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	21.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-563663	NONE	482663.85	1351563.87	14-Nov-96	17.96	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	17.2	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-30	Moisture	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	20.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-704635	NONE	482635.77	1351704.58	14-Nov-96	17.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	18.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	19.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	19.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C2-R-22	NONE	482663.85	1351563.87	5-Mar-97	15.53	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C2-R-23	NONE	482635.77	1351704.58	5-Mar-97	18.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-30	Moisture	Radiological	Q18-30C2-R-23-D	NONE	482635.77	1351704.58	5-Mar-97	15.04	N/A	N/A	Percent	0	N/A	N/A	Percent	Q18-30C2-R-23
Q18-30	Radium-226	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	1.4	0.17		pCi/g	1.4	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	1.3	0.17		pCi/g	1.3	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	1.3	0.16		pCi/g	1.3	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	1.3	0.16		pCi/g	1.2	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-563663	NONE	482663.85	1351563.87	14-Nov-96	1.4	0.3		pCi/g	1.4		J	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	1.25	0.31		pCi/g	1.25	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	1.28	0.33		pCi/g	1.28	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	1.3	0.32		pCi/g	1.3	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-704635	NONE	482635.77	1351704.58	14-Nov-96	1.1	0.2		pCi/g	1.1		J	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	1.09	0.28		pCi/g	1.09	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	1.13	0.3		pCi/g	1.13	0	-	pCi/g	
Q18-30	Radium-226	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	1.53	0.29		pCi/g	1.53	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	1.2	0.36		pCi/g	1.2	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	1.2	0.37		pCi/g	1.2	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-563663	NONE	482663.85	1351563.87	14-Nov-96	1.3	0.34		pCi/g	1.3		-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	1.48	0.89		pCi/g	1.48	1	J	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	1.13	0.46		pCi/g	1.13	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	1.34	0.54		pCi/g	1.34	1	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-704635	NONE	482635.77	1351704.58	14-Nov-96	1.2	0.28		pCi/g	1.2		-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	0.74	0.61	U	pCi/g	0.88	1	UJ	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	1.21	0.46		pCi/g	1.21	0	-	pCi/g	
Q18-30	Radium-228	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	1.05	0.51		pCi/g	1.05	1	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	1.1	0.44		pCi/g	1.1	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	1.2	0.47		pCi/g	1.2	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	0.78	0.34		pCi/g	0.78	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	1.1	0.42		pCi/g	1.1	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	1.04	0.1		pCi/g	1.07	0	J	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	1.2	0.1		pCi/g	1.22	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	1.16	0.11		pCi/g	1.19	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	1.17	0.1		pCi/g	1.19	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	1.12	0.1		pCi/g	1.15	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-30	Thorium-228	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	1.11	0.1		pCi/g	1.13	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C2-R-22	NONE	482663.85	1351563.87	5-Mar-97	1.2	0.29		pCi/g	1.19	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C2-R-23	NONE	482635.77	1351704.58	5-Mar-97	1.2	0.28		pCi/g	1.18	0	-	pCi/g	
Q18-30	Thorium-228	Radiological	Q18-30C2-R-23-D	NONE	482635.77	1351704.58	5-Mar-97	0.91	0.27		pCi/g	0.91	0	J	pCi/g	Q18-30C2-R-23
Q18-30	Thorium-232	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	1.1	0.41		pCi/g	1.1	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	1.1	0.45		pCi/g	1.1	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	1	0.42		pCi/g	1	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	1.2	0.41		pCi/g	1.2	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	1.07	0.09		pCi/g	1.07	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	1.1	0.09		pCi/g	1.1	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	1.09	0.09		pCi/g	1.09	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	1.12	0.1		pCi/g	1.12	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	1.26	0.1		pCi/g	1.26	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	1.23	0.1		pCi/g	1.23	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C2-R-22	NONE	482663.85	1351563.87	5-Mar-97	1.2	0.26		pCi/g	1.15	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C2-R-23	NONE	482635.77	1351704.58	5-Mar-97	0.98	0.23		pCi/g	0.98	0	-	pCi/g	
Q18-30	Thorium-232	Radiological	Q18-30C2-R-23-D	NONE	482635.77	1351704.58	5-Mar-97	1	0.23		pCi/g	1.02	0	J	pCi/g	Q18-30C2-R-23
Q18-30	Uranium, Total	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	N/A	N/A	N/A	ug/g	6.3	2	-	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	N/A	N/A	N/A	ug/g	5.1	2	-	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	N/A	N/A	N/A	ug/g	5.7	3	J	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	N/A	N/A	N/A	ug/g	6.9	3	-	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-563663	NONE	482663.85	1351563.87	14-Nov-96	N/A	N/A	N/A	ug/g	4.2		J	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	N/A	N/A	N/A	ug/g	5.4		U	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	N/A	N/A	N/A	ug/g	9		U	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	N/A	N/A	N/A	ug/g	5.4		U	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-704635	NONE	482635.77	1351704.58	14-Nov-96	N/A	N/A	N/A	ug/g	10.2		J	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	N/A	N/A	N/A	ug/g	13.28		J	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	N/A	N/A	N/A	ug/g	8.13		J	ug/g	
Q18-30	Uranium, Total	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	N/A	N/A	N/A	ug/g	5.1		U	ug/g	
Q18-30	Uranium-238	Radiological	Q18-30C-404861	NONE	482861.28	1351404.38	22-Nov-96	2.1	0.6		pCi/g	2.1	1	-	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-440916	NONE	482916.24	1351440.33	22-Nov-96	1.7	0.69		pCi/g	1.7	1	-	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-479618	NONE	482618.5	1351479.78	22-Nov-96	1.9	1		pCi/g	1.9	1	J	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-538810	NONE	482810.79	1351538.66	22-Nov-96	2.3	0.86		pCi/g	2.3	1	-	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-563663	NONE	482663.85	1351563.87	14-Nov-96	1.4	1.6		pCi/g	1.4		J	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-587936	NONE	482936.61	1351587.75	13-Nov-96	0.44	1.1	U	pCi/g	1.8	1	U	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-616928	NONE	482928.25	1351616.3	13-Nov-96	1.82	1.9	U	pCi/g	3	2	U	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-640877	NONE	482877.74	1351640.57	13-Nov-96	0.9	1.2	U	pCi/g	1.8	1	U	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-704635	NONE	482635.77	1351704.58	14-Nov-96	3.4	2.1		pCi/g	3.4		J	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-753949	NONE	482949.14	1351753.6	13-Nov-96	4.43	2.5		pCi/g	4.43	3	J	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-772773	NONE	482773.71	1351772.61	13-Nov-96	2.71	1.6		pCi/g	2.71	2	J	pCi/g	
Q18-30	Uranium-238	Radiological	Q18-30C-774831	NONE	482831.37	1351774.72	13-Nov-96	0.63	1.1	U	pCi/g	1.7	1	U	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-40	Moisture	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	20.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	21.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	22.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	18.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	21.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	21.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	17.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	20.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	21.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	22.2	N/A	N/A	Percent	0	N/A	N/A	Percent	Q18-40C-977977
Q18-40	Moisture	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	20.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	18.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Moisture	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	22.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q18-40	Radium-226	Radiological	Q18-40C-811654	NONE	482654.93	1351811.238	14-Nov-96	1.29	0.22		pCi/g	1.29	0.22	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-870874	NONE	482874.795	1351870.437	15-Nov-96	1.57	0.3		pCi/g	1.57	0.3	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-872764	NONE	482764.932	1351872.126	16-Nov-96	1.25	0.21		pCi/g	1.25	0.21	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-891658	NONE	482658.945	1351891.753	17-Nov-96	1.25	0.23		pCi/g	1.25	0.23	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-898975	NONE	482975.943	1351898.598	18-Nov-96	1.94	0.33		pCi/g	1.94	0.33	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-914679	NONE	482679.363	1351914.7	19-Nov-96	2.61	0.4		pCi/g	2.61	0.4	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-920785	NONE	482785.355	1351920.59	20-Nov-96	1.04	0.2		pCi/g	1.04	0.2	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-926871	NONE	482871.7	1351926.284	21-Nov-96	1.07	0.22		pCi/g	1.07	0.22	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-977977	NONE	482977.786	1351977.599	22-Nov-96	1.4	0.31		pCi/g	1.4	0.31	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-977977-D	NONE	482977.786	1351977.599	23-Nov-96	1.64	0.31		pCi/g	1.64	0.31	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-981808	NONE	482808.189	1351981.385	24-Nov-96	1.06	0.23		pCi/g	1.06	0.23	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-986850	NONE	482850.566	1351986.364	25-Nov-96	1.25	0.22		pCi/g	1.25	0.22	-	pCi/g	
Q18-40	Radium-226	Radiological	Q18-40C-987728	NONE	482728.822	1351987.063	26-Nov-96	2.42	0.42		pCi/g	2.42	0.42	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	1.38	0.43		pCi/g	1.38	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	1.13	0.54		pCi/g	1.13	1	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	1.11	0.41		pCi/g	1.11	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	1.14	0.42		pCi/g	1.14	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	1.58	0.59		pCi/g	1.58	1	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	1.4	0.6		pCi/g	1.4	1	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	1.49	0.39		pCi/g	1.49	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	1.43	0.39		pCi/g	1.43	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	1.74	0.58		pCi/g	1.74	1	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	1.66	0.57		pCi/g	1.66	1	-	pCi/g	Q18-40C-977977
Q18-40	Radium-228	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	1.25	0.4		pCi/g	1.25	0	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	1.39	0.59		pCi/g	1.39	1	-	pCi/g	
Q18-40	Radium-228	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	2.1	0.58		pCi/g	2.1	1	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	1.12	0.1		pCi/g	1.11	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-40	Thorium-228	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	1.15	0.11		pCi/g	1.14	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	1.18	0.1		pCi/g	1.17	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	1.13	0.12		pCi/g	1.12	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	1.3	0.12		pCi/g	1.33	0	J	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	1.22	0.11		pCi/g	1.21	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	1.06	0.1		pCi/g	1.09	0	J	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	1.12	0.11		pCi/g	1.11	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	1.14	0.19		pCi/g	1.19	0	J	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	1.36	0.2		pCi/g	1.41	0	J	pCi/g	Q18-40C-977977
Q18-40	Thorium-228	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	1.08	0.1		pCi/g	1.07	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	1.1	0.12		pCi/g	1.09	0	-	pCi/g	
Q18-40	Thorium-228	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	1.26	0.11		pCi/g	1.31	0	J	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	1.07	0.09		pCi/g	1.08	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	1.24	0.1		pCi/g	1.25	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	1.1	0.09		pCi/g	1.11	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	1.1	0.1		pCi/g	1.11	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	1.31	0.11		pCi/g	1.31	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	1.2	0.1		pCi/g	1.21	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	1.08	0.09		pCi/g	1.08	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	1.15	0.1		pCi/g	1.16	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	1.27	0.19		pCi/g	1.27	0	J	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	1.36	0.18		pCi/g	1.36	0	J	pCi/g	Q18-40C-977977
Q18-40	Thorium-232	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	1.11	0.09		pCi/g	1.12	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	1.06	0.1		pCi/g	1.07	0	-	pCi/g	
Q18-40	Thorium-232	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	1.16	0.1		pCi/g	1.16	0	J	pCi/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	N/A	N/A	N/A	ug/g	11.69		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	N/A	N/A	N/A	ug/g	14.39		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	N/A	N/A	N/A	ug/g	9		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	N/A	N/A	N/A	ug/g	8.7		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	N/A	N/A	N/A	ug/g	12.89		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	N/A	N/A	N/A	ug/g	22.67		J	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	N/A	N/A	N/A	ug/g	7.8		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	N/A	N/A	N/A	ug/g	9.6		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	N/A	N/A	N/A	ug/g	11.1	7	U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	N/A	N/A	N/A	ug/g	16.49		U	ug/g	Q18-40C-977977
Q18-40	Uranium, Total	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	N/A	N/A	N/A	ug/g	7.8		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	N/A	N/A	N/A	ug/g	9.6		U	ug/g	
Q18-40	Uranium, Total	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	N/A	N/A	N/A	ug/g	13.19		U	ug/g	
Q18-40	Uranium-238	Radiological	Q18-40C-811654	NONE	482654.93	1351811.24	13-Nov-96	2.57	2.5	U	pCi/g	3.9	3	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-870874	NONE	482874.8	1351870.44	13-Nov-96	2.97	3	U	pCi/g	4.8	3	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-872764	NONE	482764.93	1351872.13	13-Nov-96	0.53	1.8	U	pCi/g	3	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-891658	NONE	482658.95	1351891.75	13-Nov-96	2.81	1.9	U	pCi/g	2.9	2	U	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18-40	Uranium-238	Radiological	Q18-40C-898975	NONE	482975.94	1351898.6	13-Nov-96	3.25	2.7	U	pCi/g	4.3	3	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-914679	NONE	482679.36	1351914.7	13-Nov-96	7.56	4.3		pCi/g	7.56	4	J	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-920785	NONE	482785.36	1351920.59	13-Nov-96	-1.6	1.5	U	pCi/g	2.6	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-926871	NONE	482871.7	1351926.28	13-Nov-96	0.58	2	U	pCi/g	3.2	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-977977	NONE	482977.79	1351977.6	13-Nov-96	2.39	2.3	U	pCi/g	3.7	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-977977-D	NONE	482977.79	1351977.6	13-Nov-96	2.33	3.4	U	pCi/g	5.5	3	U	pCi/g	Q18-40C-977977
Q18-40	Uranium-238	Radiological	Q18-40C-981808	NONE	482808.19	1351981.39	13-Nov-96	-0.22	1.6	U	pCi/g	2.6	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-986850	NONE	482850.57	1351986.36	13-Nov-96	0.41	1.9	U	pCi/g	3.2	2	U	pCi/g	
Q18-40	Uranium-238	Radiological	Q18-40C-987728	NONE	482728.82	1351987.06	13-Nov-96	1.59	2.7	U	pCi/g	4.4	3	U	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-9-R	RE	482949	1351816	6-May-97	0.98	0.2		pCi/g	0.98	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-8-R	RE	482907	1352004	6-May-97	1.19	0.2		pCi/g	1.19	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-5-R-D	RE	482900	1351838	6-May-97	1.20	0.3		pCi/g	1.20	0.3	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-5-R	RE	482900	1351838	6-May-97	1.22	0.2		pCi/g	1.22	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-3-R	RE	482837	1351948	6-May-97	1.12	0.3		pCi/g	1.12	0.3	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-2-R	RE	482852	1353893	6-May-97	1.16	0.2		pCi/g	1.16	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-16-R	RE	482965	1352001	6-May-97	1.30	0.4		pCi/g	1.30	0.4	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-13-R	RE	482999	1351857	6-May-97	1.28	0.3		pCi/g	1.28	0.3	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-12-R	RE	482941	1352016	6-May-97	1.14	0.2		pCi/g	1.14	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-11-R	RE	482924	1351923	6-May-97	1.30	0.2		pCi/g	1.30	0.2	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-10-R	RE	482939	1351864	6-May-97	1.26	0.3		pCi/g	1.26	0.3	-	pCi/g	
Q18-40A	Radium-226	Radiological	Q18-40A-C1-1-R	RE	482843	1351848	6-May-97	1.24	0.2		pCi/g	1.24	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-9-R	RE	482741	1351816	6-May-97	1.30	0.2		pCi/g	1.30	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-8-R	RE	482695	1351970	6-May-97	1.51	0.2		pCi/g	1.51	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-7-R	RE	482691	1351937	6-May-97	1.71	0.3		pCi/g	1.71	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-6-R	RE	482708	1351885	6-May-97	1.28	0.3		pCi/g	1.28	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-5-R-D	RE	482686	1351832	6-May-97	1.43	0.2		pCi/g	1.43	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-5-R	RE	482686	1351832	6-May-97	1.45	0.3		pCi/g	1.45	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-4-R	RE	482646	1351969	6-May-97	1.35	0.3		pCi/g	1.35	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-3-R	RE	482653	1351942	6-May-97	1.34	0.2		pCi/g	1.34	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-2-R	RE	482646	1351863	6-May-97	1.28	0.3		pCi/g	1.28	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-16-R	RE	482790	1352009	6-May-97	1.48	0.3		pCi/g	1.48	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-15-R	RE	482814	1351950	6-May-97	1.59	0.4		pCi/g	1.59	0.4	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-14-R	RE	482803	1351862	6-May-97	1.17	0.2		pCi/g	1.17	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-13-R	RE	482821	1351805	6-May-97	1.38	0.2		pCi/g	1.38	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-12-R	RE	482773	1351981	6-May-97	1.60	0.3		pCi/g	1.60	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-11-R	RE	482735	1351948	6-May-97	1.47	0.2		pCi/g	1.47	0.2	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-10-R	RE	482755	1351905	6-May-97	1.50	0.3		pCi/g	1.50	0.3	-	pCi/g	
Q18-40B	Radium-226	Radiological	Q18-40B-C2-1-R	RE	482636	1351834	6-May-97	1.49	0.3		pCi/g	1.49	0.3	-	pCi/g	
Q19	Arsenic	Metals	Q19C-413672	NONE	483672	1351413	24-Mar-97	8.7	N/A	N	mg/kg	8.7	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19	Arsenic	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	9	N/A		mg/kg	9	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	9	N/A		mg/kg	9	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	7.9	N/A		mg/kg	7.9	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	10.3	N/A		mg/kg	10.3	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	7.6	N/A		mg/kg	7.6	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	10.9	N/A		mg/kg	10.9	N/A	-	mg/kg	
Q19	Arsenic	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	8	N/A		mg/kg	8	N/A	-	mg/kg	
Q19	Beryllium	Metals	Q19C-413672	NONE	483672	1351413	24-Mar-97	0.89	N/A		mg/kg	0.89	N/A	J	mg/kg	
Q19	Beryllium	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	0.76	N/A		mg/kg	0.76	N/A	U	mg/kg	
Q19	Beryllium	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	0.81	N/A		mg/kg	0.81	N/A	-	mg/kg	
Q19	Beryllium	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	0.8	N/A		mg/kg	0.8	N/A	U	mg/kg	
Q19	Beryllium	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	0.95	N/A		mg/kg	0.95	N/A	-	mg/kg	
Q19	Beryllium	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	0.66	N/A		mg/kg	0.66	N/A	U	mg/kg	
Q19	Beryllium	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	0.67	N/A		mg/kg	0.67	N/A	U	mg/kg	
Q19	Beryllium	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	0.96	N/A		mg/kg	0.96	N/A	-	mg/kg	
Q19	Beryllium	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	0.79	N/A		mg/kg	0.79	N/A	-	mg/kg	
Q19-10	Moisture	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	19.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	20.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	21.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	18.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	22.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	20.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	25.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	22.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	19.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	20.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Moisture	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	19.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-10	Radium-226	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	1.4	0.16		pCi/g	1.4	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	1.3	0.18		pCi/g	1.3	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	1.4	0.15		pCi/g	1.4	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	1.2	0.12		pCi/g	1.2	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	1.12	0.26		pCi/g	1.12	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	1.55	0.36		pCi/g	1.55	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	0.84	0.28		pCi/g	0.84	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	1.67	0.39		pCi/g	1.67	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	1.47	0.36		pCi/g	1.47	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	1.66	0.47		pCi/g	1.66	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	1.64	0.43		pCi/g	1.64	0	-	pCi/g	
Q19-10	Radium-226	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	1.21	0.34		pCi/g	1.21	0	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	1.3	0.34		pCi/g	1.3	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-10	Radium-228	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	1.4	0.41		pCi/g	1.4	0	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	1.2	0.35		pCi/g	1.2	0	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	1.1	0.29		pCi/g	1.1	0	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	1.11	0.52		pCi/g	1.11	1	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	1.01	0.65		pCi/g	1.01	1	J	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	0.83	0.46		pCi/g	0.83	0	J	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	1.71	0.89		pCi/g	1.71	1	J	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	1.68	0.59		pCi/g	1.68	1	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	1.72	0.65		pCi/g	1.72	1	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	1.86	0.71		pCi/g	1.86	1	-	pCi/g	
Q19-10	Radium-228	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	1.36	0.71		pCi/g	1.36	1	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	1.1	0.49		pCi/g	1.1	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	1.1	0.42		pCi/g	1.1	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	1.1	0.41		pCi/g	1.1	0	-	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	1	0.4		pCi/g	1	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	1.11	0.1		pCi/g	1.13	0	-	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	1.15	0.1		pCi/g	1.17	0	-	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	1.13	0.14		pCi/g	1.15	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	1.24	0.1		pCi/g	1.29	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	1.15	0.22		pCi/g	1.2	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	1.24	0.11		pCi/g	1.29	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	1.28	0.2		pCi/g	1.33	0	J	pCi/g	
Q19-10	Thorium-228	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	1.38	0.11		pCi/g	1.4	0	-	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	0.98	0.42		pCi/g	0.98	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	0.96	0.36		pCi/g	0.96	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	1.1	0.38		pCi/g	1.1	0	-	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	1	0.39		pCi/g	1	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	1.13	0.09		pCi/g	1.13	0	-	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	1.31	0.1		pCi/g	1.31	0	-	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	1.16	0.14		pCi/g	1.16	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	1.03	0.08		pCi/g	1.03	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	1.14	0.19		pCi/g	1.14	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	1.19	0.1		pCi/g	1.19	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	1.12	0.17		pCi/g	1.12	0	J	pCi/g	
Q19-10	Thorium-232	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	1.24	0.1		pCi/g	1.24	0	-	pCi/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	N/A	N/A	N/A	ug/g	2.55	2	J	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	N/A	N/A	N/A	ug/g	4.11	2	J	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	N/A	N/A	N/A	ug/g	3.3	2	U	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	N/A	N/A	N/A	ug/g	3.18	1	-	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	N/A	N/A	N/A	ug/g	11.96	7	J	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	N/A	N/A	N/A	ug/g	8.7		U	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	N/A	N/A	N/A	ug/g	10.77	6	J	ug/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-10	Uranium, Total	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	N/A	N/A	N/A	ug/g	16.79		-	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	N/A	N/A	N/A	ug/g	7.5		U	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	N/A	N/A	N/A	ug/g	11.09		U	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	N/A	N/A	N/A	ug/g	15.8		J	ug/g	
Q19-10	Uranium, Total	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	N/A	N/A	N/A	ug/g	9.9		U	ug/g	
Q19-10	Uranium-238	Radiological	Q19-10C-403377	NONE	483377.36	1351403.82	22-Nov-96	0.85	0.53	U	pCi/g	0.85	1	J	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-407286	NONE	483286.59	1351407.17	22-Nov-96	0.54	0.49		pCi/g	1.37	1	J	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-424101	NONE	483101.78	1351424.76	22-Nov-96	0.92	0.67	U	pCi/g	1.1	1	U	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-466170	NONE	483170.75	1351466.4	22-Nov-96	0.05	0.39	U	pCi/g	2.04	1	-	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-640364	NONE	483136.22	1351597.84	13-Nov-96	3.99	2.4		pCi/g	3.99	2	J	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-644025	NONE	483025.16	1351644.62	13-Nov-96	2.58	1.8	U	pCi/g	2.9	2	U	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-655190	NONE	483053.25	1351511.41	13-Nov-96	3.59	2		pCi/g	3.59	2	J	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-673281	NONE	483281.47	1351673.43	13-Nov-96	5.6	2.4		pCi/g	5.6	2	-	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-683145	NONE	483145.55	1351683.74	13-Nov-96	1.97	1.6	U	pCi/g	2.5	2	U	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-707234	NONE	483234.8	1351707.54	13-Nov-96	2.87	2.4	U	pCi/g	3.7	2	U	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-755391	NONE	483391.51	1351755.56	13-Nov-96	5.27	3		pCi/g	5.27	3	J	pCi/g	
Q19-10	Uranium-238	Radiological	Q19-10C-765036	NONE	483036.34	1351765.52	13-Nov-96	0.42	2	U	pCi/g	3.3	2	U	pCi/g	
Q19-20	Moisture	Radiological	Q19-20C-817138	NONE	483138.23	1351817.41	5-Nov-96	14.89	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-832024	NONE	483024.49	1351832.26	5-Nov-96	14.53	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-853266	NONE	483266.81	1351853.41	5-Nov-96	15.77	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-863173	NONE	483173.48	1351863.42	5-Nov-96	13.43	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-890340	NONE	483340.54	1351890.36	5-Nov-96	11.74	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-897327	NONE	483327.9	1351897	5-Nov-96	15.73	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-927271	NONE	483271.51	1351927.14	5-Nov-96	16.81	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-961179	NONE	483179.49	1351961.16	5-Nov-96	14.42	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-967389	NONE	483389.08	1351967.76	5-Nov-96	17.74	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-969016	NONE	483016.4	1351969.44	5-Nov-96	18.05	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-995288	NONE	483288.32	1351995.4	5-Nov-96	13.94	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-995288	NONE	483288.34	1351995.4	5-Nov-96	13.94	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C-998104	NONE	483104.72	1351998.47	5-Nov-96	13.72	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-24	NONE	483138.23	1351817.41	5-Mar-97	15.81	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-25	NONE	483024.49	1351832.26	5-Mar-97	16.37	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-26	NONE	483266.81	1351853.41	5-Mar-97	18.67	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-27	NONE	483173.48	1351863.42	5-Mar-97	13.47	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-28	NONE	483340.54	1351890.36	5-Mar-97	16.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-29	NONE	483327.9	1351897	5-Mar-97	14.49	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-30	NONE	483271.51	1351927.14	5-Mar-97	17.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-31	NONE	483179.49	1351961.16	5-Mar-97	12.63	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-32	NONE	483389.08	1351967.76	5-Mar-97	15.04	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-33	NONE	483016.4	1351969.44	5-Mar-97	20.42	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Moisture	Radiological	Q19-20C2-R-34	NONE	483288.34	1351995.4	5-Mar-97	17.65	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-20	Moisture	Radiological	Q19-20C2-R-34-D	NONE	483288.34	1351995.4	5-Mar-97	14.73	N/A	N/A	Percent	0	N/A	N/A	Percent	Q19-20C2-R-34
Q19-20	Moisture	Radiological	Q19-20C2-R-35	NONE	483104.72	1351998.47	5-Mar-97	20.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-20	Radium-226	Radiological	Q19-20C-817138	NONE	483138.23	1351817.41	5-Nov-96	1.1	0.23		pCi/g	1.13		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-832024	NONE	483024.49	1351832.26	5-Nov-96	1.1	0.19		pCi/g	1.1	0	-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-853266	NONE	483266.81	1351853.41	5-Nov-96	1.2	0.19		pCi/g	1.15		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-863173	NONE	483173.48	1351863.42	5-Nov-96	0.98	0.15		pCi/g	0.98		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-890340	NONE	483340.54	1351890.36	5-Nov-96	1.1	0.21		pCi/g	1.1		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-897327	NONE	483327.9	1351897	5-Nov-96	1.1	0.21		pCi/g	1.09		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-927271	NONE	483271.51	1351927.14	5-Nov-96	1.2	0.2		pCi/g	1.23		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-961179	NONE	483179.49	1351961.16	5-Nov-96	1.2	0.21		pCi/g	1.16		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-967389	NONE	483389.08	1351967.76	5-Nov-96	1.2	0.2		pCi/g	1.15		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-969016	NONE	483016.4	1351969.44	5-Nov-96	0.86	0.19		pCi/g	0.86		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-995288	NONE	483288.32	1351995.4	5-Nov-96	1.2	0.19		pCi/g	1.23		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-995288	NONE	483288.34	1351995.4	5-Nov-96	1.2	0.19		pCi/g	1.23		-	pCi/g	
Q19-20	Radium-226	Radiological	Q19-20C-998104	NONE	483104.72	1351998.47	5-Nov-96	1.1	0.24		pCi/g	1.07		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-817138	NONE	483138.23	1351817.41	5-Nov-96	1.4	0.34		pCi/g	1.43		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-832024	NONE	483024.49	1351832.26	5-Nov-96	1.1	0.26		pCi/g	1.14	0	-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-853266	NONE	483266.81	1351853.41	5-Nov-96	1.1	0.28		pCi/g	1.14		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-863173	NONE	483173.48	1351863.42	5-Nov-96	1.1	0.21		pCi/g	1.11		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-890340	NONE	483340.54	1351890.36	5-Nov-96	1.1	0.29		pCi/g	1.12		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-897327	NONE	483327.9	1351897	5-Nov-96	1	0.29		pCi/g	1.01		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-927271	NONE	483271.51	1351927.14	5-Nov-96	1.3	0.3		pCi/g	1.27		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-961179	NONE	483179.49	1351961.16	5-Nov-96	1.3	0.3		pCi/g	1.33		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-967389	NONE	483389.08	1351967.76	5-Nov-96	1.2	0.27		pCi/g	1.18		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-969016	NONE	483016.4	1351969.44	5-Nov-96	1.1	0.29		pCi/g	1.06		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-995288	NONE	483288.32	1351995.4	5-Nov-96	1.1	0.26		pCi/g	1.11		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-995288	NONE	483288.34	1351995.4	5-Nov-96	1.1	0.26		pCi/g	1.11		-	pCi/g	
Q19-20	Radium-228	Radiological	Q19-20C-998104	NONE	483104.72	1351998.47	5-Nov-96	1.1	0.39		pCi/g	1.12		-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-24	NONE	483138.23	1351817.41	5-Mar-97	1	0.27		pCi/g	1.04	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-25	NONE	483024.49	1351832.26	5-Mar-97	1	0.27		pCi/g	1.04	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-26	NONE	483266.81	1351853.41	5-Mar-97	1.4	0.35		pCi/g	1.42	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-27	NONE	483173.48	1351863.42	5-Mar-97	1	0.25		pCi/g	1.04	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-28	NONE	483340.54	1351890.36	5-Mar-97	1.3	0.29		pCi/g	1.27	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-29	NONE	483327.9	1351897	5-Mar-97	1.1	0.28		pCi/g	1.12	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-30	NONE	483271.51	1351927.14	5-Mar-97	1.2	0.25		pCi/g	1.22	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-31	NONE	483179.49	1351961.16	5-Mar-97	1.2	0.27		pCi/g	1.18	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-32	NONE	483389.08	1351967.76	5-Mar-97	0.95	0.25		pCi/g	0.95	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-33	NONE	483016.4	1351969.44	5-Mar-97	1.3	0.31		pCi/g	1.33	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-34	NONE	483288.34	1351995.4	5-Mar-97	1.2	0.24		pCi/g	1.24	0	-	pCi/g	
Q19-20	Thorium-228	Radiological	Q19-20C2-R-34-D	NONE	483288.34	1351995.4	5-Mar-97	1	0.24		pCi/g	1.04	0	-	pCi/g	Q19-20C2-R-34
Q19-20	Thorium-228	Radiological	Q19-20C2-R-35	NONE	483104.72	1351998.47	5-Mar-97	1.2	0.3		pCi/g	1.15	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-24	NONE	483138.23	1351817.41	5-Mar-97	1.2	0.26		pCi/g	1.2	0	-	pCi/g	

								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-20	Thorium-232	Radiological	Q19-20C2-R-25	NONE	483024.49	1351832.26	5-Mar-97	0.98	0.22		pCi/g	0.98	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-26	NONE	483266.81	1351853.41	5-Mar-97	1.3	0.29		pCi/g	1.28	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-27	NONE	483173.48	1351863.42	5-Mar-97	0.87	0.2		pCi/g	0.87	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-28	NONE	483340.54	1351890.36	5-Mar-97	0.83	0.2		pCi/g	0.83	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-29	NONE	483327.9	1351897	5-Mar-97	1.1	0.24		pCi/g	1.12	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-30	NONE	483271.51	1351927.14	5-Mar-97	1.3	0.24		pCi/g	1.27	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-31	NONE	483179.49	1351961.16	5-Mar-97	1.2	0.25		pCi/g	1.19	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-32	NONE	483389.08	1351967.76	5-Mar-97	1.1	0.24		pCi/g	1.05	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-33	NONE	483016.4	1351969.44	5-Mar-97	1	0.24		pCi/g	1.04	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-34	NONE	483288.34	1351995.4	5-Mar-97	1	0.2		pCi/g	1.01	0	-	pCi/g	
Q19-20	Thorium-232	Radiological	Q19-20C2-R-34-D	NONE	483288.34	1351995.4	5-Mar-97	1	0.22		pCi/g	1.03	0	-	pCi/g	Q19-20C2-R-34
Q19-20	Thorium-232	Radiological	Q19-20C2-R-35	NONE	483104.72	1351998.47	5-Mar-97	1.2	0.27		pCi/g	1.17	0	-	pCi/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-817138	NONE	483138.23	1351817.41	5-Nov-96	N/A	N/A	N/A	ug/g	4.75		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-832024	NONE	483024.49	1351832.26	5-Nov-96	N/A	N/A	N/A	ug/g	12.39		-	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-853266	NONE	483266.81	1351853.41	5-Nov-96	N/A	N/A	N/A	ug/g	6.26		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-863173	NONE	483173.48	1351863.42	5-Nov-96	N/A	N/A	N/A	ug/g	4.56		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-890340	NONE	483340.54	1351890.36	5-Nov-96	N/A	N/A	N/A	ug/g	3.41		U	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-897327	NONE	483327.9	1351897	5-Nov-96	N/A	N/A	N/A	ug/g	10.74		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-927271	NONE	483271.51	1351927.14	5-Nov-96	N/A	N/A	N/A	ug/g	7.15		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-961179	NONE	483179.49	1351961.16	5-Nov-96	N/A	N/A	N/A	ug/g	3.3		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-967389	NONE	483389.08	1351967.76	5-Nov-96	N/A	N/A	N/A	ug/g	4.8		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-969016	NONE	483016.4	1351969.44	5-Nov-96	N/A	N/A	N/A	ug/g	6.85		J	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-995288	NONE	483288.32	1351995.4	5-Nov-96	N/A	N/A	N/A	ug/g	4.21		U	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-995288	NONE	483288.34	1351995.4	5-Nov-96	N/A	N/A	N/A	ug/g	4.21		U	ug/g	
Q19-20	Uranium, Total	Radiological	Q19-20C-998104	NONE	483104.72	1351998.47	5-Nov-96	N/A	N/A	N/A	ug/g	14.05		-	ug/g	
Q19-20	Uranium-238	Radiological	Q19-20C-817138	NONE	483138.23	1351817.41	5-Nov-96	1.6	1.8		pCi/g	1.58		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-832024	NONE	483024.49	1351832.26	5-Nov-96	4.1	1.6		pCi/g	4.13		-	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-853266	NONE	483266.81	1351853.41	5-Nov-96	2.1	1.6		pCi/g	2.09		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-863173	NONE	483173.48	1351863.42	5-Nov-96	1.5	0.85		pCi/g	1.52		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-890340	NONE	483340.54	1351890.36	5-Nov-96	0.93	1.7	U	pCi/g	1.14		U	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-897327	NONE	483327.9	1351897	5-Nov-96	3.6	2.3		pCi/g	3.58		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-927271	NONE	483271.51	1351927.14	5-Nov-96	2.4	1.6		pCi/g	2.38		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-961179	NONE	483179.49	1351961.16	5-Nov-96	1.1	1.3		pCi/g	1.1		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-967389	NONE	483389.08	1351967.76	5-Nov-96	1.6	1.4		pCi/g	1.6		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-969016	NONE	483016.4	1351969.44	5-Nov-96	2.3	1.9		pCi/g	2.28		J	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-995288	NONE	483288.32	1351995.4	5-Nov-96	0.77	1.8	U	pCi/g	1.4		U	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-995288	NONE	483288.34	1351995.4	5-Nov-96	0.77	1.8	U	pCi/g	1.4		U	pCi/g	
Q19-20	Uranium-238	Radiological	Q19-20C-998104	NONE	483104.72	1351998.47	5-Nov-96	4.7	2.3		pCi/g	4.69		-	pCi/g	
Q19-30	Moisture	Radiological	Q19-30C-434472	NONE	483472.43	1351434.81	4-Nov-96	13.75	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-487610	NONE	483610.63	1351487.22	4-Nov-96	15.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-552565	NONE	483565.18	1351552.02	4-Nov-96	20.15	N/A	N/A	Percent	0	N/A	N/A	Percent	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-30	Moisture	Radiological	Q19-30C-562718	NONE	483718	1351562.1	4-Nov-96	14.55	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-570659	NONE	483659.25	1351570.5	4-Nov-96	10.69	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-573492	NONE	483492.13	1351573.18	4-Nov-96	14.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-602626	NONE	483626.44	1351602.12	4-Nov-96	13.17	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-657409	NONE	483409.85	1351657.09	4-Nov-96	20.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-695738	NONE	483738.78	1351695.68	4-Nov-96	12.23	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-718516	NONE	483516	1351718	4-Nov-96	11.66	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C-777429	NONE	483429.24	1351777.86	4-Nov-96	13.41	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	15.86	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	19.38	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-36	NONE	483472.43	1351434.81	6-Mar-97	14.96	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-37	NONE	483610.63	1351487.22	6-Mar-97	17.95	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-38	NONE	483565.18	1351552.02	6-Mar-97	15.11	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-39	NONE	483718	1351562.1	6-Mar-97	11.88	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-40	NONE	483718	1351562	6-Mar-97	18.67	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-41	NONE	483659.25	1351570.5	6-Mar-97	11.99	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-42	NONE	483492.13	1351573.18	6-Mar-97	13.52	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-43	NONE	483626.44	1351602.12	6-Mar-97	18.64	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-44	NONE	483409.85	1351657.09	6-Mar-97	13.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-45	NONE	483738.78	1351695.68	6-Mar-97	20.21	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-46	NONE	483516	1351718	6-Mar-97	16.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Moisture	Radiological	Q19-30C2-R-47	NONE	483429.24	1351777.86	6-Mar-97	15.67	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-30	Radium-226	Radiological	Q19-30C-434472	NONE	483472.43	1351434.81	4-Nov-96	1.2	0.14		pCi/g	1.2		-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-487610	NONE	483610.63	1351487.22	4-Nov-96	1.2	0.21		pCi/g	1.17	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-552565	NONE	483565.18	1351552.02	4-Nov-96	1.2	0.21		pCi/g	1.22	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-562718	NONE	483718	1351562.1	4-Nov-96	1.1	0.23		pCi/g	1.11	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-570659	NONE	483659.25	1351570.5	4-Nov-96	1.1	0.2		pCi/g	1.09	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-573492	NONE	483492.13	1351573.18	4-Nov-96	1.1	0.2		pCi/g	1.12	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-602626	NONE	483626.44	1351602.12	4-Nov-96	1.3	0.15		pCi/g	1.26	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-657409	NONE	483409.85	1351657.09	4-Nov-96	0.9	0.17		pCi/g	0.9	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-695738	NONE	483738.78	1351695.68	4-Nov-96	1.2	0.19		pCi/g	1.17	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-718516	NONE	483516	1351718	4-Nov-96	1.3	0.22		pCi/g	1.26	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C-777429	NONE	483429.24	1351777.86	4-Nov-96	1	0.2		pCi/g	1.01	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	1.1	0.16		pCi/g	1.06	0	-	pCi/g	
Q19-30	Radium-226	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	1.2	0.18		pCi/g	1.23	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-434472	NONE	483472.43	1351434.81	4-Nov-96	1.1	0.23		pCi/g	1.1		-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-487610	NONE	483610.63	1351487.22	4-Nov-96	1.1	0.31		pCi/g	1.13	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-552565	NONE	483565.18	1351552.02	4-Nov-96	1.3	0.28		pCi/g	1.26	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-562718	NONE	483718	1351562.1	4-Nov-96	1.2	0.31		pCi/g	1.24	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-570659	NONE	483659.25	1351570.5	4-Nov-96	1.3	0.3		pCi/g	1.29	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-573492	NONE	483492.13	1351573.18	4-Nov-96	1.2	0.3		pCi/g	1.21	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-602626	NONE	483626.44	1351602.12	4-Nov-96	1.2	0.23		pCi/g	1.2	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-30	Radium-228	Radiological	Q19-30C-657409	NONE	483409.85	1351657.09	4-Nov-96	1.1	0.28		pCi/g	1.07	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-695738	NONE	483738.78	1351695.68	4-Nov-96	1.3	0.29		pCi/g	1.29	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-718516	NONE	483516	1351718	4-Nov-96	1.3	0.29		pCi/g	1.26	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C-777429	NONE	483429.24	1351777.86	4-Nov-96	1.1	0.29		pCi/g	1.06	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	0.92	0.23		pCi/g	0.92	0	-	pCi/g	
Q19-30	Radium-228	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	1.3	0.26		pCi/g	1.31	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	1	0.24		pCi/g	1.05	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	1.4	0.3		pCi/g	1.43	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-36	NONE	483472.43	1351434.81	6-Mar-97	1	0.26		pCi/g	1.11	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-37	NONE	483610.63	1351487.22	6-Mar-97	1.3	0.32		pCi/g	1.4	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-38	NONE	483565.18	1351552.02	6-Mar-97	1.2	0.27		pCi/g	1.23	0	J	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-39	NONE	483718	1351562.1	6-Mar-97	1.1	0.24		pCi/g	1.13	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-40	NONE	483718	1351562	6-Mar-97	1.2	0.3		pCi/g	1.27	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-41	NONE	483659.25	1351570.5	6-Mar-97	1.2	0.3		pCi/g	1.3	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-42	NONE	483492.13	1351573.18	6-Mar-97	1.1	0.23		pCi/g	1.14	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-43	NONE	483626.44	1351602.12	6-Mar-97	1.4	0.35		pCi/g	1.46	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-44	NONE	483409.85	1351657.09	6-Mar-97	1.1	0.29		pCi/g	1.2	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-45	NONE	483738.78	1351695.68	6-Mar-97	1.1	0.29		pCi/g	1.2	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-46	NONE	483516	1351718	6-Mar-97	0.94	0.25		pCi/g	1.01	0	-	pCi/g	
Q19-30	Thorium-228	Radiological	Q19-30C2-R-47	NONE	483429.24	1351777.86	6-Mar-97	0.8	0.23		pCi/g	0.87	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	0.94	0.2		pCi/g	0.95	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	1.2	0.24		pCi/g	1.2	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-36	NONE	483472.43	1351434.81	6-Mar-97	1.2	0.24		pCi/g	1.24	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-37	NONE	483610.63	1351487.22	6-Mar-97	1.1	0.23		pCi/g	1.08	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-38	NONE	483565.18	1351552.02	6-Mar-97	0.99	0.2		pCi/g	1	0	J	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-39	NONE	483718	1351562.1	6-Mar-97	1	0.21		pCi/g	1.05	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-40	NONE	483718	1351562	6-Mar-97	1	0.22		pCi/g	1.04	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-41	NONE	483659.25	1351570.5	6-Mar-97	0.94	0.21		pCi/g	0.96	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-42	NONE	483492.13	1351573.18	6-Mar-97	1.1	0.2		pCi/g	1.09	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-43	NONE	483626.44	1351602.12	6-Mar-97	1.3	0.28		pCi/g	1.27	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-44	NONE	483409.85	1351657.09	6-Mar-97	1.1	0.23		pCi/g	1.08	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-45	NONE	483738.78	1351695.68	6-Mar-97	1.1	0.24		pCi/g	1.11	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-46	NONE	483516	1351718	6-Mar-97	0.99	0.21		pCi/g	1.01	0	-	pCi/g	
Q19-30	Thorium-232	Radiological	Q19-30C2-R-47	NONE	483429.24	1351777.86	6-Mar-97	0.79	0.19		pCi/g	0.81	0	-	pCi/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-434472	NONE	483472.43	1351434.81	4-Nov-96	N/A	N/A	N/A	ug/g	6.5		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-487610	NONE	483610.63	1351487.22	4-Nov-96	N/A	N/A	N/A	ug/g	6.1		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-552565	NONE	483565.18	1351552.02	4-Nov-96	N/A	N/A	N/A	ug/g	18.77		-	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-562718	NONE	483718	1351562.1	4-Nov-96	N/A	N/A	N/A	ug/g	6.27		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-570659	NONE	483659.25	1351570.5	4-Nov-96	N/A	N/A	N/A	ug/g	4.42		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-573492	NONE	483492.13	1351573.18	4-Nov-96	N/A	N/A	N/A	ug/g	9.53		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-602626	NONE	483626.44	1351602.12	4-Nov-96	N/A	N/A	N/A	ug/g	9.05		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-657409	NONE	483409.85	1351657.09	4-Nov-96	N/A	N/A	N/A	ug/g	19.47		-	ug/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-30	Uranium, Total	Radiological	Q19-30C-695738	NONE	483738.78	1351695.68	4-Nov-96	N/A	N/A	N/A	ug/g	8.01		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-718516	NONE	483516	1351718	4-Nov-96	N/A	N/A	N/A	ug/g	9.6		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C-777429	NONE	483429.24	1351777.86	4-Nov-96	N/A	N/A	N/A	ug/g	4.21		J	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	N/A	N/A	N/A	ug/g	2.61	3	U	ug/g	
Q19-30	Uranium, Total	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	N/A	N/A	N/A	ug/g	5.39	4	J	ug/g	
Q19-30	Uranium-238	Radiological	Q19-30C-434472	NONE	483472.43	1351434.81	4-Nov-96	2.2	2		pCi/g	2.17		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-487610	NONE	483610.63	1351487.22	4-Nov-96	2	2		pCi/g	2.03		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-552565	NONE	483565.18	1351552.02	4-Nov-96	6.3	2		pCi/g	6.26		-	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-562718	NONE	483718	1351562.1	4-Nov-96	2.1	1.8		pCi/g	2.09		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-570659	NONE	483659.25	1351570.5	4-Nov-96	1.5	2		pCi/g	1.47		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-573492	NONE	483492.13	1351573.18	4-Nov-96	3.2	1.8		pCi/g	3.18		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-602626	NONE	483626.44	1351602.12	4-Nov-96	3	1.9		pCi/g	3.02		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-657409	NONE	483409.85	1351657.09	4-Nov-96	6.5	2.7		pCi/g	6.49		-	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-695738	NONE	483738.78	1351695.68	4-Nov-96	2.7	1.8		pCi/g	2.67		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-718516	NONE	483516	1351718	4-Nov-96	3.2	2.4		pCi/g	3.2		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C-777429	NONE	483429.24	1351777.86	4-Nov-96	1.4	1.8		pCi/g	1.4		J	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C2-R-1	NONE	483647.15	1351704.09	13-Mar-97	0.81	1.1	U	pCi/g	0.87	1	U	pCi/g	
Q19-30	Uranium-238	Radiological	Q19-30C2-R-2	NONE	483420.45	1351515.34	14-Mar-97	1.8	1.4		pCi/g	1.8	1	J	pCi/g	
Q19-40	Moisture	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	18.18	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-079740	NONE	483740.76	1352079.28	5-Nov-96	17.29	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-835755	NONE	483755.28	1351835.43	5-Nov-96	17.52	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-849480	NONE	483480.62	1351849.56	4-Nov-96	16.31	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-882465	NONE	483465.75	1351882.81	5-Nov-96	16.46	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-882465-D	NONE	483465.75	1351882.81	5-Nov-96	17.68	N/A	N/A	Percent	0	N/A	N/A	Percent	Q19-40C-882465
Q19-40	Moisture	Radiological	Q19-40C-904775	NONE	483775.23	1351904.4	5-Nov-96	16.89	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-927651	NONE	483651.14	1351927.3	5-Nov-96	16.42	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C-999438	NONE	483438.51	1351999.17	5-Nov-96	17.02	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	17.49	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	22.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	22.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	14.79	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-48	NONE	483550.49	1352040.99	5-Mar-97	16.99	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-49	NONE	483740.76	1352079.28	6-Mar-97	18.05	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	15.05	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-50	NONE	483755.28	1351835.43	6-Mar-97	20.01	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-50-D	NONE	483755.28	1351835.43	6-Mar-97	20.13	N/A	N/A	Percent	0	N/A	N/A	Percent	Q19-40C2-R-50
Q19-40	Moisture	Radiological	Q19-40C2-R-51	NONE	483480.62	1351849.56	5-Mar-97	18.34	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-52	NONE	483465.75	1351882.81	5-Mar-97	17.34	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-53	NONE	483775.23	1351904.4	6-Mar-97	18.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-54	NONE	483438.51	1351999.17	5-Mar-97	14.18	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q19-40	Moisture	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	17.83	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-40	Radium-226	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	1.2	0.23		pCi/g	1.2		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-079740	NONE	483740.76	1352079.28	5-Nov-96	1.3	0.23		pCi/g	1.34		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-835755	NONE	483755.28	1351835.43	5-Nov-96	1.2	0.19		pCi/g	1.16		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-849480	NONE	483480.62	1351849.56	4-Nov-96	1.2	0.25		pCi/g	1.16		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-882465	NONE	483465.75	1351882.81	5-Nov-96	1.2	0.21		pCi/g	1.2		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-882465-D	NONE	483465.75	1351882.81	5-Nov-96	1.1	0.23		pCi/g	1.07		-	pCi/g	Q19-40C-882465
Q19-40	Radium-226	Radiological	Q19-40C-904775	NONE	483775.23	1351904.4	5-Nov-96	1.3	0.24		pCi/g	1.32		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-927651	NONE	483651.14	1351927.3	5-Nov-96	1.4	0.23		pCi/g	1.39		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C-999438	NONE	483438.51	1351999.17	5-Nov-96	1.2	0.2		pCi/g	1.23		-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	1.1	0.16		pCi/g	1.08	0	-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	1.3	0.21		pCi/g	1.31	0	-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	1.5	0.24		pCi/g	1.45	0	-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	1.2	0.23		pCi/g	1.2	0	-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	1.2	0.19		pCi/g	1.22	0	-	pCi/g	
Q19-40	Radium-226	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	1.3	0.19		pCi/g	1.32	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	1.5	0.38		pCi/g	1.54		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-079740	NONE	483740.76	1352079.28	5-Nov-96	1.1	0.31		pCi/g	1.14		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-835755	NONE	483755.28	1351835.43	5-Nov-96	1.3	0.26		pCi/g	1.25		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-849480	NONE	483480.62	1351849.56	4-Nov-96	1.3	0.35		pCi/g	1.33		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-882465	NONE	483465.75	1351882.81	5-Nov-96	1.2	0.33		pCi/g	1.23		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-882465-D	NONE	483465.75	1351882.81	5-Nov-96	1.1	0.34		pCi/g	1.06		-	pCi/g	Q19-40C-882465
Q19-40	Radium-228	Radiological	Q19-40C-904775	NONE	483775.23	1351904.4	5-Nov-96	1.3	0.38		pCi/g	1.26		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-927651	NONE	483651.14	1351927.3	5-Nov-96	1.3	0.33		pCi/g	1.34		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C-999438	NONE	483438.51	1351999.17	5-Nov-96	0.89	0.31		pCi/g	0.89		-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	1.1	0.21		pCi/g	1.06	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	1.4	0.28		pCi/g	1.43	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	1.2	0.29		pCi/g	1.19	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	1.3	0.24		pCi/g	1.27	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	1.1	0.23		pCi/g	1.07	0	-	pCi/g	
Q19-40	Radium-228	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	1.2	0.28		pCi/g	1.23	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	0.54	0.31		pCi/g	1.03	0	Z	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	1	0.25		pCi/g	1.06	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	1	0.22		pCi/g	1.05	0	J	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	1.1	0.26		pCi/g	1.12	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	1.2	0.26		pCi/g	1.19	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-48	NONE	483550.49	1352040.99	5-Mar-97	1.2	0.26		pCi/g	1.15	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-49	NONE	483740.76	1352079.28	6-Mar-97	1	0.23		pCi/g	1.07	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	1	0.22		pCi/g	1	0	J	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-50	NONE	483755.28	1351835.43	6-Mar-97	1.1	0.23		pCi/g	1.18	0	J	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-50-D	NONE	483755.28	1351835.43	6-Mar-97	1.3	0.32		pCi/g	1.42	0	-	pCi/g	Q19-40C2-R-50
Q19-40	Thorium-228	Radiological	Q19-40C2-R-51	NONE	483480.62	1351849.56	5-Mar-97	1.2	0.32		pCi/g	1.31	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-52	NONE	483465.75	1351882.81	5-Mar-97	1.2	0.29		pCi/g	1.22	0	-	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-40	Thorium-228	Radiological	Q19-40C2-R-53	NONE	483775.23	1351904.4	6-Mar-97	1.3	0.29		pCi/g	1.37	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-54	NONE	483438.51	1351999.17	5-Mar-97	1	0.24		pCi/g	1.04	0	-	pCi/g	
Q19-40	Thorium-228	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	1.1	0.26		pCi/g	1.12	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	1	0.23		pCi/g	1.04	0	Z	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	1.1	0.22		pCi/g	1.07	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	0.84	0.18		pCi/g	0.85	0	J	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	1.1	0.22		pCi/g	1.08	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	1.2	0.24		pCi/g	1.24	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-48	NONE	483550.49	1352040.99	5-Mar-97	1	0.22		pCi/g	1.01	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-49	NONE	483740.76	1352079.28	6-Mar-97	0.93	0.18		pCi/g	0.94	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	1	0.2		pCi/g	1.02	0	J	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-50	NONE	483755.28	1351835.43	6-Mar-97	1	0.19		pCi/g	1.01	0	J	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-50-D	NONE	483755.28	1351835.43	6-Mar-97	0.99	0.22		pCi/g	1	0	-	pCi/g	Q19-40C2-R-50
Q19-40	Thorium-232	Radiological	Q19-40C2-R-51	NONE	483480.62	1351849.56	5-Mar-97	0.98	0.24		pCi/g	1	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-52	NONE	483465.75	1351882.81	5-Mar-97	1	0.23		pCi/g	1.06	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-53	NONE	483775.23	1351904.4	6-Mar-97	1.1	0.23		pCi/g	1.13	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-54	NONE	483438.51	1351999.17	5-Mar-97	1	0.22		pCi/g	1	0	-	pCi/g	
Q19-40	Thorium-232	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	1.1	0.23		pCi/g	1.12	0	-	pCi/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	N/A	N/A	N/A	ug/g	17.17		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-079740	NONE	483740.76	1352079.28	5-Nov-96	N/A	N/A	N/A	ug/g	7.74		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-835755	NONE	483755.28	1351835.43	5-Nov-96	N/A	N/A	N/A	ug/g	4.04		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-849480	NONE	483480.62	1351849.56	4-Nov-96	N/A	N/A	N/A	ug/g	9.15	8	J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-882465	NONE	483465.75	1351882.81	5-Nov-96	N/A	N/A	N/A	ug/g	11.17		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-882465-D	NONE	483465.75	1351882.81	5-Nov-96	N/A	N/A	N/A	ug/g	10.65		J	ug/g	Q19-40C-882465
Q19-40	Uranium, Total	Radiological	Q19-40C-904775	NONE	483775.23	1351904.4	5-Nov-96	N/A	N/A	N/A	ug/g	7.05		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-927651	NONE	483651.14	1351927.3	5-Nov-96	N/A	N/A	N/A	ug/g	5.63		J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C-999438	NONE	483438.51	1351999.17	5-Nov-96	N/A	N/A	N/A	ug/g	4.63		U	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	N/A	N/A	N/A	ug/g	14.11	5	-	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	N/A	N/A	N/A	ug/g	3.85	3	J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	N/A	N/A	N/A	ug/g	3.93	5	U	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	N/A	N/A	N/A	ug/g	3.86	4	J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	N/A	N/A	N/A	ug/g	6.38	4	J	ug/g	
Q19-40	Uranium, Total	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	N/A	N/A	N/A	ug/g	7.73	4	J	ug/g	
Q19-40	Uranium-238	Radiological	Q19-40C-041550	NONE	483550.49	1352040.99	5-Nov-96	5.7	3		pCi/g	5.73		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-079740	NONE	483740.76	1352079.28	5-Nov-96	2.6	1.7		pCi/g	2.58		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-835755	NONE	483755.28	1351835.43	5-Nov-96	1.3	0.94		pCi/g	1.35		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-849480	NONE	483480.62	1351849.56	4-Nov-96	3.1	2.7		pCi/g	3.05		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-882465	NONE	483465.75	1351882.81	5-Nov-96	3.7	2.3		pCi/g	3.73		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-882465-D	NONE	483465.75	1351882.81	5-Nov-96	3.6	2.3		pCi/g	3.55		J	pCi/g	Q19-40C-882465
Q19-40	Uranium-238	Radiological	Q19-40C-904775	NONE	483775.23	1351904.4	5-Nov-96	2.4	2.3		pCi/g	2.35		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-927651	NONE	483651.14	1351927.3	5-Nov-96	1.9	1.9		pCi/g	1.88		J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C-999438	NONE	483438.51	1351999.17	5-Nov-96	0.4	2	U	pCi/g	1.54		U	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q19-40	Uranium-238	Radiological	Q19-40C2-R-1	NONE	483519.3	1351828.92	13-Mar-97	4.7	1.7		pCi/g	4.7	2	-	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C2-R-2	NONE	483787.05	1351820.23	13-Mar-97	1.3	1		pCi/g	1.29	1	J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C2-R-3	NONE	483736.63	1351881.93	13-Mar-97	0.68	1.8	U	pCi/g	1.31	2	U	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C2-R-4	NONE	483667.96	1351827.19	13-Mar-97	1.3	1.2		pCi/g	1.29	1	J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C2-R-5	NONE	483492.36	1352036.6	13-Mar-97	2.1	1.4		pCi/g	2.13	1	J	pCi/g	
Q19-40	Uranium-238	Radiological	Q19-40C2-R-6	NONE	483601.89	1351868.89	13-Mar-97	2.6	1.5		pCi/g	2.58	1	J	pCi/g	
Q20	Arsenic	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	6.7	N/A		mg/kg	6.7	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	2.8	N/A		mg/kg	2.8	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	8	N/A		mg/kg	8	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	6.8	N/A		mg/kg	6.8	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	8	N/A		mg/kg	8	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	6.6	N/A		mg/kg	6.6	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	5	N/A		mg/kg	5	N/A	U	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	4.1	N/A		mg/kg	4.1	N/A	UJ	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-3	NONE	484157.41	1351993.9	14-Mar-97	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-4	NONE	484534.77	1351979.18	14-Mar-97	7	N/A		mg/kg	7	N/A	U	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-5	NONE	484426.38	1352121.05	14-Mar-97	8	N/A		mg/kg	8	N/A	-	mg/kg	
Q20	Arsenic	Metals	Q20C2-M-6	NONE	483905.84	1351710.15	13-Mar-97	8.3	N/A		mg/kg	8.3	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	0.88	N/A		mg/kg	0.88	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	1	N/A		mg/kg	1	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	0.93	N/A		mg/kg	0.93	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	0.91	N/A		mg/kg	0.91	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	0.89	N/A		mg/kg	0.89	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	0.69	N/A		mg/kg	0.69	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	1	N/A	B	mg/kg	1	N/A	J	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-3	NONE	484157.41	1351993.9	14-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-4	NONE	484534.77	1351979.18	14-Mar-97	1.1	N/A		mg/kg	1.1	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-5	NONE	484426.38	1352121.05	14-Mar-97	1.2	N/A		mg/kg	1.2	N/A	-	mg/kg	
Q20	Beryllium	Metals	Q20C2-M-6	NONE	483905.84	1351710.15	13-Mar-97	1.4	N/A		mg/kg	1.4	N/A	-	mg/kg	
Q20-10	Moisture	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	21.98	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	23.91	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	20.43	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	29.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	27.54	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	25.59	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	27.87	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	21.99	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	28.3	N/A	N/A	Percent	0	N/A	N/A	Percent	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-10	Moisture	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	29.5	N/A	N/A	Percent	0	N/A	N/A	Percent	Q20-10C-8-R
Q20-10	Moisture	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	28.86	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	30.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	27.9	N/A	N/A	Percent	0	N/A	N/A	Percent	Q20-10C2-R-1
Q20-10	Moisture	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	27.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	30.2	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Moisture	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	35.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Radium-226	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	0.91	0.15		pCi/g	0.91	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	0.91	0.15		pCi/g	0.91	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	0.9	0.16		pCi/g	0.9	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	1.2	0.22		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	1.2	0.2		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	0.48	0.14		pCi/g	0.48	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	1.2	0.18		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	1	0.19		pCi/g	1	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	1.4	0.18		pCi/g	1.36	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	1.2	0.15		pCi/g	1.2	0	-	pCi/g	Q20-10C-8-R
Q20-10	Radium-226	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	1.2	0.22		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	1.6	0.21		pCi/g	1.59	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	1.5	0.18		pCi/g	1.46	0	-	pCi/g	Q20-10C2-R-1
Q20-10	Radium-226	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	1.1	0.14		pCi/g	1.06	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	1.5	0.18		pCi/g	1.47	0	-	pCi/g	
Q20-10	Radium-226	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	1.6	0.19		pCi/g	1.6	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	1.4	0.25		pCi/g	1.4	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	1.2	0.24		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	1.2	0.28		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	1.4	0.32		pCi/g	1.4	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	1.2	0.34		pCi/g	1.2	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	0.66	0.22		pCi/g	0.66	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	1.3	0.3		pCi/g	1.3	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	1.4	0.32		pCi/g	1.4	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	1.3	0.4		pCi/g	1.33	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	1.3	0.35		pCi/g	1.29	0	-	pCi/g	Q20-10C-8-R
Q20-10	Radium-228	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	1.3	0.35		pCi/g	1.3	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	1.4	0.36		pCi/g	1.36	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	1.3	0.35		pCi/g	1.25	0	-	pCi/g	Q20-10C2-R-1
Q20-10	Radium-228	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	1.3	0.33		pCi/g	1.34	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	1.7	0.43		pCi/g	1.7	0	-	pCi/g	
Q20-10	Radium-228	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	1.5	0.4		pCi/g	1.54	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	1	0.29		pCi/g	1.14	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	0.96	0.25		pCi/g	1.08	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	0.96	0.24		pCi/g	1.1	0	-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-10	Thorium-228	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	1.4	0.32		pCi/g	1.38	0	J	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	0.98	0.27		pCi/g	1.12	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	1.1	0.3		pCi/g	1.22	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	1.1	0.27		pCi/g	1.11	0	J	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	1.1	0.32		pCi/g	1.23	0	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	1.5	0.56		pCi/g	1.51	1	J	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	1.7	0.71		pCi/g	1.68	1	-	pCi/g	Q20-10C-8-R
Q20-10	Thorium-228	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	1.1	0.26		pCi/g	1.08	0	J	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	1.5	0.5		pCi/g	1.5	1	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	1.3	0.47		pCi/g	1.32	0	J	pCi/g	Q20-10C2-R-1
Q20-10	Thorium-228	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	1.3	0.53		pCi/g	1.31	1	J	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	1.6	0.6		pCi/g	1.61	1	-	pCi/g	
Q20-10	Thorium-228	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	1.6	0.59		pCi/g	1.56	1	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	0.92	0.21		pCi/g	0.94	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	1.1	0.22		pCi/g	1.07	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	1	0.22		pCi/g	1.03	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	1.2	0.27		pCi/g	1.26	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	1.1	0.25		pCi/g	1.13	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	1.1	0.24		pCi/g	1.13	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	1	0.22		pCi/g	1.04	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	1.1	0.25		pCi/g	1.09	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	1.3	0.47		pCi/g	1.27	0	J	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	1.3	0.56		pCi/g	1.31	1	-	pCi/g	Q20-10C-8-R
Q20-10	Thorium-232	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	0.87	0.2		pCi/g	0.88	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	1.3	0.45		pCi/g	1.34	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	1.1	0.41		pCi/g	1.15	0	J	pCi/g	Q20-10C2-R-1
Q20-10	Thorium-232	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	1.2	0.48		pCi/g	1.2	0	J	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	1.3	0.48		pCi/g	1.27	0	-	pCi/g	
Q20-10	Thorium-232	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	1.4	0.54		pCi/g	1.45	1	-	pCi/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	N/A	N/A	N/A	ug/g	17.09	6	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	N/A	N/A	N/A	ug/g	15.89	4	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	N/A	N/A	N/A	ug/g	11.1	5	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	N/A	N/A	N/A	ug/g	9	6	J	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	N/A	N/A	N/A	ug/g	21.29	8	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	N/A	N/A	N/A	ug/g	8.7	6	J	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	N/A	N/A	N/A	ug/g	26.99	9	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	N/A	N/A	N/A	ug/g	21.59	7	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	N/A	N/A	N/A	ug/g	11.91	3	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	N/A	N/A	N/A	ug/g	8.6	3	-	ug/g	Q20-10C-8-R
Q20-10	Uranium, Total	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	N/A	N/A	N/A	ug/g	15.29	6	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	N/A	N/A	N/A	ug/g	9.47	3	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	N/A	N/A	N/A	ug/g	9.05	2	-	ug/g	Q20-10C2-R-1

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-10	Uranium, Total	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	N/A	N/A	N/A	ug/g	5.01	1	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	N/A	N/A	N/A	ug/g	11.57	3	-	ug/g	
Q20-10	Uranium, Total	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	N/A	N/A	N/A	ug/g	14.73	3	-	ug/g	
Q20-10	Uranium-238	Radiological	Q20-10C-10-R	NONE	484036.27	1351563.38	19-Feb-97	5.7	1.9		pCi/g	5.7	2	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-11-R	NONE	484014.16	1351639.8	19-Feb-97	5.3	1.4		pCi/g	5.3	1	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-12-R	NONE	484076.79	1351720.23	19-Feb-97	3.7	1.8		pCi/g	3.7	2	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-13-R	NONE	484144.7	1351402.9	24-Feb-97	3	2.1		pCi/g	3	2	J	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-14-R	NONE	484146.61	1351592.83	19-Feb-97	7.1	2.6		pCi/g	7.1	3	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-15-R	NONE	484168.6	1351652.14	19-Feb-97	2.9	1.9		pCi/g	2.9	2	J	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-5-R	NONE	483961.61	1351494.18	24-Feb-97	9	3.1		pCi/g	9	3	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-6-R	NONE	483972.02	1351516.69	19-Feb-97	7.2	2.3		pCi/g	7.2	2	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-8-R	NONE	484001.11	1351668.16	25-Feb-97	3.97	0.85		pCi/g	3.97	1	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C-8-R-D	NONE	484001.11	1351668.16	25-Feb-97	2.9	1.3		pCi/g	2.87	1	-	pCi/g	Q20-10C-8-R
Q20-10	Uranium-238	Radiological	Q20-10C-9-R	NONE	484053.04	1351452.61	24-Feb-97	5.1	2.2		pCi/g	5.1	2	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C2-R-1	NONE	484169.26	1351703.06	14-Mar-97	3.2	0.9		pCi/g	3.16	1	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C2-R-1-D	NONE	484169.26	1351703.06	14-Mar-97	3	0.72		pCi/g	3.02	1	-	pCi/g	Q20-10C2-R-1
Q20-10	Uranium-238	Radiological	Q20-10C2-R-2	NONE	484174.48	1351435.43	14-Mar-97	1.7	0.47		pCi/g	1.67	0	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C2-R-3	NONE	484051.03	1351520.58	14-Mar-97	3.9	0.94		pCi/g	3.86	1	-	pCi/g	
Q20-10	Uranium-238	Radiological	Q20-10C2-R-4	NONE	483899.77	1351504.94	14-Mar-97	4.9	1		pCi/g	4.91	1	-	pCi/g	
Q20-20	Moisture	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	19.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	31.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-064950	NONE	483950	1352064	4-Nov-96	11.37	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-074915	NONE	483915.45	1352074.14	4-Nov-96	19.78	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-815917	NONE	483917.37	1351815.23	4-Nov-96	13.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	28.48	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-859980	NONE	483980	1351859	4-Nov-96	12.88	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-875821	NONE	483821.87	1351875.41	4-Nov-96	12.25	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-902959	NONE	483960.02	1351902.13	4-Nov-96	14.48	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	28.69	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	40.9	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	29	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	23	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-55	NONE	483950	1352064	6-Mar-97	24.09	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-56	NONE	483915.45	1352074.14	6-Mar-97	22.46	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-58	NONE	483917.37	1351815.23	6-Mar-97	20.74	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-59	NONE	483980	1351859	6-Mar-97	22.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-60	NONE	483821.87	1351875.41	6-Mar-97	20.53	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-20	Moisture	Radiological	Q20-20C2-R-61	NONE	483960.02	1351902.13	6-Mar-97	17.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-10	Radium-226	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	1	0.19		pCi/g	1	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-064950	NONE	483950	1352064	4-Nov-96	1.1	0.19		pCi/g	1.09		-	pCi/g	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-20	Radium-226	Radiological	Q20-20C-074915	NONE	483915.45	1352074.14	4-Nov-96	0.91	0.17		pCi/g	0.91		-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-815917	NONE	483917.37	1351815.23	4-Nov-96	1.1	0.18		pCi/g	1.11		-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	0.9	0.15		pCi/g	0.9	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-859980	NONE	483980	1351859	4-Nov-96	0.79	0.17		pCi/g	0.79	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-875821	NONE	483821.87	1351875.41	4-Nov-96	1.3	0.15		pCi/g	1.32		-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-902959	NONE	483960.02	1351902.13	4-Nov-96	1.1	0.19		pCi/g	1.08		-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	1.1	0.12		pCi/g	1.13	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	1.2	0.14		pCi/g	1.16	0	-	pCi/g	
Q20-20	Radium-226	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	1.5	0.17		pCi/g	1.46	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	1.7	0.44		pCi/g	1.7	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	1.3	0.29		pCi/g	1.3	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-064950	NONE	483950	1352064	4-Nov-96	1.2	0.3		pCi/g	1.16		-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-074915	NONE	483915.45	1352074.14	4-Nov-96	1.2	0.32		pCi/g	1.24		-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-815917	NONE	483917.37	1351815.23	4-Nov-96	1.1	0.28		pCi/g	1.11		-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	1.1	0.23		pCi/g	1.1	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-859980	NONE	483980	1351859	4-Nov-96	0.97	0.3		pCi/g	0.97	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-875821	NONE	483821.87	1351875.41	4-Nov-96	1.2	0.27		pCi/g	1.18		-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-902959	NONE	483960.02	1351902.13	4-Nov-96	1.2	0.26		pCi/g	1.23		-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	1.2	0.26		pCi/g	1.2	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	1.1	0.29		pCi/g	1.11	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	1.2	0.31		pCi/g	1.16	0	-	pCi/g	
Q20-20	Radium-228	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	1.1	0.31		pCi/g	1.07	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	1.3	0.33		pCi/g	1.5	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	1.2	0.31		pCi/g	1.4	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	1.3	0.32		pCi/g	1.5	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	1.4	0.35		pCi/g	1.6	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	1.2	0.47		pCi/g	1.25	0	J	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	1.2	0.48		pCi/g	1.23	0	J	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	1.4	0.51		pCi/g	1.36	1	J	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-55	NONE	483950	1352064	6-Mar-97	1	0.29		pCi/g	1.1	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-56	NONE	483915.45	1352074.14	6-Mar-97	0.95	0.31		pCi/g	1.04	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-58	NONE	483917.37	1351815.23	6-Mar-97	0.97	0.28		pCi/g	1.06	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-59	NONE	483980	1351859	6-Mar-97	1.3	0.31		pCi/g	1.36	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-60	NONE	483821.87	1351875.41	6-Mar-97	1.1	0.27		pCi/g	1.2	0	-	pCi/g	
Q20-20	Thorium-228	Radiological	Q20-20C2-R-61	NONE	483960.02	1351902.13	6-Mar-97	1.1	0.3		pCi/g	1.21	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	1.2	0.25		pCi/g	1.2	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	1.2	0.26		pCi/g	1.2	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	1.3	0.28		pCi/g	1.3	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	1.4	0.29		pCi/g	1.4	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	1.1	0.41		pCi/g	1.08	0	J	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	0.95	0.37		pCi/g	0.95	0	J	pCi/g	

A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-20	Thorium-232	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	1.1	0.42		pCi/g	1.11	0	J	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-55	NONE	483950	1352064	6-Mar-97	1.3	0.26		pCi/g	1.27	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-56	NONE	483915.45	1352074.14	6-Mar-97	1	0.24		pCi/g	1.02	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-58	NONE	483917.37	1351815.23	6-Mar-97	1.3	0.25		pCi/g	1.27	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-59	NONE	483980	1351859	6-Mar-97	1.2	0.25		pCi/g	1.23	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-60	NONE	483821.87	1351875.41	6-Mar-97	1.3	0.25		pCi/g	1.25	0	-	pCi/g	
Q20-20	Thorium-232	Radiological	Q20-20C2-R-61	NONE	483960.02	1351902.13	6-Mar-97	0.96	0.22		pCi/g	0.97	0	-	pCi/g	
Q20-20	Uranium, Total	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	N/A	N/A	N/A	ug/g	6.3	8	J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	N/A	N/A	N/A	ug/g	12.29	5	-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-064950	NONE	483950	1352064	4-Nov-96	N/A	N/A	N/A	ug/g	6.85		J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-074915	NONE	483915.45	1352074.14	4-Nov-96	N/A	N/A	N/A	ug/g	21.97		-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-815917	NONE	483917.37	1351815.23	4-Nov-96	N/A	N/A	N/A	ug/g	5.55		J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	N/A	N/A	N/A	ug/g	23.09	7	-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-859980	NONE	483980	1351859	4-Nov-96	N/A	N/A	N/A	ug/g	4.48		J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-875821	NONE	483821.87	1351875.41	4-Nov-96	N/A	N/A	N/A	ug/g	6.51		J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-902959	NONE	483960.02	1351902.13	4-Nov-96	N/A	N/A	N/A	ug/g	6.12		J	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	N/A	N/A	N/A	ug/g	15.29	5	-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	N/A	N/A	N/A	ug/g	3.26	1	-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	N/A	N/A	N/A	ug/g	10.35	2	-	ug/g	
Q20-20	Uranium, Total	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	N/A	N/A	N/A	ug/g	1.51	1	J	ug/g	
Q20-20	Uranium-238	Radiological	Q20-10C-714896	NONE	483896.67	1351714.31	4-Nov-96	2.1	2.7		pCi/g	2.1	3	J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-008111	NONE	484111.78	1352008.45	10-Feb-97	4.1	1.8		pCi/g	4.1	2	-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-064950	NONE	483950	1352064	4-Nov-96	2.3	1.9		pCi/g	2.28		J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-074915	NONE	483915.45	1352074.14	4-Nov-96	7.3	2.9		pCi/g	7.33		-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-815917	NONE	483917.37	1351815.23	4-Nov-96	1.9	1.7		pCi/g	1.85		J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-847132	NONE	484132.55	1351847.2	10-Feb-97	7.7	2.4		pCi/g	7.7	2	-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-859980	NONE	483980	1351859	4-Nov-96	1.5	1.6		pCi/g	1.5		J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-875821	NONE	483821.87	1351875.41	4-Nov-96	2.2	1.8		pCi/g	2.17		J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-902959	NONE	483960.02	1351902.13	4-Nov-96	2	1.3		pCi/g	2.04		J	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C-947192	NONE	484192.75	1351947.6	10-Feb-97	5.1	1.6		pCi/g	5.1	2	-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C2-R-1	NONE	484186	1352079	24-Mar-97	1.1	0.27		pCi/g	1.09	0	-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C2-R-2	NONE	484061	1352069	24-Mar-97	3.5	0.72		pCi/g	3.45	1	-	pCi/g	
Q20-20	Uranium-238	Radiological	Q20-20C2-R-3	NONE	483837	1351676	24-Mar-97	0.5	0.25		pCi/g	0.5	0	J	pCi/g	
Q20-30	Moisture	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	31	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	29.6	N/A	N/A	Percent	0	N/A	N/A	Percent	Q20-30C-1-R
Q20-30	Moisture	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	20.33	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	24.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	24.05	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	18.49	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	22.92	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	21.06	N/A	N/A	Percent	0	N/A	N/A	Percent	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-30	Moisture	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	27.3	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	28.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	29.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	29.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	25.71	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	26.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	29.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	29	N/A	N/A	Percent	0	N/A	N/A	Percent	Q20-40C-10-R
Q20-30	Moisture	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	27.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	28.4	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Moisture	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	28.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-30	Radium-226	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	1.2	0.16		pCi/g	1.17	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	1.2	0.16		pCi/g	1.18	0	-	pCi/g	Q20-30C-1-R
Q20-30	Radium-226	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	1.1	0.19		pCi/g	1.14	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	1.1	0.14		pCi/g	1.11	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	1.2	0.2		pCi/g	1.21	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	0.88	0.19		pCi/g	0.88	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	0.8	0.16		pCi/g	0.8	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	1.1	0.18		pCi/g	1.1	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	1.2	0.18		pCi/g	1.22	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	1.3	0.17		pCi/g	1.29	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	1.3	0.18		pCi/g	1.29	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	0.89	0.11		pCi/g	0.89	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	1.1	0.19		pCi/g	1.14	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	1.4	0.18		pCi/g	1.4	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	1.1	0.17		pCi/g	1.1	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	1.1	0.15		pCi/g	1.1	0	-	pCi/g	Q20-40C-10-R
Q20-30	Radium-226	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	1.3	0.19		pCi/g	1.3	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	1	0.17		pCi/g	1	0	-	pCi/g	
Q20-30	Radium-226	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	1.2	0.14		pCi/g	1.2	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	1.3	0.35		pCi/g	1.27	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	1.2	0.34		pCi/g	1.25	0	-	pCi/g	Q20-30C-1-R
Q20-30	Radium-228	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	1.1	0.3		pCi/g	1.12	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	1.1	0.32		pCi/g	1.14	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	1.3	0.33		pCi/g	1.33	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	1.1	0.27		pCi/g	1.11	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	1.2	0.29		pCi/g	1.18	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	1.2	0.3		pCi/g	1.24	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	1.2	0.37		pCi/g	1.18	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	1.4	0.35		pCi/g	1.37	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	1.5	0.44		pCi/g	1.47	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	0.95	0.25		pCi/g	0.95	0	-	pCi/g	

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								Laboratory Data			Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-30	Radium-228	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	1.4	0.32		pCi/g	1.42	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	1.5	0.39		pCi/g	1.5	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	1.25	0.4		pCi/g	1.25	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	1.5	0.4		pCi/g	1.5	0	-	pCi/g	Q20-40C-10-R
Q20-30	Radium-228	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	1.4	0.39		pCi/g	1.4	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	1.3	0.38		pCi/g	1.3	0	-	pCi/g	
Q20-30	Radium-228	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	1.3	0.35		pCi/g	1.3	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	1.5	0.56		pCi/g	1.33	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	1.4	0.61		pCi/g	1.44	1	-	pCi/g	Q20-30C-1-R
Q20-30	Thorium-228	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	1.1	0.27		pCi/g	1.15	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	1.1	0.41		pCi/g	1.08	0	J	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	1.4	0.34		pCi/g	1.44	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	0.78	0.23		pCi/g	0.8	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	1.1	0.29		pCi/g	1.16	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	1.2	0.3		pCi/g	1.26	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	1.5	0.57		pCi/g	1.51	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	1.6	0.56		pCi/g	1.57	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	1.5	0.54		pCi/g	1.52	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	1.5	0.5		pCi/g	1.51	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	1.4	0.34		pCi/g	1.4	0	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	1.65	0.62		pCi/g	1.65	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	1.8	0.68		pCi/g	1.8	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	1.4	0.54		pCi/g	1.4	1	J	pCi/g	Q20-40C-10-R
Q20-30	Thorium-228	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	1.7	0.61		pCi/g	1.7	1	-	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	1.4	0.56		pCi/g	1.4	1	J	pCi/g	
Q20-30	Thorium-228	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	1.5	0.56		pCi/g	1.5	1	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	1.2	0.46		pCi/g	1.21	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	1.4	0.6		pCi/g	1.41	1	-	pCi/g	Q20-30C-1-R
Q20-30	Thorium-232	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	1	0.22		pCi/g	1.02	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	0.96	0.36		pCi/g	0.96	0	J	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	1.3	0.29		pCi/g	1.33	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	0.85	0.19		pCi/g	0.85	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	1.1	0.24		pCi/g	1.08	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	1.1	0.24		pCi/g	1.14	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	1.3	0.48		pCi/g	1.26	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	1.4	0.5		pCi/g	1.4	1	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	1.3	0.46		pCi/g	1.27	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	1.4	0.47		pCi/g	1.4	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	0.95	0.22		pCi/g	0.95	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	1.3	0.51		pCi/g	1.3	1	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	1.5	0.58		pCi/g	1.5	1	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	1.3	0.49		pCi/g	1.3	0	J	pCi/g	Q20-40C-10-R

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-30	Thorium-232	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	1.3	0.46		pCi/g	1.3	0	-	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	1.3	0.51		pCi/g	1.3	1	J	pCi/g	
Q20-30	Thorium-232	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	1.3	0.48		pCi/g	1.3	0	-	pCi/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	N/A	N/A	N/A	ug/g	9.98	3	J	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	N/A	N/A	N/A	ug/g	6.39	2	J	ug/g	Q20-30C-1-R
Q20-30	Uranium, Total	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	N/A	N/A	N/A	ug/g	13.13	5	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	N/A	N/A	N/A	ug/g	5.5	1	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	N/A	N/A	N/A	ug/g	15.84	6	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	N/A	N/A	N/A	ug/g	13.88	6	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	N/A	N/A	N/A	ug/g	10.05	5	J	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	N/A	N/A	N/A	ug/g	15.46	6	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	N/A	N/A	N/A	ug/g	11.04	3	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	N/A	N/A	N/A	ug/g	6.95	1	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	N/A	N/A	N/A	ug/g	13.01	2	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	N/A	N/A	N/A	ug/g	8.31	2	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	N/A	N/A	N/A	ug/g	12.94	5	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	N/A	N/A	N/A	ug/g	7.2	1	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	N/A	N/A	N/A	ug/g	11.99	3	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	N/A	N/A	N/A	ug/g	9.6	2	-	ug/g	Q20-40C-10-R
Q20-30	Uranium, Total	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	N/A	N/A	N/A	ug/g	10.2	3	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	N/A	N/A	N/A	ug/g	7.5	3	-	ug/g	
Q20-30	Uranium, Total	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	N/A	N/A	N/A	ug/g	6.6	2	-	ug/g	
Q20-30	Uranium-238	Radiological	Q20-30C-1-R	NONE	484205.76	1351149	25-Feb-97	3.3	0.86		pCi/g	3.3	1	J	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-1-R-D	NONE	484205.76	1351149	25-Feb-97	2.1	0.74		pCi/g	2.13	1	J	pCi/g	Q20-30C-1-R
Q20-30	Uranium-238	Radiological	Q20-30C-10-R	NONE	484253	1351776	25-Feb-97	4.4	1.7		pCi/g	4.38	2	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-11-R	NONE	484340	1351477	25-Feb-97	1.8	0.45		pCi/g	1.83	0	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-12-R	NONE	484324	1351574	25-Feb-97	5.3	1.9		pCi/g	5.28	2	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-13-R	NONE	484369	1351799	25-Feb-97	4.6	2.1		pCi/g	4.63	2	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-14-R	NONE	484400	1351640	25-Feb-97	3.4	1.8		pCi/g	3.35	2	J	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-15-R	NONE	484369	1351714	25-Feb-97	5.2	1.9		pCi/g	5.16	2	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-3-R	NONE	484221	1351252	25-Feb-97	3.7	0.91		pCi/g	3.68	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-4-R	NONE	484210	1351333	25-Feb-97	2.3	0.49		pCi/g	2.32	0	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-5-R	NONE	484247	1351560	25-Feb-97	4.3	0.83		pCi/g	4.34	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-8-R	NONE	484302	1351484	25-Feb-97	2.8	0.95		pCi/g	2.77	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-30C-9-R	NONE	484272	1351569	25-Feb-97	4.3	1.8		pCi/g	4.32	2	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-40C-1-R	NONE	484232	1351820	25-Feb-97	2.4	0.47		pCi/g	2.4	0	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-40C-10-R	NONE	484437	1351927	25-Feb-97	4	0.96		pCi/g	4	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-40C-10-R-D	NONE	484437	1351927	25-Feb-97	3.2	0.82		pCi/g	3.2	1	-	pCi/g	Q20-40C-10-R
Q20-30	Uranium-238	Radiological	Q20-40C-13-R	NONE	484457	1351873	25-Feb-97	3.4	0.85		pCi/g	3.4	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-40C-14-R	NONE	484532	1351970	25-Feb-97	2.5	0.97		pCi/g	2.5	1	-	pCi/g	
Q20-30	Uranium-238	Radiological	Q20-40C-9-R	NONE	484398	1351857	25-Feb-97	2.2	0.51		pCi/g	2.2	1	-	pCi/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-40	Moisture	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	27	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	27.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	27	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	33.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	26	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	26.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	27.1	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	28.3	N/A	N/A	Percent	0	N/A	N/A	Percent	Q20-40C2-12-R
Q20-40	Moisture	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	26.7	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	25.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	29.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	28.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	30.8	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	28.6	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Moisture	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	30.5	N/A	N/A	Percent	0	N/A	N/A	Percent	
Q20-40	Radium-226	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	1.4	0.18		pCi/g	1.4	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	0.74	0.09		pCi/g	0.74	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	1.2	0.15		pCi/g	1.2	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	1.3	0.16		pCi/g	1.3	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	1.3	0.18		pCi/g	1.3	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	1.5	0.18		pCi/g	1.54	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	1.6	0.17		pCi/g	1.64	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	1.4	0.17		pCi/g	1.43	0	-	pCi/g	Q20-40C2-12-R
Q20-40	Radium-226	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	1.2	0.16		pCi/g	1.22	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	1.5	0.17		pCi/g	1.47	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	1.5	0.15		pCi/g	1.42	0	Z	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-2-R	RE	484230	1351945	4-Mar-97	1.42	0.17		pCi/g	1.42	0	Z	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	1.2	0.16		pCi/g	1.25	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	1.6	0.16		pCi/g	1.55	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	1.3	0.16		pCi/g	1.33	0	-	pCi/g	
Q20-40	Radium-226	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	1.3	0.19		pCi/g	1.34	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	1.3	0.39		pCi/g	1.3	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	0.77	0.2		pCi/g	0.77	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	1.1	0.32		pCi/g	1.1	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	1.2	0.32		pCi/g	1.2	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	1.46	0.39		pCi/g	1.46	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	1.2	0.38		pCi/g	1.24	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	1.3	0.34		pCi/g	1.31	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	1.1	0.3		pCi/g	1.14	0	-	pCi/g	Q20-40C2-12-R
Q20-40	Radium-228	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	1.2	0.33		pCi/g	1.21	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	1.2	0.38		pCi/g	1.2	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	1.4	0.36		pCi/g	1.46	0	Z	pCi/g	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-40	Radium-228	Radiological	Q20-40C2-2-R	RE	484230	1351945	4-Mar-97	1.46	0.39		pCi/g	1.46	0	Z	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	1.3	0.38		pCi/g	1.32	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	1.4	0.36		pCi/g	1.4	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	1.4	0.4		pCi/g	1.45	0	-	pCi/g	
Q20-40	Radium-228	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	1.1	0.31		pCi/g	1.15	0	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	1.5	0.64		pCi/g	1.5	1	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	1.4	0.62		pCi/g	1.4	1	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	1.3	0.6		pCi/g	1.3	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	1.5	0.6		pCi/g	1.5	1	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	1.4	0.53		pCi/g	1.4	1	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	1.6	0.58		pCi/g	1.59	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	1.4	0.51		pCi/g	1.44	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	1.5	0.57		pCi/g	1.52	1	J	pCi/g	Q20-40C2-12-R
Q20-40	Thorium-228	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	1.1	0.42		pCi/g	1.11	0	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	1.5	0.65		pCi/g	1.53	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	1.7	0.72		pCi/g	1.73	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	1.7	0.74		pCi/g	1.66	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	1.7	0.64		pCi/g	1.69	1	J	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	1.5	0.57		pCi/g	1.46	1	-	pCi/g	
Q20-40	Thorium-228	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	1.5	0.6		pCi/g	1.47	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	1.3	0.53		pCi/g	1.3	1	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	1.3	0.56		pCi/g	1.3	1	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	1.1	0.52		pCi/g	1.1	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	1.2	0.51		pCi/g	1.2	1	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	1.4	0.52		pCi/g	1.4	1	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	1.4	0.51		pCi/g	1.39	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	1.1	0.4		pCi/g	1.12	0	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	1.2	0.46		pCi/g	1.23	0	J	pCi/g	Q20-40C2-12-R
Q20-40	Thorium-232	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	0.98	0.37		pCi/g	0.98	0	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	1.3	0.54		pCi/g	1.25	1	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	1.4	0.58		pCi/g	1.41	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	1.2	0.56		pCi/g	1.24	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	1.4	0.52		pCi/g	1.36	1	J	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	1.3	0.5		pCi/g	1.28	0	-	pCi/g	
Q20-40	Thorium-232	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	1.3	0.51		pCi/g	1.26	1	-	pCi/g	
Q20-40	Uranium, Total	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	N/A	N/A	N/A	ug/g	11.69	3	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	N/A	N/A	N/A	ug/g	9.6	2	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	N/A	N/A	N/A	ug/g	7.2	2	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	N/A	N/A	N/A	ug/g	5.4	2	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	N/A	N/A	N/A	ug/g	10.8	3	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	N/A	N/A	N/A	ug/g	5.33	2	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	N/A	N/A	N/A	ug/g	4.89	1	J	ug/g	

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A1PI CERTIFICATION REPORT - APPENDIX B

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20-40	Uranium, Total	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	N/A	N/A	N/A	ug/g	12.38	3	J	ug/g	Q20-40C2-12-R
Q20-40	Uranium, Total	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	N/A	N/A	N/A	ug/g	13.1	3	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	N/A	N/A	N/A	ug/g	6.69	2	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	N/A	N/A	N/A	ug/g	8.79	3	Z	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-2-R	RE	484230	1351945	4-Mar-97	N/A	N/A	N/A	ug/g	8.79	3	Z	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	N/A	N/A	N/A	ug/g	8.67	3	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	N/A	N/A	N/A	ug/g	2.29	1	U	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	N/A	N/A	N/A	ug/g	10.21	3	-	ug/g	
Q20-40	Uranium, Total	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	N/A	N/A	N/A	ug/g	6.83	2	-	ug/g	
Q20-40	Uranium-238	Radiological	Q20-40C-11-R	NONE	484423	1352049	25-Feb-97	3.9	0.98		pCi/g	3.9	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C-12-R	NONE	484453	1352091	25-Feb-97	3.2	0.72		pCi/g	3.2	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C-2-R	NONE	484260	1351930.23	25-Feb-97	2.4	0.64		pCi/g	2.4	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C-4-R	NONE	484219	1352061	25-Feb-97	1.8	0.54		pCi/g	1.8	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C-7-R	NONE	484347	1352038	25-Feb-97	3.6	1.1		pCi/g	3.6	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-11-R	NONE	484371	1352087	4-Mar-97	1.8	0.54		pCi/g	1.78	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-12-R	NONE	484341	1352111	4-Mar-97	1.6	0.34		pCi/g	1.63	0	J	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-12-R-D	NONE	484341	1352111	4-Mar-97	4.1	1		pCi/g	4.13	1	J	pCi/g	Q20-40C2-12-R
Q20-40	Uranium-238	Radiological	Q20-40C2-15-RV	NONE	484490	1352124	4-Mar-97	4.4	0.84		pCi/g	4.37	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-16-R	NONE	484525	1352127	4-Mar-97	2.2	0.63		pCi/g	2.23	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-2-R	NONE	484230	1351945	4-Mar-97	1.9	0.38		pCi/g	2.93	1	Z	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-2-R	RE	484230	1351945	4-Mar-97	2.93	0.87		pCi/g	2.93	1	Z	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-3-R	NONE	484266	1351990	4-Mar-97	2.9	0.87		pCi/g	2.89	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-6-R	NONE	484220	1352096	4-Mar-97	0.4	0.46	U	pCi/g	0.76	0	U	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-7-RV	NONE	484241	1352108	4-Mar-97	3.4	0.94		pCi/g	3.4	1	-	pCi/g	
Q20-40	Uranium-238	Radiological	Q20-40C2-8-R	NONE	484314	1351975	4-Mar-97	2.3	0.77		pCi/g	2.28	1	-	pCi/g	

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Appendix C

Ecological COCs Data Summary Tables

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Aluminum	Metals	A1P1ST1-10C-M	NONE	482766	1351075	11-Mar-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-11C-M	NONE	482779	1351110	11-Mar-97	10000	N/A		mg/kg	10000	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-12C-M	NONE	482786	1351160	11-Mar-97	15100	N/A		mg/kg	15100	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-13C-M	NONE	482810	1351050	11-Mar-97	12900	N/A		mg/kg	12900	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-13C-M-D	NONE	482810	1351050	11-Mar-97	11800	N/A		mg/kg	11800	N/A	-	mg/kg	A1P1ST1-13C-M
A1P1ST-1	Aluminum	Metals	A1P1ST1-14C-M	NONE	482792	1351052	11-Mar-97	14300	N/A		mg/kg	14300	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-15C-M	NONE	482815	1351122	11-Mar-97	6520	N/A		mg/kg	6520	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-16C-M	NONE	482806	1351131	11-Mar-97	12600	N/A		mg/kg	12600	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-2C-M	NONE	482729	1351058	12-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-3C-M	NONE	482722	1351092	12-Mar-97	8460	N/A		mg/kg	8460	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-4C-M	NONE	482702	1351179	12-Mar-97	10000	N/A		mg/kg	10000	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-5C-M	NONE	482761	1351024	11-Mar-97	13300	N/A		mg/kg	13300	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-6C-M	NONE	482739	1351045	11-Mar-97	14800	N/A		mg/kg	14800	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-7C-M	NONE	482751	1351117	11-Mar-97	15500	N/A		mg/kg	15500	N/A	-	mg/kg	
A1P1ST-1	Aluminum	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	7600	N/A		mg/kg	7600	N/A	-	mg/kg	
A1P1ST-1	Lead	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	13.6	N/A		mg/kg	13.6	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-10C-M	NONE	482766	1351075	11-Mar-97	568	N/A		mg/kg	568	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-11C-M	NONE	482779	1351110	11-Mar-97	498	N/A		mg/kg	498	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-12C-M	NONE	482786	1351160	11-Mar-97	834	N/A		mg/kg	834	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-13C-M	NONE	482810	1351050	11-Mar-97	614	N/A		mg/kg	614	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-13C-M-D	NONE	482810	1351050	11-Mar-97	577	N/A		mg/kg	577	N/A	-	mg/kg	A1P1ST1-13C-M
A1P1ST-1	Manganese	Metals	A1P1ST1-14C-M	NONE	482792	1351052	11-Mar-97	464	N/A		mg/kg	464	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-15C-M	NONE	482815	1351122	11-Mar-97	664	N/A		mg/kg	664	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-16C-M	NONE	482806	1351131	11-Mar-97	851	N/A		mg/kg	851	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-2C-M	NONE	482729	1351058	12-Mar-97	654	N/A	*	mg/kg	654	N/A	J	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-3C-M	NONE	482722	1351092	12-Mar-97	799	N/A	*	mg/kg	799	N/A	J	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-4C-M	NONE	482702	1351179	12-Mar-97	1040	N/A	*	mg/kg	1040	N/A	J	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-5C-M	NONE	482761	1351024	11-Mar-97	279	N/A		mg/kg	279	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-6C-M	NONE	482739	1351045	11-Mar-97	619	N/A		mg/kg	619	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-7C-M	NONE	482751	1351117	11-Mar-97	1180	N/A		mg/kg	1180	N/A	-	mg/kg	
A1P1ST-1	Manganese	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	647	N/A	*	mg/kg	647	N/A	J	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-10C-M	NONE	482766	1351075	11-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-11C-M	NONE	482779	1351110	11-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-12C-M	NONE	482786	1351160	11-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-13C-M	NONE	482810	1351050	11-Mar-97	0.97	N/A	B	mg/kg	0.97	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-13C-M-D	NONE	482810	1351050	11-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	A1P1ST1-13C-M
A1P1ST-1	Molybdenum	Metals	A1P1ST1-14C-M	NONE	482792	1351052	11-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-15C-M	NONE	482815	1351122	11-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-16C-M	NONE	482806	1351131	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-2C-M	NONE	482729	1351058	12-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-3C-M	NONE	482722	1351092	12-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-4C-M	NONE	482702	1351179	12-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-5C-M	NONE	482761	1351024	11-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-6C-M	NONE	482739	1351045	11-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
A1P1ST-1	Molybdenum	Metals	A1P1ST1-7C-M	NONE	482751	1351117	11-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
A1P1ST-1	Molybdenum	Metals	A1P1ST1-9C-M	NONE	482770	1351023	12-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
N19	Aluminum	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	9900	N/A		mg/kg	9900	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	8700	N/A		mg/kg	8700	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	10300	N/A		mg/kg	10300	N/A	J	mg/kg	N19-00C-12-M
N19	Aluminum	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	16400	N/A		mg/kg	16400	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	11900	N/A		mg/kg	11900	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	8030	N/A		mg/kg	8030	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	5820	N/A		mg/kg	5820	N/A	-	mg/kg	
N19	Aluminum	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	8130	N/A	*	mg/kg	8130	N/A	J	mg/kg	
N19	Aluminum	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	5740	N/A		mg/kg	5740	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	28.3	N/A		mg/kg	28.3	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	25.8	N/A		mg/kg	25.8	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	21.9	N/A		mg/kg	21.9	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	25.1	N/A		mg/kg	25.1	N/A	J	mg/kg	N19-00C-12-M
N19	Lead	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	29.9	N/A		mg/kg	29.9	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	20.5	N/A		mg/kg	20.5	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	30.4	N/A		mg/kg	30.4	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	20	N/A		mg/kg	20	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	24.8	N/A		mg/kg	24.8	N/A	-	mg/kg	
N19	Lead	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	19.6	N/A		mg/kg	19.6	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	720	N/A		mg/kg	720	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	855	N/A	*	mg/kg	855	N/A	J	mg/kg	
N19	Manganese	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	766	N/A		mg/kg	766	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	917	N/A		mg/kg	917	N/A	J	mg/kg	N19-00C-12-M
N19	Manganese	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	974	N/A	*	mg/kg	974	N/A	J	mg/kg	
N19	Manganese	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	422	N/A	*	mg/kg	422	N/A	J	mg/kg	
N19	Manganese	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	573	N/A		mg/kg	573	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	568	N/A		mg/kg	568	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	1260	N/A		mg/kg	1260	N/A	-	mg/kg	
N19	Manganese	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	993	N/A		mg/kg	993	N/A	-	mg/kg	
N19	Molybdenum	Metals	N19-00C-1-M	NONE	483019	1349467	27-Feb-97	0.8	N/A	B	mg/kg	0.8	N/A	U	mg/kg	
N19	Molybdenum	Metals	N19-00C-11-M	NONE	483728.45	1349586.1	27-Feb-97	5.6	N/A	U	mg/kg	5.6	N/A	UJ	mg/kg	
N19	Molybdenum	Metals	N19-00C-12-M	NONE	483628.24	1349737.67	27-Feb-97	0.75	N/A	B	mg/kg	0.75	N/A	U	mg/kg	
N19	Molybdenum	Metals	N19-00C-12-M-D	NONE	483628.24	1349737.67	27-Feb-97	0.83	N/A	B	mg/kg	0.83	N/A	UJ	mg/kg	N19-00C-12-M
N19	Molybdenum	Metals	N19-00C-14-M	NONE	483885.36	1349693.17	27-Feb-97	5.4	N/A	U	mg/kg	5.4	N/A	UJ	mg/kg	
N19	Molybdenum	Metals	N19-00C-15-M	NONE	484014.63	1349584.37	27-Feb-97	5	N/A	U	mg/kg	5	N/A	UJ	mg/kg	
N19	Molybdenum	Metals	N19-00C-3-M	NONE	483130.1	1349480.8	27-Feb-97	0.92	N/A	B	mg/kg	0.92	N/A	U	mg/kg	
N19	Molybdenum	Metals	N19-00C-5-M	NONE	483317.33	1349575.4	27-Feb-97	0.83	N/A	B	mg/kg	0.83	N/A	U	mg/kg	
N19	Molybdenum	Metals	N19-00C-8-M	NONE	483461.5	1349668.46	4-Mar-97	5.9	N/A	U	mg/kg	5.9	N/A	UJ	mg/kg	
N19	Molybdenum	Metals	N19-00C-9-M	NONE	483497.08	1349568.03	27-Feb-97	0.55	N/A	B	mg/kg	0.55	N/A	U	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Aluminum	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	23400	N/A		mg/kg	23400	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	23400	N/A		mg/kg	23400	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	9870	N/A		mg/kg	9870	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	9870	N/A		mg/kg	9870	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	16600	N/A		mg/kg	16600	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	16600	N/A		mg/kg	16600	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	23900	N/A		mg/kg	23900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	23900	N/A		mg/kg	23900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	23900	N/A		mg/kg	23900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	23900	N/A		mg/kg	23900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	18700	N/A		mg/kg	18700	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	18700	N/A		mg/kg	18700	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	21100	N/A		mg/kg	21100	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	21100	N/A		mg/kg	21100	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	21400	N/A		mg/kg	21400	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Aluminum	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	21400	N/A		mg/kg	21400	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Aluminum	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	8200	N/A		mg/kg	8200	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	8200	N/A		mg/kg	8200	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	8810	N/A		mg/kg	8810	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	8810	N/A		mg/kg	8810	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	13400	N/A		mg/kg	13400	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	13400	N/A		mg/kg	13400	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	15500	N/A		mg/kg	15500	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	15500	N/A		mg/kg	15500	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	24700	N/A		mg/kg	24700	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	24700	N/A		mg/kg	24700	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	8490	N/A		mg/kg	8490	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	8490	N/A		mg/kg	8490	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	13800	N/A		mg/kg	13800	N/A	-	mg/kg	
NAR-1	Aluminum	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	13800	N/A		mg/kg	13800	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	16.5	N/A		mg/kg	16.5	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	16.5	N/A		mg/kg	16.5	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	12.2	N/A		mg/kg	12.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	12.2	N/A		mg/kg	12.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	17.1	N/A		mg/kg	17.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	17.1	N/A		mg/kg	17.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	21.1	N/A		mg/kg	21.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	21.1	N/A		mg/kg	21.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	15.8	N/A		mg/kg	15.8	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	15.8	N/A		mg/kg	15.8	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Lead	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	18.6	N/A		mg/kg	18.6	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	18.6	N/A		mg/kg	18.6	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	15.1	N/A		mg/kg	15.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	15.1	N/A		mg/kg	15.1	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	17.6	N/A		mg/kg	17.6	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Lead	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	17.6	N/A		mg/kg	17.6	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Lead	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	16	N/A		mg/kg	16	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	16	N/A		mg/kg	16	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	10.2	N/A		mg/kg	10.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	14.6	N/A		mg/kg	14.6	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	14.6	N/A		mg/kg	14.6	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	11.8	N/A		mg/kg	11.8	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	11.8	N/A		mg/kg	11.8	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	14.7	N/A		mg/kg	14.7	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	14.7	N/A		mg/kg	14.7	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	15.9	N/A		mg/kg	15.9	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	15.9	N/A		mg/kg	15.9	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	7.2	N/A	N	mg/kg	7.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	7.2	N/A	N	mg/kg	7.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	17.2	N/A		mg/kg	17.2	N/A	-	mg/kg	
NAR-1	Lead	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	17.2	N/A		mg/kg	17.2	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	170	N/A	N	mg/kg	170	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	170	N/A	N	mg/kg	170	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	769	N/A		mg/kg	769	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	769	N/A		mg/kg	769	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	514	N/A		mg/kg	514	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	514	N/A		mg/kg	514	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	1810	N/A	N*	mg/kg	1810	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	1810	N/A	N*	mg/kg	1810	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	275	N/A	N*	mg/kg	275	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	275	N/A	N*	mg/kg	275	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	1770	N/A	N*	mg/kg	1770	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	1770	N/A	N*	mg/kg	1770	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	539	N/A	N	mg/kg	539	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	539	N/A	N	mg/kg	539	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	455	N/A	N	mg/kg	455	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Manganese	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	455	N/A	N	mg/kg	455	N/A	-	mg/kg	NAR-1-16C-MP
NAR-1	Manganese	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	333	N/A		mg/kg	333	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	333	N/A		mg/kg	333	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	647	N/A		mg/kg	647	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	647	N/A		mg/kg	647	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Manganese	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	671	N/A		mg/kg	671	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	671	N/A		mg/kg	671	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	702	N/A	N	mg/kg	702	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	702	N/A	N	mg/kg	702	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	349	N/A	N*	mg/kg	349	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	349	N/A	N*	mg/kg	349	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	198	N/A	N*	mg/kg	198	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	198	N/A	N*	mg/kg	198	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	316	N/A	N*	mg/kg	316	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	316	N/A	N*	mg/kg	316	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	518	N/A	E	mg/kg	518	N/A	J	mg/kg	
NAR-1	Manganese	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	518	N/A	E	mg/kg	518	N/A	J	mg/kg	
NAR-1	Manganese	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	542	N/A		mg/kg	542	N/A	-	mg/kg	
NAR-1	Manganese	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	542	N/A		mg/kg	542	N/A	-	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-10C-MP	NONE	482365.4	1350915.09	10-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-11C-MP	NONE	482445.45	1350914.05	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-12C-MP	NONE	482465.37	1350917.54	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-13C-MP	NONE	482537.99	1350907.43	8-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-14C-MP	NONE	482571.56	1350911.2	8-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-15C-MP	NONE	482628.05	1350911.32	8-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-16C-MP	NONE	482683.78	1350932.28	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	NAR-1-16C-MP
NAR-1	Molybdenum	Metals	NAR-1-16C-MP-D	NONE	482571.56	1350911.2	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	NAR-1-16C-MP
NAR-1	Molybdenum	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-1C-MP	NONE	481949.6	1350901.88	8-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-2C-MP	NONE	481957.72	1350897.07	8-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-3C-MP	NONE	482035.7	1350898.99	8-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-4C-MP	NONE	482060.54	1350905.6	10-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-5C-MP	NONE	482142.79	1350896.62	8-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-6C-MP	NONE	482154.78	1350896.91	8-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-7C-MP	NONE	482221.81	1350896.56	8-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-1	Molybdenum	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-8C-MP	NONE	482264.55	1350907.61	25-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-1	Molybdenum	Metals	NAR-1-9C-MP	NONE	482343.56	1350908.55	9-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-10C-M	NONE	483799.56	1351553.22	11-Mar-97	16200	N/A		mg/kg	16200	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-11C-M	NONE	483938.19	1351639.17	12-Mar-97	16900	N/A		mg/kg	16900	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-12C-M	NONE	484123.23	1351774.38	12-Mar-97	9970	N/A		mg/kg	9970	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-13C-M	NONE	484215.39	1351829.08	12-Mar-97	16600	N/A		mg/kg	16600	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-14C-M	NONE	484369.79	1351925.63	8-Mar-97	13700	N/A		mg/kg	13700	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-15C-M	NONE	484408.77	1351959.06	8-Mar-97	17300	N/A		mg/kg	17300	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-16C-M	NONE	484539.33	1352051.63	8-Mar-97	13300	N/A		mg/kg	13300	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-1C-M	NONE	482786.46	1350954.27	11-Mar-97	23000	N/A		mg/kg	23000	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-2C-M	NONE	482960.44	1351017.58	10-Mar-97	15000	N/A		mg/kg	15000	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-3C-M	NONE	483053.93	1351061.36	10-Mar-97	8900	N/A		mg/kg	8900	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-4C-M	NONE	483202.49	1351147.75	10-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-5C-M	NONE	483266.47	1351190.11	11-Mar-97	11100	N/A		mg/kg	11100	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	13500	N/A		mg/kg	13500	N/A	-	mg/kg	NAR-2-5C-M
NAR-2	Aluminum	Metals	NAR-2-6C-M	NONE	483414.75	1351292.17	11-Mar-97	9380	N/A		mg/kg	9380	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-7C-M	NONE	483494.4	1351350	11-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-8C-M	NONE	483611.14	1351433.81	11-Mar-97	12900	N/A		mg/kg	12900	N/A	-	mg/kg	
NAR-2	Aluminum	Metals	NAR-2-9C-M	NONE	483748.36	1351523.63	11-Mar-97	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
NAR-2	Lead	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	10.3	N/A		mg/kg	10.3	N/A	-	mg/kg	NAR-2-5C-M
NAR-2	Manganese	Metals	NAR-2-10C-M	NONE	483799.56	1351553.22	11-Mar-97	1100	N/A	N	mg/kg	1100	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-11C-M	NONE	483938.19	1351639.17	12-Mar-97	954	N/A	*	mg/kg	954	N/A	J	mg/kg	
NAR-2	Manganese	Metals	NAR-2-12C-M	NONE	484123.23	1351774.38	12-Mar-97	609	N/A	*	mg/kg	609	N/A	J	mg/kg	
NAR-2	Manganese	Metals	NAR-2-13C-M	NONE	484215.39	1351829.08	12-Mar-97	1320	N/A	*	mg/kg	1320	N/A	J	mg/kg	
NAR-2	Manganese	Metals	NAR-2-14C-M	NONE	484369.79	1351925.63	8-Mar-97	1880	N/A	N*	mg/kg	1880	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-15C-M	NONE	484408.77	1351959.06	8-Mar-97	525	N/A	N*	mg/kg	525	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-16C-M	NONE	484539.33	1352051.63	8-Mar-97	918	N/A	N*	mg/kg	918	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-1C-M	NONE	482786.46	1350954.27	11-Mar-97	511	N/A	N	mg/kg	511	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-2C-M	NONE	482960.44	1351017.58	10-Mar-97	452	N/A	N	mg/kg	452	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-3C-M	NONE	483053.93	1351061.36	10-Mar-97	304	N/A	N	mg/kg	304	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-4C-M	NONE	483202.49	1351147.75	10-Mar-97	474	N/A	N	mg/kg	474	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-5C-M	NONE	483266.47	1351190.11	11-Mar-97	720	N/A	N	mg/kg	720	N/A	J	mg/kg	
NAR-2	Manganese	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	461	N/A	N	mg/kg	461	N/A	J	mg/kg	NAR-2-5C-M
NAR-2	Manganese	Metals	NAR-2-6C-M	NONE	483414.75	1351292.17	11-Mar-97	561	N/A	N	mg/kg	561	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-7C-M	NONE	483494.4	1351350	11-Mar-97	429	N/A	N	mg/kg	429	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-8C-M	NONE	483611.14	1351433.81	11-Mar-97	629	N/A	N	mg/kg	629	N/A	-	mg/kg	
NAR-2	Manganese	Metals	NAR-2-9C-M	NONE	483748.36	1351523.63	11-Mar-97	480	N/A	N	mg/kg	480	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-10C-M	NONE	483799.56	1351553.22	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-11C-M	NONE	483938.19	1351639.17	12-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-12C-M	NONE	484123.23	1351774.38	12-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-13C-M	NONE	484215.39	1351829.08	12-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-2	Molybdenum	Metals	NAR-2-14C-M	NONE	484369.79	1351925.63	8-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-15C-M	NONE	484408.77	1351959.06	8-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-16C-M	NONE	484539.33	1352051.63	8-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-1C-M	NONE	482786.46	1350954.27	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-2C-M	NONE	482960.44	1351017.58	10-Mar-97	2.4	N/A	B	mg/kg	2.4	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-3C-M	NONE	483053.93	1351061.36	10-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	U	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-4C-M	NONE	483202.49	1351147.75	10-Mar-97	1.8	N/A	B	mg/kg	1.8	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-5C-M	NONE	483266.47	1351190.11	11-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-5C-M-D	NONE	483266.47	1351190.11	11-Mar-97	0.98	N/A	B	mg/kg	0.98	N/A	-	mg/kg	NAR-2-5C-M
NAR-2	Molybdenum	Metals	NAR-2-6C-M	NONE	483414.75	1351292.17	11-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-7C-M	NONE	483494.4	1351350	11-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-8C-M	NONE	483611.14	1351433.81	11-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
NAR-2	Molybdenum	Metals	NAR-2-9C-M	NONE	483748.36	1351523.63	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-10C-M	NONE	482394.95	1350933.82	9-Mar-97	17400	N/A		mg/kg	17400	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-11C-M	NONE	482424.89	1350936.56	9-Mar-97	11400	N/A		mg/kg	11400	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-12C-M	NONE	482499.19	1350925.38	11-Mar-97	12000	N/A		mg/kg	12000	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-13C-M	NONE	482542.69	1350940.65	11-Mar-97	17400	N/A		mg/kg	17400	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-14C-M	NONE	482597.05	1350935.27	11-Mar-97	12500	N/A		mg/kg	12500	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-15C-M	NONE	482629.6	1350949.77	13-Mar-97	24500	N/A	*	mg/kg	24500	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-16C-M	NONE	482677.38	1350946.43	11-Mar-97	21000	N/A		mg/kg	21000	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-1C-M	NONE	481901.5	1350911.32	8-Mar-97	11300	N/A		mg/kg	11300	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-2C-M	NONE	481998.34	1350913.08	8-Mar-97	10900	N/A		mg/kg	10900	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-3C-M	NONE	482018.06	1350924.56	11-Mar-97	13500	N/A	*	mg/kg	13500	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-3C-M-D	NONE	482018.06	1350924.56	11-Mar-97	14800	N/A	*	mg/kg	14800	N/A	-	mg/kg	NAR-3-3C-M
NAR-3	Aluminum	Metals	NAR-3-4C-M	NONE	482083	1350928.16	8-Mar-97	6830	N/A		mg/kg	6830	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-5C-M	NONE	482129.01	1350928.29	8-Mar-97	10700	N/A		mg/kg	10700	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-6C-M	NONE	482194.31	1350929.88	8-Mar-97	15600	N/A		mg/kg	15600	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-7C-M	NONE	482208.96	1350931.25	8-Mar-97	9920	N/A		mg/kg	9920	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-8C-M	NONE	482283.13	1350925.07	8-Mar-97	20700	N/A		mg/kg	20700	N/A	-	mg/kg	
NAR-3	Aluminum	Metals	NAR-3-9C-M	NONE	482303.08	1350927.56	9-Mar-97	17300	N/A		mg/kg	17300	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-10C-M	NONE	482394.95	1350933.82	9-Mar-97	537	N/A		mg/kg	537	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-11C-M	NONE	482424.89	1350936.56	9-Mar-97	499	N/A		mg/kg	499	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-12C-M	NONE	482499.19	1350925.38	11-Mar-97	918	N/A	N	mg/kg	918	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-13C-M	NONE	482542.69	1350940.65	11-Mar-97	907	N/A	N	mg/kg	907	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-14C-M	NONE	482597.05	1350935.27	11-Mar-97	751	N/A	N	mg/kg	751	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-15C-M	NONE	482629.6	1350949.77	13-Mar-97	666	N/A	•	mg/kg	666	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-16C-M	NONE	482677.38	1350946.43	11-Mar-97	458	N/A	N	mg/kg	458	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-1C-M	NONE	481901.5	1350911.32	8-Mar-97	359	N/A		mg/kg	359	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-2C-M	NONE	481998.34	1350913.08	8-Mar-97	1230	N/A		mg/kg	1230	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-3C-M	NONE	482018.06	1350924.56	11-Mar-97	436	N/A	*	mg/kg	436	N/A	J	mg/kg	
NAR-3	Manganese	Metals	NAR-3-3C-M-D	NONE	482018.06	1350924.56	11-Mar-97	714	N/A	•	mg/kg	714	N/A	J	mg/kg	NAR-3-3C-M
NAR-3	Manganese	Metals	NAR-3-4C-M	NONE	482083	1350928.16	8-Mar-97	711	N/A		mg/kg	711	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-5C-M	NONE	482129.01	1350928.29	8-Mar-97	960	N/A		mg/kg	960	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-3	Manganese	Metals	NAR-3-6C-M	NONE	482194.31	1350929.88	8-Mar-97	759	N/A		mg/kg	759	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-7C-M	NONE	482208.96	1350931.25	8-Mar-97	387	N/A		mg/kg	387	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-8C-M	NONE	482283.13	1350925.07	8-Mar-97	233	N/A		mg/kg	233	N/A	-	mg/kg	
NAR-3	Manganese	Metals	NAR-3-9C-M	NONE	482303.08	1350927.56	9-Mar-97	262	N/A		mg/kg	262	N/A	-	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-10C-M	NONE	482394.95	1350933.82	9-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	J	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-11C-M	NONE	482424.89	1350936.56	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-12C-M	NONE	482499.19	1350925.38	11-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-13C-M	NONE	482542.69	1350940.65	11-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-14C-M	NONE	482597.05	1350935.27	11-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-15C-M	NONE	482629.6	1350949.77	13-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-16C-M	NONE	482677.38	1350946.43	11-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-1C-M	NONE	481901.5	1350911.32	8-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-2C-M	NONE	481998.34	1350913.08	8-Mar-97	1	N/A	B	mg/kg	1	N/A	J	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-3C-M	NONE	482018.06	1350924.56	11-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-3C-M-D	NONE	482018.06	1350924.56	11-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	NAR-3-3C-M
NAR-3	Molybdenum	Metals	NAR-3-4C-M	NONE	482083	1350928.16	8-Mar-97	1	N/A	B	mg/kg	1	N/A	J	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-5C-M	NONE	482129.01	1350928.29	8-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-6C-M	NONE	482194.31	1350929.88	8-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-7C-M	NONE	482208.96	1350931.25	8-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-8C-M	NONE	482283.13	1350925.07	8-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
NAR-3	Molybdenum	Metals	NAR-3-9C-M	NONE	482303.08	1350927.56	9-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-10C-M	NONE	483888.04	1351625.94	11-Mar-97	13900	N/A		mg/kg	13900	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-10C2-M	NONE	483888.04	1351625.94	11-Mar-97	10800	N/A		mg/kg	10800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-11C-M	NONE	484001.41	1351719	12-Mar-97	15800	N/A		mg/kg	15800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-11C2-M	NONE	484001.41	1351719	12-Mar-97	13900	N/A		mg/kg	13900	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-12C-M	NONE	484033.83	1351726.34	12-Mar-97	15700	N/A		mg/kg	15700	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-12C2-M	NONE	484033.83	1351726.34	12-Mar-97	11600	N/A		mg/kg	11600	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-12C3-M	NONE	484033.83	1351726.34	12-Mar-97	9360	N/A		mg/kg	9360	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-13C-M	NONE	484251.01	1351871.1	12-Mar-97	18000	N/A		mg/kg	18000	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-13C2-M	NONE	484251.01	1351871.1	12-Mar-97	11900	N/A		mg/kg	11900	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-13C3-M	NONE	484251.01	1351871.1	20-Mar-97	9250	N/A		mg/kg	9250	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C-M	NONE	484364.1	1351962.77	12-Mar-97	25200	N/A		mg/kg	25200	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C2-M	NONE	484364.1	1351962.77	12-Mar-97	15700	N/A		mg/kg	15700	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C3-M	NONE	484364.1	1351962.77	20-Mar-97	14800	N/A		mg/kg	14800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C3-M-D	NONE	484364.1	1351962.77	20-Mar-97	12600	N/A		mg/kg	12600	N/A	-	mg/kg	NAR-4-14C3-M
NAR-4	Aluminum	Metals	NAR-4-14C4-M	NONE	484364.1	1351962.77	20-Mar-97	10500	N/A		mg/kg	10500	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C5-M	NONE	484364.1	1351962.77	20-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C6-M	NONE	484364.1	1351962.77	20-Mar-97	16400	N/A		mg/kg	16400	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C7-M	NONE	484364.1	1351962.77	20-Mar-97	15300	N/A		mg/kg	15300	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-14C8-M	NONE	484364.1	1351962.77	20-Mar-97	16000	N/A		mg/kg	16000	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C-M	NONE	484455.12	1352022.74	12-Mar-97	14800	N/A		mg/kg	14800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C10-M	NONE	484455.12	1352022.75	20-Mar-97	6390	N/A		mg/kg	6390	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C11-M	NONE	484455.12	1352022.75	20-Mar-97	8800	N/A		mg/kg	8800	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Aluminum	Metals	NAR-4-15C2-M	NONE	484455.12	1352022.75	12-Mar-97	12700	N/A		mg/kg	12700	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C3-M	NONE	484455.12	1352022.75	20-Mar-97	10500	N/A		mg/kg	10500	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C4-M	NONE	484455.12	1352022.75	20-Mar-97	6320	N/A		mg/kg	6320	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C5-M	NONE	484455.12	1352022.75	20-Mar-97	7260	N/A		mg/kg	7260	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C6-M	NONE	484455.12	1352022.75	20-Mar-97	5200	N/A		mg/kg	5200	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C7-M	NONE	484455.12	1352022.75	20-Mar-97	5850	N/A		mg/kg	5850	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C8-M	NONE	484455.12	1352022.75	20-Mar-97	8270	N/A		mg/kg	8270	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-15C9-M	NONE	484455.12	1352022.75	20-Mar-97	6660	N/A		mg/kg	6660	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C-M	NONE	484528.99	1352072.39	12-Mar-97	8360	N/A		mg/kg	8360	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C10-M	NONE	484528.99	1352072.39	20-Mar-97	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C11-M	NONE	484528.99	1352072.39	20-Mar-97	12800	N/A		mg/kg	12800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C2-M	NONE	484528.99	1352072.39	12-Mar-97	14800	N/A		mg/kg	14800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C3-M	NONE	484528.99	1352072.39	20-Mar-97	12800	N/A		mg/kg	12800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C4-M	NONE	484528.99	1352072.39	20-Mar-97	11100	N/A		mg/kg	11100	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C5-M	NONE	484528.99	1352072.39	20-Mar-97	9190	N/A		mg/kg	9190	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C6-M	NONE	484528.99	1352072.39	20-Mar-97	9750	N/A		mg/kg	9750	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C7-M	NONE	484528.99	1352072.39	20-Mar-97	6520	N/A		mg/kg	6520	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C8-M	NONE	484528.99	1352072.39	20-Mar-97	8340	N/A		mg/kg	8340	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-16C9-M	NONE	484528.99	1352072.39	20-Mar-97	9150	N/A		mg/kg	9150	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-1C-M	NONE	482790.51	1350966.7	11-Mar-97	16800	N/A	*	mg/kg	16800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-2C-M	NONE	482863.19	1351002.28	12-Mar-97	18900	N/A	*	mg/kg	18900	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-3C-M	NONE	483002.36	1351049.19	12-Mar-97	18600	N/A	*	mg/kg	18600	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-4C-M	NONE	483181.3	1351160.27	13-Mar-97	11100	N/A	*	mg/kg	11100	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-5C-M	NONE	483244.77	1351205	13-Mar-97	11400	N/A	*	mg/kg	11400	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-6C-M	NONE	483392.56	1351292.92	11-Mar-97	9700	N/A	*	mg/kg	9700	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-7C-M	NONE	483454.22	1351342.8	13-Mar-97	11800	N/A	*	mg/kg	11800	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-8C-M	NONE	483599.5	1351429.6	11-Mar-97	6030	N/A		mg/kg	6030	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-8C2-M	NONE	483599.5	1351429.6	11-Mar-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-9C-M	NONE	483704.32	1351514.61	12-Mar-97	17000	N/A		mg/kg	17000	N/A	-	mg/kg	
NAR-4	Aluminum	Metals	NAR-4-9C-M-D	NONE	483704.32	1351514.61	12-Mar-97	21400	N/A		mg/kg	21400	N/A	-	mg/kg	NAR-4-9C-M
NAR-4	Aluminum	Metals	NAR-4-9C2-M	NONE	483704.32	1351514.61	12-Mar-97	19000	N/A		mg/kg	19000	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-10C-M	NONE	483888.04	1351625.94	11-Mar-97	375	N/A		mg/kg	375	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-10C2-M	NONE	483888.04	1351625.94	11-Mar-97	661	N/A	EN	mg/kg	661	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-11C-M	NONE	484001.41	1351719	12-Mar-97	547	N/A		mg/kg	547	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-11C2-M	NONE	484001.41	1351719	12-Mar-97	486	N/A	EN	mg/kg	486	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-12C-M	NONE	484033.83	1351726.34	12-Mar-97	160	N/A		mg/kg	160	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-12C2-M	NONE	484033.83	1351726.34	12-Mar-97	583	N/A	EN	mg/kg	583	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-12C3-M	NONE	484033.83	1351726.34	12-Mar-97	682	N/A		mg/kg	682	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-13C-M	NONE	484251.01	1351871.1	12-Mar-97	1340	N/A		mg/kg	1340	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-13C2-M	NONE	484251.01	1351871.1	12-Mar-97	874	N/A	EN	mg/kg	874	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-13C3-M	NONE	484251.01	1351871.1	20-Mar-97	579	N/A		mg/kg	579	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C-M	NONE	484364.1	1351962.77	12-Mar-97	243	N/A		mg/kg	243	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C2-M	NONE	484364.1	1351962.77	12-Mar-97	1630	N/A	EN	mg/kg	1630	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C3-M	NONE	484364.1	1351962.77	20-Mar-97	1860	N/A	E*	mg/kg	1860	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Manganese	Metals	NAR-4-14C3-M-D	NONE	484364.1	1351962.77	20-Mar-97	646	N/A	E*	mg/kg	646	N/A	J	mg/kg	NAR-4-14C3-M
NAR-4	Manganese	Metals	NAR-4-14C4-M	NONE	484364.1	1351962.77	20-Mar-97	566	N/A	E*	mg/kg	566	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C5-M	NONE	484364.1	1351962.77	20-Mar-97	719	N/A	E*	mg/kg	719	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C6-M	NONE	484364.1	1351962.77	20-Mar-97	1490	N/A	E*	mg/kg	1490	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C7-M	NONE	484364.1	1351962.77	20-Mar-97	1450	N/A	E*	mg/kg	1450	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-14C8-M	NONE	484364.1	1351962.77	20-Mar-97	903	N/A	E*	mg/kg	903	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C-M	NONE	484455.12	1352022.74	12-Mar-97	570	N/A		mg/kg	570	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C10-M	NONE	484455.12	1352022.75	20-Mar-97	1370	N/A	E*	mg/kg	1370	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C11-M	NONE	484455.12	1352022.75	20-Mar-97	377	N/A	E*	mg/kg	377	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C2-M	NONE	484455.12	1352022.75	12-Mar-97	583	N/A	EN	mg/kg	583	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C3-M	NONE	484455.12	1352022.75	20-Mar-97	587	N/A	E*	mg/kg	587	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C4-M	NONE	484455.12	1352022.75	20-Mar-97	1050	N/A	E*	mg/kg	1050	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C5-M	NONE	484455.12	1352022.75	20-Mar-97	287	N/A	E*	mg/kg	287	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C6-M	NONE	484455.12	1352022.75	20-Mar-97	628	N/A	E*	mg/kg	628	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C7-M	NONE	484455.12	1352022.75	20-Mar-97	484	N/A	E*	mg/kg	484	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C8-M	NONE	484455.12	1352022.75	20-Mar-97	391	N/A	E*	mg/kg	391	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-15C9-M	NONE	484455.12	1352022.75	20-Mar-97	630	N/A	E*	mg/kg	630	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C-M	NONE	484528.99	1352072.39	12-Mar-97	827	N/A		mg/kg	827	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C10-M	NONE	484528.99	1352072.39	20-Mar-97	594	N/A		mg/kg	594	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C11-M	NONE	484528.99	1352072.39	20-Mar-97	1100	N/A		mg/kg	1100	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C2-M	NONE	484528.99	1352072.39	12-Mar-97	512	N/A	EN	mg/kg	512	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C3-M	NONE	484528.99	1352072.39	20-Mar-97	406	N/A		mg/kg	406	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C4-M	NONE	484528.99	1352072.39	20-Mar-97	372	N/A		mg/kg	372	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C5-M	NONE	484528.99	1352072.39	20-Mar-97	668	N/A		mg/kg	668	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C6-M	NONE	484528.99	1352072.39	20-Mar-97	585	N/A		mg/kg	585	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C7-M	NONE	484528.99	1352072.39	20-Mar-97	703	N/A		mg/kg	703	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C8-M	NONE	484528.99	1352072.39	20-Mar-97	680	N/A		mg/kg	680	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-16C9-M	NONE	484528.99	1352072.39	20-Mar-97	549	N/A		mg/kg	549	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-1C-M	NONE	482790.51	1350956.7	11-Mar-97	444	N/A	*	mg/kg	444	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-2C-M	NONE	482863.19	1351002.28	12-Mar-97	2470	N/A	*	mg/kg	2470	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-3C-M	NONE	483002.36	1351049.19	12-Mar-97	570	N/A	*	mg/kg	570	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-4C-M	NONE	483181.3	1351160.27	13-Mar-97	755	N/A	*	mg/kg	755	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-5C-M	NONE	483244.77	1351205	13-Mar-97	590	N/A	*	mg/kg	590	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-6C-M	NONE	483392.56	1351292.92	11-Mar-97	568	N/A	*	mg/kg	568	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-7C-M	NONE	483454.22	1351342.8	13-Mar-97	650	N/A	*	mg/kg	650	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-8C-M	NONE	483599.5	1351429.6	11-Mar-97	401	N/A		mg/kg	401	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-8C2-M	NONE	483599.5	1351429.6	11-Mar-97	1130	N/A	EN	mg/kg	1130	N/A	J	mg/kg	
NAR-4	Manganese	Metals	NAR-4-9C-M	NONE	483704.32	1351514.61	12-Mar-97	570	N/A		mg/kg	570	N/A	-	mg/kg	
NAR-4	Manganese	Metals	NAR-4-9C-M-D	NONE	483704.32	1351514.61	12-Mar-97	591	N/A		mg/kg	591	N/A	-	mg/kg	NAR-4-9C-M
NAR-4	Manganese	Metals	NAR-4-9C2-M	NONE	483704.32	1351514.61	12-Mar-97	1200	N/A	EN	mg/kg	1200	N/A	J	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-10C-M	NONE	483888.04	1351625.94	11-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-10C2-M	NONE	483888.04	1351625.94	11-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-11C-M	NONE	484001.41	1351719	12-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-11C2-M	NONE	484001.41	1351719	12-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Molybdenum	Metals	NAR-4-12C-M	NONE	484033.83	1351726.34	12-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-12C2-M	NONE	484033.83	1351726.34	12-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-12C3-M	NONE	484033.83	1351726.34	12-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-13C-M	NONE	484251.01	1351871.1	12-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-13C2-M	NONE	484251.01	1351871.1	12-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-13C3-M	NONE	484251.01	1351871.1	20-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C-M	NONE	484364.1	1351962.77	12-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C2-M	NONE	484364.1	1351962.77	12-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C3-M	NONE	484364.1	1351962.77	20-Mar-97	0.96	N/A	B	mg/kg	0.96	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C3-M-D	NONE	484364.1	1351962.77	20-Mar-97	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	NAR-4-14C3-M
NAR-4	Molybdenum	Metals	NAR-4-14C4-M	NONE	484364.1	1351962.77	20-Mar-97	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C5-M	NONE	484364.1	1351962.77	20-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C6-M	NONE	484364.1	1351962.77	20-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C7-M	NONE	484364.1	1351962.77	20-Mar-97	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-14C8-M	NONE	484364.1	1351962.77	20-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C-M	NONE	484455.12	1352022.74	12-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C10-M	NONE	484455.12	1352022.75	20-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C11-M	NONE	484455.12	1352022.75	20-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C2-M	NONE	484455.12	1352022.75	12-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C3-M	NONE	484455.12	1352022.75	20-Mar-97	1.6	N/A	B	mg/kg	1.6	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C4-M	NONE	484455.12	1352022.75	20-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C5-M	NONE	484455.12	1352022.75	20-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C6-M	NONE	484455.12	1352022.75	20-Mar-97	1.6	N/A	B	mg/kg	1.6	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C7-M	NONE	484455.12	1352022.75	20-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C8-M	NONE	484455.12	1352022.75	20-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-15C9-M	NONE	484455.12	1352022.75	20-Mar-97	0.93	N/A	B	mg/kg	0.93	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C-M	NONE	484528.99	1352072.39	12-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C10-M	NONE	484528.99	1352072.39	20-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C11-M	NONE	484528.99	1352072.39	20-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C2-M	NONE	484528.99	1352072.39	12-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C3-M	NONE	484528.99	1352072.39	20-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C4-M	NONE	484528.99	1352072.39	20-Mar-97	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C5-M	NONE	484528.99	1352072.39	20-Mar-97	1.9	N/A	B	mg/kg	1.9	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C6-M	NONE	484528.99	1352072.39	20-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C7-M	NONE	484528.99	1352072.39	20-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C8-M	NONE	484528.99	1352072.39	20-Mar-97	1.6	N/A	B	mg/kg	1.6	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-16C9-M	NONE	484528.99	1352072.39	20-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-1C-M	NONE	482790.51	1350966.7	11-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-2C-M	NONE	482863.19	1351002.28	12-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-3C-M	NONE	483002.36	1351049.19	12-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-4C-M	NONE	483181.3	1351160.27	13-Mar-97	0.91	N/A	U	mg/kg	0.91	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-5C-M	NONE	483244.77	1351205	13-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-6C-M	NONE	483392.56	1351292.92	11-Mar-97	0.91	N/A	U	mg/kg	0.91	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-7C-M	NONE	483454.22	1351342.8	13-Mar-97	0.88	N/A	U	mg/kg	0.88	N/A	UJ	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-4	Molybdenum	Metals	NAR-4-8C-M	NONE	483599.5	1351429.6	11-Mar-97	1.9	N/A	B	mg/kg	1.9	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-8C2-M	NONE	483599.5	1351429.6	11-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-9C-M	NONE	483704.32	1351514.61	12-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	
NAR-4	Molybdenum	Metals	NAR-4-9C-M-D	NONE	483704.32	1351514.61	12-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	NAR-4-9C-M
NAR-4	Molybdenum	Metals	NAR-4-9C2-M	NONE	483704.32	1351514.61	12-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-10C-M	NONE	482398.36	1350957.91	17-Mar-97	19100	N/A		mg/kg	19100	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-11C-M	NONE	482410.58	1350949.21	17-Mar-97	18500	N/A		mg/kg	18500	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-12C-M	NONE	482492.45	1350955.22	17-Mar-97	24000	N/A		mg/kg	24000	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-13C-M	NONE	482512.45	1350955.71	17-Mar-97	14500	N/A		mg/kg	14500	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-14C-M	NONE	482557.55	1350959.42	17-Mar-97	8730	N/A		mg/kg	8730	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-15C-M	NONE	482627.45	1350967.64	13-Mar-97	19300	N/A		mg/kg	19300	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-16C-M	NONE	482664.3	1350965.63	19-Mar-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-1C-M	NONE	481905.56	1350943.81	19-Mar-97	11900	N/A		mg/kg	11900	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-1C-M-D	NONE	481905.56	1350943.81	19-Mar-97	8870	N/A		mg/kg	8870	N/A	-	mg/kg	NAR-5-1C-M
NAR-5	Aluminum	Metals	NAR-5-2C-M	NONE	481949.77	1350935.89	19-Mar-97	20100	N/A		mg/kg	20100	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-3C-M	NONE	482019.62	1350942.61	19-Mar-97	15500	N/A		mg/kg	15500	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-4C-M	NONE	482096.55	1350946.5	19-Mar-97	7440	N/A		mg/kg	7440	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-5C-M	NONE	482108.52	1350947.79	19-Mar-97	15600	N/A		mg/kg	15600	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-6C-M	NONE	482194.81	1350936.91	19-Mar-97	12400	N/A		mg/kg	12400	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-7C-M	NONE	482211.49	1350950.32	19-Mar-97	16700	N/A		mg/kg	16700	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-8C-M	NONE	482258.57	1350947.48	19-Mar-97	10300	N/A		mg/kg	10300	N/A	-	mg/kg	
NAR-5	Aluminum	Metals	NAR-5-9C-M	NONE	482337.55	1350949.42	17-Mar-97	15200	N/A		mg/kg	15200	N/A	-	mg/kg	
NAR-5	Manganese	Metals	NAR-5-10C-M	NONE	482398.36	1350957.91	17-Mar-97	1030	N/A	EN	mg/kg	1030	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-11C-M	NONE	482410.58	1350949.21	17-Mar-97	1160	N/A	EN	mg/kg	1160	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-12C-M	NONE	482492.45	1350955.22	17-Mar-97	966	N/A	EN	mg/kg	966	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-13C-M	NONE	482512.45	1350955.71	17-Mar-97	1190	N/A	EN	mg/kg	1190	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-14C-M	NONE	482557.55	1350959.42	17-Mar-97	432	N/A	EN	mg/kg	432	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-15C-M	NONE	482627.45	1350967.64	13-Mar-97	1860	N/A	•	mg/kg	1860	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-16C-M	NONE	482664.3	1350965.63	19-Mar-97	235	N/A	EN	mg/kg	235	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-1C-M	NONE	481905.56	1350943.81	19-Mar-97	290	N/A	EN	mg/kg	290	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-1C-M-D	NONE	481905.56	1350943.81	19-Mar-97	734	N/A	EN	mg/kg	734	N/A	J	mg/kg	NAR-5-1C-M
NAR-5	Manganese	Metals	NAR-5-2C-M	NONE	481949.77	1350935.89	19-Mar-97	1210	N/A	EN	mg/kg	1210	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-3C-M	NONE	482019.62	1350942.61	19-Mar-97	407	N/A	EN	mg/kg	407	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-4C-M	NONE	482096.55	1350946.5	19-Mar-97	432	N/A	EN	mg/kg	432	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-5C-M	NONE	482108.52	1350947.79	19-Mar-97	575	N/A	EN	mg/kg	575	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-6C-M	NONE	482194.81	1350936.91	19-Mar-97	378	N/A	EN	mg/kg	378	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-7C-M	NONE	482211.49	1350950.32	19-Mar-97	600	N/A	EN	mg/kg	600	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-8C-M	NONE	482258.57	1350947.48	19-Mar-97	462	N/A	EN	mg/kg	462	N/A	J	mg/kg	
NAR-5	Manganese	Metals	NAR-5-9C-M	NONE	482337.55	1350949.42	17-Mar-97	674	N/A	EN	mg/kg	674	N/A	J	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-10C-M	NONE	482398.36	1350957.91	17-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	UJ	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-11C-M	NONE	482410.58	1350949.21	17-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-12C-M	NONE	482492.45	1350955.22	17-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-13C-M	NONE	482512.45	1350955.71	17-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-5	Molybdenum	Metals	NAR-5-14C-M	NONE	482557.55	1350959.42	17-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-15C-M	NONE	482627.45	1350967.64	13-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-16C-M	NONE	482664.3	1350965.63	19-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-1C-M	NONE	481905.56	1350943.81	19-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-1C-M-D	NONE	481905.56	1350943.81	19-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	NAR-5-1C-M
NAR-5	Molybdenum	Metals	NAR-5-2C-M	NONE	481949.77	1350935.89	19-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-3C-M	NONE	482019.62	1350942.61	19-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-4C-M	NONE	482096.55	1350946.5	19-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-5C-M	NONE	482108.52	1350947.79	19-Mar-97	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-6C-M	NONE	482194.81	1350936.91	19-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-7C-M	NONE	482211.49	1350950.32	19-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-8C-M	NONE	482258.57	1350947.48	19-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
NAR-5	Molybdenum	Metals	NAR-5-9C-M	NONE	482337.55	1350949.42	17-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-10C-M	NONE	483859.7	1351639.43	25-Mar-97	14700	N/A		mg/kg	14700	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-11C-M	NONE	483949.37	1351692.46	12-Mar-97	15000	N/A		mg/kg	15000	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-12C-M	NONE	484086.81	1351798.09	12-Mar-97	13800	N/A		mg/kg	13800	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-13C-M	NONE	484216.88	1351873.47	12-Mar-97	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-14C-M	NONE	484359.62	1351973.02	12-Mar-97	16000	N/A		mg/kg	16000	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	12000	N/A		mg/kg	12000	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	11600	N/A		mg/kg	11600	N/A	-	mg/kg	NAR-6-16C-M
NAR-6	Aluminum	Metals	NAR-6-1C-M	NONE	482702.33	1350979.53	19-Mar-97	6880	N/A		mg/kg	6880	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-2C-M	NONE	482893.38	1351029.09	13-Mar-97	18700	N/A		mg/kg	18700	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-3C-M	NONE	483013.78	1351075.1	13-Mar-97	7710	N/A		mg/kg	7710	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-4C-M	NONE	483122.71	1351144.09	17-Mar-97	8410	N/A		mg/kg	8410	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-5C-M	NONE	483294.77	1351260.94	17-Mar-97	7790	N/A		mg/kg	7790	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-6C-M	NONE	483337.96	1351282.73	13-Mar-97	8110	N/A		mg/kg	8110	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-7C-M	NONE	483465.2	1351373.07	17-Mar-97	10400	N/A		mg/kg	10400	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-8C-M	NONE	483606.32	1351460.69	12-Mar-97	9860	N/A		mg/kg	9860	N/A	-	mg/kg	
NAR-6	Aluminum	Metals	NAR-6-9C-M	NONE	483695.95	1351520.94	13-Mar-97	20000	N/A		mg/kg	20000	N/A	-	mg/kg	
NAR-6	Lead	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	19.6	N/A	*	mg/kg	19.6	N/A	-	mg/kg	
NAR-6	Lead	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	14.8	N/A	*	mg/kg	14.8	N/A	-	mg/kg	
NAR-6	Lead	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	12.9	N/A	*	mg/kg	12.9	N/A	-	mg/kg	NAR-6-16C-M
NAR-6	Manganese	Metals	NAR-6-10C-M	NONE	483859.7	1351639.43	25-Mar-97	1120	N/A	E	mg/kg	1120	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-11C-M	NONE	483949.37	1351692.46	12-Mar-97	289	N/A	*	mg/kg	289	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-12C-M	NONE	484086.81	1351798.09	12-Mar-97	461	N/A	*	mg/kg	461	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-13C-M	NONE	484216.88	1351873.47	12-Mar-97	506	N/A	*	mg/kg	506	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-14C-M	NONE	484359.62	1351973.02	12-Mar-97	502	N/A	*	mg/kg	502	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	513	N/A		mg/kg	513	N/A	-	mg/kg	
NAR-6	Manganese	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	1000	N/A		mg/kg	1000	N/A	-	mg/kg	
NAR-6	Manganese	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	731	N/A		mg/kg	731	N/A	-	mg/kg	NAR-6-16C-M
NAR-6	Manganese	Metals	NAR-6-1C-M	NONE	482702.33	1350979.53	19-Mar-97	522	N/A	E*	mg/kg	522	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-2C-M	NONE	482893.38	1351029.09	13-Mar-97	902	N/A	*	mg/kg	902	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
NAR-6	Manganese	Metals	NAR-6-3C-M	NONE	483013.78	1351075.1	13-Mar-97	567	N/A	•	mg/kg	567	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-4C-M	NONE	483122.71	1351144.09	17-Mar-97	545	N/A	E*	mg/kg	545	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-5C-M	NONE	483294.77	1351260.94	17-Mar-97	1050	N/A	E*	mg/kg	1050	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-6C-M	NONE	483337.96	1351282.73	13-Mar-97	555	N/A	*	mg/kg	555	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-7C-M	NONE	483465.2	1351373.07	17-Mar-97	427	N/A	E*	mg/kg	427	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-8C-M	NONE	483606.32	1351460.69	12-Mar-97	466	N/A	*	mg/kg	466	N/A	J	mg/kg	
NAR-6	Manganese	Metals	NAR-6-9C-M	NONE	483695.95	1351520.94	13-Mar-97	775	N/A	*	mg/kg	775	N/A	J	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-10C-M	NONE	483859.7	1351639.43	25-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-11C-M	NONE	483949.37	1351692.46	12-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-12C-M	NONE	484086.81	1351798.09	12-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-13C-M	NONE	484216.88	1351873.47	12-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-14C-M	NONE	484359.62	1351973.02	12-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-15C-M	NONE	484487.4	1352069.74	20-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-16C-M	NONE	484508.16	1352080.08	20-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-16C-M-D	NONE	484508.16	1352080.08	20-Mar-97	1.6	N/A	B	mg/kg	1.6	N/A	U	mg/kg	NAR-6-16C-M
NAR-6	Molybdenum	Metals	NAR-6-1C-M	NONE	482702.33	1350979.53	19-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-2C-M	NONE	482893.38	1351029.09	13-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-3C-M	NONE	483013.78	1351075.1	13-Mar-97	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-4C-M	NONE	483122.71	1351144.09	17-Mar-97	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-5C-M	NONE	483294.77	1351260.94	17-Mar-97	1.8	N/A	B	mg/kg	1.8	N/A	-	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-6C-M	NONE	483337.96	1351282.73	13-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-7C-M	NONE	483465.2	1351373.07	17-Mar-97	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-8C-M	NONE	483606.32	1351460.69	12-Mar-97	1.9	N/A	B	mg/kg	1.9	N/A	U	mg/kg	
NAR-6	Molybdenum	Metals	NAR-6-9C-M	NONE	483695.95	1351520.94	13-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
O18	Aluminum	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	9920	N/A		mg/kg	9920	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	9920	N/A		mg/kg	9920	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	6880	N/A		mg/kg	6880	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	6880	N/A		mg/kg	6880	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	9650	N/A		mg/kg	9650	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	9650	N/A		mg/kg	9650	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	11700	N/A		mg/kg	11700	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	11700	N/A		mg/kg	11700	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	10800	N/A		mg/kg	10800	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	10800	N/A		mg/kg	10800	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	9510	N/A		mg/kg	9510	N/A	-	mg/kg	
O18	Aluminum	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	9510	N/A		mg/kg	9510	N/A	-	mg/kg	
O18	Aluminum	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	6860	N/A		mg/kg	6860	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O18	Lead	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	22.4	N/A		mg/kg	22.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	22.4	N/A		mg/kg	22.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	27.2	N/A		mg/kg	27.2	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	27.2	N/A		mg/kg	27.2	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	23.8	N/A		mg/kg	23.8	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	23.8	N/A		mg/kg	23.8	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	23.4	N/A		mg/kg	23.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	23.4	N/A		mg/kg	23.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	30.1	N/A		mg/kg	30.1	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	30.1	N/A		mg/kg	30.1	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	24.2	N/A		mg/kg	24.2	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	24.2	N/A		mg/kg	24.2	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	25.4	N/A		mg/kg	25.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	25.4	N/A		mg/kg	25.4	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	24.3	N/A		mg/kg	24.3	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	24.3	N/A		mg/kg	24.3	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	23.1	N/A		mg/kg	23.1	N/A	-	mg/kg	
O18	Lead	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	23.1	N/A		mg/kg	23.1	N/A	-	mg/kg	
O18	Lead	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	21.5	N/A		mg/kg	21.5	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	389	N/A		mg/kg	389	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	389	N/A		mg/kg	389	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	649	N/A		mg/kg	649	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	649	N/A		mg/kg	649	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	375	N/A		mg/kg	375	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	375	N/A		mg/kg	375	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	660	N/A		mg/kg	660	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	660	N/A		mg/kg	660	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	764	N/A		mg/kg	764	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	764	N/A		mg/kg	764	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	750	N/A		mg/kg	750	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	750	N/A		mg/kg	750	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	607	N/A		mg/kg	607	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	607	N/A		mg/kg	607	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	804	N/A		mg/kg	804	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	804	N/A		mg/kg	804	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	554	N/A		mg/kg	554	N/A	-	mg/kg	
O18	Manganese	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	554	N/A		mg/kg	554	N/A	-	mg/kg	
O18	Manganese	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	524	N/A	*	mg/kg	524	N/A	-	mg/kg	
O18	Molybdenum	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	0.83	N/A	B	mg/kg	0.83	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-10-MP	NONE	482948	1349963	20-Feb-97	0.83	N/A	B	mg/kg	0.83	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	0.84	N/A	B	mg/kg	0.84	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-11-MP	NONE	482909	1350046	20-Feb-97	0.84	N/A	B	mg/kg	0.84	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-14-MP	NONE	482947	1350477	20-Feb-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O18	Molybdenum	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	0.7	N/A	B	mg/kg	0.7	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-15-MP	NONE	482880	1349523	19-Feb-97	0.7	N/A	B	mg/kg	0.7	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-16-MP	NONE	482988	1349538	19-Feb-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	0.91	N/A	B	mg/kg	0.91	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-5-MP	NONE	482783	1350299	20-Feb-97	0.91	N/A	B	mg/kg	0.91	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-6-MP	NONE	482797	1350360	20-Feb-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	0.93	N/A	B	mg/kg	0.93	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-7-MP	NONE	482754	1350531	20-Feb-97	0.93	N/A	B	mg/kg	0.93	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	0.54	N/A	B	mg/kg	0.54	N/A	U	mg/kg	
O18	Molybdenum	Metals	O18-00C-9-MP	NONE	482969	1349782	19-Feb-97	0.54	N/A	B	mg/kg	0.54	N/A	U	mg/kg	
O18	Molybdenum	Metals	P18-31C-601785	NONE	482785.22	1350601.21	31-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	
O19	Aluminum	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	14100	N/A		mg/kg	14100	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	16400	N/A		mg/kg	16400	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	9520	N/A		mg/kg	9520	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	11200	N/A		mg/kg	11200	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	10700	N/A		mg/kg	10700	N/A	-	mg/kg	
O19	Aluminum	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	21.6	N/A		mg/kg	21.6	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	22.6	N/A		mg/kg	22.6	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	19.4	N/A		mg/kg	19.4	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	26.8	N/A		mg/kg	26.8	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	20.9	N/A		mg/kg	20.9	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	23.6	N/A		mg/kg	23.6	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	23.9	N/A		mg/kg	23.9	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	20.8	N/A		mg/kg	20.8	N/A	-	mg/kg	
O19	Lead	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	15.7	N/A		mg/kg	15.7	N/A	-	mg/kg	
O19	Manganese	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	1150	N/A		mg/kg	1150	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	730	N/A		mg/kg	730	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	1470	N/A		mg/kg	1470	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	984	N/A		mg/kg	984	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	276	N/A		mg/kg	276	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	374	N/A		mg/kg	374	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	561	N/A		mg/kg	561	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	827	N/A		mg/kg	827	N/A	J	mg/kg	
O19	Manganese	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	1190	N/A		mg/kg	1190	N/A	J	mg/kg	
O19	Molybdenum	Metals	O19-00C-10-M	NONE	483546	1350022	23-Jan-97	0.42	N/A	B	mg/kg	0.42	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-14-M	NONE	483742	1350195	28-Jan-97	0.6	N/A	B	mg/kg	0.6	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-15-M	NONE	483740	1350271	28-Jan-97	0.5	N/A	B	mg/kg	0.5	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O19	Molybdenum	Metals	O19-00C-16-M	NONE	483779	1350548	23-Jan-97	0.91	N/A	B	mg/kg	0.91	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-4-M	NONE	483046	1350563	20-Jan-97	0.77	N/A	B	mg/kg	0.77	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-6-M	NONE	483289	1350026	20-Jan-97	0.7	N/A	B	mg/kg	0.7	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-7-M	NONE	483282	1350240	20-Jan-97	0.58	N/A	B	mg/kg	0.58	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-8-M	NONE	483207	1350471	20-Jan-97	0.49	N/A	B	mg/kg	0.49	N/A	U	mg/kg	
O19	Molybdenum	Metals	O19-00C-9-M	NONE	483485	1349966	23-Jan-97	0.43	N/A	B	mg/kg	0.43	N/A	U	mg/kg	
O20	Aluminum	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	23100	N/A		mg/kg	23100	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	13500	N/A		mg/kg	13500	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	20600	N/A		mg/kg	20600	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	14500	N/A		mg/kg	14500	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	15800	N/A		mg/kg	15800	N/A	-	mg/kg	O20-00C-4-M
O20	Aluminum	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	10400	N/A		mg/kg	10400	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	16700	N/A		mg/kg	16700	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	21600	N/A		mg/kg	21600	N/A	-	mg/kg	
O20	Aluminum	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	18900	N/A		mg/kg	18900	N/A	-	mg/kg	O20-00C-8A-M
O20	Aluminum	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	17.6	N/A		mg/kg	17.6	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	33	N/A		mg/kg	33	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	20.6	N/A		mg/kg	20.6	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	27	N/A		mg/kg	27	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	25.6	N/A		mg/kg	25.6	N/A	-	mg/kg	O20-00C-4-M
O20	Lead	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	22.3	N/A		mg/kg	22.3	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	36	N/A		mg/kg	36	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	33.4	N/A		mg/kg	33.4	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	19.6	N/A		mg/kg	19.6	N/A	-	mg/kg	
O20	Lead	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	21.3	N/A		mg/kg	21.3	N/A	-	mg/kg	O20-00C-8A-M
O20	Lead	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	36.1	N/A		mg/kg	36.1	N/A	-	mg/kg	
O20	Manganese	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	1100	N/A		mg/kg	1100	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	710	N/A		mg/kg	710	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	853	N/A		mg/kg	853	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	935	N/A	E	mg/kg	935	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	910	N/A	E	mg/kg	910	N/A	J	mg/kg	O20-00C-4-M
O20	Manganese	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	411	N/A		mg/kg	411	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	739	N/A		mg/kg	739	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	1140	N/A		mg/kg	1140	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	1130	N/A	E	mg/kg	1130	N/A	J	mg/kg	
O20	Manganese	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	1060	N/A	E	mg/kg	1060	N/A	J	mg/kg	O20-00C-8A-M
O20	Manganese	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	975	N/A	E	mg/kg	975	N/A	J	mg/kg	
O20	Molybdenum	Metals	O20-00C-1-M	NONE	483831	1349992	27-Jan-97	0.23	N/A	U	mg/kg	0.23	N/A	U	mg/kg	
O20	Molybdenum	Metals	O20-00C-10-M	NONE	484013	1350165	27-Jan-97	0.81	N/A	B	mg/kg	0.81	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-2-M	NONE	483840	1350189	27-Jan-97	0.38	N/A	B	mg/kg	0.38	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-4-M	NONE	483822	1350582	23-Jan-97	0.5	N/A	B	mg/kg	0.5	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
O20	Molybdenum	Metals	O20-00C-4-M-D	NONE	483822	1350582	23-Jan-97	0.34	N/A	B	mg/kg	0.34	N/A	-	mg/kg	O20-00C-4-M
O20	Molybdenum	Metals	O20-00C-5-M	NONE	483914	1349827	27-Jan-97	0.87	N/A	B	mg/kg	0.87	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-6-M	NONE	483970	1350144	27-Jan-97	0.87	N/A	B	mg/kg	0.87	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-7-M	NONE	483934	1350362	27-Jan-97	0.58	N/A	B	mg/kg	0.58	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-8A-M	NONE	483943	1350559	27-Jan-97	0.6	N/A	B	mg/kg	0.6	N/A	-	mg/kg	
O20	Molybdenum	Metals	O20-00C-8A-M-D	NONE	483943	1350559	27-Jan-97	0.63	N/A	B	mg/kg	0.63	N/A	-	mg/kg	O20-00C-8A-M
O20	Molybdenum	Metals	O20-00C-8B-M	NONE	483974	1350487	27-Jan-97	0.44	N/A	B	mg/kg	0.44	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-1	NONE	481565.63	1351332.6	24-Mar-97	16300	N/A		mg/kg	16300	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-10	NONE	481692.7	1351373.7	24-Mar-97	9530	N/A		mg/kg	9530	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-11	NONE	481703.26	1351376.3	24-Mar-97	7130	N/A		mg/kg	7130	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-11-D	NONE	481703.26	1351376.3	24-Mar-97	9100	N/A		mg/kg	9100	N/A	-	mg/kg	P17-22C2-M-11
P17-22	Aluminum	Metals	P17-22C2-M-2	NONE	481541.7	1351333.8	24-Mar-97	7090	N/A		mg/kg	7090	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-3	NONE	481438.69	1351345.5	24-Mar-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-4	NONE	481569.81	1351365.5	24-Mar-97	5880	N/A		mg/kg	5880	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-5	NONE	481400.55	1351368.2	24-Mar-97	7450	N/A		mg/kg	7450	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-6	NONE	481464.29	1351374.9	24-Mar-97	12000	N/A		mg/kg	12000	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-7	NONE	481255.76	1351377.6	24-Mar-97	14000	N/A		mg/kg	14000	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-8	NONE	481346.64	1351377.3	24-Mar-97	7590	N/A		mg/kg	7590	N/A	-	mg/kg	
P17-22	Aluminum	Metals	P17-22C2-M-9	NONE	481380.87	1351382.2	24-Mar-97	7150	N/A		mg/kg	7150	N/A	-	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-1	NONE	481565.63	1351332.6	24-Mar-97	300	N/A	N	mg/kg	300	N/A	Z	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-10	NONE	481692.7	1351373.7	24-Mar-97	692	N/A	N	mg/kg	692	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-11	NONE	481703.26	1351376.3	24-Mar-97	1250	N/A	N	mg/kg	1250	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-11-D	NONE	481703.26	1351376.3	24-Mar-97	656	N/A	N	mg/kg	656	N/A	R	mg/kg	P17-22C2-M-11
P17-22	Manganese	Metals	P17-22C2-M-2	NONE	481541.7	1351333.8	24-Mar-97	2190	N/A	N	mg/kg	2190	N/A	J	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-3	NONE	481438.69	1351345.5	24-Mar-97	1150	N/A	N	mg/kg	1150	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-4	NONE	481569.81	1351365.5	24-Mar-97	1070	N/A	N	mg/kg	1070	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-5	NONE	481400.55	1351368.2	24-Mar-97	992	N/A	N	mg/kg	992	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-6	NONE	481464.29	1351374.9	24-Mar-97	1450	N/A	N	mg/kg	1450	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-7	NONE	481255.76	1351377.6	24-Mar-97	485	N/A	N	mg/kg	485	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-8	NONE	481346.64	1351377.3	24-Mar-97	732	N/A	N	mg/kg	732	N/A	R	mg/kg	
P17-22	Manganese	Metals	P17-22C2-M-9	NONE	481380.87	1351382.2	24-Mar-97	1540	N/A	N	mg/kg	1540	N/A	J	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-1	NONE	481565.63	1351332.6	24-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-10	NONE	481692.7	1351373.7	24-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-11	NONE	481703.26	1351376.3	24-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-11-D	NONE	481703.26	1351376.3	24-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	P17-22C2-M-11
P17-22	Molybdenum	Metals	P17-22C2-M-2	NONE	481541.7	1351333.8	24-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-3	NONE	481438.69	1351345.5	24-Mar-97	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-4	NONE	481569.81	1351365.5	24-Mar-97	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-5	NONE	481400.55	1351368.2	24-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-6	NONE	481464.29	1351374.9	24-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-7	NONE	481255.76	1351377.6	24-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-8	NONE	481346.64	1351377.3	24-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	U	mg/kg	
P17-22	Molybdenum	Metals	P17-22C2-M-9	NONE	481380.87	1351382.2	24-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	U	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Aluminum	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	7250	N/A		mg/kg	7250	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	7250	N/A		mg/kg	7250	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	4030	N/A		mg/kg	4030	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	4030	N/A		mg/kg	4030	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	3550	N/A		mg/kg	3550	N/A	-	mg/kg	P17-31C-644907
P17-31	Aluminum	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	3550	N/A		mg/kg	3550	N/A	-	mg/kg	P17-31C-644907
P17-31	Aluminum	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	5680	N/A		mg/kg	5680	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	5680	N/A		mg/kg	5680	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	7360	N/A		mg/kg	7360	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	7360	N/A		mg/kg	7360	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	12200	N/A		mg/kg	12200	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	12200	N/A		mg/kg	12200	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	9020	N/A		mg/kg	9020	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	9020	N/A		mg/kg	9020	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	7150	N/A		mg/kg	7150	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	7150	N/A		mg/kg	7150	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	9130	N/A		mg/kg	9130	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	9130	N/A		mg/kg	9130	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	9780	N/A		mg/kg	9780	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	9780	N/A		mg/kg	9780	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	7650	N/A		mg/kg	7650	N/A	-	mg/kg	
P17-31	Aluminum	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	7650	N/A		mg/kg	7650	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	7.2	N/A		mg/kg	7.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	8.4	N/A		mg/kg	8.4	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	4.8	N/A		mg/kg	4.8	N/A	-	mg/kg	P17-31C-644907
P17-31	Lead	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	4.8	N/A		mg/kg	4.8	N/A	-	mg/kg	P17-31C-644907
P17-31	Lead	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	5.6	N/A		mg/kg	5.6	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	5.6	N/A		mg/kg	5.6	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	19.7	N/A		mg/kg	19.7	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	19.7	N/A		mg/kg	19.7	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	12.4	N/A		mg/kg	12.4	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	12.4	N/A		mg/kg	12.4	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	17.2	N/A		mg/kg	17.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	17.2	N/A		mg/kg	17.2	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	14.6	N/A		mg/kg	14.6	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	14.6	N/A		mg/kg	14.6	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	18	N/A		mg/kg	18	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	18	N/A		mg/kg	18	N/A	-	mg/kg	
P17-31	Lead	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Lead	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	7.8	N/A		mg/kg	7.8	N/A	-	mg/kg	
P17-31	Manganese	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	480	N/A	E	mg/kg	480	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	480	N/A	E	mg/kg	480	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	395	N/A	E	mg/kg	395	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	395	N/A	E	mg/kg	395	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	244	N/A	E	mg/kg	244	N/A	J	mg/kg	P17-31C-644907
P17-31	Manganese	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	244	N/A	E	mg/kg	244	N/A	J	mg/kg	P17-31C-644907
P17-31	Manganese	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	365	N/A	E	mg/kg	365	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	365	N/A	E	mg/kg	365	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	915	N/A	E	mg/kg	915	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	915	N/A	E	mg/kg	915	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	841	N/A	E	mg/kg	841	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	841	N/A	E	mg/kg	841	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	543	N/A	E	mg/kg	543	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	543	N/A	E	mg/kg	543	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	809	N/A	E	mg/kg	809	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	809	N/A	E	mg/kg	809	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	638	N/A	E	mg/kg	638	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	638	N/A	E	mg/kg	638	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	552	N/A	E	mg/kg	552	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	552	N/A	E	mg/kg	552	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	529	N/A	E	mg/kg	529	N/A	J	mg/kg	
P17-31	Manganese	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	529	N/A	E	mg/kg	529	N/A	J	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	4.2	N/A	U	mg/kg	4.2	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-628868	NONE	481868.7	1350628.53	10-Dec-96	4.2	N/A	U	mg/kg	4.2	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-644907	NONE	481907.7	1350644.49	10-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	P17-31C-644907
P17-31	Molybdenum	Metals	P17-31C-644907-D	NONE	481907.7	1350644.49	10-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	P17-31C-644907
P17-31	Molybdenum	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-656941	NONE	481941.31	1350656.72	10-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-671823	NONE	481823.56	1350671.36	10-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-672873	NONE	481873.83	1350672.47	10-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-704984	NONE	481984.75	1350704.61	10-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-724876	NONE	481876.81	1350724.4	10-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	0.96	N/A	B	mg/kg	0.96	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-735927	NONE	481927.35	1350735.53	10-Dec-96	0.96	N/A	B	mg/kg	0.96	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	1.2	N/A	B	mg/kg	1.2	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-753816	NONE	481816.8	1350753.72	10-Dec-96	1.2	N/A	B	mg/kg	1.2	N/A	-	mg/kg	
P17-31	Molybdenum	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	4.2	N/A	U	mg/kg	4.2	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-31	Molybdenum	Metals	P17-31C-753986	NONE	481986.77	1350753.37	10-Dec-96	4.2	N/A	U	mg/kg	4.2	N/A	U	mg/kg	
P17-32	Aluminum	Metals	P17-32C-824828	NONE	481828.87	1350824.7	18-Dec-96	13200	N/A		mg/kg	13200	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-829914	NONE	481914.84	1350829.58	18-Dec-96	14800	N/A		mg/kg	14800	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-835920	NONE	481920	1350835	16-Jan-97	24800	N/A		mg/kg	24800	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-847827	NONE	481827.36	1350847.33	18-Dec-96	11500	N/A		mg/kg	11500	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-850820	NONE	481820	1350850	16-Jan-97	23800	N/A		mg/kg	23800	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-866935	NONE	481935.76	1350866.23	18-Dec-96	6280	N/A		mg/kg	6280	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-876808	NONE	481808	1350876	18-Dec-96	17200	N/A		mg/kg	17200	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C-880982	NONE	481982.82	1350880.29	18-Dec-96	8830	N/A		mg/kg	8830	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-1	NONE	481996.38	1350807.74	21-Mar-97	11100	N/A	*	mg/kg	11100	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-2	NONE	481969.69	1350837.79	21-Mar-97	11900	N/A	*	mg/kg	11900	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-3	NONE	481978.48	1350867.59	21-Mar-97	16400	N/A	*	mg/kg	16400	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-4	NONE	481872.61	1350814.77	21-Mar-97	7610	N/A	*	mg/kg	7610	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-5	NONE	481859.7	1350881.95	21-Mar-97	7480	N/A	*	mg/kg	7480	N/A	-	mg/kg	
P17-32	Aluminum	Metals	P17-32C2-M-6	NONE	481777.29	1350808.32	21-Mar-97	7650	N/A	*	mg/kg	7650	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-824828	NONE	481828.87	1350824.7	18-Dec-96	15.7	N/A		mg/kg	15.7	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-829914	NONE	481914.84	1350829.58	18-Dec-96	16.6	N/A		mg/kg	16.6	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-835920	NONE	481920	1350835	16-Jan-97	19.9	N/A		mg/kg	19.9	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-847827	NONE	481827.36	1350847.33	18-Dec-96	16	N/A		mg/kg	16	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-850820	NONE	481820	1350850	16-Jan-97	17.6	N/A		mg/kg	17.6	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-866935	NONE	481935.76	1350866.23	18-Dec-96	17.1	N/A		mg/kg	17.1	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-876808	NONE	481808	1350876	18-Dec-96	15.6	N/A		mg/kg	15.6	N/A	-	mg/kg	
P17-32	Lead	Metals	P17-32C-880982	NONE	481982.82	1350880.29	18-Dec-96	15.8	N/A		mg/kg	15.8	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C-824828	NONE	481828.87	1350824.7	18-Dec-96	668	N/A		mg/kg	668	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C-829914	NONE	481914.84	1350829.58	18-Dec-96	205	N/A		mg/kg	205	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C-835920	NONE	481920	1350835	16-Jan-97	438	N/A		mg/kg	438	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C-847827	NONE	481827.36	1350847.33	18-Dec-96	324	N/A		mg/kg	324	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C-850820	NONE	481820	1350850	16-Jan-97	1080	N/A		mg/kg	1080	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C-866935	NONE	481935.76	1350866.23	18-Dec-96	2080	N/A		mg/kg	2080	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C-876808	NONE	481808	1350876	18-Dec-96	171	N/A	E	mg/kg	171	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C-880982	NONE	481982.82	1350880.29	18-Dec-96	771	N/A		mg/kg	771	N/A	-	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-1	RE	481996.38	1350807.74	21-Mar-97	422	N/A	E*	mg/kg	422	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-1	NONE	481996.38	1350807.74	21-Mar-97	469	N/A	EN	mg/kg	469	N/A	Z	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-2	RE	481969.69	1350837.79	21-Mar-97	108	N/A	E*	mg/kg	108	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-2	NONE	481969.69	1350837.79	21-Mar-97	130	N/A	EN	mg/kg	130	N/A	Z	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-3	RE	481978.48	1350867.59	21-Mar-97	241	N/A	E*	mg/kg	241	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-3	NONE	481978.48	1350867.59	21-Mar-97	211	N/A	EN	mg/kg	211	N/A	Z	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-4	RE	481872.61	1350814.77	21-Mar-97	776	N/A	E*	mg/kg	776	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-4	NONE	481872.61	1350814.77	21-Mar-97	691	N/A	EN	mg/kg	691	N/A	Z	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-5	RE	481859.7	1350881.95	21-Mar-97	849	N/A	E*	mg/kg	849	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-5	NONE	481859.7	1350881.95	21-Mar-97	1530	N/A	EN	mg/kg	1530	N/A	Z	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-6	RE	481777.29	1350808.32	21-Mar-97	713	N/A	E*	mg/kg	713	N/A	J	mg/kg	
P17-32	Manganese	Metals	P17-32C2-M-6	NONE	481777.29	1350808.32	21-Mar-97	563	N/A	EN	mg/kg	563	N/A	Z	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-32	Molybdenum	Metals	P17-32C-824828	NONE	481828.87	1350824.7	18-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-829914	NONE	481914.84	1350829.58	18-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-835920	NONE	481920	1350835	16-Jan-97	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-847827	NONE	481827.36	1350847.33	18-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-850820	NONE	481820	1350850	16-Jan-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-866935	NONE	481935.76	1350866.23	18-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-876808	NONE	481808	1350876	18-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P17-32	Molybdenum	Metals	P17-32C-880982	NONE	481982.82	1350880.29	18-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-1	NONE	481996.38	1350807.74	21-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-2	NONE	481969.69	1350837.79	21-Mar-97	1.6	N/A	B	mg/kg	1.6	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-3	NONE	481978.48	1350867.59	21-Mar-97	3.2	N/A	B	mg/kg	3.2	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-4	NONE	481872.61	1350814.77	21-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-5	NONE	481859.7	1350881.95	21-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
P17-32	Molybdenum	Metals	P17-32C2-M-6	NONE	481777.29	1350808.32	21-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
P17-33	Aluminum	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	7920	N/A		mg/kg	7920	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	7920	N/A		mg/kg	7920	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	7230	N/A		mg/kg	7230	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	7230	N/A		mg/kg	7230	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	10100	N/A		mg/kg	10100	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	10100	N/A		mg/kg	10100	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	7670	N/A		mg/kg	7670	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	7670	N/A		mg/kg	7670	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	9460	N/A		mg/kg	9460	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	9460	N/A		mg/kg	9460	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	9020	N/A		mg/kg	9020	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	9020	N/A		mg/kg	9020	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	11800	N/A		mg/kg	11800	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	11800	N/A		mg/kg	11800	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	8230	N/A		mg/kg	8230	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	8230	N/A		mg/kg	8230	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
P17-33	Aluminum	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	10200	N/A		mg/kg	10200	N/A	-	mg/kg	
P17-33	Lead	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	8.8	N/A	E	mg/kg	8.8	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	8.8	N/A	E	mg/kg	8.8	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	18	N/A	E	mg/kg	18	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	18	N/A	E	mg/kg	18	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	12.5	N/A	E	mg/kg	12.5	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	12.5	N/A	E	mg/kg	12.5	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	10.2	N/A	E	mg/kg	10.2	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	10.2	N/A	E	mg/kg	10.2	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	6.9	N/A	E	mg/kg	6.9	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-33	Lead	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	6.9	N/A	E	mg/kg	6.9	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	15.1	N/A	E	mg/kg	15.1	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	15.1	N/A	E	mg/kg	15.1	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	16.8	N/A	E	mg/kg	16.8	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	16.8	N/A	E	mg/kg	16.8	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	19.1	N/A	E	mg/kg	19.1	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	19.1	N/A	E	mg/kg	19.1	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	7	N/A	E	mg/kg	7	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	7	N/A	E	mg/kg	7	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	8.2	N/A	E	mg/kg	8.2	N/A	J	mg/kg	
P17-33	Lead	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	8.2	N/A	E	mg/kg	8.2	N/A	J	mg/kg	
P17-33	Manganese	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	503	N/A		mg/kg	503	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	503	N/A		mg/kg	503	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	591	N/A		mg/kg	591	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	591	N/A		mg/kg	591	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	559	N/A		mg/kg	559	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	559	N/A		mg/kg	559	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	414	N/A		mg/kg	414	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	414	N/A		mg/kg	414	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	823	N/A		mg/kg	823	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	823	N/A		mg/kg	823	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	690	N/A		mg/kg	690	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	690	N/A		mg/kg	690	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	508	N/A		mg/kg	508	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	508	N/A		mg/kg	508	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	864	N/A		mg/kg	864	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	864	N/A		mg/kg	864	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	433	N/A		mg/kg	433	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	433	N/A		mg/kg	433	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	717	N/A		mg/kg	717	N/A	-	mg/kg	
P17-33	Manganese	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	717	N/A		mg/kg	717	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-621137	NONE	482137.93	1350621.83	11-Dec-96	4.4	N/A	U	mg/kg	4.4	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-628166	NONE	482166.72	1350628.54	11-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	4.1	N/A	U	mg/kg	4.1	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-636056	NONE	482056.8	1350636.87	11-Dec-96	4.1	N/A	U	mg/kg	4.1	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-642036	NONE	482036.83	1350642.68	11-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	4	N/A	U	mg/kg	4	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-658095	NONE	482095.78	1350658.3	11-Dec-96	4	N/A	U	mg/kg	4	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-668156	NONE	482156.71	1350668.67	11-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-33	Molybdenum	Metals	P17-33C-701070	NONE	482070.81	1350701.37	11-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-725110	NONE	482110.92	1350725.12	11-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	4.1	N/A	U	mg/kg	4.1	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-747048	NONE	482048.77	1350747.75	11-Dec-96	4.1	N/A	U	mg/kg	4.1	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-33	Molybdenum	Metals	P17-33C-785192	NONE	482192.57	1350785.12	11-Dec-96	4.3	N/A	U	mg/kg	4.3	N/A	U	mg/kg	
P17-40	Aluminum	Metals	P17-40C-034144	NONE	482144.68	1351034.77	21-Mar-97	13000	N/A	*	mg/kg	13000	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	9270	N/A		mg/kg	9270	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	6870	N/A		mg/kg	6870	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	12700	N/A		mg/kg	12700	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-326937	NONE	481937.67	1351326.26	21-Mar-97	8930	N/A	*	mg/kg	8930	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	6480	N/A		mg/kg	6480	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	7580	N/A		mg/kg	7580	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	8110	N/A		mg/kg	8110	N/A	-	mg/kg	P17-40C-355079
P17-40	Aluminum	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	8770	N/A		mg/kg	8770	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P17-40C2-M-2	NONE	482014.61	1351264.91	24-Mar-97	9610	N/A		mg/kg	9610	N/A	-	mg/kg	
P17-40	Aluminum	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	9860	N/A		mg/kg	9860	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	19.4	N/A		mg/kg	19.4	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	15.8	N/A		mg/kg	15.8	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	19.2	N/A		mg/kg	19.2	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	18.1	N/A		mg/kg	18.1	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	16.2	N/A		mg/kg	16.2	N/A	-	mg/kg	
P17-40	Lead	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	15.1	N/A		mg/kg	15.1	N/A	-	mg/kg	P17-40C-355079
P17-40	Lead	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	21.6	N/A		mg/kg	21.6	N/A	-	mg/kg	
P17-40	Lead	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	15.6	N/A		mg/kg	15.6	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C-034144	RE	482144.68	1351034.77	21-Mar-97	544	N/A	E*	mg/kg	544	N/A	J	mg/kg	
P17-40	Manganese	Metals	P17-40C-034144	NONE	482144.68	1351034.77	21-Mar-97	305	N/A	EN	mg/kg	305	N/A	Z	mg/kg	
P17-40	Manganese	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	722	N/A		mg/kg	722	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	616	N/A	*	mg/kg	616	N/A	J	mg/kg	
P17-40	Manganese	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	819	N/A		mg/kg	819	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C-326937	RE	481937.67	1351326.26	21-Mar-97	996	N/A	E*	mg/kg	996	N/A	J	mg/kg	
P17-40	Manganese	Metals	P17-40C-326937	NONE	481937.67	1351326.26	21-Mar-97	1060	N/A	EN	mg/kg	1060	N/A	Z	mg/kg	
P17-40	Manganese	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	606	N/A		mg/kg	606	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	991	N/A		mg/kg	991	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	795	N/A		mg/kg	795	N/A	-	mg/kg	P17-40C-355079
P17-40	Manganese	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	1130	N/A		mg/kg	1130	N/A	-	mg/kg	
P17-40	Manganese	Metals	P17-40C2-M-2	NONE	482014.61	1351264.91	24-Mar-97	1210	N/A	N	mg/kg	1210	N/A	R	mg/kg	
P17-40	Manganese	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	695	N/A	*	mg/kg	695	N/A	J	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-034144	NONE	482144.68	1351034.77	21-Mar-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-161053	NONE	482053.7	1351161.26	4-Dec-96	0.96	N/A	U	mg/kg	0.96	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-173146	NONE	482146.95	1351173.82	6-Dec-96	0.95	N/A	U	mg/kg	0.95	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-242116	NONE	482116.91	1351242.49	4-Dec-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P17-40	Molybdenum	Metals	P17-40C-326937	NONE	481937.67	1351326.26	21-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-334115	NONE	482115.51	1351334.71	4-Dec-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-355079	NONE	482079.96	1351335.81	4-Dec-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C-355079-D	NONE	482079.96	1351335.81	4-Dec-96	0.95	N/A	U	mg/kg	0.95	N/A	U	mg/kg	P17-40C-355079
P17-40	Molybdenum	Metals	P17-40C-361850	NONE	481850.73	1351361.61	4-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P17-40C2-M-2	NONE	482014.61	1351264.91	24-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
P17-40	Molybdenum	Metals	P18C-325201	NONE	482201.8	1351325.44	27-Nov-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
P18	Aluminum	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	6040	N/A		mg/kg	6040	N/A	-	mg/kg	
P18	Aluminum	R	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	10100	N/A		mg/kg	10100	N/A	-	mg/kg	
P18	Aluminum	R	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	9590	N/A		mg/kg	9590	N/A	-	mg/kg	
P18	Aluminum	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	11800	N/A		mg/kg	11800	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	14600	N/A		mg/kg	14600	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	5430	N/A		mg/kg	5430	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	14500	N/A		mg/kg	14500	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	12500	N/A		mg/kg	12500	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	9700	N/A		mg/kg	9700	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	8080	N/A		mg/kg	8080	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	6900	N/A		mg/kg	6900	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	8960	N/A		mg/kg	8960	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-642957	NONE	482957	1350642	24-Mar-97	10500	N/A	*	mg/kg	10500	N/A	-	mg/kg	
P18	Aluminum	Metals	P18C-908837	NONE	482833	1350908	24-Mar-97	6660	N/A	*	mg/kg	6660	N/A	-	mg/kg	
P18	Lead	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	14.5	N/A		mg/kg	14.5	N/A	-	mg/kg	
P18	Lead	R	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	15.1	N/A		mg/kg	15.1	N/A	-	mg/kg	
P18	Lead	R	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	14.5	N/A		mg/kg	14.5	N/A	-	mg/kg	
P18	Lead	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	9.7	N/A		mg/kg	9.7	N/A	-	mg/kg	
P18	Lead	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	25.7	N/A		mg/kg	25.7	N/A	-	mg/kg	
P18	Lead	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
P18	Lead	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	18.7	N/A		mg/kg	18.7	N/A	-	mg/kg	
P18	Lead	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	23.1	N/A		mg/kg	23.1	N/A	-	mg/kg	
P18	Lead	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	16.2	N/A		mg/kg	16.2	N/A	-	mg/kg	
P18	Lead	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	37	N/A		mg/kg	37	N/A	-	mg/kg	
P18	Lead	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	25.8	N/A		mg/kg	25.8	N/A	-	mg/kg	
P18	Lead	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	34.4	N/A		mg/kg	34.4	N/A	-	mg/kg	
P18	Manganese	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	616	N/A	*	mg/kg	616	N/A	J	mg/kg	
P18	Manganese	R	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	578	N/A		mg/kg	578	N/A	-	mg/kg	
P18	Manganese	R	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	528	N/A		mg/kg	528	N/A	-	mg/kg	
P18	Manganese	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	560	N/A	*	mg/kg	560	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	829	N/A	*	mg/kg	829	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	684	N/A	*	mg/kg	684	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	1010	N/A	*	mg/kg	1010	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	865	N/A	E	mg/kg	865	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	837	N/A	*	mg/kg	837	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	691	N/A	*	mg/kg	691	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18	Manganese	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	1380	N/A	*	mg/kg	1380	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	5470	N/A	*	mg/kg	5470	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-642957	RE	482957	1350642	24-Mar-97	420	N/A	E*	mg/kg	420	N/A	J	mg/kg	
P18	Manganese	Metals	P18C-642957	NONE	482957	1350642	24-Mar-97	378	N/A	EN	mg/kg	378	N/A	Z	mg/kg	
P18	Manganese	Metals	P18C-908837	NONE	482833	1350908	24-Mar-97	796	N/A	EN	mg/kg	796	N/A	Z	mg/kg	
P18	Manganese	Metals	P18C-908837	RE	482833	1350908	24-Mar-97	907	N/A	E*	mg/kg	907	N/A	J	mg/kg	
P18	Molybdenum	Metals	P18-12C-997298	NONE	482298.81	1350997.62	6-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P18	Molybdenum	R	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	0.43	N/A	B	mg/kg	0.43	N/A	-	mg/kg	
P18	Molybdenum	R	P18-32C-816671	NONE	482671.51	1350816.62	23-Jan-97	0.58	N/A	B	mg/kg	0.58	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18-32C-989652	NONE	482652	1350989	6-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-086216	NONE	482216.27	1351086.3	27-Nov-96	2.2	N/A	B	mg/kg	2.2	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-100875	NONE	482875.49	1351100.8	27-Nov-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-150499	NONE	482499.62	1351150.8	27-Nov-96	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
P18	Molybdenum	Metals	P18C-173868	NONE	482868.9	1351173.52	27-Nov-96	0.59	N/A	B	mg/kg	0.59	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-195794	NONE	482794.41	1351195.67	27-Nov-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P18	Molybdenum	Metals	P18C-203819	NONE	482819.66	1351203.87	27-Nov-96	0.91	N/A	B	mg/kg	0.91	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-319733	NONE	482733.64	1351319.65	27-Nov-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-384451	NONE	482451.51	1351384.92	27-Nov-96	2	N/A	B	mg/kg	2	N/A	-	mg/kg	
P18	Molybdenum	Metals	P18C-642957	NONE	482957	1350642	24-Mar-97	1.3	N/A	U	mg/kg	1.3	N/A	U	mg/kg	
P18	Molybdenum	Metals	P18C-908837	NONE	482833	1350908	24-Mar-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
P18-11	Aluminum	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	6770	N/A		mg/kg	6770	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	6770	N/A		mg/kg	6770	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	12200	N/A		mg/kg	12200	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	12200	N/A		mg/kg	12200	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	5870	N/A		mg/kg	5870	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	5870	N/A		mg/kg	5870	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	12100	N/A		mg/kg	12100	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	7140	N/A		mg/kg	7140	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	7140	N/A		mg/kg	7140	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	12900	N/A		mg/kg	12900	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	12900	N/A		mg/kg	12900	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	9230	N/A		mg/kg	9230	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	9230	N/A		mg/kg	9230	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	6520	N/A		mg/kg	6520	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	6520	N/A		mg/kg	6520	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	11100	N/A		mg/kg	11100	N/A	-	mg/kg	
P18-11	Aluminum	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	11100	N/A		mg/kg	11100	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	13.6	N/A		mg/kg	13.6	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	13.6	N/A		mg/kg	13.6	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-11	Lead	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	18.7	N/A		mg/kg	18.7	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	18.7	N/A		mg/kg	18.7	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	6.1	N/A		mg/kg	6.1	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	6.1	N/A		mg/kg	6.1	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	10.5	N/A		mg/kg	10.5	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	10.5	N/A		mg/kg	10.5	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	11.7	N/A		mg/kg	11.7	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	11.7	N/A		mg/kg	11.7	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	7.3	N/A		mg/kg	7.3	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
P18-11	Lead	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	8.5	N/A		mg/kg	8.5	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	427	N/A	E	mg/kg	427	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	427	N/A	E	mg/kg	427	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	519	N/A	E	mg/kg	519	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	519	N/A	E	mg/kg	519	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	600	N/A	E	mg/kg	600	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	600	N/A	E	mg/kg	600	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	1240	N/A	E	mg/kg	1240	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	1240	N/A	E	mg/kg	1240	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	410	N/A	E	mg/kg	410	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	410	N/A	E	mg/kg	410	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	564	N/A	E	mg/kg	564	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	564	N/A	E	mg/kg	564	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	472	N/A	E	mg/kg	472	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	472	N/A	E	mg/kg	472	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	391	N/A	E	mg/kg	391	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	391	N/A	E	mg/kg	391	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	460	N/A	E	mg/kg	460	N/A	-	mg/kg	
P18-11	Manganese	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	460	N/A	E	mg/kg	460	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	1.6	N/A	B	mg/kg	1.6	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-621373	NONE	482373.17	1350621.79	17-Dec-96	1.6	N/A	B	mg/kg	1.6	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-635269	NONE	482269.59	1350635.59	17-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	3.1	N/A	B	mg/kg	3.1	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-649316	NONE	482316.17	1350649.32	18-Dec-96	3.1	N/A	B	mg/kg	3.1	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-678297	NONE	482297.19	1350678.27	17-Dec-96	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-679332	NONE	482332.77	1350679.36	17-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	1.8	N/A	B	mg/kg	1.8	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-685205	NONE	482205.16	1350685.59	17-Dec-96	1.8	N/A	B	mg/kg	1.8	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-11	Molybdenum	Metals	P18-11C-720358	NONE	482358.35	1350720.82	18-Dec-96	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	2.6	N/A	B	mg/kg	2.6	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-745247	NONE	482247.17	1350745.56	17-Dec-96	2.6	N/A	B	mg/kg	2.6	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18-11	Molybdenum	Metals	P18-11C-792394	NONE	482394.6	1350792.7	17-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	10800	N/A		mg/kg	10800	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	9430	N/A		mg/kg	9430	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	18600	N/A		mg/kg	18600	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	19100	N/A		mg/kg	19100	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	12000	N/A		mg/kg	12000	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	8280	N/A		mg/kg	8280	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	20800	N/A		mg/kg	20800	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
P18-12	Aluminum	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	11600	N/A		mg/kg	11600	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	13.5	N/A		mg/kg	13.5	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	11.8	N/A		mg/kg	11.8	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	8.7	N/A		mg/kg	8.7	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	33.7	N/A		mg/kg	33.7	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	14.1	N/A		mg/kg	14.1	N/A	-	mg/kg	
P18-12	Lead	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	15.4	N/A		mg/kg	15.4	N/A	-	mg/kg	
P18-12	Lead	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	6.7	N/A		mg/kg	6.7	N/A	-	mg/kg	
P18-12	Lead	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	17.1	N/A		mg/kg	17.1	N/A	-	mg/kg	
P18-12	Lead	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	22.4	N/A		mg/kg	22.4	N/A	-	mg/kg	
P18-12	Lead	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	11	N/A		mg/kg	11	N/A	-	mg/kg	
P18-12	Manganese	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	561	N/A	*	mg/kg	561	N/A	-	mg/kg	
P18-12	Manganese	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	585	N/A	E	mg/kg	585	N/A	J	mg/kg	
P18-12	Manganese	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	606	N/A	•	mg/kg	606	N/A	-	mg/kg	
P18-12	Manganese	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	2050	N/A	*	mg/kg	2050	N/A	-	mg/kg	
P18-12	Manganese	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	753	N/A	•	mg/kg	753	N/A	-	mg/kg	
P18-12	Manganese	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	489	N/A	E	mg/kg	489	N/A	-	mg/kg	
P18-12	Manganese	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	410	N/A	*	mg/kg	410	N/A	-	mg/kg	
P18-12	Manganese	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	961	N/A	•	mg/kg	961	N/A	-	mg/kg	
P18-12	Manganese	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	1250	N/A	*	mg/kg	1250	N/A	-	mg/kg	
P18-12	Manganese	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	714	N/A	*	mg/kg	714	N/A	-	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-824051	NONE	482051.85	1350824.21	30-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-824125	NONE	482125.34	1350824.35	30-Dec-96	0.77	N/A	B	mg/kg	0.77	N/A	-	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-831178	NONE	482178.81	1350831.77	26-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-856128	NONE	482128.28	1350856.37	30-Dec-96	2.4	N/A	B	mg/kg	2.4	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-873163	NONE	482163.58	1350873.5	30-Dec-96	2.3	N/A	B	mg/kg	2.3	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P17-34C-877017	NONE	482017.59	1350877.54	19-Dec-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P18-12C-801388	NONE	482388.18	1350801.84	26-Dec-96	2.1	N/A	B	mg/kg	2.1	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P18-12C-854372	NONE	482372.29	1350854.8	26-Dec-96	2	N/A	B	mg/kg	2	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-12	Molybdenum	Metals	P18-12C-873323	NONE	482323.4	1350873.73	26-Dec-96	2	N/A	B	mg/kg	2	N/A	U	mg/kg	
P18-12	Molybdenum	Metals	P18-12C-891258	NONE	482258.64	1350891.58	26-Dec-96	0.98	N/A	B	mg/kg	0.98	N/A	U	mg/kg	
P18-13	Aluminum	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	7170	N/A		mg/kg	7170	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	17200	N/A		mg/kg	17200	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	8260	N/A		mg/kg	8260	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	9040	N/A		mg/kg	9040	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	4060	N/A		mg/kg	4060	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	11000	N/A		mg/kg	11000	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	12400	N/A		mg/kg	12400	N/A	-	mg/kg	
P18-13	Aluminum	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	7360	N/A		mg/kg	7360	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	13.9	N/A		mg/kg	13.9	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	14.6	N/A		mg/kg	14.6	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	12.6	N/A		mg/kg	12.6	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	13.2	N/A		mg/kg	13.2	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	7.5	N/A		mg/kg	7.5	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	14.3	N/A		mg/kg	14.3	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	11.4	N/A		mg/kg	11.4	N/A	-	mg/kg	
P18-13	Lead	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	6.4	N/A		mg/kg	6.4	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	700	N/A		mg/kg	700	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	447	N/A		mg/kg	447	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	615	N/A		mg/kg	615	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	495	N/A		mg/kg	495	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	537	N/A		mg/kg	537	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	347	N/A		mg/kg	347	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	645	N/A		mg/kg	645	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	593	N/A	E	mg/kg	593	N/A	-	mg/kg	
P18-13	Manganese	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	283	N/A		mg/kg	283	N/A	-	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-604590	NONE	482590	1350604.8	18-Dec-96	0.96	N/A	U	mg/kg	0.96	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-615406	NONE	482406.88	1350615.22	18-Dec-96	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-640506	NONE	482506.64	1350640.26	18-Dec-96	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-676573	NONE	482573.4	1350676.7	18-Dec-96	0.95	N/A	U	mg/kg	0.95	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-684539	NONE	482539.48	1350684.54	18-Dec-96	0.94	N/A	U	mg/kg	0.94	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-727596	NONE	482596.5	1350727.7	18-Dec-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-740481	NONE	482481.2	1350740.8	18-Dec-96	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-766516	NONE	482520.97	1350766.91	19-Dec-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
P18-13	Molybdenum	Metals	P18-13C-777423	NONE	482423.87	1350777.59	18-Dec-96	0.91	N/A	U	mg/kg	0.91	N/A	U	mg/kg	
P18-14	Aluminum	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	14600	N/A		mg/kg	14600	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	11900	N/A		mg/kg	11900	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	14600	N/A		mg/kg	14600	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	26100	N/A		mg/kg	26100	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-14	Aluminum	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	10900	N/A		mg/kg	10900	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	13400	N/A		mg/kg	13400	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	23700	N/A		mg/kg	23700	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	20800	N/A		mg/kg	20800	N/A	-	mg/kg	P18-14C-857434
P18-14	Aluminum	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	16800	N/A		mg/kg	16800	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	15000	N/A		mg/kg	15000	N/A	-	mg/kg	
P18-14	Aluminum	Metals	P18-14C2-1-M	NONE	482588	1350805	11-Mar-97	13300	N/A		mg/kg	13300	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	11.3	N/A		mg/kg	11.3	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	7.7	N/A		mg/kg	7.7	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	9.5	N/A		mg/kg	9.5	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	15.5	N/A		mg/kg	15.5	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	15.8	N/A		mg/kg	15.8	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	12.3	N/A		mg/kg	12.3	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	15.2	N/A		mg/kg	15.2	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	16.8	N/A		mg/kg	16.8	N/A	-	mg/kg	P18-14C-857434
P18-14	Lead	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	16.3	N/A		mg/kg	16.3	N/A	-	mg/kg	
P18-14	Lead	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	13.9	N/A		mg/kg	13.9	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	610	N/A		mg/kg	610	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	287	N/A		mg/kg	287	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	565	N/A		mg/kg	565	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	822	N/A		mg/kg	822	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	701	N/A		mg/kg	701	N/A	J	mg/kg	
P18-14	Manganese	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	609	N/A		mg/kg	609	N/A	J	mg/kg	
P18-14	Manganese	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	856	N/A		mg/kg	856	N/A	J	mg/kg	
P18-14	Manganese	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	442	N/A		mg/kg	442	N/A	J	mg/kg	P18-14C-857434
P18-14	Manganese	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	520	N/A		mg/kg	520	N/A	-	mg/kg	
P18-14	Manganese	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	443	N/A		mg/kg	443	N/A	J	mg/kg	
P18-14	Manganese	Metals	P18-14C2-1-M	NONE	482588	1350805	11-Mar-97	258	N/A		mg/kg	258	N/A	-	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-801415	NONE	482415	1350801	15-Jan-97	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-803468	NONE	482468	1350803	15-Jan-97	0.89	N/A	U	mg/kg	0.89	N/A	U	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-810450	NONE	482450	1350810	15-Jan-97	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-825514	NONE	482514	1350825	15-Jan-97	1.4	N/A	B	mg/kg	1.4	N/A	-	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-845544	NONE	482544.89	1350845.29	15-Jan-97	0.69	N/A	B	mg/kg	0.69	N/A	U	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-855515	NONE	482515	1350855	15-Jan-97	0.85	N/A	B	mg/kg	0.85	N/A	U	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-857434	NONE	482434	1350857	15-Jan-97	1.9	N/A	B	mg/kg	1.9	N/A	-	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-857434-D	NONE	482434	1350857	15-Jan-97	2.1	N/A	B	mg/kg	2.1	N/A	-	mg/kg	P18-14C-857434
P18-14	Molybdenum	Metals	P18-14C-889465	NONE	482465.32	1350889.71	10-Feb-97	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
P18-14	Molybdenum	Metals	P18-14C-891521	NONE	482521.66	1350891.27	16-Jan-97	1.2	N/A	B	mg/kg	1.2	N/A	U	mg/kg	
P18-14	Molybdenum	Metals	P18-14C2-1-M	NONE	482588	1350805	11-Mar-97	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	
P18-31	Aluminum	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	10100	N/A		mg/kg	10100	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	7210	N/A		mg/kg	7210	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	15100	N/A		mg/kg	15100	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-31	Aluminum	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	15900	N/A		mg/kg	15900	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	8860	N/A		mg/kg	8860	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	8860	N/A		mg/kg	8860	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	12700	N/A		mg/kg	12700	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	11100	N/A		mg/kg	11100	N/A	-	mg/kg	
P18-31	Aluminum	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	5790	N/A		mg/kg	5790	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	23.5	N/A		mg/kg	23.5	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	15.1	N/A		mg/kg	15.1	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	22.6	N/A		mg/kg	22.6	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	23	N/A		mg/kg	23	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	23.9	N/A		mg/kg	23.9	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	23.9	N/A		mg/kg	23.9	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	24	N/A		mg/kg	24	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	24	N/A		mg/kg	24	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	23.8	N/A		mg/kg	23.8	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	24.9	N/A		mg/kg	24.9	N/A	-	mg/kg	
P18-31	Lead	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	9.7	N/A		mg/kg	9.7	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	636	N/A	•	mg/kg	636	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	578	N/A		mg/kg	578	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	284	N/A	*	mg/kg	284	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	737	N/A	*	mg/kg	737	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	784	N/A	E	mg/kg	784	N/A	J	mg/kg	
P18-31	Manganese	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	784	N/A	E	mg/kg	784	N/A	J	mg/kg	
P18-31	Manganese	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	267	N/A	E	mg/kg	267	N/A	J	mg/kg	
P18-31	Manganese	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	267	N/A	E	mg/kg	267	N/A	J	mg/kg	
P18-31	Manganese	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	581	N/A	*	mg/kg	581	N/A	-	mg/kg	
P18-31	Manganese	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	469	N/A	E	mg/kg	469	N/A	J	mg/kg	
P18-31	Manganese	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	331	N/A		mg/kg	331	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-642718	NONE	482718.27	1350642.63	31-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-657677	NONE	482677.2	1350657.33	23-Jan-97	0.43	N/A	B	mg/kg	0.43	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-665778	NONE	482778.83	1350665.1	31-Dec-96	1.1	N/A	U	mg/kg	1.1	N/A	U	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-699708	NONE	482708.95	1350699.56	31-Dec-96	1.7	N/A	B	mg/kg	1.7	N/A	U	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	0.69	N/A	B	mg/kg	0.69	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-731719	NONE	482719.53	1350731.64	30-Dec-96	0.69	N/A	B	mg/kg	0.69	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	0.65	N/A	B	mg/kg	0.65	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-744782	NONE	482782	1350744	31-Dec-96	0.65	N/A	B	mg/kg	0.65	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-771742	NONE	482742.45	1350771.07	31-Dec-96	1.2	N/A	U	mg/kg	1.2	N/A	U	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-776776	NONE	482776.06	1350776.25	31-Dec-96	0.57	N/A	B	mg/kg	0.57	N/A	-	mg/kg	
P18-31	Molybdenum	Metals	P18-31C-778619	NONE	482619	1350778	19-Dec-96	0.9	N/A	B	mg/kg	0.9	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	14200	N/A		mg/kg	14200	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	14100	N/A		mg/kg	14100	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	16000	N/A	*	mg/kg	16000	N/A	J	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-32	Aluminum	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	12900	N/A		mg/kg	12900	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	5770	N/A		mg/kg	5770	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	8770	N/A		mg/kg	8770	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	10100	N/A		mg/kg	10100	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	12800	N/A		mg/kg	12800	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	7140	N/A		mg/kg	7140	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	16900	N/A		mg/kg	16900	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	7290	N/A		mg/kg	7290	N/A	-	mg/kg	
P18-32	Aluminum	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	7700	N/A		mg/kg	7700	N/A	-	mg/kg	P18-32C2-M-4
P18-32	Aluminum	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	12300	N/A		mg/kg	12300	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	24	N/A		mg/kg	24	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	25.8	N/A		mg/kg	25.8	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	28.1	N/A		mg/kg	28.1	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	26.6	N/A		mg/kg	26.6	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	21.6	N/A		mg/kg	21.6	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C2-1-MR	RE	482648.3	1350818.9	11-Mar-97	15.1	N/A		mg/kg	15.1	N/A	Z	mg/kg	
P18-32	Lead	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	18.3	N/A		mg/kg	18.3	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	21.9	N/A		mg/kg	21.9	N/A	-	mg/kg	
P18-32	Lead	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	21.8	N/A	N	mg/kg	21.8	N/A	J	mg/kg	
P18-32	Lead	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	22.9	N/A	N	mg/kg	22.9	N/A	J	mg/kg	
P18-32	Lead	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	16.8	N/A	N	mg/kg	16.8	N/A	J	mg/kg	
P18-32	Lead	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	17.9	N/A	N	mg/kg	17.9	N/A	J	mg/kg	
P18-32	Lead	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	26.3	N/A	N	mg/kg	26.3	N/A	J	mg/kg	P18-32C2-M-4
P18-32	Lead	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	18.5	N/A	N	mg/kg	18.5	N/A	J	mg/kg	
P18-32	Manganese	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	575	N/A	•	mg/kg	575	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	548	N/A	•	mg/kg	548	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	1060	N/A		mg/kg	1060	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	783	N/A	•	mg/kg	783	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	372	N/A	•	mg/kg	372	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	693	N/A		mg/kg	693	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	2110	N/A		mg/kg	2110	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	466	N/A		mg/kg	466	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	534	N/A		mg/kg	534	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	882	N/A		mg/kg	882	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	612	N/A		mg/kg	612	N/A	-	mg/kg	
P18-32	Manganese	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	614	N/A		mg/kg	614	N/A	-	mg/kg	P18-32C2-M-4
P18-32	Manganese	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	838	N/A		mg/kg	838	N/A	-	mg/kg	
P18-32	Molybdenum	Metals	P18-32C-801699	NONE	482699.91	1350801.15	31-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
P18-32	Molybdenum	Metals	P18-32C-835773	NONE	482773.62	1350835.21	31-Dec-96	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
P18-32	Molybdenum	Metals	P18-32C-844724	NONE	482724.27	1350844.62	31-Dec-96	5.4	N/A	U	mg/kg	5.4	N/A	UJ	mg/kg	
P18-32	Molybdenum	Metals	P18-32C-885708	NONE	482708.08	1350885.24	31-Dec-96	2.1	N/A	B	mg/kg	2.1	N/A	U	mg/kg	
P18-32	Molybdenum	Metals	P18-32C-885788	NONE	482788.57	1350885.56	31-Dec-96	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-1-MP	NONE	482648.3	1350818.9	11-Mar-97	1.4	N/A	B	mg/kg	1.4	N/A	U	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-2-MP	NONE	482640.1	1350874.5	11-Mar-97	1	N/A	B	mg/kg	1	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P18-32	Molybdenum	Metals	P18-32C2-M-1	NONE	482790.16	1350811.83	14-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-M-2	NONE	482742.28	1350901.01	14-Mar-97	1.2	N/A	U	mg/kg	1.2	N/A	UJ	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-M-3	NONE	482734.02	1350818.43	14-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-M-4	NONE	482789.83	1350926.77	14-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
P18-32	Molybdenum	Metals	P18-32C2-M-4-D	NONE	482789.83	1350926.77	14-Mar-97	1.3	N/A	U	mg/kg	1.3	N/A	UJ	mg/kg	P18-32C2-M-4
P18-32	Molybdenum	Metals	P18-32C2-M-5	NONE	482695.39	1350863.02	14-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
P19	Aluminum	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	12200	N/A		mg/kg	12200	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	13000	N/A		mg/kg	13000	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	13600	N/A		mg/kg	13600	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	7990	N/A		mg/kg	7990	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	20700	N/A		mg/kg	20700	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	15500	N/A		mg/kg	15500	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	4470	N/A		mg/kg	4470	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	9660	N/A		mg/kg	9660	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	4330	N/A		mg/kg	4330	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	14300	N/A		mg/kg	14300	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	7920	N/A		mg/kg	7920	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	10900	N/A		mg/kg	10900	N/A	-	mg/kg	
P19	Aluminum	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	15700	N/A		mg/kg	15700	N/A	-	mg/kg	
P19	Lead	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	26.8	N/A		mg/kg	26.8	N/A	-	mg/kg	
P19	Lead	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	25.1	N/A		mg/kg	25.1	N/A	-	mg/kg	
P19	Lead	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	26	N/A		mg/kg	26	N/A	-	mg/kg	
P19	Lead	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	18.1	N/A		mg/kg	18.1	N/A	-	mg/kg	
P19	Lead	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	21.5	N/A		mg/kg	21.5	N/A	-	mg/kg	
P19	Lead	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	27.9	N/A		mg/kg	27.9	N/A	-	mg/kg	
P19	Lead	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	9.5	N/A		mg/kg	9.5	N/A	-	mg/kg	
P19	Lead	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	27.1	N/A		mg/kg	27.1	N/A	-	mg/kg	
P19	Lead	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	21.9	N/A	N	mg/kg	21.9	N/A	J	mg/kg	
P19	Lead	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	16.4	N/A	N	mg/kg	16.4	N/A	J	mg/kg	
P19	Lead	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	29	N/A	N	mg/kg	29	N/A	J	mg/kg	
P19	Lead	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	31.1	N/A	N	mg/kg	31.1	N/A	J	mg/kg	
P19	Lead	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	16.7	N/A	N	mg/kg	16.7	N/A	J	mg/kg	
P19	Manganese	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	1050	N/A		mg/kg	1050	N/A	-	mg/kg	
P19	Manganese	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	1230	N/A		mg/kg	1230	N/A	J	mg/kg	
P19	Manganese	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	1460	N/A		mg/kg	1460	N/A	-	mg/kg	
P19	Manganese	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	674	N/A		mg/kg	674	N/A	J	mg/kg	
P19	Manganese	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	1480	N/A		mg/kg	1480	N/A	-	mg/kg	
P19	Manganese	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	1160	N/A		mg/kg	1160	N/A	-	mg/kg	
P19	Manganese	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	369	N/A		mg/kg	369	N/A	-	mg/kg	
P19	Manganese	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	1000	N/A		mg/kg	1000	N/A	-	mg/kg	
P19	Manganese	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	193	N/A		mg/kg	193	N/A	-	mg/kg	
P19	Manganese	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	1600	N/A		mg/kg	1600	N/A	-	mg/kg	
P19	Manganese	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	708	N/A		mg/kg	708	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P19	Manganese	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	1240	N/A		mg/kg	1240	N/A	-	mg/kg	
P19	Manganese	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	1320	N/A		mg/kg	1320	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-033360	NONE	483360	1351033	8-Jan-97	1.1	N/A	U	mg/kg	1.1	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-037553	NONE	483553	1351037	28-Jan-97	0.5	N/A	B	mg/kg	0.5	N/A	U	mg/kg	
P19	Molybdenum	Metals	P19C-267676	NONE	483676.1	1351267.69	15-Jan-97	1.3	N/A	B	mg/kg	1.3	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-270410	NONE	483410.72	1351270.44	28-Jan-97	0.72	N/A	B	mg/kg	0.72	N/A	U	mg/kg	
P19	Molybdenum	Metals	P19C-707586	NONE	483586.94	1350707.45	14-Jan-97	1	N/A	B	mg/kg	1	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-866450	NONE	483450	1350866	8-Jan-97	2.4	N/A	B	mg/kg	2.4	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-889299	NONE	483299.82	1350889.11	8-Jan-97	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C-951174	NONE	483174.37	1350951.79	8-Jan-97	1.5	N/A	B	mg/kg	1.5	N/A	-	mg/kg	
P19	Molybdenum	Metals	P19C2-M-1	NONE	483096.64	1350642.67	14-Mar-97	1.2	N/A	U	mg/kg	1.2	N/A	UJ	mg/kg	
P19	Molybdenum	Metals	P19C2-M-2	NONE	483780.45	1351030.82	14-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
P19	Molybdenum	Metals	P19C2-M-3	NONE	483544.9	1351226.23	14-Mar-97	1.5	N/A	B	mg/kg	1.5	N/A	UJ	mg/kg	
P19	Molybdenum	Metals	P19C2-M-4	NONE	483415.13	1350631.96	14-Mar-97	1.3	N/A	U	mg/kg	1.3	N/A	UJ	mg/kg	
P19	Molybdenum	Metals	P19C2-M-5	NONE	483598.46	1350910.36	14-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
P20	Aluminum	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	6340	N/A		mg/kg	6340	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	15300	N/A		mg/kg	15300	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	12400	N/A		mg/kg	12400	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	13700	N/A		mg/kg	13700	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	11600	N/A		mg/kg	11600	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	17200	N/A		mg/kg	17200	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	16200	N/A		mg/kg	16200	N/A	-	mg/kg	
P20	Aluminum	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	17100	N/A		mg/kg	17100	N/A	J	mg/kg	
P20	Aluminum	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	16600	N/A		mg/kg	16600	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	16.5	N/A		mg/kg	16.5	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	27.3	N/A		mg/kg	27.3	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	26.2	N/A		mg/kg	26.2	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	18.7	N/A		mg/kg	18.7	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	20.7	N/A		mg/kg	20.7	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	47.9	N/A		mg/kg	47.9	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	26	N/A		mg/kg	26	N/A	-	mg/kg	
P20	Lead	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	33.6	N/A		mg/kg	33.6	N/A	J	mg/kg	
P20	Lead	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	29.4	N/A		mg/kg	29.4	N/A	-	mg/kg	
P20	Manganese	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	654	N/A	E	mg/kg	654	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	1530	N/A	E	mg/kg	1530	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	1240	N/A	E	mg/kg	1240	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	1580	N/A		mg/kg	1580	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	1330	N/A	E	mg/kg	1330	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	1040	N/A	E	mg/kg	1040	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	1250	N/A	E	mg/kg	1250	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	1610	N/A	E	mg/kg	1610	N/A	J	mg/kg	
P20	Manganese	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	1080	N/A	E	mg/kg	1080	N/A	J	mg/kg	
P20	Molybdenum	Metals	P20-00C-1-M	NONE	483847.55	1350696	30-Jan-97	0.63	N/A	B	mg/kg	0.63	N/A	-	mg/kg	

005310

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
P20	Molybdenum	Metals	P20-00C-12-M	NONE	484213.49	1351334.26	29-Jan-97	0.32	N/A	U	mg/kg	0.32	N/A	U	mg/kg	
P20	Molybdenum	Metals	P20-00C-2-M	NONE	483934.38	1350965.04	29-Jan-97	0.56	N/A	B	mg/kg	0.56	N/A	-	mg/kg	
P20	Molybdenum	Metals	P20-00C-3-M	NONE	483825.59	1351082.01	29-Jan-97	0.33	N/A	B	mg/kg	0.33	N/A	U	mg/kg	
P20	Molybdenum	Metals	P20-00C-4-M	NONE	483958.82	1351302.77	30-Jan-97	0.39	N/A	B	mg/kg	0.39	N/A	-	mg/kg	
P20	Molybdenum	Metals	P20-00C-5-M	NONE	484081.27	1350676.89	29-Jan-97	0.25	N/A	U	mg/kg	0.25	N/A	U	mg/kg	
P20	Molybdenum	Metals	P20-00C-6-M	NONE	484085.79	1350967.33	29-Jan-97	0.27	N/A	U	mg/kg	0.27	N/A	-	mg/kg	
P20	Molybdenum	Metals	P20-00C-7-M	NONE	484113.88	1351071.95	29-Jan-97	0.4	N/A	U	mg/kg	0.4	N/A	UJ	mg/kg	
P20	Molybdenum	Metals	P20-00C-8-M	NONE	484144.61	1351229.48	29-Jan-97	0.84	N/A	B	mg/kg	0.84	N/A	-	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	13800	N/A	E	mg/kg	13800	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	13800	N/A	E	mg/kg	13800	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	15300	N/A	E	mg/kg	15300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	15300	N/A	E	mg/kg	15300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	11300	N/A	E	mg/kg	11300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	11300	N/A	E	mg/kg	11300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	15100	N/A	E	mg/kg	15100	N/A	J	mg/kg	PUMP1-C-11-MP
PUMP-1	Aluminum	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	15100	N/A	E	mg/kg	15100	N/A	J	mg/kg	PUMP1-C-11-MP
PUMP-1	Aluminum	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	13500	N/A	E	mg/kg	13500	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	13500	N/A	E	mg/kg	13500	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	10600	N/A	E	mg/kg	10600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	10600	N/A	E	mg/kg	10600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	16600	N/A	E	mg/kg	16600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	16600	N/A	E	mg/kg	16600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	12000	N/A	E	mg/kg	12000	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	12000	N/A	E	mg/kg	12000	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	15200	N/A	E	mg/kg	15200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	15200	N/A	E	mg/kg	15200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	15200	N/A	E	mg/kg	15200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	15200	N/A	E	mg/kg	15200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	13200	N/A	E	mg/kg	13200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	13200	N/A	E	mg/kg	13200	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	16300	N/A	E	mg/kg	16300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	16300	N/A	E	mg/kg	16300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	17600	N/A	E	mg/kg	17600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	17600	N/A	E	mg/kg	17600	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	16700	N/A	E	mg/kg	16700	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	16700	N/A	E	mg/kg	16700	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	13300	N/A	E	mg/kg	13300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	13300	N/A	E	mg/kg	13300	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	15500	N/A	E	mg/kg	15500	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	15500	N/A	E	mg/kg	15500	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	16400	N/A	E	mg/kg	16400	N/A	J	mg/kg	
PUMP-1	Aluminum	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	16400	N/A	E	mg/kg	16400	N/A	J	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	19.4	N/A	N	mg/kg	19.4	N/A	-	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Lead	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	19.4	N/A	N	mg/kg	19.4	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	18	N/A	N	mg/kg	18	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	18	N/A	N	mg/kg	18	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	15.8	N/A	N	mg/kg	15.8	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	15.8	N/A	N	mg/kg	15.8	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	16.6	N/A	N	mg/kg	16.6	N/A	-	mg/kg	PUMP1-C-11-MP
PUMP-1	Lead	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	16.6	N/A	N	mg/kg	16.6	N/A	-	mg/kg	PUMP1-C-11-MP
PUMP-1	Lead	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	13.6	N/A	N	mg/kg	13.6	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	13.6	N/A	N	mg/kg	13.6	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	17.9	N/A	N	mg/kg	17.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	17.9	N/A	N	mg/kg	17.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	29.2	N/A	N	mg/kg	29.2	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	29.2	N/A	N	mg/kg	29.2	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	28.9	N/A	N	mg/kg	28.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	28.9	N/A	N	mg/kg	28.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	13.9	N/A	N	mg/kg	13.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	13.9	N/A	N	mg/kg	13.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	13.9	N/A	N	mg/kg	13.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	13.9	N/A	N	mg/kg	13.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	16.2	N/A	N	mg/kg	16.2	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	16.2	N/A	N	mg/kg	16.2	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	20.7	N/A	N	mg/kg	20.7	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	20.7	N/A	N	mg/kg	20.7	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	17	N/A	N	mg/kg	17	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	17	N/A	N	mg/kg	17	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	15.4	N/A	N	mg/kg	15.4	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	15.4	N/A	N	mg/kg	15.4	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	14.9	N/A	N	mg/kg	14.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	14.9	N/A	N	mg/kg	14.9	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	16.3	N/A	N	mg/kg	16.3	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	16.3	N/A	N	mg/kg	16.3	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	16.7	N/A	N	mg/kg	16.7	N/A	-	mg/kg	
PUMP-1	Lead	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	16.7	N/A	N	mg/kg	16.7	N/A	-	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	1010	N/A	E*	mg/kg	1010	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	1010	N/A	E*	mg/kg	1010	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	658	N/A	E*	mg/kg	658	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	658	N/A	E*	mg/kg	658	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	663	N/A	E*	mg/kg	663	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	663	N/A	E*	mg/kg	663	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	672	N/A	E*	mg/kg	672	N/A	J	mg/kg	PUMP1-C-11-MP
PUMP-1	Manganese	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	672	N/A	E*	mg/kg	672	N/A	J	mg/kg	PUMP1-C-11-MP
PUMP-1	Manganese	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	554	N/A	E*	mg/kg	554	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	554	N/A	E*	mg/kg	554	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	564	N/A	E*	mg/kg	564	N/A	J	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Manganese	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	564	N/A	E*	mg/kg	564	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	909	N/A	E*	mg/kg	909	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	909	N/A	E*	mg/kg	909	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	871	N/A	E*	mg/kg	871	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	871	N/A	E*	mg/kg	871	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	736	N/A	E*	mg/kg	736	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	736	N/A	E*	mg/kg	736	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	503	N/A	E*	mg/kg	503	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	503	N/A	E*	mg/kg	503	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	633	N/A	E*	mg/kg	633	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	633	N/A	E*	mg/kg	633	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	1070	N/A	E*	mg/kg	1070	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	1070	N/A	E*	mg/kg	1070	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	1380	N/A	E*	mg/kg	1380	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	1380	N/A	E*	mg/kg	1380	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	766	N/A	E*	mg/kg	766	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	766	N/A	E*	mg/kg	766	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	659	N/A	E*	mg/kg	659	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	659	N/A	E*	mg/kg	659	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	844	N/A	E*	mg/kg	844	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	844	N/A	E*	mg/kg	844	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	875	N/A	E*	mg/kg	875	N/A	J	mg/kg	
PUMP-1	Manganese	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	875	N/A	E*	mg/kg	875	N/A	J	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-1-MP	NONE	479461	1350576	7-Mar-97	1	N/A	U	mg/kg	1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	0.89	N/A	U	mg/kg	0.89	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-10-MP	NONE	479499	1350598	9-Mar-97	0.89	N/A	U	mg/kg	0.89	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-11-MP	NONE	479516	1350616	9-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	PUMP1-C-11-MP
PUMP-1	Molybdenum	Metals	PUMP1-C-11-MP-D	NONE	479516	1350616	9-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	PUMP1-C-11-MP
PUMP-1	Molybdenum	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-12-MP	NONE	479511	1350630	9-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-13-MP	NONE	479538	1350583	9-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-14-MP	NONE	479541	1350596	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-15-MP	NONE	479520	1350607	9-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-16-MP	NONE	479541	1350624	9-Mar-97	0.9	N/A	U	mg/kg	0.9	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-2-MP	NONE	479452	1350600	7-Mar-97	0.92	N/A	U	mg/kg	0.92	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
PUMP-1	Molybdenum	Metals	PUMP1-C-3-MP	NONE	479460	1350617	7-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-4-MP	NONE	479451	1350629	7-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-5-MP	NONE	479475	1350576	7-Mar-97	1.1	N/A	U	mg/kg	1.1	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-6-MP	NONE	479480	1350600	7-Mar-97	0.96	N/A	U	mg/kg	0.96	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-7-MP	NONE	479484	1350617	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-8-MP	NONE	479486	1350640	9-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
PUMP-1	Molybdenum	Metals	PUMP1-C-9-MP	NONE	479503	1350581	9-Mar-97	0.95	N/A	U	mg/kg	0.95	N/A	UJ	mg/kg	
Q17	Aluminum	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	13100	N/A		mg/kg	13100	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	9940	N/A		mg/kg	9940	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	9300	N/A		mg/kg	9300	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	9470	N/A		mg/kg	9470	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	9310	N/A		mg/kg	9310	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	15600	N/A	*	mg/kg	15600	N/A	J	mg/kg	
Q17	Aluminum	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	7950	N/A		mg/kg	7950	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C2-M-1	NONE	481230	1351604	24-Mar-97	11600	N/A		mg/kg	11600	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C2-M-2	NONE	481220	1351606	24-Mar-97	15400	N/A		mg/kg	15400	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C2-M-2-D	NONE	481220	1351606	24-Mar-97	11000	N/A		mg/kg	11000	N/A	-	mg/kg	Q17C2-M-2
Q17	Aluminum	Metals	Q17C2-M-3	NONE	481220	1351687	24-Mar-97	8430	N/A		mg/kg	8430	N/A	-	mg/kg	
Q17	Aluminum	Metals	Q17C2-M-3-D	NONE	481220	1351687	24-Mar-97	9390	N/A		mg/kg	9390	N/A	-	mg/kg	Q17C2-M-3
Q17	Lead	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	19	N/A	*	mg/kg	19	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	19.1	N/A		mg/kg	19.1	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	17.8	N/A		mg/kg	17.8	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	18.9	N/A	*	mg/kg	18.9	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	14.9	N/A	*	mg/kg	14.9	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	20.2	N/A		mg/kg	20.2	N/A	-	mg/kg	
Q17	Lead	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	16.7	N/A	*	mg/kg	16.7	N/A	-	mg/kg	
Q17	Manganese	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	2430	N/A	*	mg/kg	2430	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	1450	N/A	*	mg/kg	1450	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	796	N/A	*	mg/kg	796	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	702	N/A	*	mg/kg	702	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	618	N/A	*	mg/kg	618	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	340	N/A		mg/kg	340	N/A	-	mg/kg	
Q17	Manganese	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	1100	N/A	*	mg/kg	1100	N/A	J	mg/kg	
Q17	Manganese	Metals	Q17C2-M-1	NONE	481230	1351604	24-Mar-97	726	N/A	N	mg/kg	726	N/A	R	mg/kg	
Q17	Manganese	Metals	Q17C2-M-2	NONE	481220	1351606	24-Mar-97	267	N/A	N	mg/kg	267	N/A	R	mg/kg	
Q17	Manganese	Metals	Q17C2-M-2-D	NONE	481220	1351606	24-Mar-97	312	N/A	N	mg/kg	312	N/A	R	mg/kg	Q17C2-M-2
Q17	Manganese	Metals	Q17C2-M-3	NONE	481220	1351687	24-Mar-97	1240	N/A	N	mg/kg	1240	N/A	R	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q17	Manganese	Metals	Q17C2-M-3-D	NONE	481220	1351687	24-Mar-97	1750	N/A	N	mg/kg	1750	N/A	J	mg/kg	Q17C2-M-3
Q17	Molybdenum	Metals	Q17C-556087	NONE	482087.31	1351556.73	14-Nov-96	1.8	N/A	B	mg/kg	1.8	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C-561796	NONE	481796.19	1351561.45	27-Nov-96	0.97	N/A	U	mg/kg	0.97	N/A	-	mg/kg	
Q17	Molybdenum	Metals	Q17C-589600	NONE	481600.82	1351589.64	15-Nov-96	0.99	N/A	U	mg/kg	0.99	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C-697433	NONE	481433.71	1351697.18	15-Nov-96	0.95	N/A	B	mg/kg	0.95	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C-749987	NONE	481987.52	1351749.47	14-Nov-96	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C-750121	NONE	482121.72	1351750.66	14-Nov-96	4.6	N/A	U	mg/kg	4.6	N/A	UJ	mg/kg	
Q17	Molybdenum	Metals	Q17C-833783	NONE	481783.87	1351833.19	14-Nov-96	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C2-M-1	NONE	481230	1351604	24-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C2-M-2	NONE	481220	1351606	24-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C2-M-2-D	NONE	481220	1351606	24-Mar-97	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	Q17C2-M-2
Q17	Molybdenum	Metals	Q17C2-M-3	NONE	481220	1351687	24-Mar-97	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
Q17	Molybdenum	Metals	Q17C2-M-3-D	NONE	481220	1351687	24-Mar-97	0.97	N/A	U	mg/kg	0.97	N/A	U	mg/kg	Q17C2-M-3
Q18	Aluminum	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	7770	N/A		mg/kg	7770	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	13900	N/A		mg/kg	13900	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	9590	N/A		mg/kg	9590	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	4760	N/A		mg/kg	4760	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	10700	N/A		mg/kg	10700	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	10600	N/A		mg/kg	10600	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	9820	N/A		mg/kg	9820	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	13400	N/A		mg/kg	13400	N/A	-	mg/kg	
Q18	Aluminum	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	9590	N/A		mg/kg	9590	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	18	N/A		mg/kg	18	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	15.5	N/A		mg/kg	15.5	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	21.4	N/A		mg/kg	21.4	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	12.3	N/A		mg/kg	12.3	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	20.7	N/A	*	mg/kg	20.7	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	22.9	N/A	*	mg/kg	22.9	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	19.1	N/A	*	mg/kg	19.1	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	15.6	N/A	*	mg/kg	15.6	N/A	-	mg/kg	
Q18	Lead	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	17.5	N/A	*	mg/kg	17.5	N/A	-	mg/kg	
Q18	Manganese	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	619	N/A	*	mg/kg	619	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	1460	N/A	*	mg/kg	1460	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	881	N/A	*	mg/kg	881	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	798	N/A	*	mg/kg	798	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	1010	N/A	*	mg/kg	1010	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	1040	N/A	*	mg/kg	1040	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	681	N/A	*	mg/kg	681	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	220	N/A	*	mg/kg	220	N/A	J	mg/kg	
Q18	Manganese	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	1430	N/A	*	mg/kg	1430	N/A	J	mg/kg	
Q18	Molybdenum	Metals	Q18C-456620	NONE	482620.23	1351456.76	26-Nov-96	0.95	N/A	U	mg/kg	0.95	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-468410	NONE	482410.28	1351468.44	27-Nov-96	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-472805	NONE	482805.68	1351472.81	26-Nov-96	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q18	Molybdenum	Metals	Q18C-499367	NONE	482367.1	1351499.76	27-Nov-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-609538	NONE	482538.66	1351609.25	14-Nov-96	1.3	N/A	B	mg/kg	1.3	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-676337	NONE	482337.92	1351676.53	14-Nov-96	2.1	N/A	B	mg/kg	2.1	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-770703	NONE	482703.97	1351770.16	13-Nov-96	1.1	N/A	B	mg/kg	1.1	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-845776	NONE	482776.59	1351845.42	13-Nov-96	1.5	N/A	B	mg/kg	1.5	N/A	U	mg/kg	
Q18	Molybdenum	Metals	Q18C-850814	NONE	482814.23	1351850.24	13-Nov-96	2.2	N/A	B	mg/kg	2.2	N/A	U	mg/kg	
Q19	Aluminum	Metals	Q19C-413672	NONE	483672	1351413	24-Mar-97	11000	N/A		mg/kg	11000	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	9950	N/A		mg/kg	9950	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	9310	N/A		mg/kg	9310	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	10000	N/A		mg/kg	10000	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	19600	N/A		mg/kg	19600	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	7190	N/A		mg/kg	7190	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	7970	N/A		mg/kg	7970	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	22000	N/A		mg/kg	22000	N/A	-	mg/kg	
Q19	Aluminum	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	13100	N/A		mg/kg	13100	N/A	-	mg/kg	
Q19	Lead	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	19.4	N/A	N*	mg/kg	19.4	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	24.2	N/A	E	mg/kg	24.2	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	20.1	N/A		mg/kg	20.1	N/A	-	mg/kg	
Q19	Lead	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	15.3	N/A	E	mg/kg	15.3	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	56.3	N/A	N*	mg/kg	56.3	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	19.8	N/A	N*	mg/kg	19.8	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	15.6	N/A	E	mg/kg	15.6	N/A	J	mg/kg	
Q19	Lead	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	16.8	N/A	E	mg/kg	16.8	N/A	J	mg/kg	
Q19	Manganese	Metals	Q19C-413672	NONE	483672	1351413	24-Mar-97	964	N/A	N	mg/kg	964	N/A	R	mg/kg	
Q19	Manganese	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	781	N/A		mg/kg	781	N/A	-	mg/kg	
Q19	Manganese	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	3220	N/A	*	mg/kg	3220	N/A	J	mg/kg	
Q19	Manganese	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	1150	N/A	*	mg/kg	1150	N/A	J	mg/kg	
Q19	Manganese	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	821	N/A	*	mg/kg	821	N/A	J	mg/kg	
Q19	Manganese	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	1380	N/A		mg/kg	1380	N/A	-	mg/kg	
Q19	Manganese	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	736	N/A		mg/kg	736	N/A	-	mg/kg	
Q19	Manganese	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	317	N/A	*	mg/kg	317	N/A	J	mg/kg	
Q19	Manganese	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	714	N/A	*	mg/kg	714	N/A	J	mg/kg	
Q19	Molybdenum	Metals	Q19C-413672	NONE	483672	1351413	24-Mar-97	1	N/A	U	mg/kg	1	N/A	U	mg/kg	
Q19	Molybdenum	Metals	Q19C-464417	NONE	483417.31	1351464.14	22-Nov-96	0.98	N/A	U	mg/kg	0.98	N/A	U	mg/kg	
Q19	Molybdenum	Metals	Q19C-564505	NONE	483502.33	1351564.2	5-Nov-96	1.7	N/A	B	mg/kg	1.7	N/A	-	mg/kg	
Q19	Molybdenum	Metals	Q19C-592626	NONE	483626	1351592	15-Nov-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
Q19	Molybdenum	Metals	Q19C-631785	NONE	483785.49	1351631.81	5-Nov-96	1.5	N/A	B	mg/kg	1.5	N/A	-	mg/kg	
Q19	Molybdenum	Metals	Q19C-640364	NONE	483364.89	1351640.57	22-Nov-96	0.93	N/A	U	mg/kg	0.93	N/A	U	mg/kg	
Q19	Molybdenum	Metals	Q19C-655190	NONE	483190.37	1351655.51	22-Nov-96	0.92	N/A	U	mg/kg	0.92	N/A	U	mg/kg	
Q19	Molybdenum	Metals	Q19C-858287	NONE	483278.56	1351858.32	5-Nov-96	1.5	N/A	B	mg/kg	1.5	N/A	-	mg/kg	
Q19	Molybdenum	Metals	Q19C-890780	NONE	483780.72	1351890.34	5-Nov-96	1.1	N/A	B	mg/kg	1.1	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	12100	N/A		mg/kg	12100	N/A	-	mg/kg	

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								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20	Aluminum	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	6230	N/A		mg/kg	6230	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	14900	N/A		mg/kg	14900	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	15700	N/A		mg/kg	15700	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	14100	N/A		mg/kg	14100	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	11900	N/A		mg/kg	11900	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	10800	N/A		mg/kg	10800	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	13400	N/A		mg/kg	13400	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	10700	N/A		mg/kg	10700	N/A	J	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-3	NONE	484157.41	1351993.9	14-Mar-97	13300	N/A	*	mg/kg	13300	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-4	NONE	484534.77	1351979.18	14-Mar-97	13600	N/A	*	mg/kg	13600	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-5	NONE	484426.38	1352121.05	14-Mar-97	13900	N/A	*	mg/kg	13900	N/A	-	mg/kg	
Q20	Aluminum	Metals	Q20C2-M-6	NONE	483905.84	1351710.15	13-Mar-97	19400	N/A	*	mg/kg	19400	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	26.3	N/A		mg/kg	26.3	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	8.7	N/A		mg/kg	8.7	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	29.2	N/A		mg/kg	29.2	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	24.6	N/A		mg/kg	24.6	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	24.5	N/A		mg/kg	24.5	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	26.9	N/A		mg/kg	26.9	N/A	-	mg/kg	
Q20	Lead	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	22.7	N/A	E	mg/kg	22.7	N/A	J	mg/kg	
Q20	Lead	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	31.9	N/A	N	mg/kg	31.9	N/A	J	mg/kg	
Q20	Lead	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	28.2	N/A	N	mg/kg	28.2	N/A	J	mg/kg	
Q20	Manganese	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	1260	N/A		mg/kg	1260	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	927	N/A		mg/kg	927	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	1560	N/A		mg/kg	1560	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	1270	N/A		mg/kg	1270	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	1400	N/A		mg/kg	1400	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	1170	N/A		mg/kg	1170	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	426	N/A	*	mg/kg	426	N/A	J	mg/kg	
Q20	Manganese	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	1780	N/A		mg/kg	1780	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	1420	N/A		mg/kg	1420	N/A	J	mg/kg	
Q20	Manganese	Metals	Q20C2-M-3	NONE	484157.41	1351993.9	14-Mar-97	1610	N/A	*	mg/kg	1610	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C2-M-4	NONE	484534.77	1351979.18	14-Mar-97	1060	N/A	*	mg/kg	1060	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C2-M-5	NONE	484426.38	1352121.05	14-Mar-97	942	N/A	*	mg/kg	942	N/A	-	mg/kg	
Q20	Manganese	Metals	Q20C2-M-6	NONE	483905.84	1351710.15	13-Mar-97	1110	N/A	*	mg/kg	1110	N/A	-	mg/kg	
Q20	Molybdenum	Metals	Q20C-006313	NONE	484313.74	1352006.2	10-Feb-97	0.48	N/A	B	mg/kg	0.48	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-113140	NONE	484140.46	1352113.5	10-Feb-97	0.48	N/A	B	mg/kg	0.48	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-509996	NONE	483996.58	1351509.91	11-Feb-97	0.72	N/A	B	mg/kg	0.72	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-567281	NONE	484281.15	1351567.93	11-Feb-97	0.55	N/A	B	mg/kg	0.55	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-714120	NONE	484120.22	1351714.61	11-Feb-97	0.7	N/A	B	mg/kg	0.7	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-870102	NONE	484102.32	1351870.44	10-Feb-97	0.74	N/A	B	mg/kg	0.74	N/A	U	mg/kg	
Q20	Molybdenum	Metals	Q20C-891879	NONE	483879.15	1351891.56	5-Nov-96	1.2	N/A	B	mg/kg	1.2	N/A	-	mg/kg	
Q20	Molybdenum	Metals	Q20C2-M-1	NONE	484289.89	1351454.5	17-Mar-97	1.2	N/A	U	mg/kg	1.2	N/A	UJ	mg/kg	
Q20	Molybdenum	Metals	Q20C2-M-2	NONE	484216.29	1351674.01	17-Mar-97	1.7	N/A	U	mg/kg	1.7	N/A	UJ	mg/kg	
Q20	Molybdenum	Metals	Q20C2-M-3	NONE	484157.41	1351993.9	14-Mar-97	1.2	N/A	U	mg/kg	1.2	N/A	UJ	mg/kg	

								Laboratory Data				Validation Data				
CU Name	Parameter	CU Type	Sample ID	Suffix	Northing	Easting	Sample Date	Lab Result	TPU	Qualifier	Units	Val. Result	TPU	Qualifier	Units	Duplicate of
Q20	Molybdenum	Metals	Q20C2-M-4	NONE	484534.77	1351979.18	14-Mar-97	1.3	N/A	U	mg/kg	1.3	N/A	UJ	mg/kg	
Q20	Molybdenum	Metals	Q20C2-M-5	NONE	484426.38	1352121.05	14-Mar-97	1.3	N/A	U	mg/kg	1.3	N/A	UJ	mg/kg	
Q20	Molybdenum	Metals	Q20C2-M-6	NONE	483905.84	1351710.15	13-Mar-97	1.2	N/A	U	mg/kg	1.2	N/A	UJ	mg/kg	

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Appendix D

Summary A1PI Certification PSPs

APPENDIX D
SUMMARY OF A1PI PSPs

This appendix contains a synopsis of each Area 1 Phase 1 (A1PI) Project Specific Plan (PSP) used as reference in the preparation of this Certification Report and a summary of each variance to these PSPs.

D.1 SYNOPSIS OF CERTIFICATION PSPs

D.1.1 PSP for OSDF Support Areas Certification Sampling

This PSP describes the data collection activities performed to support sampling and analysis for certification of support areas associated with construction of the On-Site Disposal Facility (OSDF). These support areas are:

- A portion of the existing North Access Road;
- The footprint of the planned OSDF sediment basin;
- The sediment trap in A1PI; and
- The footprint of the planned OSDF Pumping Station.

The OSDF footprint will include land currently used for the existing North Access Road. As a result, a new North Access Road will be constructed to bypass the existing road, which will be demolished. This will accommodate traffic while making room for the OSDF. The portion of the existing road to be removed must be characterized in order to certify that there are no contaminants present above the Final Remediation Levels (FRLs) beneath its surface or in the ditches.

A sediment basin was constructed to receive runoff from the OSDF footprint while construction takes place. This basin will receive sediment from non-remediated areas and prevent it from flowing to remediated areas.

The sediment trap is within the OSDF footprint and will be removed before OSDF construction begins. Certification samples will be collected before the sediment trap is removed and, once the area is certified, the material will be removed to a stockpile and then placed in the OSDF when waste placement begins.

The OSDF pumping station will be installed to transfer leachate from the OSDF to storage and treatment facilities. The pumping station footprint will be certified at the current grade to demonstrate that the FRLs have been attained.

D.1.2 PSP for A1PI Remedial Action Work Plan Certification Sampling

This PSP describes the field data collection activities and identifies analyses to be performed in support of the A1PI Remedial Action Work Plan (RAWP). RAWP activities were divided into four different scopes:

- Waste acceptance criteria (WAC) attainment
- Precertification
- Part A Comparability Study
- Certification

WAC attainment sampling was done before excavation. Soils with contaminants exceeding WAC were excavated and segregated for eventual off-site disposal.

Precertification was conducted before and during excavation to determine if areas were sufficiently prepared for final certification sampling. The sampling involved use of detector systems as well as physical sampling and laboratory analysis.

Certification sampling was conducted in CUs when historical modeled data indicated that levels of contaminants were near or below FRLs for retained ASCOCs. All certification samples were submitted to an off-site laboratory for analysis. Data obtained from field test kits and real-time detector systems were not used for certification sampling.

D.1.3 PSP for Soil Sampling to Address the Radium-226 Certification Failure in CU Q18-40

Analytical data collected for the Operable Unit 5 Remedial Investigation indicated that removal of the top six inches of soil would be sufficient to capture all soil contaminated in excess of FRLs for all ASCOCs, including radium-226. After this soil was removed, random certification samples were collected in A1PI CUs. Based on statistical analysis of collected certification data, CU Q18-40 failed certification for radium-226. The contamination resulting in the failure appears to be localized. To address this finding, the CU was subdivided into two new CUs, Q18-40A and Q18-40B, along a line running east to west. These CUs were resampled, based on a systematic random pattern, to delineate the depth of contamination in order to designate removal of soil contaminated above the FRL for radium-226. In addition, selected soil samples were collected and analyzed for WAC attainment before the excavated soil was designated for placement in the OSDF.

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D.1.4 PSP for Soil Sampling to Address the Arsenic Certification Failure in CU P17-32

Analytical data collected for the Operable Unit 5 Remedial Investigation indicated that removal of the top six inches of soil would be sufficient to capture all soil contaminated in excess of FRLs for all ASCOCs, including arsenic, a secondary ASCOC. After this soil was removed, random certification samples were collected in A1PI CUs. Based on statistical analysis, CU P17-32 failed certification for arsenic; the contamination does not appear to be localized. As a result, the entire CU (P17-32) was re-excavated an additional 6" to remove soil with concentrations above the FRLs.

This PSP ensured the sample design and data collection were sufficient to delineate and remove the soil arsenic concentrations above the FRL of 12 ppm. Soil samples were also collected and analyzed for WAC attainment to determine if the soil could be placed in the OSDF. In addition, the sample design ensured that sample collection was sufficient for certification purposes, since certification of the uppermost layer of residual soil for arsenic was conducted simultaneously using split samples.

D.2 PSP VARIANCES

D.2.1 Variances for the OSDF Support Areas Certification Sampling PSP

The PSP specified that one four-inch certification interval was to be collected from the native clay soil for all identified sample locations. The proposed variance was that an additional four-inch interval be collected immediately below the certification interval and archived. This archival interval was analyzed to determine whether preliminary analysis of the certification interval soils indicated a potential need to excavate the in-place soils corresponding to the certification interval. This measure saved time by avoiding remobilization of the field technicians to collect more samples. This variance was approved on March 7, 1997.

Another proposed variance was to remove the suffix "V" from the station number in the sample tables shown in Appendix B of the PSP. However, this suffix, which denotes an archive sample, was removed since the sampling approach was revised late in the development of the PSP. It was removed from the text, but not from the corresponding tables. The variance mandating removal of the suffix ensured consistency between text and tables. A corresponding change was made in the Soils Master List Database so the samples could be matched when returned from the analytical laboratory. This variance was approved on March 7, 1997.

The third variance was to instruct field personnel to add another table to the PSP analytical tables, Table 3-3, to certification sampling conducted on the North Access Road. This third variance to the OSDF Support Areas PSP ensured correspondence to TAL A1PI-C, including cesium-137 and thorium-230 in the requested analysis list. The additional data was determined necessary by the project lead for informational and technical purposes to evaluate isotopic results in the event an intra-laboratory uncertainty became associated with primary COC data. This variance was approved on March 7, 1997.

The fourth variance to the OSDF Support Areas PSP was to add a "D" suffix to all duplicate samples collected, leaving the primary sample number unchanged. Originally, primary and duplicate samples were assigned the same sample identifier to keep the duplicate sample blind to the laboratory. However, distinction between the two became impossible when entering sample results in the database for data handling and reporting purposes. It was determined by the Quality Assurance division that the potential problems outweighed the value of being the duplicate sample blind to the laboratory. Subsequently, a method was implemented that kept all duplicates sent to the external lab blind but allowed differentiation by on-site data management. This variance was approved on March 24, 1997.

The fifth variance to the OSDF Support Areas PSP allowed for eight WAC and WAC archive samples collected from the North Access Road roadbed to be sent for certification analysis. The samples in question exhibited more fill material below the asphalt and macadam than other samples. Sending these samples for certification analysis meant that there were more than two certification intervals per location at different depth intervals. This variance was approved on March 24, 1997.

The sixth variance to the OSDF Support Areas PSP allowed Geoprobe and certification sample collection under the North Access Road roadbed to be performed using one long core barrel in addition to the multistep process identified in the PSP. The multistep process was found to be impossible at some sampling locations under the roadbed because of an unusually large amount of precipitation which occurred prior to sampling. Because the soil was saturated, withdrawing the sample from the hole to change core barrels would cause the hole to collapse, and the hole would have to be re-bored to access the certification layer. Using one long core barrel prevented re-boring. This variance was approved on March 18, 1997.

The seventh variance to the OSDF Support Areas PSP was to change the duplicate sample location in CU1 of the North Access Road from NAR 1-14 to NAR 1-16. This was necessary because the field sampling technicians did not realize that NAR 1-14 was the duplicate sample location until after the sample was

collected and the crew had moved on to NAR 1-16. Resampling NAR 1-14 would have required resampling the location and closing the North Access Road to traffic for a longer period. This variance was approved on March 18, 1997.

The eighth variance to the OSDF Support Areas PSP was to modify the sample depths for WAC attainment and certification samples based on the soil descriptions at each core location. Originally, the PSP specified approximate sample depth intervals based on a test hole excavation to determine the lithology. However, after additional core sampling and field observations, it was determined that the area lithology was more variable across the five CUs than previously thought. A project geologist was called upon to select new intervals for WAC analysis, certification analysis and archival based on visual soil descriptions. This variance was approved on April 9, 1997.

The ninth variance to the OSDF Support Areas PSP allowed for an investigative sample interval to be collected and analyzed at six locations in the sediment basin. The investigative sample was determined necessary to provide information on soil below the non-native material fragments found at each of these six locations. This variance was approved on April 17, 1997.

The final variance to the OSDF Support Areas PSP involved the identification of two samples locations from which duplicate samples were to be collected from CU OSB3 based on the Sediment Basin Certification Sample table in the PSP. This contradicts with Section 5.3 of the PSP, which specified that one duplicate per analytical group was required for each CU. Thus, one of the duplicates from CU3 was removed. This variance was approved on April 21, 1997.

D.2.2 Variances to the A1PI Remedial Action Work Plan Certification Sampling PSP

The first variance to the A1PI Remedial Action Work Plan Certification Sampling PSP proposed clearing a 6-inch rather than a 12-inch area of vegetation prior to soil sample collection. The vegetation was removed using a gloved hand or a clean stainless steel trowel instead of only a stainless steel trowel as specified in the PSP. This was to accommodate occasions in which grass removal could be done more effectively by hand instead of with a trowel. This variance was approved on February 27. 1997.

The PSP specified that one four-inch certification interval was to be collected from the native clay soil for all sample locations identified in the PSP. The second variance proposed that an additional four-inch interval be collected immediately below the certification interval as an archive. This second interval was

analyzed to determine whether preliminary analysis of the certification interval soils indicated a potential need to excavate the in-place soils corresponding to the certification interval. This measure saved time by avoiding remobilization of the field technicians to collect more samples. This variance was approved on March 7, 1997.

The third variance to the A1PI Remedial Action Work Plan Certification Sampling PSP was to remove the suffix "V" from the station number in the sample tables shown in Appendix B of the PSP. However, this suffix, which denotes an archive sample, was removed since the sampling approach was revised late in the development of the PSP. The "V" suffix was removed from the text, but not from the corresponding tables. Removing the suffix ensured consistency between text and tables. A corresponding change was made in the Soils Master List Database so the samples could be matched when returned from the analytical laboratory. This variance was approved on March 7, 1997.

The fourth variance to the A1PI Remedial Action Work Plan Certification Sampling PSP was to instruct field personnel to add another table, Table 3-3, to certification sampling for the North Access Road. This was to ensure correspondence to TAL A1PI-C, including cesium-137 and thorium-230 in the requested analysis list. The additional data was determined necessary by the project lead for informational and technical purposes to evaluate isotopic results in the event an uncertainty became associated with primary COC data. This variance was approved on March 7, 1997.

The fifth variance to the A1PI Remedial Action Work Plan Certification Sampling PSP was to add a "D" suffix to all duplicate samples collected, leaving the primary sample number the same. Originally, primary and duplicate samples were assigned the same sample identifier to keep the duplicate sample blind to the laboratory. However, distinction between the two became impossible when entering sample results in the database for data handling and reporting purposes. It was determined by the Quality Assurance division that the potential problems outweighed the value of being the duplicate sample blind to the laboratory. This variance was approved on March 24, 1997.

The sixth variance to the A1PI Remedial Action Work Plan Certification Sampling PSP was to allow for detailed precertification gamma surveys to be conducted in the northern portion of CU O20 and CU N19. A sample location indicated total uranium presence above the FRL, and detailed gamma readings were required to delineate the lateral extent of contamination of the "hot spot" and to potentially quantify any other elevated gamma readings in the area. This variance was approved on April 4, 1997.

The seventh variance to the A1PI Remedial Action Work Plan Certification Sampling PSP allowed total HPGe gamma readings to be conducted in CUs O19 and O20, in the vicinity of the newly identified Native American Repatriation Site. The Repatriation Site is to be moved from its original planned location in CU N19 to a more favorable location in either O19 or O20. The variance identified the sampling pattern and specified detector heights for HPGe readings. This variance was approved on May 15, 1997.

The eighth variance to the A1PI Remedial Action Work Plan Certification Sampling PSP allowed continuous NaI gamma readings to be conducted in the Pine Plantation in the northeast portion of the FEMP. This two-phase survey supplemented the HPGe readings collected during the A1PI certification effort. This variance was approved on May 15, 1997.

D.2.3 Variances to the Soil Sampling to Address the Arsenic Certification Failure in CU P17-32 PSP

The first variance was to relocate two sample locations beyond the three feet permitted in the PSP. This avoided having the sample locations on an elevated grassy area. All the other sample locations were on the post-excavation soil surface, and all sample intervals across the CU needed to be consistent. This variance was approved on April 23, 1997.

The second variance to the Soil Sampling to Address the Arsenic Certification Failure in CU P17-32 PSP was to correct two errors. One error was that arsenic analysis was to be conducted according to the TAL F list. This was corrected to the TAL J list. The second error was that archive samples were to be collected and stored at 4° C. This was erroneous because no archive samples were identified for collection in the sample list, and the WAC analysis was for total uranium, which does not require cooling to 4° C. This variance was approved on April 23, 1997.

D.2.4 Other Relevant Variances

The first variance was to change the total uranium analysis requested in the PSP from the ICPMS analytical method to Bromo PADAP. The latter method was used because the on-site laboratory did not have personnel available to conduct the ICPMS analysis for this rush job over a weekend. This variance was approved on April 7, 1997.

The second variance directed the field sampling team to conduct activities not specified in the PSP. These activities were to collect a minimum of four physical soil samples from the hot spot excavation in CU O20. The variance directed obtaining one sample from the northing and easting coordinates located in the center

of the designated hot spot, submitting it for on-site analysis using Bromo PADAP and colormetric analyses, and obtaining three additional samples form the excavation boundaries. These activities were conducted to ensure that the hot spot excavation was successful and that a certification sample was obtained from the area after the contaminated soil was removed. This variance was approved on April 8, 1997.

Appendix E

A1PI Certification Comment Responses

-837

Comment: 1 ALARA Goal 2-10-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: Pg #: Line #: Code: major

Original Comment #:

Comment: The Work Plan does not address the ALARA goal of remediating soils to a level of 50 ppm total uranium. Quoting from Section 9.2 of the OU 5 ROD. "The FEMP will apply available hand-held instruments to help guide excavation and assist in identifying any isolated areas of higher contamination to help attain this ALARA goal." The Area 1 Phase I Remedial Action Work Plan allows known areas of contamination in excess of this level to remain as long as the CU passes the statistical tests. This is in direct contradiction to the ROD. Ohio EPA expects a plan to address this contradiction in the next submittal of this work plan.

Response: The remedial ALARA goal of an average concentration of 50 mg/kg of total uranium in residual soils was not an issue in A1PI.

Action: The ALARA process and strategy will be further defined in the SEP.

Comment: 3 Sample Collection Depth 2-10-97
Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-3 Line #: 1 Code: C
Original Comment:

Comment: It is unclear why the precertification samples are collected from a depth of four inches while the WAC acceptance samples are collected six inches below grade.

Response: For A1PI certification the sample collection depths were as follows:

Waste Acceptance Criteria Samples - 0-6 inches
Certification Samples - 0-4 inches

The 0-6 inch interval was selected for WAC sampling because excavation was planned for 6 inch lifts, or in multiples of 6 inch lifts. The 6 inch core WAC sample is therefore representative for the excavated 6 inch lift. The 0-4 inch interval for the certification sample was used to avoid biasing the sample with less impacted soil. Since the contamination in A1PI is top down, the 4 inch core would have a greater surface area to volume ratio, and thus be more conservative if contamination is present. Note that in the CUs which initially failed (P17-32 for arsenic, Q18-40 for radium-226, and O20 for a total uranium "hot spot"), the postexcavation certification samples were 0-6 inches. This interval was selected to best represent the excavation lifts.

Action: The sampling approach for future WAC attainment and certification sampling will be discussed in the SEP.

Comment: 4 Field Decision Process in CU Failure 2-10-97
Commenting Organization: OEPA Commentor:
Section #: 7 Pg #: 7-16 Line #: 2-23 Code: C
Original Comment:

Comment: Revision of the field decision process in event of CU failure during certification is necessary. The four conditions shown in the referenced text should be modified as follows:

1. The CU's average is below the FRL but the CU fails due to high variability. In this case the archived samples will be analyzed, added to the certification data set, and the certification analysis will be performed. If the CU still fails the certification analysis then proceed to 2, 3, or 4, as appropriate.

2. The CU fails because of widespread contamination. In this case the entire CU is excavated and recertified as CU-Is. If the original CU is a CU-I, then it would be re-certified as such. If the CU was a CU-II then it would be subdivided into CU-Is, excavated, and re-certified.

3. The CU fails due to a small localized contamination area. This option is applicable to CU-IIs only. One of two actions will be selected at the discretion of the field manager. 1) Re-excavate and re-certify the entire CU. 2) Repartition the CU-II into four CU-Is and perform complete excavation of the CU-Is that are deemed contaminated. Re-certify the excavated CU-Is by collecting the required 9 samples (secondary COCs) or 12 samples (primary COCs) required for certification. For any CU-Is that were not excavated, re-certify using complete set of 9 or 12 samples as appropriate for each CU. For example, assuming failure of a CU-II for primary COCs and excavation of only one of the four redelineated CU-Is, the maximum number of samples required for certification is 52 (12 initial samples for the CU-II, 12 new samples for the one excavated CU-I, and 28 new samples to augment the previously collected samples for certification of the three unexcavated CU-Is).

4. The CU fails due to improper CU delineation. This option is applicable to homogeneous CUs only. It will be applied when initial certification sampling indicates that a CU is not homogeneous. The CU will be re-designated as two or more separate CUs for either re-certification or excavation.

Response: At the time of this writing, three CUs in Area 1 Phase I have failed certification. P17-32 failed for arsenic, Q18-40 failed for radium-226, and O20 failed for total uranium hot spot criteria, and radium-228. In all instances, corrective actions were discussed with the EPAs prior to their implementation.

There are different scenarios that can result in failure of a CU for one or more ASCOCs.

Action: In Area 1 Phase I, each case was discussed on its own merits, and corrective actions were conducted when agreement was reached. The SEP will detail the future approach to CUs that fail certification.

Comment: 5 Rationale for the CUs 2-10-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.6 Pg #: 7-8 Line #: Code: m
Original Comment #: Comment 44 on DOE RTC dated October 3, 1996

Comment: Ohio EPA fails to find the discussion on the rationale for the CUs persuasive. We follow the logic for having the three different sizes of CUs and we can agree that this is reasonable. We can also agree that, at first inspection, the CUs as they are developed for the several ASCOCs types in Figures 7-1 through 7-4 are reasonable and consistent with our previous comments. We fail to see the logic for having different CUs for the different types of COCs (primary rads, secondary rads, metals, and PCBs). The administrative process of final certification was not addressed in this section or in the response to original comment 44. This process must track four COC types each of which apparently has a different alphanumeric designation for their CUs. The Ohio EPA is very reluctant to micro-manage FDFs clean up strategy. FDF should be allowed to devise the administrative details of the plan that it will have to implement. However, lacking logical, compelling reasons for the different CUs we feel we must object based on the difficulty of tracking multiple CUs.

Response: Agreed.

Action: None. In the future, each distinctive area will have a single CU designated for that area. This approach will be further discussed in the SEP.

Comment: 8 Release and Closure of a CU 2-10-97
Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-11 Line #: 12 Code: C
Original Comment:

Comment: The sentence that reads "The release and closure of a CU requires that the average soil level within the CU in Area 1 Phase I be demonstrated to be below the FRLs with a minimum statistical confidence..." is unclear for portions of the site that are classified according to different certification schemes for different COCs. For example, the area designated as P18-30 is classified as a homogeneous CU for primary COCs (Figure 7-1), but the same area is classified as a series of Class I CUs for secondary COCs metals (Figure 7-3). A similar situation exists for the area designated as O16-30. The text should be revised to state that release and closure of a CU requires that the average soil concentration level for all COCs and ASCOCs be demonstrated to be below the FRLs with appropriate statistical confidence in the given CU and for all spatially coincident CUs.

Response: Agreed. According to the CU classification scheme implemented in Area 1 Phase I, each assigned CU is treated independently to make a pass or failure decision for certification. CUs were assigned based on spatial analysis of existing data, homogeneity of contamination, limits of excavation, production knowledge, and topography. Due to the unique and independent presence of analytical suites in the existing database (for example rads and metals), CUs were assigned independently based on their collective demonstrated presence. This process enabled CUs assigned for different analytical suites to overlap or be superimposed on one another. If a given CU failed for one or more constituents in an analytical suite, the failed CU underwent corrective action as agreed on a site-specific basis. Due to the "top down" nature of soil contamination in A1PI, this posed no problem.

Action: In the future, each area will have a single CU designated for that area. This approach will be further discussed in the SEP.

Comment: 9 Equation Parameters 2-10-97
Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-12 Line #: 9 Code: C
Original Comment:

Comment: The definition of the equation parameters should include "Z = critical level (for the designated probability) from the normal distribution."

Response: Agreed.

Action: The equation parameters have been revised in the Certification Report to include "Z = critical level (for the designated probability) from the normal distribution."

Comment: 13 Number of Samples Per CU 2-10-97

Commenting Organization: OEPA Commentor: GeoTrans, Inc.

Section #: 7 Pg #: 7-4 Line #: Code: C

Original Comment:

Comment: Table 7-4 summarizes the computations used to estimate the number of samples per CU in Area 1 Phase I that are needed to achieve acceptable confidence levels. Sample numbers computed using the data in the table are not consistent with the sample numbers shown. Please clarify these calculations.

Response: The table has been included in the Certification Report (Table 2-4) and errors were corrected. The calculations are further discussed in Section 2.0 of the Certification Report.

Comment: 15 Certification Data as a Histogram 2-10-97

Commenting Organization: OEPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-15 Line #: 9 Code: C
Original Comment:

Comments: The text should be revised to indicate that the certification data should be plotted as a histogram and examined for lognormality. An appropriate transformation should be implemented in order to achieve relative normality of the certification data set prior to proceeding with statistical testing.

Response: The certification data for each of the CUs have been reviewed in light of this comment. The data from all potentially affected CUs were tested for normality. Any CU data set whose radium or thorium UCL was within 0.2 pCi/g of the FRL, and any CU data set whose arsenic UCL was within 1.0 mg/kg (> =11.0 mg/kg) were designed as potentially affected. Histograms of nine or twelve data points are inadequate for distribution determination. Larger sample sizes would be required for histograms to be adequately informative. To be consistent with the tests for normality used on the RI/FS data, probability plots and the Kolmogorov-Smirnov (KS) one sample procedure (with Lilliefors transformations) were used to test this assumption. In every case, the potentially affected analyte data set can be confidently assumed to be normally distributed. All data sets displayed linearity in the probability plots and easily passed the KS test for normality.

Therefore, DOE concludes that the lack of lognormality checking had no effect in A1PI. However, in the future this cannot be guaranteed. Therefore, testing for normality and lognormality will be standard procedure in future certification efforts.

Action: No action in this report. Future reports will reflect a modification to the approach that incorporates testing of normality and lognormality.

Comment: 16 Excavation and Sampling in a CU 2-10-97

Commenting Organization: OEPA Commentor: GeoTrans, Inc.

Section #: 7 Pg #: 7-16 Line #: 13-16 Code: C

Original Comment:

Comment: As stated in Section 7.5 of this RAWP, the initial distribution of CUs was selected based on: (1) exposure patterns for the type of receptor evaluated for occupation of the site after remediation, (2) ASCOC data distribution based on existing data and process knowledge, and (3) irregularities in the Area 1 Phase I boundary as well as the property boundaries. The referenced text on Page 7-16 states the plan of action to take when CU failure results from "a small localized contamination area" (Condition 3). Given the level of consideration used in selecting the initial CU distribution for Area 1 Phase I, it is inappropriate to restrict excavation and sampling to a CU subarea that, by necessity, will be subjectively and inadequately delineated.

Response: The failure of CUs was discussed on a case-by-case basis with the regulatory agencies. During these discussions, agreements were made regarding the corrective actions to be conducted for the CUs which failed initial certification testing. The agreements were made before the corrective actions were conducted.

Action: None.

Comment: 27 Benzo(k)fluoranthene 2-4-97

Commenting Organization: U.S. EPA Commentor: Saric

Section #: NA Page #: 5-10 Line #: NA

Original Specific Comment #: 6

Comment: Table 5-2 lists benzo(k)fluoranthene as being detected above the final remediation level (FRL). However, Table 5-1 indicates that none of the samples had a benzo(k)fluoranthene concentration exceeding the FRL. In addition, benzo(k)fluoranthene would be the 31st chemical exceeding its FRL, but the accompanying text (Page 5-5, Line 5, and elsewhere) indicates that only 30 chemicals exceeded the FRLs. These discrepancies should be resolved. Benzo(k)fluoranthene is difficult to distinguish, both chemically and biologically, from its isomer benzo(b)fluoranthene, which has an FRL. Therefore, it would be reasonable to designate both isomers as sitewide constituents of concern (COC) in order to avoid overlooking a contaminant because of a potential analytical error.

Response: This COC was only potentially present in Subarea D of A1PI. Since Subarea D was eliminated from A1PI and is now included in Area 6, this COC is not relevant.

Action: Benzo(k)fluoranthene will be considered as an ASCOC in the SEP and future area-specific work plans based on spatial analysis screening and process knowledge.

Comment: 30 Holding Archived Samples 2-4-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 7.7.1 Page #: 7-13 Line #: 33
Original Specific Comment #: 9

Comment: The text notes that archived samples will be held until no longer needed or until the holding time has expired. This is not a problem for the radionuclides and metals that are the prevalent COCs and that have holding times of 6 months. However, the standard holding time for a soil sample to be analyzed for volatile organic compounds (VOC) is 14 days until analysis, and that for a soil sample to be analyzed for semivolatile organic compounds (SVOC) is 14 days until extraction. No VOCs are relevant to this project, but they will be relevant in other areas of the facility. In addition, the SVOC Aroclor 1260 is a COC for this project. Excessive holding times tend to result in loss of the analytes, but the degree of loss cannot be predicted; it must be experimentally determined on a case-by-case basis, which is not practical. Therefore, the usual data validation practice is to reject all results for samples held more than twice the standard holding times and to qualify for all results associated with lesser exceedances as estimates. These actions will be necessary for all certification analyses with excessive holding times. To avoid resampling, DOE should analyze all relevant archived samples for VOCs within 14 days of collection; the results need not be processed and reported unless needed. Similarly, DOE should extract all relevant archived samples for SVOC analysis within 14 days of collection; the extracts can be held for up to 40 days for analysis.

Response: Agreed. Certification samples were archived primarily to check for radiological and metals COCs. If organic or other hold times are expired, a resample will take place when possible. DOE will adhere to hold times stated in the U.S. EPA approved Sitewide CERCLA Quality Assurance Project Plan (SCQ) #FD-1000.

Action: None.

Comment: 31 CU Failure: Scenario 1 2-4-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 7.9 Page #: 7-16 Line #: 1 to 23
Original Specific Comment #: 10

Comment: This section discusses the four scenarios in which a CU would fail the certification process. In scenario 1, the CU fails because of high variability after archived samples have been analyzed. In this instance, the unit should not be re-evaluated or subdivided as suggested in the text; rather, the unit should be remediated as a whole unit. The justification for this approach is based on the statistical confidence of the mean. If the sample population has high variability, it is difficult to ever have confidence that the mean concentration is less than FRL. Scenario 1 should be revised to include remediation of the entire CU.

Response: Agreed. In CU Failure Scenario 1, in which a CU fails because of high variability, the original strategy was to submit the archived samples to the laboratory and re-evaluate the CU based on the expanded data set. For the A1PI certification process, CU P17-32 showed high variability for arsenic.

Action: The action taken, as agreed with the regulatory agencies, is consistent with the action recommended in this comment. In P17-32 the action was not to submit archive samples, but to re-divide the CU into 16 subunits, and to take samples at random locations within the subunit at intervals of 6-12 inches and 12-18 inches. The final corrective action was to excavate the entire CU an additional 6 inches, and the results from the 6-12 inch interval were used to certify the area.

Comment: 35 Certifying A1PI Areas as Clean 10-9-96

Commenting Organization: U.S. EPA Commentor: Saric

Section #: NA Page #: NA Line #: NA

Original General Comment #: 1

Comment: The work plan does not clearly identify areas that will be certified as clean under the Area 1 Phase I, scope of work. For example, Section 2.3 states that "Area B (in its entirety) and Area C will be certified"; however, in Section 3 the text indicates that only Area B Northwest will be certified. Table 3-1 suggests that none of the areas will be certified under the Area 1 Phase I, scope of work. The concept that no areas within the Area 1 Phase I scope of work will be certified appears to conflict with the discussions in meetings between the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). It was EPA's understanding that the scope of Area 1 Phase I RAWP included certification. The concept of delaying certification until a future date may not be acceptable. The scope of this RAWP must be clearly and consistently described and discrepancies must be corrected. In addition, a detailed schedule outlining the time frame for certification should be added to the RAWP.

Response: The A1PI Certification Report defines the areas included in A1PI. Areas C, D, D2 and the part of D1 west of the old North Access Road were removed from A1PI, with concurrence of the agencies, and are now included with other areas.

Action: None.

Comment: 36 Delayed Certification 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 2 Page #: NA Line #: NA
Original General Comment #: 2

Comment #: Several areas will be excavated under the scope of this project. However, certification for many of these areas will apparently be postponed until either funding is available or other phases of the Area 1 removal action are completed. The work plan should be amended to fully explain in the text the purpose for delaying certification. For example, the work plan states that Area D will be excavated as part of this removal action to prepare the area for construction of the Operable Unit (OU) 1 rail yard. However, the area must be adequately certified before the On-site Disposal Facility (OSDF) or other permanent structure construction activities begin.

Response: All planned certification samples have been collected and will be discussed in the A1PI Certification Report. Adjustments to the size and scope of A1PI have been discussed and agreed to in meetings with the regulatory agencies. Area D will be certified as part of Area 6. Areas necessary for construction of the OSDF have been certified.

Action: None.

Comment: 37 Precertification, Certification, Final Certification 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3 Page #: NA Line #: NA
Original General Comment #: 3

Comment #: The text refers to several types of "precertification" sampling. The use of the term "precertification" to identify several different types of sampling with different intended uses may lead to confusion during project implementation and data evaluation. The text should be revised to use a unique term for each type of precertification and final certification sampling based on the intended use of sampling data. Also, the term "certification" should be changed to "final certification" to more properly reflect the data's use.

Response: Agreed.

Action: The text will be clarified to reflect the following definitions of processes:

The term ***Precertification*** will be used to describe sampling activities performed prior to certification sampling, for example, potential hot spot delineation or surface water run-on evaluation. For A1PI, no precertification activities were conducted.

The term ***Certification*** is used to describe activities to demonstrate of FRL compliance. For example, the samples taken in A1PI were all certification samples.

The term ***Final Certification*** will be used once an CU is shown to pass the certification criteria, and concurrence is received from regulatory agencies.

The term ***Waste Acceptance Criteria Sampling*** is used to describe activities to support sampling for WAC attainment.

Comment: 40 Certifying A1PI Areas as Clean 10-9-96

Commenting Organization: U.S. EPA Commentor: Saric

Section #: 2.3 Page #: 2-4 Line #: NA

Original Specific Comment #: 1

Comment: The text states that "only Areas B (in its entirety) and C will be certified as part of the Area 1 Phase I scope; due to budget constraints, Areas A and D and all adjacent areas ... will not be certified by this work plan." First, the statement concerning which areas will be fully certified is inconsistent with other portions of the document. For example, Section 3.1.1 indicates that only Area B Northwest will be certified, but Table 3-1 indicates that Areas B and C may not be certified under the scope of Area 1 Phase I. Furthermore, the table indicates that certification will be conducted "prior to OSDF construction." Whether this is inclusive of the Phase I, Area 1 scope of work is unclear. The text should be revised to consistently and accurately present certification information. Second, the funding issue and its relevance to the scope of work should be clarified. In addition, if funding will impact some or all of the scope of work, tasks should be prioritized in the RAWP.

Response: Area C has been removed from the scope of A1PI and is now a component of Area 1 Phase II. All other subareas in A1PI (with the exception of subareas D, D2, and the portion of D1 that is west of the old North Access Road) have been certified.

Action: Please refer to the limits of the A1PI certification units shown in Figures 2-3, 2-4, and 2-5 of the A1PI Certification Report.

Comment: 41 Soil Contamination Depth 10-9-96

Commenting Organization: U.S. EPA Commentor: Saric

Section #: 3.1.4 Page #: 3-2 Line #: NA

Original Specific Comment #: 2

Comment: The text states that soil contamination is expected in the top 6 inches of soil. This statement is inconsistent with Figure 2-2 which shows anticipated contamination in Area D at depths up to 5 feet below ground surface. The text and/or figure should be revised to present consistent and correct information.

Response: This inconsistency in no longer applicable to A1PI. Due to the revision of the scope of A1PI, the figures are no longer pertinent to A1PI. Area D is now the OU1 rail yard and will be certified as part of Area 6.

Action: The contamination and proposed depth of excavation in all areas on site will be presented in the SEP.

Comment: 47 Policy for CU Classification 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 7.4.1 Page #: 7-5 Line #: 8
Original Specific Comment #: 8

Comment: The text states that DOE will alter the size of a Class I certification unit (CU) as necessary to complete area coverage. The text implies that size will increase or decrease and does not mention shape changes. The CU system described here would be more appropriate if the policy for complete area coverage is to adjust the shape of the CU and then, if necessary, decrease the CU area. This policy seems to be the only one implemented, as shown by CU 51 in Figure 7-1. The RAWP should be revised to present this policy for all three classes of CU.

Response: Agreed. The SEP will provide further clarification regarding size and shapes for the CUs.

Action: The A1PI Certification Report includes discussion of how the CUs were designed and reconfigured for certification, and a justification for these changes is included.

Comment: 48 Statistical Testing 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 7.7 Page #: 7-9 Line #: 9
Original Specific Comment #: 9

Comment: Section 7.7 presents the statistical testing formula. In this section, the term "b" (assumed to mean "β") is not relevant for looking up the critical value; therefore, this term should be deleted from this sentence. The actual β value of the results should be calculated as part of the data assessment and included in the certification report to verify that an adequate number of samples was collected. In addition, the "a" value (assumed to mean "α") should be identified as the value for the one-sided distribution of t, as implied in the null hypothesis in Line 10.

Response: Agreed. Inclusion of the β term was an error. Additionally, we agree that the α value should be for a one-sided *t*-test.

In order to statistically determine if a CU can be designated as 'clean' (to pass certification) the average soil sample value will be compared to the remedial goal. Since the burden is on the FEMP to prove that the remedial goals have been achieved, the hypothesis is formulated as:

> H_0 = the i_{th} CU is assumed to be out of compliance (i.e. the average concentration for a given analyte is equal to or greater than the remedial goal.
>
> H_A = there is significant evidence to indicate that the average concentration of the given analyte in the i_{th} CU is less than the remedial goal and therefore we reject the null hypothesis and deem the CU clean.

The following statistical test will be used to determine if the average concentration in the i_{th} CU is less than the remedial goal:

$$t = \frac{RG - \bar{x}_i}{\sqrt{S_i^2/n_i}}$$

where:

RG = *the remedial goal*
$\bar{x}_i$ = *the mean concentration for the* i_{th} *CU*
S_i^2 = *the sample variance for the* i_{th} *CU*
n_i = *the number of samples the* i_{th} *CU*

If the computed value (t) exceeds the critical value of a t-distribution with α = 0.05 at n-1 degrees of freedom then the null hypothesis is rejected in favor of the alternative. Thus, if the average concentration of the given analyte is significantly less than the remedial goal the test statistic (t) becomes large. If the test statistic exceeds the critical value then there is significant evidence that the average concentration for the given analyte is less than the remedial goal and, therefore, the hypothesis that the CU is out of compliance can be rejected and the CU can be deemed clean.

Action: The β term will be eliminated and the text in the A1PI Certification Report will reflect that this test is a one-sided t-test.

Comment: 51 Analysis of Aroclors 10-9-96

Commenting Organization: U.S. EPA Commentor: Saric

Section #: Appendix C, C.1.3 Page #: C.1-3 Line #: 18

Original Specific Comment #: 12

Comment: This text says aroclors will be analyzed by using the "SW 846 Method 8270" to assure a cleanup level of 0.13 mg/kg. It should be noted that this level is near the method detection limit for Method 8270. It is recommended that DOE verify whether a sample detection level of 0.04 mg/kg or less can be obtained by the selected laboratory using Method 8270. If this detection limit can not be met, then it is recommended that SW-846 Method 8080 be used for analysis of Aroclors.

Response: For A1PI, Aroclor 1260 was an ASCOC. The FRL for Aroclor 1260 is 0.13 mg/kg, and the Contract Required Detection Limit specified was 0.04 mg/kg by CLP Method OLMO 3.1. The laboratory was able to achieve this detection limit.

Action: None.

Comment: 52 Procedure for Random Selection of Grid Cells for Sampling 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: Appendix C, C.1.7 Page #: C.1-6 Line #: 15
Original Specific Comment #: 13

Comment: The validity of the sample design requires random selection of both the grid cells to be sampled and the actual sampling location within each grid cell. The work plan should be revised to present a standard operating procedure (SOP) for these selections. This SOP should be cited in the appendix here and in the sampling plan in Section 7.6. Also, because randomness is critical to certification results, the SOP should be reviewed by regulators before it is used for certification.

Response: Agreed.

Action: The process used for A1PI is summarized in the Certification Report in Section 2.4.

Comment: 53 Use of the Data Assessment Process 10-9-96
Commenting Organization: U.S. EPA Commentor: Saric
Section #: Appendix C, C.1.7 Page #: C.1-7 Line #: 3
Original Specific Comment #: 14

Comment: In addition, this section should provide more information on how FEMP will use the data assessment process to verify that the actual sample results provide the desired "β" level.

Response: DOE does not intend to conduct post hoc tests to verify that the actual "β" levels have been achieved. DOE believes that the methodology to determine sample sizes is sufficiently conservative for the following reasons:

1) For the vast majority of completed CUs, the observed sample standard deviations are well below the estimated standard deviations used in the determination of sample sizes. In fact, to date, no primary COC CU sample standard deviations have exceeded the initial estimates.

2) Minimum sample sizes are being increased to 16 in the future CUs. These two factors ensure that the "β" levels are met.

Comment: 63 Demonstration of Contamination 10-9-96
Commenting Organization: Ohio EPA Commentor: DSW
Section #: 2.3.2 Pg #: 2-5 Line #: 20-21 Code:
Original Comment #: 9

Comment: The statement in this section "if contamination is demonstrated" seems incongruous with the statement on page 2-4 lines 11-13 that the adjacent areas will not be certified. Is the process to demonstrate contamination or lack of contamination different than the process for certification and if so what is the process that will be used for demonstration of contamination?

Response: In the schedule submitted with the A1PI Work Plan, there were plans to certify areas directly in the OSDF footprint and leave certification of some adjoining areas until a later date. In this instance the potential for contaminated run-on from these adjoining areas would require assessment. Subsequently, the decision was made to eliminate several areas from the scope of A1PI, such as Subareas C and D. The remainder of A1PI, as it is now defined, was certified and no areas are left in A1PI to pose a contaminated run-on threat to the certified areas.

Action: None.

Comment: 65 Basis for No Excavation Prior to Certification 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1.5 Pg #:3-2 Line #: Code: C
Original Comment #: 11

Comment: In areas where DOE proposes not to conduct excavation activities prior to certification will the basis for that decision still be the 75% of the FRL/BTV? It would seem to be the necessary decision criteria for these areas as well due to the same statistical issues that effect excavated areas.

Response: There is no requirement to meet 75% of the FRL for certification. The decision criteria is the FRL (100%) with statistical confidence. In areas where DOE does not plan to conduct "pre-excavation sampling," DOE believes that there is sufficient historical data or information to proceed to certification assuming that existing conditions are at or below 75% of the FRLs. Additionally, the BTVs will not drive soil remediation or excavation at the FEMP.

Action: None.

Comment: 68 Removal of Field Tiles 10-9-96

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 4.1.3 Pg #: 4-1 Line #: 30-32 Code: C

Original Comment #: 14

Comment: DOE should remove all field tiles in the areas proposed for excavation within this RAWP. The need for excavation of these tiles is based upon their potential as pathways for contaminant and water transport. Elimination of the tiles will prevent unwanted migration of water into remediated areas as well as the area of the OSDF.

Response: Agreed. All drainage tiles that might impact the OSDF will be removed from the east field. Additionally, the neighboring property owner expressed concern about drainage changes in the eastern side of the FEMP. The property owner wanted the tiles in the northeast swale to remain in place, since the water coming into his property through the tiles is beneficial to him. The contents (sediment) of tiles in question (CPT 1-6) were sampled, and the contaminant concentrations were below the FRL. Therefore, no potential existed for contaminating the immediate area or the neighbor's property.

Action: The A1PI Certification Report text discusses field tile removal in Section 3.3. Figure 3-2 of the A1PI Certification Report identifies which drain tiles were removed during A1PI activities, which A1PI drain tiles will be removed with the installation of the OSDF liner, and which A1PI drain tiles will remain in place.

Comment: 75 COCs and BTVs 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.2 Pg #:5-3 Line #: 15-20 Code: C
Original Comment #: 21

Comment: Additional discussion of how 17 COCs were derived versus the numerous contaminants for which BTVs are provided in Table 5.1 should be included in the section. In addition a discussion of what "Failed Ecological Risk Screening" from Table 5.1 should be included in this section.

Response: Agreed.

The Sitewide Ecological Risk Assessment (SERA) identified 17 constituents of potential ecological concern. The constituents identified as an ecological concern were those which failed the ecological risk screening conducted during the OU5 SERA. Area-specific (SERA study areas) representative concentrations were compared to literature-derived benchmark toxicity values (BTVs). BTVs are media-specific concentrations considered protective of ecological receptors. BTVs are not ecological cleanup levels, but rather screening levels used to define the scope of future ecological risk investigation. Because of this, BTVs were not used in the determination of FRLs. The 17 constituents which failed were demonstrated to have a sufficient source term within one or more SERA study areas that may present a current and future risk to ecological risk receptors in the FEMP and surrounding areas, including the Great Miami River.

This list of ecological COCs includes 17 constituents:

- 14 COCs have Benchmark Toxicity Values (BTVs) lower than corresponding FRLs;
- two COCs do not have FRLs (aluminum and benzo(g,h,i)perylene); and
- total uranium which has a FRL of 82 mg/kg and a BTV of 230 mg/kg.

These 17 include two constituents which do not have published FRLs: aluminum and benzo(g,h,i)perylene. With the exception of total uranium, all constituents identified as ecological concerns in the OU5 SERA have BTVs less than the FRLs for the same constituents. FRLs provide remedial levels for soils.

Action: SERA ecological COCs will be reviewed as part of the development of the Sitewide Excavation Plan in order to assess potential impacts to future ecological habitat(s). The SEP will also consider sitewide post-remediation (i.e., remnant) concentrations in the evaluation of ecological COCs in source areas (i.e., the production area), which were not evaluated as part of the SERA. Since the BTVs will not drive soil remediation or excavation at the FEMP, any ecological concerns that remain after the SEP evaluation will be addressed

through design and implementation of the Natural Resource Restoration Plan. Additionally, the final land use for A1PI does not promote the existence of sensitive ecological receptors. Therefore, the A1PI Work Plan will not consider ecological COCs specifically, but rather will defer to the SEP.

Comment: 76 FRL or FRL and BTV 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.2 Pg #: 5-3 Line #: 15-20 Code: C
Original Comment #: 22

Comment: In general the document is confusing as to whether in a particular section it is referring to just the FRL or the lesser of the FRL & BTV. The document should be revised regarding discussions of FRL attainment. The use of text, such as "FRL/BTV", to designate when the lesser of the two is being used is requested.

Response: Soil benchmark toxicity values (BTVs) are concentrations of constituents in soil that are considered protective of ecological receptors in a habitat. BTV values were obtained from a variety of sources and were presented as part of the SERA in the OU5 RI. The sole impetus for soil remediation and excavation in A1PI lies with the Final Remediation Levels (FRLs) as published in the OU5 Record of Decision (ROD). BTVs are not anticipated to drive soil remediation or excavation at the FEMP (see the action for OEPA Comment No. 21, FDF Comment No. 75, for additional information). FRLs were used as the remedial levels driving excavations.

Action: The use of BTVs in the evaluation of Ecological COCs will be addressed in Appendix B of the SEP. BTVs will be used in the Ecological COC screen to determine potential impacts to future ecological habitat(s). Any Ecological concerns remaining after the screen will be considered in the final land use plan. Otherwise, BTVs will not be considered in the certification of a particular certification unit.

Comment: 77 Editorial Correction 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.2 Pg #: 5-3 Line #: 22-26 Code: C
Original Comment #: 23

Comment: The table should be revised to include detections above the BTVs. The number and percent of samples detected above the FRL column should include detects above the BTV where it is lower than the FRL.

Response: BTVs do not drive soil remediation or excavation as described in response to Ohio EPA Comment No. 21 (FDF Comment No. 75).

Action: The methodology for evaluating BTVs sitewide will be provided in Appendix B of the SEP.

Comment: 84 Method to Determine a "Hot Spot" 10-9-96

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 6 Pg #: General Line #: n/a Code: C

Original Comment #: 30

Comment: What methods will be used with the HPGe detector to determine if a "hot spot" (3 X FRL) is present within a 12 m^2 area? The methods in this section do not appear to adequately address the detection of hot spots.

Response: The original strategy was to use the HPGe detector to determine if hot spots were present within a 12m^2 area. The original hot spot criteria was three times the FRL. However, the HPGe detector was not used for A1PI for hot spot detection, and the A1PI certification hot spot determination. In lieu of using the HPGe for hot spot detection it was agreed to decrease the criteria to twice the FRL for certification samples.

In A1PI, CU O20 failed the twice the FRL hot spot criteria for total uranium (FRL = 82 mg/kg, 2 X = 164 mg/kg). One sample was found to be 205.4 mg/kg. The corrective action for this CU, as agreed upon with the regulators, was to use the HPGe detector confirm the result and delineate the area. Confirmatory samples were then taken and submitted to the laboratory for analysis. See Section 5.0 of the A1PI Certification Report for further discussion.

Action: None.

Comment: 87 "Hot Spot" During Postremedial Sampling 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.1.1 Pg #: 6-2 Line #: 21-22 Code: C
Original Comment #: 33

Comment: The document fails to specify the relevance of "hot spot" during post remedial sampling. This is in light of the previous bullet which suggests targeting 75% of the FRL.

Response: The original strategy was to use the HPGe detector to determine if hot spots were present. The original hot spot criterion was three times the FRL. However, for A1PI the HPGe detector was not used for hot spot detection. In lieu of using the HPGe for hot spot detection it was agreed to decrease the criterion to twice the FRL for certification samples. In A1PI, only CU O20 failed this criterion; and the corrective actions are discussed in Section 5.0 of the Certification Report.

Action: None.

Comment: 91 Point of Contact for GIS Data 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 6.5 Pg #: 6-10 Line #: Code: C
Original Comment #: 37

Comment: In order to be fully involved in the field program and decision making, Ohio EPA requests DOE provide a main point of contact for acquiring GIS data generated during implementation of this RAWP.

Response: When in final (post-processed) form the physical sampling data obtained in the precertification and certification efforts will be made available to Ohio EPA through electronic transfer by internet from the FEMP to the Ohio EPA maintained file transfer protocol (FTP) server. Information will be in the form of ORACLE export files. Information has been transferred successfully by this means previously. DOE will arrange with Ohio EPA the timely access to this newly generated data. The contact at the Fernald site will be Susan Marsh at (513) 648-7544.

Action: Arrangements for facilitating data transfer will be made.

Comment: 95 Collecting Total Uranium Samples 10-9-96

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 7.1 Pg #: 7-1 Line #: 24-32 Code: M

Original Comment #: 41

Comment: Based upon the preliminary data from Area D, Ohio EPA recommends DOE collect total uranium samples at the point of the highest RTRAK or HPGe precertification reading within each certification unit or area to ensure WAC attainment prior to initiating excavation.

Response: Agreed.

Action: A program has been initiated to collect physical soil samples to confirm the upper bound total uranium values for excavated soil to be placed in the OSDF. Real-time measurements were taken within each CU. These readings, in conjunction with RI/FS data, three-dimensional modeling, and process knowledge, determined WAC attainment sampling locations. Results of this WAC sampling effort are included in the WAC report to be submitted parallel with the A1PI Certification Report.

Comment: 96 Re-evaluating CUs Based on BTVs and FRLs 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.5 Pg #:7-6 Line #: 1-4 Code: C
Original Comment #: 42

Comment: The CUs should be reevaluated based upon detections above the lowest of the BTV and FRL for each COC. Based upon this reevaluation appropriate changes should be made to the CUs.

Response: The certification maps reflect the density of certification sampling conducted based on the demonstrated distribution of contaminants from existing data and process knowledge. In A1PI, CU assignments were not based on BTVs. As noted in the response to OEPA Comment No. 21 (FDF Comment No. 75), BTVs will not drive excavation, but will be considered in the development of the Natural Resource Restoration Plan. Information for BTVs will be collected during the certification process for the purposes previously described.

Action: None.

Comment: 98 Rationale for CUs 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.5 Pg #:7-6 Line #: 5-9 Code: M
Original Comment #: 44

Comment: a) The decision to develop separate CUs for each set of COCs seems inappropriate to Ohio EPA. If as suggested by DOE the primary pathway for primary COC distribution is airborne deposition, then the same should be for the secondary COCs unless a specific activity resulted in contamination of an area. If the mode of deposition is the same, then the CU should be the same. Unless specific activities, such as the FTF or STP, resulted in contamination then airborne deposition should be assumed otherwise a technical discussion of the deposition activity should be included for each CU.

b) In addition to the technical concerns with CU designation, it is unclear how administratively certification will be accomplished for each CU. Will a CU only be certified for PAHs and then a separate CU that may include that particular PAH CU define primary COCs, etc. etc.? This process would seem to be much clearer with one set of CUs for all COCs. The document does not clearly define the process for completion of Certification.

Response: a) Comment Acknowledged. Airborne dispersion is thought to be the dominant, but not the only, mechanism of contaminant dispersion in FEMP soil. Screening of the existing soils data against the FRLs combined with process knowledge demonstrates that the primary contaminants are present in more extensive distribution patterns than the other (secondary) ASCOCs.

Certification Unit design is based on the demonstrated presence of ASCOCs in site soil, not their original mode of deposition. For example, PCBs in A1PI were demonstrated to be present above their FRLs only in limited distributions in and near the perimeter of the Process Area. Their transport mechanism may have been airborne dispersion but the resulting presence is restricted in A1PI for these two analytical suites. These patterns are in contrast to the primary ASCOCs; uranium, thorium, and radium which have much more extensive patterns of distribution. This fact is reflected in the more extensive primary ASCOC CU assignments.

The differences in extent of ASCOC distributions are a function not only of the quantity of contaminants deposited over the production history but mobility of the contaminant (solubility), degradation rates (organics), affinity for the soil substrate, and relative toxicity of the contaminant which impacts the stringency of the FRL. The CU design in A1PI was based on this demonstrated presence. The certification process is intended to document the removal of this demonstrated soil contamination. In order to do this efficiently and cost effectively, certification sampling for ASCOCs by agreement will be limited to areas where the presence of the contaminant has been proven or suspected.

This was the basis for designating separate CUs for the four A1PI analytical suites of ASCOCs and the resulting differences in coverage.

b) In order to more effectively track the certification process in A1PI and elsewhere, a sitewide CU assignment system was developed. All CUs fit into this system, enabling certification results to be reviewed and documented in a consistent and repeatable manner. The strategy for future CU design and assignment will be finalized in the SEP.

Action: The strategy and design of A1PI CUs is discussed in the A1PI Certification Report. The strategy for future CU design and assignment will be finalized in the SEP.

Comment: 99 Certification Plans for Each CU 10-9-96

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 7.6 Pg #: General Line #: n/a Code: C

Original Comment #: 45

Comment: Will separate certification sampling plans be submitted for each CU? And. will the CUs be the same areas that are identified in this work plan, i.e. Area D?

Response: Two certification PSPs were written for A1PI, not for each CU. The CUs were modified as per previous agreements with the agencies. Subareas C, D (OU1 rail yard), D2 (Fire Training Facility), and D1 west of the North Access Road were not included in the A1PI Certification Report as per previous agreement. .

Action: None.

Comment: 100 Justification for 12 Samples 10-9-96
Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-7 Line #: 17 Code: C
Original Comment #: 46

Comment: The RAWP should provide a more detailed justification for the use of 12 samples for documenting cleanup. The justification should state whether this number is qualitatively or quantitatively based. A detailed description of the rationale and derivation of the number of samples is required including a discussion of underlying assumptions. All calculations should be thoroughly documented including the procedures used to compute the requisite statistical parameters (e.g., variance calculations, etc.). An example calculation for a primary COC should be provided to illustrate the computation of the number of samples to document cleanup.

Response: Agreed.

Action: The number of samples required to achieve statistical confidence was determined from the following equation:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{\left(\frac{FRL - \bar{x}_{target}}{S_{CA}}\right)^2}$$

where

α = *probability of Type I Errors* (.05)
β = *probability of Type II Errors* (.20)
Z = *critical level (for the designated probability) for the normal distribution*
FRL = *the FRL for the given analyte*
$\bar{x}_{target}$ = *target clean-up level mean 75% of the FRL*
S_{CA} = *standard deviation estimated for Clean Areas*

The target clean-up level during precertification is 75% of the FRL. At this target clean-up level the maximum expected value (average level) would be no greater than 75% of the FRL. As a conservative estimate we chose to use 75% of the FRL as the target clean-up level mean.

An estimate of the variability for post-remedial conditions was based on estimates calculated from existing data in "clean areas". The concept was that the variability demonstrated in unimpacted areas would be similar to post-remedial conditions in impacted areas as well. The procedure used to estimate the clear area variability is as follows:

1) The site was divided into 100 ft. by 100 ft. blocks. This was accomplished by simply dividing the Northing and Easting coordinate by 100 since these coordinates are presented in feet.
2) Block averages were calculated for each 100 ft. by 100 ft. block.
3) Blocks were then categorized as either impacted (average greater than or equal to the FRL) or unimpacted (average less than the FRL).
4) All sample locations that were located in a impacted blocks were then eliminated from consideration.
5) From the data remaining (unimpacted areas), the variability used in the calculations was calculated.

Using this methodology we hoped to best develop an estimate of post-remedial variability. Under these assumptions and methods the estimated sample sizes are 12 for primary COCs and nine for secondary COCs. The drivers for these sample sizes were thorium-232 (primary) and arsenic.

Action: Text was included in the A1PI Certification Report.

Comment: 101 Decision Path Flow Chart 10-9-96

Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.

Section #: 7 Pg #: 7-7 Line #: 32 Code: C

Original Comment #: 47

Comment: For clarity, the decision path described in the referenced text should be presented in flow chart form. In addition, the text should clarify what is meant by "the collection of additional samples." Specifically, will another suite of 12 samples be collected at random from the CU grid cells or will some other approach be implemented?

Response: Agreed.

Action: The certification process will be graphically illustrated by inclusion of a flow chart to augment the text (Figure 2-1 of the A1PI Certification Report). As in the past, corrective actions for CUs failing initial certification testing will be discussed and agreed upon with the regulatory agencies prior to implementation.

Comment: 102 Decisions and Agency Approval 10-9-96
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7 Pg #:7-8 Line #: 1-8 & 25-31 Code: C
Original Comment #: 48

Comment: It is unacceptable to have any of the actions described in these bullets occur without agency approval unless additional detail is provided in the document delineating the decision making process at this point.

Response: Agreed.

Action: The certification process will be graphically illustrated by inclusion of a flow chart to augment the text (Figure 2-1 of the A1PI Certification Report). As in the past, corrective actions for CUs failing initial certification testing will be discussed and agreed upon with the regulatory agencies prior to implementation.

Comment: 103 CU Delineation 10-9-96

Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.

Section #: 7 Pg #: 7-8 Line #: 26 Code: C

Original Comment: 49

Comment: The proposed distribution of certification units is based on existing soil data and process knowledge. Clarification is required regarding certification unit re-delineation based on the spatial distribution of the sample (concentration data). Guidelines should be specified in order that the integrity of the certification unit distribution is maintained after re-delineation.

Response: Agreed.

Action: The certification process will be graphically illustrated by inclusion of a flow chart to augment the text (Figure 2-1 of the A1PI Certification Report). As in the past, corrective actions for CUs failing initial certification testing will be discussed and agreed upon with the regulatory agencies prior to implementation.

Comment: 104a Treatment of Non-Detect Values 10-9-96
Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.
Section #: 7 Pg #: 7-8 Line #: 33 Code: C
Original Comment: 50

Comment Part 1: A discussion of the treatment of non-detect values in the computation of $\overline{x_I}$ should be included in the text. Additionally, the definition of the sample variance term should indicate that it will be calculated from the samples collected from the ith CU.

Response: Agreed.

(a) For the statistical tests for compliance with FRLs the non-detected values were assigned the value of one half of the detection limit, given that the detection limit was less than the remedial goal. If the detection limits exceed the remedial goal (FRL) then other methods were used. This case did not arise in A1PI.

(b) Text in the A1PI Certification Report addresses this concern.

Action: This situation will be addressed in the SEP for future work.

Comment: 104b Statistical Testing of a CU 10-9-96

Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.

Section #: 7 Pg. #: 7-9 Line #: 9 Code: C

Comment Part 2: The referenced text should be revised as follows: If the computed value (t) exceeds the critical value of a t-distribution for $\alpha = 0.05$ and $\beta = 0.2$ at the appropriate degrees of freedom then the null hypothesis, which is that the average soil level within the CU is **equal to or greater than** the FRL or BTV, is rejected.

Response: Agreed. Inclusion of the β term was an error. Additionally, we agree that the α value should be for a one-sided *t*-test.

In order to statistically determine if a CU can be designated as 'clean' (to pass certification) the average soil sample value will be compared to the remedial goal. Since the burden is on the FEMP to prove that the remedial goals have been achieved, the hypothesis is formulated as:

> H_0 = the i_{th} CU is assumed to be out of compliance (i.e. the average concentration for a given analyte is equal to or greater than the remedial goal.
>
> H_A = there is significant evidence to indicate that the average concentration of the given analyte in the i_{th} CU is less than the remedial goal and therefore we reject the null hypothesis and deem the CU clean.

The following statistical test will be used to determine if the average concentration in the i_{th} CU is less than the remedial goal:

$$t = \frac{RG - \bar{x}_i}{\sqrt{S_i^2/n_i}}$$

where:

RG = *the remedial goal*
$\bar{x}_i$ = *the mean concentration for the* i_{th} *CU*
S_i^2 = *the sample variance for the* i_{th} *CU*
n_i = *the number of samples the* i_{th} *CU*

If the computed value (*t*) exceeds the critical value of a *t*-distribution with $\alpha = 0.05$ at *n*-1 degrees of freedom then the null hypothesis is rejected in favor of the alternative. Thus, if the average concentration of the given analyte is significantly less than the remedial goal the test statistic (*t*) becomes large. If the test statistic exceeds the critical value

then there is significant evidence that the average concentration for the given analyte is less than the remedial goal and, therefore, the hypothesis that the CU is out of compliance can be rejected and the CU can be deemed clean.

Action: The β term will be eliminated and the text in the A1PI Certification Report will reflect that this test is a one-sided *t*-test.

Comment: 106 CUs and BTVs 10-9-96

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: Table 7-1 Pg #: 7-11 Line #: Footnote b Code: C

Original Comment #: 52

Comment: Footnote "b": As discussed in a previous comment, Ohio EPA believes that BTVs should be used in the delineation of CUs and the document should be revised accordingly.

Response: Disagree. We do not feel that BTVs should be used to delineate CUs. BTVs are values used to screen for potential ecological risks and should not drive remediation at the site. Certification of areas at the site should be based on meeting FRLs only. Above-BTV concentrations existing after remediation can be addressed as part of the natural resource restoration planning process. The full evaluation of the BTVs and subsequent ecological COCs is being addressed as part of the SEP. The action for OEPA Comment No. 21 (FDF Comment No. 75) provides additional information with respect to the ecological COC approach.

Action: None.

Comment: 124 Certification Reporting 10-9-96
Commenting Organization: Ohio EPA Commentor: GeoTrans, Inc.
Section #: Appendix C Pg #: C.1-2 Line #: 32 Code: C
Original Comment #: 70

Comment: Clarification should be provided to indicate that information input for the analysis will be obtained from the certification soil samples for the given certification unit under consideration.

Response: Agreed.

Action: The text in the A1PI Certification Report clarifies and expands the discussion of certification reporting.

Comment: 181 ALARA Approach to Soil Excavation 11-1-96
Comment 4
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: Line #: Code: M
Original Comment #:

Comment: The RAWP fails to discuss how DOE is complying with its commitment to implement an ALARA approach to soil excavation for soils exceeding 50 ppm total uranium as defined on page 9-5 in the OU5 ROD. Specifically, DOE must define why it is not economically practical to excavate soils determined by the RTRAK or HPGe to exceed 50 ppm or even the 80 ppm FRL. The commitment in the ROD clearly suggests the removal, when economically practical, of soils exceeding 50 ppm based upon field instruments. Ohio EPA believes it is necessary for DOE to make a determination of how they are complying with the ALARA commitment.

Response: The remedial ALARA goal of an average concentration of 50 mg/kg of total uranium in residual soils was not an issue in A1PI.

Action: The ALARA process and strategy will be further defined in the SEP.

Comment: 188 Removal of Area D from A1PI RAWP 11-1-96
Comment 11
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: 5 Line #: Code: C
Original Comment #: 7

Comment: The response should be revised to reflect the removal of Area D from the scope of the Area 1 Phase I RAWP.

Response: Agreed.

Action: None.

Comment: 190 Precertification in Forested Areas 11-1-96
Comment 13
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: 7 Line #: Code: C
Original Comment #: 11

Comment: The response and the RAWP should be revised to discuss how precertification will be conducted in forested areas. The methodology for such precertification must be included in the revised RAWP.

Response: Precertification in the wooded areas was initially performed using the HPGe. Physical samples were collected for the certification process.

Action: The SEP will define a precertification and certification approach for forested areas.

Comment: 191 Removal of Field Tiles 11-1-96
Comment 14
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: 8 Line #: Code: C
Original Comment #: 14

Comment: Ohio EPA does not concur with the proposed language modification. Ohio EPA believes all field tiles on the eastern portion of the facility should be removed to protect the OSDF. Additional clarification regarding the neighboring property owners desires should be provided. Is the desire to maintain flow or prevent increased flow? If sufficient justification can be provided for not removing the northeast swale tiles, the revised language should read "all drain tiles known or discovered during Area 1 Phase I activities, with the exception of the northeast drainage swale, will be removed."

Response: Agreed. All drainage tiles that might impact the OSDF will be removed from the east field. Additionally, the neighboring property owner expressed concern about drainage changes in the eastern side of the FEMP. The property owner wanted the tiles in the northeast swale to remain in place, since the water coming into his property through the tiles is beneficial to him. The contents (sediment) of tiles in question (CPT 1-6) were sampled, and the contaminant concentrations were below the FRL. Therefore, no potential existed for contaminating the immediate area or the neighbor's property.

Action: The A1PI Certification Report text discusses field tile removal in Section 3.3. Figure 3-2 of the A1PI Certification Report identifies which drain tiles were removed during A1PI activities, which A1PI drain tiles will be removed with the installation of the OSDF liner, and which A1PI drain tiles will remain in place.

Comment: 193 RTRAK and HPGe Systems 11-1-96
Comment 16
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: 17 Line #: Code: C
Original Comment #: 30

Comment: A) Due to the lack of verification data available to Ohio EPA for the RTRAK or HPGe, Ohio EPA believes it is appropriate to use a 2xFRL hot spot criteria. Upon completion of the verification study, the hot spot criteria could be re-evaluated. In addition to the per $12m^2$ criteria, Ohio EPA believes it is necessary to determine an area based hot spot formula criteria. DOE Order 5400.5 is cited as a TBC in the OU5 ROD. The hot spot criteria outlined in this order suggests that a hot spot not exceed $(100/A^{1/2}x$ FRL where A is the hot spot area in square meters.

B) What contaminants will the HPGe be evaluating for hot spot criteria? How does DOE intend to assess hot spots for non-radiological contaminants? Additional details must be added to the RAWP to address these issues.

Response: A) For A1PI the hot spot criterion used 2 x FRL for certification samples. Neither the HPGe nor RTRAK was used for hot spot determination.

B) HPGe was not used for evaluating hot spot criteria.

Action: Further discussion of the HPGe and RTRAK system can be found in the Comparability Study, and the utility of the systems in future certification efforts will be addressed in the SEP.

Comment: 195 CU Designation for A1PI 11-1-96
Comment 18
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: Pg #: 25 Line #: Code: C
Original Comment #: 44

Comment: Ohio EPA agrees with the basis for selecting ASCOCs but the process for actual location/orientation of a CU is still unclear. It would seem more appropriate to locate them along drainages, surface features or known release areas. These issues may not be as important for Area 1 Phase I but should be considered in all future remediation plans.

Response: The CU design for A1PI was based on the demonstrated presence of ASCOCs in soil and on the potential for contamination from known release points. In particular, if the presence of ASCOCs was demonstrated in the former production area near the boundaries of A1PI, then a "ring" of CU-Is was set up along the fence line (this is also the boundary of A1PI) to determine if the contamination extends beyond the production area boundary. Therefore, both the known presence and potential for presence of ASCOCs in soil were taken into account during the determination of CU locations. CU orientation was designed for ease of implementation in the field. The existence of many odd-shaped CUs would make implementation difficult and would cause delays in the remediation.

Action: Based on knowledge gained from the implementation of the A1PI remedial design, the CU designs for subsequent RAWPs will incorporate additional information which will include the following, as required:

- construction needs
- topography/drainage areas
- non-contiguous areas (such as areas partitioned by roads)
- other suspected release points (e.g. the incinerator/waste water treatment facility).

This strategy will be more fully developed in the SEP.

Comment: 220 Schedule for Each Certification Area 11-1-96
Comment 2
Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Pg #: NA Line #: NA
Original General Comment #: 1

Comment: The text identifies an overall schedule for implementing tasks for each certification area. Two issues were noted during the October 22, 1996 telephone conversation that may impact the schedule.

A) The first issue relates to certification of the access road area. This area is currently being excavated and construction is planned prior to submittal of a certification report. It is unclear whether a separate project specific plan (PSP) is being submitted to certify this area. The schedule for certifying the roadway area should be clearly identified.

B) Second, both OEPA and U.S. EPA are concerned with the use of field instrumentation for preliminary certification without the submittal and approval of the comparability study. It is understood that a work plan will be submitted on October 31, 1996. The text should include a schedule for completion and approval of the comparability study.

C) The current schedule for review and approval of deliverables is thirty days. U.S. EPA believes that this time frame may be too optimistic based on the possibility that some deliverables may be disapproved.

Response: A) All certification sampling for A1PI has been completed, and the OSDF support areas PSP was prepared for these areas.

B) The Comparability Study is currently underway and is scheduled to be completed and submitted to the EPA in July 1997.

C) The Sitewide Excavation Plan (SEP) is scheduled to be submitted in July 1997. Information will be provided in the SEP to resolve any outstanding sitewide issues pertaining to certification, hot spot criteria, and ALARA goal implementation approach. The Comparability Study, also to be provided in July 1997, will establish the policy for using the in situ radiological characterization techniques to support certification across the site. The July submittal schedule for these documents should provide sufficient time to resolve any outstanding issues prior to the submittal of the next Integrated Remedial Action Work Plan scheduled for October 1997.

Action: A) The OSDF Support Areas PSP was written detailing the specifics for the certification approach to be used for the existing North Access Road. This was provided to the regulators.

B and C) SCEP will work closely with the agencies to understand and evaluate the in situ radiological data as well as ensure coordination and dissemination of information and communication regarding A1PI certification data. The Comparability Study and SEP will be submitted in accordance with approved schedules.

Comment: 221 Drain Tiles in Northwestern Portion of the Site 11-1-96
Comment 3
Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Pg #: NA Line #: NA
Specific Comment #:1 (Original Specific OEPA Comment #: 14)

Comment: The text states that drain tiles in the northwestern portion of the site will not be excavated. U.S. EPA concurs with the comments made by OEPA during the October 22, 1996 meeting. Based on a subsequent meeting on October 29, 1996, EPA understands that the adjacent property owner has requested that the tiles remain in place. The revised work plan should include plans to ensure that leaving the drain tile system will not result in potential offsite impacts or unacceptable risk. This should be viewed in light of the possible increased deposition of dust in this area during soil excavation.

Response: Agreed. All drainage tiles that might impact the OSDF will be removed from the east field. Additionally, the neighboring property owner expressed concern about drainage changes in the eastern side of the FEMP. The property owner wanted the tiles in the northeast swale to remain in place, since the water coming into his property through the tiles is beneficial to him. The contents (sediment) of tiles in question (CPT 1-6) were sampled, and the contaminant concentrations were below the FRL. Therefore, no potential existed for contaminating the immediate area or the neighbor's property.

Action: The A1PI Certification Report text discusses field tile removal in Section 3.3. Figure 3-2 of the A1PI Certification Report identifies which drain tiles were removed during A1PI activities, which A1PI drain tiles will be removed with the installation of the OSDF liner, and which A1PI drain tiles will remain in place.

Comment: 223 Residual Soil Contamination Exceeding FRLs 11-1-96
Comment 5
Commenting Organization: U.S. EPA Commentor: Saric
Section #: NA Pg #: NA Line #: NA
Specific Comment #:3 (Original Specific OEPA Comment #: 30)

Comment: The text states that field instrumentation will be used to ensure that residual soil contamination exceeding the final remediation levels (FRLs) will not be left in place. The text states, however, that a 3-times rule may be used as a "not to exceed hot spot criteria," because the average contamination may be acceptable. U.S. EPA concurs with OEPA that leaving hot spot areas in place with contamination at 3-times the FRL does not appear to meet the intent of the ROD. While the average contaminant values would attain FRLs, contamination would be left in place that clearly exceeds FRLs. DOE should provide further justification for leaving such hot spots in place, considering the fact that instruments may have clearly delineated an area requiring remediation. It appears that leaving such known contamination hot spots in place would not meet the remediation goals stated in the ROD.

Response: In previous meetings with OEPA and U.S. EPA, there were discussions regarding how FRLs were defined, and by what means FRL attainment could be demonstrated in the certification process. An agreement was reached that defined a soil FRL as an average of the soil COC concentration for any single certification unit to a specified confidence limit. By agreement, an FRL was not to be viewed as a "not to exceed level." The language in the OU5 ROD was not specific in this regard, and resolution of this issue only took place in these discussions.

Use of an average soil concentration to represent the FRL is logical when viewed from the perspective of exposure experienced by a receptor. The Undeveloped Park User Receptor is a roving model. Calculated risk is best modeled by an average concentration over a fairly large area and it is not adversely impacted by localized fluctuations. In order to prevent an unlimited allowance of FRL exceedance at any one data point, a "hot spot" criterion was discussed. A hot spot is defined for purposes of A1PI as a certification sample which exceeds twice the FRL.

Action: The hot spot issue will be discussed in detail in the SEP.

Comment: 224 Splitting Samples 2-4-97

Commenting Organization: Ohio EPA Commentor: ODH

Section #: Page #: Line #:

Original Comment #: 1

Comment: Splitting samples from each CU between the FEMP and offsite labs would add an extra level of accuracy and provide a precision comparison. This is warranted in that costs associated with removal of insufficient or excess soils due to use of erroneous WAC data would adversely impact the site's overall cleanup budget.

Response: The driver regarding the field and analytical quality control requirements is the Sitewide Quality Assurance Plan (SCQ). The sampling and analysis requirements of the SCQ were met for A1PI. The SCQ does not require split samples between laboratories, only that the laboratories used are on the FEMP Approved Laboratory List. The Project Manager also has the option to call for additional duplicates or split samples to be sent to both the on-site and off-site laboratories. This option was not exercised for A1PI, but remains an option for future sampling events.

Action: None.

Comment: 229 Use of Off-Site Laboratories 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2 Page #: 1 Line #: Para 3
Original Comment #: 6

Comment: The use of an off-site laboratory for a small percentage of the precertification samples may be warranted to ensure the results from the on-site laboratory are not biased. DOE should update this section to reflect the current schedule.

Response: Precertification samples were not used for A1PI. The decision criteria for laboratory selection is based on several factors including: capabilities, capacity, data package deliverable requirements, and turn around time. All laboratories utilized are subject to the criteria specified in the SCQ, and must be on the FEMP Approved Laboratories List.

Action: None.

Comment: 230 Precertification 2-4-97

Commenting Organization: Ohio EPA Commentor: GeoTrans

Section #: 1.2.3 Cert. Page #: 3 of 14 Line #:

Original Comment #: 7

Comment: In this section, it states that certification sampling will be performed when precertification sampling and historical data indicates FRLs have been meet. Have the areas with historical data indicating no exceedances of FRLs been identified? Please include a map where it is proposed to certify without doing precertification work.

Response: Because of process knowledge and history of the A1PI area, levels of contamination within A1PI were anticipated to be low. Therefore, no precertification sampling was performed in A1PI. No certification decisions were based on precertification data.

Action: None.

Comment: 232 Number of Samples Per CU 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.2.3 Page #: 3 Line #: Para 1
Original Comment #: 9

Comment: What criteria is used to determine that 12 random samples per CU for primary COCs will be an adequate number of samples within the physical boundary of the CU? Will the number of samples increase to clearly demonstrate that the appropriate confidence levels are achieved.

Response: Agreed.

Action: The number of samples required to achieve statistical confidence was determined from the following equation:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{\left(\frac{FRL - \bar{x}_{target}}{S_{CA}}\right)^2}$$

where

α = *probability of Type I Errors* (.05)
β = *probability of Type II Errors* (.20)
Z = *critical level (for the designated probability) for the normal distribution*
FRL = *the FRL for the given analyte*
$\bar{x}_{target}$ = *target clean-up level mean 75% of the FRL*
S_{CA} = *standard deviation estimated for Clean Areas*

The target clean-up level during precertification is 75% of the FRL. At this target clean-up level the maximum expected value (average level) would be no greater than 75% of the FRL. As a conservative estimate we chose to use 75% of the FRL as the target clean-up level mean.

An estimate of the variability for post-remedial conditions was based on estimates calculated from existing data in "clean areas". The concept was that the variability demonstrated in unimpacted areas would be similar to post-remedial conditions in impacted areas as well. The procedure used to estimate the clear area variability is as follows:

1) The site was divided into 100 ft. by 100 ft. blocks. This was accomplished by simply dividing the Northing and Easting coordinate by 100 since these coordinates are presented in feet.

2) Block averages were calculated for each 100 ft. by 100 ft. block.
3) Blocks were then categorized as either impacted (average greater than or equal to the FRL) or unimpacted (average less than the FRL).
4) All sample locations that were located in a impacted blocks were then eliminated from consideration.
5) From the data remaining (unimpacted areas), the variability used in the calculations was calculated.

Using this methodology we hoped to best develop an estimate of post-remedial variability. Under these assumptions and methods the estimated sample sizes are 12 for primary COCs and nine for secondary COCs. The drivers for these sample sizes were thorium-232 (primary) and arsenic and beryllium (secondary).

Action: Text was included in the A1PI Certification Report.

Comment: 234 Differing Analytical Sample Collection Protocols 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.0 Page #: 5 Lines #:
Specific Comment #: 11

Comment: Analytical soil sampling procedures are provided for (1) precertification sampling, (2) WAC attainment sampling (3) certification sampling and (4) Comparability Study Part B sampling. Please provide the rationale for the differing analytical sample collection protocols specified for these activities. For example, 4" sample tubes are specified for certification and attainment sampling and for Comparability Study Part B sampling, respectively. Additionally, vegetation is to be removed prior to certification and Precertification sampling. Samples collected for WAC attainment assessment and Comparability Study Part B, however, are strictly required to include surface vegetation. Please include a discussion of the rational for treating surface vegetation differently in the various situations.

Response: For A1PI Certification the sample collection depths were as follows:

Waste Acceptance Criteria Samples - 0-6 inches
Certification Samples - 0-4 inches

The 0-6 inch interval was selected for WAC sampling because the excavation is conducted in 6 inch lifts, or in multiples of 6 inch lifts. The 6 inch core WAC sample is representative for the excavated 6 inch lift. The 0-4 inch interval was used for the certification sample to avoid biasing the sample with less impacted soil. Since the contamination in A1PI is top down, the 4 inch core would have a greater surface area to volume ratio, and thus be more conservative if contamination is present. Note that in the CUs which initially failed (P17-32 for arsenic, Q18-40 for radium-226, and O20 for a total uranium "hot spot"), the postexcavation certification samples were 0-6 inches. This interval was selected to best represent the excavation lifts.

With regard to vegetation, all sampling for A1PI required that all vegetation be removed before any soil sample was collected.

Action: None.

Comment: 235 Aluminum, Arsenic, and Beryllium 2-4-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: Table 2-2 Page #: 6 Lines #:

Original Comment #: 12

Comment: Why are there no methods listed for aluminum, arsenic, and beryllium?

Response: Methods are not listed for inorganic (metals) analysis for the following reason: Methods utilized for off-site (certification) analysis are specified under an umbrella for Contract Laboratory Program (CLP) statement of work (SOW) for inorganics. In the external laboratory task order, there is flexibility to utilize a variety of analytical methods depending on variables such as concentration, matrix, and interference. For example, either ICP or GFAA may be used depending on circumstances. These methods are specified in the laboratory task orders as per CLP protocol, but the direction is too complex to paraphrase in a PSP or Work Plan. The laboratory task orders are available for review, if needed. This approach is consistent with the SCQ.

Action: Specific methodology is addressed in Section 4.0 of the A1PI Certification Report.

Comment: 236 Sample Number 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 7.0 Page #: 7 Lines #: Para 2
Original Comment #: 13

Comment: For this equation to apply, it is Ohio EPAs understanding that n should be greater than 20. Please provide a reason why fewer samples are justified in this case.

Response: Disagree. There is no stipulation as to a sample size being greater than 20 for this statistical test. The test statistic is generated with sample variances and sample sizes. The comparative distribution is the *t* distribution which is used for small sample sizes approximating a normal distribution. The small size confidence (probability) levels are built into the *t* distribution tables.

Action: None.

Comment: 240 Staking Sample Locations 2-4-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 2.2.2 Page #: 8 Lines #: Para 2

Original Comment #: 17

Comment: What precautions will be used to ensure that the sample location is not "lost" between the time the stake is placed and geodimeter coordinates are taken? Stakes can be inadvertently moved, broken, etc.

Response: Generally stakes remain in place after the land is surveyed since the time between surveying and performing the field work is a matter of days. If there is any question that a stake has been moved or is missing, a sample point can be immediately resurveyed with a backpack GPS unit or the standard survey equipment.

Action: None.

Comment: 241 Resampling a CU Criteria 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3 Page #: 8 Lines #: Para 3
Original Comment #: 18

Comment: What criteria would necessitate "resampling" of a CU.

Response: The resampling of a CU would occur under one of the three broad scenarios discussed below.

1) Failing to obtain an adequate number of "valid" certification data points in a CU. Demonstrating certification in a CU requires a minimum number of valid data points. If for some reason an adequate number of data points is not collected, or if some data fails to pass validation (receives an R) and too few data points survive to achieve the critical number, then re-sampling would be required.

2) A CU is potentially recontaminated after certification. In this event, resampling would be required and would be discussed on an individual basis.

3) Failure of a CU may require corrective action. Each case will be dealt with on an individual basis.

Action: A more detailed discussion of resampling, additional sampling, and CU failure will be incorporated into the SEP.

Comment: 244 Duplicate Samples 2-4-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 2.3 Page #: 9 Lines #: Para 5

Original Comment #: 21

Comment: 1 per 20 sample duplicate ratio does not yield a duplicate per CU. We recommend at least one duplicate per CU. The procedure for obtaining a field duplicate immediately adjacent to the sample point does not provide laboratory QA/QC. It will merely provide a measure of the variability in the soil matrix. A duplicate sample for the laboratory should be a sample which is "split".

Response: The driver regarding the field and analytical quality control requirements is the Site Wide Quality Assurance Plan (SCQ). The sampling and analysis requirements of the SCQ for field QA/QC were met or exceeded in A1PI. A duplicate sample was taken in each CU for the OSDF Support Areas as described in the PSP. For the remaining CUs the 1 to 20 requirement was met. Furthermore, evaluation of field QC duplicates were within the validation Relative Percent Difference (RPD) criteria and did not result in any qualification.

With regard to split samples, for A1PI no splits between laboratories were performed. Note the SCQ does not require split samples between laboratories, only that the laboratories used are on the FEMP Approved Laboratory List. The Project Manager has the option to call for additional duplicates or split samples to be sent to both the on-site and off-site laboratories. This option was not exercised for A1PI, but remains an option for future sampling events.

Action: None.

Comment: 247 GPS Accuracy 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3 Cert. Phys. Samp. Page #: 10 of 14 Lines #:
Original Comment #: 24

Comment: The first paragraph of this page discusses obtaining sampling coordinates by total station survey instrument or a GPS. Will a GPS have sufficient accuracy to relocate a sample location if necessary. What is the accuracy of the GPS?

Response: The GPS system currently used by the FEMP Soil Characterization and Excavation Project has been determined to be sufficiently accurate to locate and relocate sample locations. In A1PI reconstruction of sample locations has been performed by both total station and GPS. Typical accuracy of the differential GPS Omnistar System is 0.4'-1.5'. Checks of the GPS System are performed against the total station shot offsite benchmark established by National Geodedic Survey.

Action: None.

Comment: 249 Sample Preparation for Radiological Analysis 2-4-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.5.2 Rad Analysis Page #: 12 or 14 Lines #:
Original Comment #: 26

Comment: This section describes the sample preparation for radiological analysis. We suggest specifying a riffle splitter for mixing and obtaining an aliquot of each samples.

Response: Both on-site and off-site laboratories will, at a minimum, meet the following guidelines for radiological analysis sample preparation:

1) All sample material (including any organic matter) will be removed from the liner (or sample container), weighed, and recorded. The analyst performing this step will describe the appearance of the sample.

2) All sample material will be dried at 105° to 112° C for a minimum of 8 hours to constant weight.

3) The percent moisture content of the sample will be calculated and recorded.

4) The entire sample will be ground until all the material passes through a 1 millimeter sieve.

5) The sample will be mixed by hand or machine.

6) The necessary aliquot will be removed for analysis and the remaining sampled material will be archived.

A riffle splitter screens loose sample material by using gravity to split the sample into mixed aliquots. In order for this device to work effectively, the sample must be dry and large pieces removed. In the A1PI certification program, samples were obtained by drying and grinding the entire core as specified above. The grinding process thoroughly homogenizes the sample into a fine powder consistency. Representative aliquots were then taken from this homogenized sample. Using this protocol, the riffle splitter would not be of benefit or improve homogenization of the sample.

Action: None.

Comment: 251 Equation Correction 2-4-97

Commenting Organization: Ohio EPA Commentor: GeoTrans
Section #: Appendix A, SL-023 Page #: 8 Lines #: 13
Original Comment #: 28

Comment: The following text should be added to the list of defined variables: $Z\ 1-\alpha + Z\ 1-\beta$ = the critical values for the normal distribution with probabilities $1-\alpha$ and $1-\beta$.

Response: Agreed.

Action: The correction was made to DQO SL-023 and the A1PI Certification Report.

Comment: 252 Justification for ASL-B 2-4-97

Commenting Organization: Ohio EPA Commentor: GeoTrans
Section #: Appendix A, SL-023 Page #: Lines #:
Original Comment #: 29

Comment: Please provide justification for using ASL-B. The potential benefits from using real-time methods are large enough and the potential consequences of making the wrong decisions are great enough that the additional costs incurred by upgrading to ASL-C could be justified.

Response: For A1PI, the ASL B was not used. The analyses and validation levels performed were as follows:

- All certification analyses were performed at the ASL D analytical specifications for laboratory QA/QC.
- The full ASL D data package was delivered by the laboratories. This package includes all QA/QC results and raw data.
- Ninety percent (90%) of the data was validated at the validation level B, which includes evaluating all the QA/QC data and cursory review of the raw data. Ten percent of the data packages were validated at level D. This includes the validation level B review, plus a systematic review of the raw data, and the duplication of calculations from the raw data including sample results.

Action: None.

Comment: 254 Editorial Correction 2-4-97
Commenting Organization: Ohio EPA Commentor: GeoTrans
Section #: Appendix A, SL-023 Page #: 7 Lines #: 17
Original Comment #: 31

Comment: This sentence should be revised to read "If the computed value (t) exceeds the critical value of a t-distribution for alpha = 0.05 **at n-1 degrees of freedom**, then the null hypothesis is rejected and the CU is certified as having average ASCOC concentration below the applicable FRL".

Response: Agreed.

Action: The correction was made to DQO SL-023 and the A1PI Certification Report.

Comment: 255 Editorial Correction 2-4-97
Commenting Organization: Ohio EPA Commentor: GeoTrans
Section #: Appendix A, SL-023 Page #: 14 Lines #: Table C 1-1
Original Comment #: 32

Comment: Based on Section 5 of the Remedial Action Work Plan for the Soil Remediation Project for Area 1 Phase I (July 1996), lead, manganese, benzo(a)anthracene, benzo(a)pyrene, benzo(a)fluoranthene, benzo(g,h,i,)pyrene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene are also COCs in Area 1 Phase I. Table C.1-1 should be revised to include information for these constituents.

Response: These constituents were not certified for in A1PI. They were specific to Area D, which was removed from the scope of A1PI.

Action: None.

Comment: 256 Editorial Correction 2-4-97

Commenting Organization: Ohio EPA Commentor: GeoTrans

Section #: Appendix A, SL-023 Page #: 16 Lines #: Table C 1-3

Original Comment #: 33

Comment: Table C.1-3 summarizes the computation used to estimate the number of samples per CU in Area 1 Phase I that are needed to achieve acceptable confidence levels. Based on Section 5 of the Remedial Action Work Plan for the Soil Remediation Project for Area 1 Phase I (July 1996), aluminum, manganese, and molybdenum are also COCs in Area 1 Phase I. Table C.1-3 should be revised to include information for these constituents. Additionally, sample numbers computed using the data in the table are not consistent with the sample numbers shown. Please clarify these calculations.

Response: The three listed constituents, aluminum, manganese and molybdenum, are not ASCOCs in A1PI but are classified as ecological COCs. According to agreement with the regulators, data for the ecological COCs would be collected in A1PI but results of these constituents would not be utilized in pass/fail certification decision making. Because of this, utilizing existing data to calculate the number of samples required to pass certification is not relevant for these constituents in A1PI. This is covered in more detail in Section 2.0 of the A1PI Certification Report.

Action: None.

Comment: 260 Fill Along the North Access Road 3-14-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: Pg #: Line #: Code:

Original Comment #:

Comment: One new development is the discovery that fill along the northernmost portion of the North Access Road is up to 70 inches deep. Given that the origin of this material is unknown and that the NAR was built after the FMPC was in operation for several years, the assumptions implicit in remediation of the rest of Area 1, Phase 1 are no longer valid. (These assumptions are that contamination is air-borne and that once an upper soil horizon has been certified all the lower areas can be assumed to be clean). We can't rule out the possibility that a truckload of contaminated soil was included in the fill material.

Response: Agreed. The section of the road that contains sample locations NAR 4-13 through 4-16 is underlain with the larger thickness of fill mentioned in the comment. During sampling at these locations, fill clay was encountered below the asphalt and macadam ranging from 12 to 70 inches thick. From these locations, samples were taken through the fill in 6 inch increments for WAC attainment and FRL certification analysis. In addition, a 4 inch interval at the top of the native clay was analyzed.

Based upon the analytical data collected from these samples, it has been determined that the fill under the North Access Road is not contaminated, and passes certification analyses. It should also be noted that the area of the North Access Road underlain by the larger thickness of fill will not be removed as a component of the construction of the relocated North Access Road.

Action: None.

Comment: 261 Excluding Area Over Cables From Sampling 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1.5 Pg #: 9 of 21 Line #: 2 Code: C
Original Comment #:

Comment: The text states that a 5 foot wide area over the buried cables will be excluded from sampling. During the meeting on February 25 it was mentioned that it would be possible to dig closer to the cables if a representative from the utility company were present. Please resolve the discrepancy.

Response: During the February 25, 1997 meeting, it was suggested that a closer dig might be possible. However, a more detailed investigation revealed that sampling could not be taken closer than 18 inches outside of the marked boundaries of the specific utility cables even if a utility company representative were present. The Ohio Revised Code 3781.25D requires an 18 inch buffer zone around buried utilities. This resulted in an approximate 5 foot wide area over the buried cables excluded from sampling.

Action: The buried phone cable and fiber optic lines were identified on the surface by Cincinnati Bell prior to sampling. Samples that fell within 18 inches of the marked utility cables were moved just outside of the 18 inch buffer zone.

Comment: 262 Sampling Plan for Ditches 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.1.6 Pg #: 9 of 21 Line #: last two lines on page Code: C
Original Comment #:

Comment: The sampling plan for the ditches depends on the one hand augered hole which determined that the depth to the native clay was 12 inches. The native clay is the layer to be certified and presumably all the fill will be removed to allow for the construction of the OSDF. We are concerned that the test hole will not be representative of the ditch as a whole. If this is the case, the certification samples will not necessarily be taken from the uppermost layer that remains. Clarification of the depth profile to be removed and the methods used by the excavators to decide if excavation is deep enough.

Response: One boring was not representative of the ditches. Depth stratigraphy was logged by a geologist at all the sample points in the ditches. The depth to the top of the native clay did show some depth variability in the ditches over the extent of the North Access Road being sampled.

Action: A WAC sample interval of 0-6 inches was collected and then as many subsequent intervals were collected as needed until the native clay layer was reached. A certification sample was collected from the top of the native clay. The WAC sample and the certification samples were sent for analysis. The WAC archive samples are available for analysis if needed.

Comment: 263 Decontamination of the Core Tip or Cutting Shoe 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.8 Pg #: 16 of 21 Line #: 5th line Code: C
Original Comment #:

Comment: For concurrent WAC and certification sampling in the same hole, it is not clear why the core tip or cutting shoe is decontaminated. Why isn't the sampler driven into the ground once and then the core removed and divided into the two required samples? It is not clear either what the phrase "decontamination of the core tip or cutting shoe will be required between the WAC interval and certification interval to prevent cross-contamination."

Response: Because of the unknown depth to the top of the native clay layer in the initial sampling holes, the first few holes were cored in small intervals to determine the stratigraphy. Elements of this are the macadam thickness, top of the fill, fill thickness, and top of the native clay. When the small increments were bored, the cutting shoe was decontaminated between each entry into the hole to prevent cross contamination between sample collection intervals. However, high moisture content in the fill material caused occasional hole collapse resulting in abandoned holes. Subsequently, longer core barrels were used to collect one continuous core interval for each 4 foot interval cored. The cutting shoe was decontaminated between 4 foot intervals and between sampling locations.

Action: Longer core barrels were taken, and the core was removed and divided into the required samples.

Comment: 264 Sampling Protocols 3-14-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: 4.2 Pg #: 17 and 18 of 21 Line #: Code: C

Original Comment #:

Comment: It may not be appropriate here to revisit the sampling protocols that have been used in the RI/FS process, but still have two brief points to clarify. Are the concentrations reported on a wet-weight or a dry-weight basis. Why isn't the field sample screened in the lab to remove large-sized fractions? Based on an assumed air-borne method of deposition, analyzing the entire sample would bias the results lower than analyzing only the smaller size fraction.

Response: Sample concentrations are reported on a dry weight basis. All samples are "dried and ground" in a consistent manner specified by the FEMP laboratory. COC concentrations are meant to be "representative" of the sample. If samples are screened on prepared in different ways, this will bias sample results. We disagree that rocks and debris should be removed for radiological sample preparation.

There have been a number of soil samples (i.e., sample point 3 in the Part B Comparability Study, and the "triangle area" in the rail yard) with elevated concentrations that contained gravel sized material. This gravel contributes to the surface exposure (dose/risk), and removal of this material would result in a non-representative sample.

When a sample is taken and submitted to the laboratory for analysis, the whole sample is crushed so that the entire sample can go through a fine mesh screen. It is mixed to ensure homogeneity. This specific method was developed and required for all Soil Project samples to provide consistency in the analysis.

Action: None.

Comment: 265 Blind Duplicate Samples 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 5.3 Pg #: 19 of 21 Line #: Code: C
Original Comment #:

Comment: It isn't specifically stated in the text one way or the other but "blind" duplicate samples would offer a higher level of control than labeled duplicates. The frequency of split samples isn't addressed.

Response: For A1PI, the samples were blind to the off-site laboratories. Prior to shipping a sample to the off-site laboratories samples are assigned an internal tracking number from the FDF Fernald Analytical Customer Tracking System (FACTS) database. The laboratories report the data based on these numbers, not the field ID.

With regard to split samples, for A1PI no splits between laboratories were performed. The SCQ does not require split samples between laboratories, only that the laboratories used are on the FEMP Approved Laboratory List. The Project Manager has the option to call for additional duplicates or split samples to be sent to both the on-site and off-site laboratories. This option was not exercised for A1PI, but remains an option for future sampling events.

Action: None.

Comment: 266 Electronic Files of Validated Data 3-14-97

Commenting Organization: Ohio EPA Commentor: OFFO

Section #: DQO 8.0 Pg #: 9 of 15 Line #: Code: C

Original Comment #:

Comment: Ohio EPA would like to make arrangements to obtain electronic files of validated data from the SED and the SRDIG.

Response: Agreed.

Action: The equation parameters have been revised in the Certification Report to include "Z = critical level (for the designated probability) from the normal distribution."

Comment: 267 Editorial Correction 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: DQO 2.0 Pg #: 4 of 17 Line #: Code: C
Original Comment #:

Comment: Should this read, "If the maximum concentration of any one..."?

Response: Agreed. The DQO referenced is SL-024 Revision 2 which is titled "Precertification Sample" for Waste Acceptance Criteria. The comment is editorial in nature. This DQO was superseded during the A1PI data collection effort by DQO SL-028, Soils Waste Acceptance Criteria (WAC) Sampling for Total Uranium. This DQO addresses sample collection and analysis for WAC attainment of uranium sitewide

Comment: 268 Editorial Correction 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: DQO 6.0 Pg #: 6 of 17 Line #: Code:
Original Comment #:

Comment: The text should specify that this is the one-sided t-statistic.

Response: Agreed.

Action: The changes suggested by OEPA will be made in the text; see Section 2.0 for a description of the statistical analysis.

Comment: 269 Percentage of Samples Validated 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: DQO 8.0 Pg #: 8 of 17 Line #: Code: C
Original Comment #:

Comment: Don't understand how (1st sentence 2nd paragraph) each sample is submitted for the appropriate ASL D or D* analysis but (1st sentence last paragraph) only 10% of the samples get full data validation to ASL D.

Response: For A1PI the ASL level and the validation levels performed were as follows:

- All certification analyses were performed at the ASL D analytical specifications for laboratory QA/QC.
- The full ASL D data package was delivered by the laboratories. This package includes all QA/QC results and raw data.
- Ninety percent (90%) of the data were validated at level B, which includes evaluating all the QA/QC data and cursory review of the raw data. Ten percent of the data packages were validated at level D. This includes the level B review, plus a systematic review of the raw data, and the duplication of calculations from the raw data including sample results.

Action: None.

Comment: 270 Statistical Analysis of Non-Detects 3-14-97
Commenting Organization: Ohio EPA Commentor: OFFO
Section #: DQO 8.0 Pg #: 8 of 17 Line #: 2nd para Code: C
Original Comment #:

Comment: We agree that it is appropriate to revise the HAMDC to reflect the different data needs of the certification process, but non-detects haven't been mentioned. How will non-detects be handled in the statistics?

Response: As was consistent with the RI/FS, one half of the reported detection level was used for statistical calculations when a sample was reported as a non-detect.

Action: None.

Comment: 271 Upper Confidence Limits Calculations 4-2-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: OSDF Support Area PSP Pg #: Line #: Code:
Original Comment #:

Comment: The upper confidence limits (UCL) for metal and polychlorinated biphenyls (PCB) are incorrect. The UCLs for metal and PCB units from which 10 samples were collected are about 0.44 standard deviation above the mean. The UCL for metals and PCB units from which nine samples were collected are about 0.47 standard deviation above the mean. The correct UCLs should be 0.58 for units from which 10 samples were collected and 0.62 for units from which 9 samples were collected. DOE should revise the calculations for these UCLs. The UCLs for units from which 12 samples were collected for radioactivity analysis were calculated correctly.

Response: The UCLs for COCs shall be below the FRLs with a minimum statistical confidence of 95% for primary COCs and a minimum of 90% for secondary COCs. The reviewer applied the 95% confidence level to secondary COCs when 90% should have been used.

Comment: 272 Extension of the Soil Sampling Intervals 5-22-97

Commenting Organization: U.S. EPA Commentor: Saric

Section #: Not applicable (NA) Pg #: NA Line #: NA Code:

Original General Comment #: 1

Comment: The project specific plan (PSP) indicates that soil characterization samples will be collected from the certification unit (CU) using a GeoProbe®. The PSP also states that the sampling interval will include approximately 21 inches of soil. DOE should consider extending the sampling interval to include an additional 6 inches of "native clay" material. The additional soil material could be used as a certification sample archive in case of CU failure. Extending the soil sample interval will provide a more conservative approach in case of CU failure and should not significantly increase sampling and analysis costs. The PSP should be revised to address this issue.

Response: A variance to the PSP was issued which allowed for the collection of an archive 4 inch certification interval below the top of the native clay. This variance applied to the North Access Road, OSDF Sediment Basin, Sediment Trap, and the Pump Station sampling areas.

This archive certification interval was collected for future analysis in the event of CU certification failure.

Comment: 273 Confirmation of Sampling Intervals 5-22-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.0 Pg #: NA Line #: NA Code:
Original General Comment #: 2

Comment: The text in this section provides information regarding the overall sampling activities to be conducted as part of the PSP. The type of samples collected for certification and waste acceptance criteria (WAC) are dependent upon the depth of the sampling interval. The text in this section should be revised to include a discussion of how DOE will confirm the depths of the sampling intervals.

Response: WAC samples obtained from on-site soil are specified as 6 inch intervals. Certification samples obtained from on-site soil are specified as 4 inch intervals.

The interval can be collected using either a core liner or the GeoProbe. If the core liner is used, the liner is marked to the required depth prior to driving it into the soil, then it is driven into the soil, and the interval acquired. If the GeoProbe is used, the core barrel is marked for the required depth, then the core liner is retrieved, split open, and the sample intervals directly measured.

Comment: 274 Reference Needed for Certification Sampling 5-22-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.1.2 Pg #: 6 of 21 Line #: NA Code:
Original General Comment #: 3

Comment: The text describes the certification sampling activities that will be conducted for the North Access Road. The text refers to Tables 3-2 and 3-4 which identify the analytical requirements for primary radiological contaminants of concern (COC) and secondary metals and polychlorinated biphenyl COCs. Throughout Section 3.0, no reference is made to certification sampling for secondary COCs or to Table 3-3. The PSP should be revised to address this issue.

Response: Discussion of Table 3-3 Certification Sampling, Radiological Analytical Requirements for the North Access Road, was inadvertantly omitted from the PSP.

Samples were collected from the North Access Road and analyzed for WAC, certification for primary radiological constituents, certification for secondary radiological constituents, and certification for secondary metals.

In addition, PCB sample collection and analysis were conducted in the OSDF Pump Station and OSDF Sediment Basin areas.

Comment: 275 Plan A Decision Matrix for OSDF Support Areas 5-22-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 4.0 Pg #: NA Line #: NA Code:
Original General Comment #: 4

Comment: The PSP describes the data collection activities to be performed to support the excavation of contaminated soil and certification of support areas associated with the on-site disposal facility (OSDF). On April 29, 1997, DOE presented to U.S. EPA proposed area-specific plans for six types of areas to be included in the soils remediation project. DOE's presentation included decision matrices for the area-specific plans, including "shallow excavation of impacted on-property area outside of the former production area and other waste storage/management areas." The plan for this area was identified as Plan A. The PSP for the OSDF support areas should be revised to include a Plan A decision matrix modified to reflect specific PSP aspects related to the OSDF support areas.

Response: Approach A details the proposed strategy and methods to design remedial excavations outside of the Former Production Area where shallow contamination is anticipated. Approach A is based on the sequential remedial decisions that were performed in the now completed Area 1 Phase I work scope and the lessons learned in the process. Some components of the proposed approach did not apply to Area 1 Phase I, including known soil above the OSDF WAC, the presence of Tc-99, and HWMUs. If Approach A, as described in the SEP, is accepted, this strategy will be followed in subsequent IRDPs for areas that include shallow excavation.

Comment: 276 Level II Decontamination 5-22-97

Commenting Organization: U.S. EPA Commentor: Saric

Section #: 3.1.2 Pg #: 7 of 21 Line #: NA Code:

Original Specific Comment #: 1

Comment: The text states that "only the cutting shoe requires Level II decontamination following collection and removal of each discrete soil core." The PSP should be revised to explain how cross-contamination will be prevented when the cutting shoe is advanced to collect additional sample intervals.

Response: A variance to the PSP was issued to allow for GeoProbe WAC and certification samples to be collected using one long core barrel. The multistep process identified in the OSDF Support Areas PSP was not implemented. Saturated soil conditions caused some hole cave-ins. Potential cross-contamination between sample intervals was possible if the holes were reentered.

The potential for cross contamination was eliminated by decontaminating the cutting shoe prior to entering the hole, and entering the hole once.

Comment: 277 Representative Sampling for the East Ditch 5-22-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.1.5 Pg #: 9 of 21 Line #: NA Code:
Original Specific Comment #: 2

Comment: The text refers to a five foot wide area over cables that is in the east ditch of the North Access Road. The five foot wide area will be excluded from sampling activities. The presence of the cables and inability to sample this area raises the question of how representative the sampling is for the east ditch. DOE should describe and implement any field screening techniques that could be used to better characterize the five foot wide area. The PSP should be revised to address this issue.

Response: Random sample locations were generated to the east ditch of the North Access Road. Those sample locations that fell within 18 inches of the buried cables were moved to the closest safe location outside the 18 inch "no sample corridor." Because the 18 inch zone traversed the west side, the center, and the east side of the ditch, no one area of the ditch was repeatedly eliminated from sampling. Representative samples on the west side, the center, and the east side of the ditch were collected for WAC and certification analysis.

Comment: 278 Handling of Drained Water from the Sediment Trap 5-22-97
Commenting Organization: U.S. EPA Commentor: Saric
Section #: 3.3 Pg #: 12 of 21 Line #: NA Code:
Original Specific Comment #: 3

Comment: The text states that "the sediment trap will be drained of standing water before sampling." The text should be revised to explain how the water drained from the trap will be handled.

Response: The standing water in Sediment Trap #1 was drained and discharged into the Stormwater Retention Basin. It was then treated by uranium extraction at the Advanced Waste Water Treatment (AWWT) facility.

Appendix F

OSDF Sediment Basin Certification Results

Certification Unit: OSB-1 02:10 PM 30-Jun-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
Map	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
1	OSB-1C-1-R	0.9 J	0.54 -	0.75 J	0.67 J	2.9 -	0.001 U	1.2 J
	OSB-1C-2-R	1.4 J	1.3 -	1.8 J	1.5 J	5.7 J	0.044 U	2.3 J
3	OSB-1C-3-R	0.89 J	0.57 -	0.87 J	0.63 J	1.7 U	0.021 U	1.3 J
4	OSB-1C-4-R	1.3 J	1.4 -	1.3 J	1.1 J	7.7 J	0.049 U	1.6 J
5	OSB-1C-5-R	1 J	0.84 -	0.96 J	0.75 J	1.7 U	0.011 U	1.1 J
5	OSB-1C-5-R-D	0.92 -	0.81 -	0.96 J	0.76 J	1.4 J	0.077 U	1.2 J
6	OSB-1C-6-R	1.2 -	1.3 -	1.5 J	1.2 J	5.2 -	0.09 U	1.7 J
7	OSB-1C-7-R	1 J	0.68 -	0.92 J	0.84 J	3.0 J	0.032 U	1.4 J
8	OSB-1C-8-R	1.3 -	1.3 -	1.3 J	1.2 J	5.7 -	0.009 U	1.5 J
9	OSB-1C-9-R	0.76 -	0.49 -	0.6 J	0.38 J	5.9 -	0.035 U	1 J
10	OSB-1C-10-R	0.84 -	0.79 -	1 J	0.82 J	2.0 -	0.029 U	1.2 J
11	OSB-1C-11-R	1.8 J	1.6 -	1.5 J	1.5 J	2.4 U	0.076 U	1.9 J
12	OSB-1C-12-R	1.2 -	1 -	1.1 J	1.1 J	1.9 -	0.06 U	1.4 J
13	OSB-1C-13-R	1 J	0.81 -	0.83 J	0.81 J	0.8 U	0.007 U	1.2 J
14	OSB-1C-14-R	0.94 -	0.78 -	1.2 J	1.1 J	3.8 -	0.016 U	1.4 J
15	OSB-1C-15-R	1.5 -	1.5 -	1.6 J	1.6 J	2.0 J	0.032 U	1.8 J
16	OSB-1C-16-R	1.3 -	1.2 -	1.6 J	1.5 J	3.2 J	0.021 U	1.9 J
	Method	Gamma	Gamma	Alpha	Alpha	Gamma	Gamma	Alpha
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	16	16	16	16	16	16	16
	Hits	16	16	16	16	13	0	16
	Max	**1.80**	**1.60**	**1.80**	**1.60**	**7.7**	**0.05**	**2.30**
	Mean	1.14	1.01	1.18	1.04	3.3	0.02	1.50
	St.Dev.	0.28	0.36	0.35	0.36	2.14	0.01	0.35
	UCL	**1.27**	**1.17**	**1.33**	**1.20**	**4.2**	**0.02**	**1.61**
	t-Stat	7.93	8.71	5.93	5.03	147.30	448.73	3204.91
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: *One half of the reported* detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - *The mean or average concentration.* (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: OSB-2 02:09 PM 30-Jun-97

Map	Sample ID	PRIMARY ASCOCs										SECONDARY ASCOCs			
		Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total		Cesium-137		Thorium-230	
1	OSB-2C-1-R	1.5	-	1.3	-	1.3	-	1.1	-	5.4	J	0.031	U	1.5	-
2	OSB-2C-2-R	1.3	-	1.3	-	1.2	-	1.1	-	5.3	J	0.022	U	1.5	-
3	OSB-2C-3-R	1.3	-	1.3	-	1.3	-	1.1	-	5.9	J	0.032	U	1.3	-
4	OSB-2C-4-R	1.5	-	1.6	-	1.2	-	1.3	-	1.3	U	0.051	U	1.9	-
5	OSB-2C-5-R	1.4	J	1.3	J	1.5	-	1.3	-	3.9	J	0.028	UJ	1.8	-
6	OSB-2C-6-R	1.1	J	1.2	J	0.81	-	0.81	-	3.8	J	0.008	UJ	1.2	-
7	OSB-2C-7-R	1.2	J	1.3	J	1.3	-	1	-	4.0	J	0.008	UJ	1.4	-
8	OSB-2C-8-R	0.99	-	0.95	-	1.1	-	0.93	-	3.2	J	0.029	UJ	1	J
8	OSB-2C-8-R-D	0.98	J	0.89	J	1.1	-	0.92	-	3.8	J	0.03	UJ	1.4	-
9	OSB-2C-9-R	0.69	J	0.81	J	0.91	-	0.59	-	3.9	J	0.001	U	1.1	J
10	OSB-2C-10-R	1.1	J	0.99	J	1.2	-	0.87	-	4.4	J	0.026	UJ	1.6	-
11	OSB-2C-11-R	1.2	J	1.2	J	1	-	1	-	10.4	J	0.028	UJ	1.2	-
12	OSB-2C-12-R	1	-	0.85	-	0.96	-	0.84	-	6.5	J	0.031	U	1.1	-
13	OSB-2C-13-R	1	J	0.92	-	0.85	J	0.71	J	6.3	-	0.079	U	1.3	J
14	OSB-2C-14-R	0.91	J	0.98	J	0.94	-	0.7	-	12.9	J	0.027	UJ	1.1	-
15	OSB-2C-15-R	0.87	-	0.95	-	1.1	-	0.77	-	3.6	J	0.027	U	1.3	J
16	OSB-2C-16-R	1.4	-	1.5	-	1.5	-	1.1	-	14.9	-	0.031	U	1.8	-

Method	Gamma	Gamma	Alpha	Alpha	Gamma	Gamma	Alpha
FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280**
Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
Samples	16	16	16	16	16	16	16
Hits	16	16	16	16	15	0	16
Max	**1.50**	**1.60**	**1.50**	**1.30**	**14.9**	**0.04**	**1.90**
Mean	1.15	1.15	1.14	0.95	6.0	0.01	1.39
St.Dev.	0.24	0.24	0.21	0.21	3.72	0.01	0.26
UCL	**1.26**	**1.26**	**1.23**	**1.04**	**7.6**	**0.02**	**1.48**
t-Stat	9.21	10.91	10.54	10.46	81.73	623.72	4213.38
Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: OSB-3 02:02 PM 30-Jun-97

		PRIMARY ASCOCs										SECONDARY ASCOCs			
Map	Sample ID	Radium-226		Radium-228		Thorium-228		Thorium-232		Uranium, Total		Cesium-137		Thorium-230	
1	OSB-3C-1-R	1	J	0.91	-	0.81	J	0.61	J	2.8	-	0.076	U	1	J
	OSB-3C-2-R	0.96	J	0.89	-	1.3	J	0.95	J	2.5	U	0.094	J	1.4	J
	OSB-3C-3-R	1.8	J	1.5	-	1.8	J	1.3	J	3.2	J	0.016	U	2.4	J
4	OSB-3C-4-R	1.5	J	1.4	-	1.4	J	1.2	J	2.8	-	0.04	U	1.6	J
5	OSB-3C-5-R	0.84	J	0.68	-	0.79	J	0.71	J	2.6	U	0.077	U	1.1	J
6	OSB-3C-6-R	1.3	-	1.2	-	1	J	1.1	-	17.5	-	0.041	U	1.4	-
7	OSB-3C-7-R	0.96	-	1	-	1	J	0.73	-	3.6	J	0.026	U	1.2	-
8	OSB-3C-8-R	1.1	J	0.96	-	1.2	J	0.97	J	4.8	J	0.096	U	1.5	J
9	OSB-3C-9-R	1.3	-	1.1	-	1.3	-	0.97	-	0.5	J	0.053	U	1.4	-
10	OSB-3C-10-R	1.1	J	1.1	J	1.2	-	0.97	-	28.7	J	0.007	UJ	1.3	-
11	OSB-3C-11-R	0.94	J	1.1	J	0.83	J	0.97	-	8.6	J	0.027	UJ	1.1	-
12	OSB-3C-12-R	1	J	0.84	-	1.2	J	0.89	J	1.9	J	0.063	U	1.3	J
12	OSB-3C-12-R-D	1.2	J	1.1	-	1.2	J	0.99	J	1.0	U	0.064	U	1.3	J
13	OSB-3C-13-R	1.2	J	1.3	J	1.1	J	1.2	-	4.6	-	0.021	UJ	1.6	J
14	OSB-3C-14-R	1.1	J	1.1	J	1.1	J	0.7	-	16.8	J	0.032	UJ	1.3	-
15	OSB-3C-15-R	0.94	-	0.86	-	0.93	-	0.78	-	7.2	J	0.005	U	1.1	-
16	OSB-3C-16-R	0.9	-	0.8	-	0.82	J	0.72	-	3.6	J	0.024	U	0.98	-
	Method	**Gamma**		**Gamma**		**Alpha**		**Alpha**		**Gamma**		**Gamma**		**Alpha**	
	FRL	**1.70**		**1.80**		**1.70**		**1.50**		**82.0**		**1.40**		**280**	
	Background UCL	1.22		1.10		1.12		1.08		3.30		0.44		1.50	
	Background 95%	1.42		1.25		1.43		1.36		3.73		0.71		1.97	
	Samples	16		16		16		16		16		16		16	
	Hits	16		16		16		16		13		1		16	
	Max	**1.80**		**1.50**		**1.80**		**1.30**		**28.7**		**0.09**		**2.40**	
	Mean	1.13		1.05		1.11		0.93		6.8		0.03		1.36	
	St.Dev.	0.25		0.22		0.27		0.20		7.76		0.02		0.34	
	UCL	**1.24**		**1.15**		**1.23**		**1.02**		**10.2**		**0.04**		**1.47**	
	t-Stat	9.17		13.64		8.82		11.21		38.77		239.82		3278.18	
	Prob.	0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	
	Pass/Fail	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**	
	2 x (P/F)	**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		-		-	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

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Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: OSB-4 02:32 PM 30-Jun-97 02:32 PM 30-Jun-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
Map	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
1	OSB-4C-1-R	1.3 -	1.1 -	1.4 J	1.3 J	2.5 -	0.042 U	1.8 J
2	OSB-4C-2-R	0.9 -	0.99 -	0.95 J	0.76 -	1.4 U	0.005 U	1
3	OSB-4C-3-R	0.88 -	0.78 -	0.89 -	0.81 -	6.8 J	0.025 U	1.2
4	OSB-4C-4-R	0.97 J	1 J	0.75 -	0.71 -	6.7 J	0.018 UJ	1 J
4	OSB-4C-4-R-D	0.87 J	0.81 J	1 -	0.9 -	4.5 J	0.02 UJ	1.3 J
5	OSB-4C-5-R	1.1 J	1.3 J	0.9 J	0.95 J	9.6 J	0.029 UJ	1.1 J
6	OSB-4C-6-R	1.1 -	1.1 -	1 J	0.77 -	8.5 -	0.03 U	1.1 -
7	OSB-4C-7-R	1.2 -	0.4 U	1.1 -	0.87 -	4.8 U	0.066 J	1.2 J
8	OSB-4C-8-R	1.2 -	1.2 -	1.4 -	1.2 -	15.5 -	0.017 U	1.4 J
9	OSB-4C-9-R	0.94 J	0.94 J	0.93 J	0.79 -	11.4 J	0.027 UJ	1.1 -
10	OSB-4C-10-R	1.1 J	0.88 J	1 J	0.99 J	12.0 J	0.03 UJ	1 J
11	OSB-4C-11-R	1.1 -	1.1 -	0.9 J	0.95 -	11.2 J	0.038 U	1.2 -
12	OSB-4C-12-R	1.3 -	1.3 -	1.3 -	0.95 -	11.8 -	0.02 U	1.2 J
13	OSB-4C-13-R	1.2 J	1.3 J	1.1 -	1 -	17.0 J	0.033 UJ	1.3 -
14	OSB-4C-14-R	1.1 J	1.1 J	1.3 J	0.94 -	15.5 J	0.005 UJ	1.3 -
15	OSB-4C-15-R	0.94 J	0.96 J	1.1 -	0.99 -	11.5 J	0.021 UJ	1.3 -
16	OSB-4C-16-R	1.4 -	1.4 -	1.5 -	1.3 -	5.7 J	0.022 U	1.6 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	16	16	16	16	16	16	16
	Hits	16	15	16	16	14	1	16
	Max	**1.40**	**1.40**	**1.50**	**1.30**	**17.0**	**0.07**	**1.80**
	Mean	1.11	1.03	1.10	0.96	9.2	0.02	1.26
	St.Dev.	0.16	0.28	0.21	0.17	4.93	0.01	0.21
	UCL	**1.17**	**1.16**	**1.20**	**1.04**	**11.4**	**0.02**	**1.33**
	t-Stat	15.12	10.79	11.34	12.48	59.04	384.82	5400.4
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: OSB-5 02:47 PM 30-Jun-97

		PRIMARY ASCOCs					SECONDARY ASCOCs	
Map	Sample ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Thorium-230
1	OSB-5C-1-R	1.3 J	1.3 J	1.3 -	0.97 -	6.6 J	0.024 UJ	1.4 -
2	OSB-5C-2-R	1.1 J	0.94 J	0.98 J	0.79 J	23.5 J	0.01 UJ	1.2 J
3	OSB-5C-3-R	1 -	1.1 -	1.3 -	1.3 -	41.6 -	0.15 -	1.6 -
4	OSB-5C-4-R	0.75 -	0.58 -	0.67 -	0.64 -	6.9 J	0.027 U	0.69 -
5	OSB-5C-5-R	1.4 J	1.4 J	1.5 -	1.2 -	6.7 J	0.027 UJ	1.6 -
6	OSB-5C-6-R	1.3 -	1.1 -	1 -	0.95 -	17.4 -	0.029 U	1.2 -
7	OSB-5C-7-R	0.79 -	0.78 -	1 -	0.76 -	5.2 J	0.024 U	1.1 -
8	OSB-5C-8-R	1 -	1.1 -	0.88 -	0.74 -	6.7 J	0.034 U	1.1 -
9	OSB-5C-9-R	1.1 J	0.98 J	1.1 -	1 -	6.7 J	0.026 UJ	1.3 -
10	OSB-5C-10-R	1.1 -	0.94 -	1.2 -	0.8 -	16.2 -	0.027 U	1.3 -
11	OSB-5C-10-R-D	1 J	0.96 J	0.97 -	0.85 -	16.7 J	0.027 UJ	1.2 -
11	OSB-5C-11-R	1 J	1.1 J	1.1 -	1 -	11.3 J	0.018 UJ	1.3 -
12	OSB-5C-12-R	0.86 J	0.91 J	0.83 -	0.8 -	4.6 J	0.021 U	1.2 -
13	OSB-5C-13-R	0.82 J	0.97 J	0.85 -	0.82 -	6.3 J	0.028 UJ	0.89 -
14	OSB-5C-14-R	1.3 -	1.2 -	1 -	0.96 -	5.7 J	0.052 U	1.3 -
15	OSB-5C-15-R	1.2 -	1.1 -	1.2 -	0.93 -	12.5 -	0.028 U	1.3 -
16	OSB-5C-16-R	1.1 -	0.99 -	1 -	0.9 -	4.2 J	0.017 U	1.2 -
	Method	**Gamma**	**Gamma**	**Alpha**	**Alpha**	**Gamma**	**Gamma**	**Alpha**
	FRL	**1.70**	**1.80**	**1.70**	**1.50**	**82.0**	**1.40**	**280**
	Background UCL	1.22	1.10	1.12	1.08	3.30	0.44	1.50
	Background 95%	1.42	1.25	1.43	1.36	3.73	0.71	1.97
	Samples	16	16	16	16	16	16	16
	Hits	16	16	16	16	16	2	16
	Max	**1.40**	**1.40**	**1.50**	**1.30**	**41.6**	**0.15**	**1.60**
	Mean	1.07	1.03	1.05	0.91	11.4	0.02	1.23
	St.Dev.	0.20	0.19	0.21	0.17	9.75	0.03	0.23
	UCL	**1.15**	**1.12**	**1.14**	**0.99**	**15.7**	**0.03**	**1.30**
	t-Stat	12.77	15.85	12.66	13.96	28.97	160.39	4930.81
	Prob.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Pass/Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 x (P/F)	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	-	-

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY
FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.
2 x (P/F) - Pass or Fail of the "No exceedances of twice the FRL" criteria.

Certification Unit: OSB-1 08:17 AM 30-Jun-97

		Certification Analytes						Ecological COCs							
Map	Sample ID	Arsenic		Beryllium		Aroclor-1260		Aluminum		Lead		Manganese		Molybdenum	
1	OSB-1C-1-MP	5.0	-	0.36	-	37	U	6100	-	6.6	-	342	J	0.90	U
2	OSB-1C-2-MP	11.5	-	1.30	-	42	U	14500	-	17.3	-	347	J	1.00	
3	OSB-1C-3-MP	5.0	-	0.34	-	37	U	5000	-	5.6	-	421	J	1.40	U
4	OSB-1C-4-MP	11.8	-	0.75	-	42	U	13300	-	12.8	-	224	J	1.20	U
5	OSB-1C-5-MP	5.7	J	0.70	U	38	U	9200	J	12.8	-	477	J	1.50	U
5	OSB-1C-5-MP-D	5.4	J	0.73	U	38	U	9970	J	12.4	-	374	J	1.00	U
6	OSB-1C-6-MP	8.6	J	0.71	U	40	U	11600	J	19.2	-	276	J	0.96	U
7	OSB-1C-7-MP	3.0	J	0.51	U	38	U	7150	J	11.1	-	200	J	0.93	U
8	OSB-1C-8-MP	12.7	J	0.83	U	42	U	13500	J	22.1	-	153	J	1.10	U
9	OSB-1C-9-MP	3.9	J	0.33	U	36	U	2760	J	8.7	-	224	J	1.20	U
10	OSB-1C-10-MP	6.3	J	0.61	U	38	U	7640	J	13.3	-	450	J	1.20	U
11	OSB-1C-11-MP	14.0	J	2.60	J	42	U	14200	J	21.3	-	423	J	1.00	U
12	OSB-1C-12-MP	7.6	J	0.79	U	41	U	10600	J	21.4	-	640	J	0.99	U
13	OSB-1C-13-MP	5.5	J	0.57	U	38	U	6800	J	10.9	-	739	J	2.10	U
14	OSB-1C-14-MP	3.9	J	0.77	U	38	U	10800	J	17.9	-	352	J	0.92	U
15	OSB-1C-15-MP	13.8	J	1.80	UJ	42	U	14300	J	23.5	-	572	J	1.00	U
16	OSB-1C-16-MP	12.4	J	1.60	UJ	42	U	15000	J	21.0	-	949	J	1.00	U
	FRL (* = BTV)	12		1.5		130		10103		200	*	1500	*	10	*
	Background UCL	5.6		0.6		n/a		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		n/a		11880		26.4		1348		n/a	
	Samples	16		16		16		16		16		16		16	
	Hits	16		5		0		16		16		16		0	
	Max	14.0		2.60		21.00		15000		23.5		949		1.05	
	Mean	8.2		0.69		19.78		10177		15.3		421		0.57	
	St.Dev.	3.9		0.57		1.13		3867		5.8		214		0.15	
	UCL	9.5		0.89		20.16		11473		17.3		493		0.62	
	t-Stat	3.93		5.67		391.89		--		--		--		--	
	Prob.	0.1%		0.0%		0.0%		--		--		--		--	
	Pass/Fail	Pass		Pass		Pass		--		--		--		--	

NOTE: One half of the reported detection level was used in the calculations for results reported as below the detection limit (qualified with "U"). Duplicates were averaged before calculations were performed.

KEY

FRL - Final Remedial Level

Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.

Background 95% - 95th Percentile of the background dataset.

Samples - Number of distinct sample locations in the analysis (see NOTE above).

Hits - Analyte positively detected in the sample.

Max - The maximum sample result.

Mean - The mean or average concentration. (See NOTE above).

St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).

UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.

t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).

Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.

Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

Certification Unit: OSB-2 08:42 AM 30-Jun-97

		Certification Analytes			Ecological COCs			
Map	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
	OSB-2C-1-MP	17.2 -	1.5 U	42 U	18700 -	24.7 J	736 J	1.1 -
	OSB-2C-2-MP	15 -	1.1 U	41 U	16100 -	17.7 J	319 J	1.1 -
3	OSB-2C-3-MP	12.2 -	0.9 U	40 U	12000 -	12.2 J	465 J	1.1 -
4	OSB-2C-4-MP	15.5 -	1.7 U	41 U	18800 -	12.3 J	507 J	1 U
5	OSB-2C-5-MP	14.8 -	1.8 -	42 U	19100 -	18.7 J	593 J	1.2 -
6	OSB-2C-6-MP	7.8 -	0.83 U	38 U	10100 -	9.9 J	501 J	0.93 U
7	OSB-2C-7-MP	11.2 -	1.2 U	41 U	13500 -	17.3 J	563 J	0.99 U
8	OSB-2C-8-MP	6.9 -	0.79 U	39 U	10400 -	9.9 J	425 J	0.96 U
8	OSB-2C-8-MP-D	8.7 -	0.97 U	40 U	12600 -	10.2 J	322 J	0.97 U
9	OSB-2C-9-MP	5.7 -	0.8 U	38 U	8860 -	9.1 J	683 J	1.5 -
10	OSB-2C-10-MP	7.7 -	0.96 U	38 U	11600 -	10.8 J	423 J	0.92 U
11	OSB-2C-11-MP	5.3 -	0.63 U	38 U	7230 -	10.6 J	586 J	0.93 U
12	OSB-2C-12-MP	4 U	0.67 U	37 U	7150 -	10.3 J	363 J	0.9 U
13	OSB-2C-13-MP	5.8 -	0.58 -	36 U	9770 -	9.1 -	474 -	1.1 -
14	OSB-2C-14-MP	5.6 -	0.77 U	37 U	8660 -	9.5 J	663 J	1.6 -
15	OSB-2C-15-MP	6.9 -	0.88 U	37 U	10300 -	10.2 J	514 J	1.1 -
16	OSB-2C-16-MP	7 -	0.79 U	41 U	9690 -	10.2 J	344 J	1.1 -
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	16	16	16	16	14
	Hits	15	2	0	16	16	16	8
	Max	**17.2**	**1.80**	**21.00**	**19100**	**24.7**	**736**	**1.60**
	Mean	9.2	0.57	19.58	12066	12.7	507	0.87
	St.Dev.	4.5	0.36	1.00	4042	4.5	125	0.38
	UCL	**10.7**	**0.69**	**19.91**	**13421**	**14.2**	**549**	**1.01**
	t-Stat	2.48	10.35	442.21	--	--	--	--
	Prob.	1.3%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

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KEY

FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

Certification Unit: OSB-3

06:05 PM 10-Jun-97

		Certification Analytes			Ecological COCs			
ID	Sample ID	Arsenic	Beryllium	Aroclor-1260	Aluminum	Lead	Manganese	Molybdenum
	OSB-3C-1-MP	5.9 -	0.45 -	37 U	6040 -	6.9 -	373 J	2.2 [redacted]
2	OSB-3C-2-MP	6.6 -	0.64 -	41 U	10300 -	8.9 -	390 J	[redacted]
3	OSB-3C-3-MP	11.7 -	1.8 -	42 U	17200 -	13.8 -	621 J	1 U
4	OSB-3C-4-MP	12.3 -	1.7 -	42 U	15200 -	17.3 -	654 J	1 U
5	OSB-3C-5-MP	6 -	0.5 -	38 U	6510 -	7.6 -	295 J	1.3 U
6	OSB-3C-6-MP	8 -	0.69 -	41 U	15500 -	13.6 -	258 J	0.98 U
7	OSB-3C-7-MP	6.2 -	0.74 -	38 U	13700 -	17.1 -	471 J	0.91 U
8	OSB-3C-8-MP	6.3 -	0.74 -	38 U	10900 -	9.6 -	561 J	0.92 U
9	OSB-3C-9-MP	10.7 -	1.1 -	41 U	14200 -	16.7 -	746 J	0.99 U
10	OSB-3C-10-MP	9 -	1 -	40 U	16200 -	13.8 -	524 J	0.97 U
11	OSB-3C-11-MP	7.4 -	0.84 -	39 U	14600 -	13.7 -	490 J	1.7 -
12	OSB-3C-12-MP	6.7 -	0.67 -	38 U	10200 -	9.2 -	430 J	1.4 U
12	OSB-3C-12-MP-D	7.6 -	0.81 -	41 U	13400 -	11.7 -	694 J	1.1 U
13	OSB-3C-13-MP	6.2 -	1.2 -	41 U	19100 -	14 -	243 J	1 U
14	OSB-3C-14-MP	8.2 -	1 -	39 U	14400 -	15.5 -	847 J	0.95 U
15	OSB-3C-15-MP	8.3 -	0.98 -	38 U	17100 -	15.9 -	751 J	0.91 U
16	OSB-3C-16-MP	7.1 -	0.71 -	38 U	11500 -	9.7 -	659 J	1.1 -
	FRL (* = BTV)	**12**	**1.5**	**130**	**10103**	**200 ***	**1500 ***	**10 ***
	Background UCL	5.6	0.6	n/a	8812	18.9	814	n/a
	Background 95%	8.2	0.6	n/a	11880	26.4	1348	n/a
	Samples	16	16	16	16	16	15	15
	Hits	16	16	0	16	16	15	2
	Max	**12.3**	**1.80**	**21.00**	**19100**	**17.3**	**847**	**1.70**
	Mean	7.9	0.93	19.77	13391	12.8	513	0.67
	St.Dev.	2.0	0.38	0.81	3678	3.4	179	0.36
	UCL	**8.6**	**1.05**	**20.04**	**14623**	**13.9**	**575**	**0.79** [redacted]
	t-Stat	7.98	6.01	541.84	--	--	--	--
	Prob.	0.0%	0.0%	0.0%	--	--	--	--
	Pass/Fail	**Pass**	**Pass**	**Pass**	--	--	--	--

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KEY

FRL - Final Remedial Level.
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
Max - The maximum sample result.
Mean - The mean or average concentration. (See NOTE above).
St.Dev. - The standard deviation of the sample concentrations. (See NOTE above).
UCL - Upper Confidence Level (95% one-sided) on the Mean concentration.
t-Stat - The calculated t-statistic for the mean concentration compared to the FRL. (See the Certification Report).
Prob. - The probability (based on the t-Stat) that the true CU mean exceeds the FRL. Acceptable probability for primary COCs is 5% and 10% for seconday COCs.
Pass/Fail - Pass or Fail result from the t-Test based on "t-Stat" above. The associated probability is "Prob." above.

Certification Unit: OSB-4 08:51 AM 30-Jun-97

		Certification Analytes												Ecological COCs							
Map	Sample ID	Arsenic		Beryllium		Aroclor-1260		Aluminum		Lead		Manganese		Molybdenum	
	OSB-4C-1-MP	6.2	-	0.61	-	38	U	11000	-	10.3	-	619	-	0.91	-
	OSB-4C-2-MP	4.8	U	0.53	-	38	U	7230	-	11.8	J	473	J	1.3	-
3	OSB-4C-3-MP	7.8	-	0.7	-	38	U	10800	-	11.2	J	466	J	1.3	-
4	OSB-4C-4-MP	7.4	-	0.64	-	38	U	7290	J	12	J	729	J	1.2	-
4	OSB-4C-4-MP-D	7	-	1	-	39	U	13400	J	15.4	J	633	J	0.96	U
5	OSB-4C-5-MP	6.6	-	0.87	-	38	U	11700	-	17.1	J	405	J	0.93	U
6	OSB-4C-6-MP	6.7	-	0.66	-	37	U	12100	-	9.7	J	520	J	0.9	U
7	OSB-4C-7-MP	6.8	-	0.43	-	40	U	5440	-	13	J	1100	J	0.97	U
8	OSB-4C-8-MP	9.5	-	0.46	-	40	U	9440	-	11.8	J	601	J	1	-
9	OSB-4C-9-MP	5.9	-	0.66	-	37	U	9010	-	14.2	J	507	J	1.1	-
10	OSB-4C-10-MP	5	U	0.32	-	40	U	5890	-	15.7	J	450	J	0.97	U
11	OSB-4C-11-MP	5.9	-	0.4	-	38	U	7050	-	12	J	622	J	0.93	U
12	OSB-4C-12-MP	15.7	-	0.46	-	40	U	11300	-	16.5	J	430	J	1.7	-
13	OSB-4C-13-MP	5.2	U	0.36	-	39	U	9590	-	11.6	J	295	J	0.95	U
14	OSB-4C-14-MP	12.3	-	0.46	-	40	U	11100	-	10.3	J	367	J	1.2	-
15	OSB-4C-15-MP	7.4	-	0.63	-	39	U	9720	-	13.5	J	819	J	0.94	U
16	OSB-4C-16-MP	9.1	-	1	-	40	U	17000	-	13.8	J	531	J	0.97	U
	FRL (* = BTV)	**12**		**1.5**		**1.5**		**10103**		**200**	*	**1500**	*	**10**	*
	Background UCL	5.6		0.6		n/a		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		n/a		11880		26.4		1348		n/a	
	Samples	16		16		16		16		16		16		16	
	Hits	13		16		0		16		16		16		8	
	Max	**15.7**		**1.00**		**20.00**		**17000**		**17.1**		**1100**		**1.70**	
	Mean	7.2		0.59		19.39		9920		12.9		553		0.82	
	St.Dev.	3.5		0.19		0.56		2786		2.2		196		0.41	
	UCL	**8.3**		**0.65**		**19.58**		**10854**		**13.6**		**618**		**0.96**	
	t-Stat	5.60		18.85		797.12		--		--		--		--	
	Prob.	0.0%		0.0%		0.0%		--		--		--		--	
	Pass/Fail	**Pass**		**Pass**		**Pass**		--		--		--		--	

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FRL - Final Remedial Level
Background UCL - Upper Confidence Level (95% one-sided) on the Mean Background concentration.
Background 95% - 95th Percentile of the background dataset.
Samples - Number of distinct sample locations in the analysis (see NOTE above).
Hits - Analyte positively detected in the sample.
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Certification Unit: OSB-5 05:10 PM 10-Jun-97

		Certification Analytes								Ecological COCs							
o	Sample ID	Arsenic		Beryllium		Aroclor-1260		Aluminum		Lead		Manganese		Molybdenum	
1	OSB-5C-1-MP	7	-	1.2	-	41	U	17400	-	19.9	-	559	-	0.98	[redacted]
2	OSB-5C-2-MP	7.3	-	0.78	-	39	U	13200	-	13.9	-	685	-	0.9[redacted]	
3	OSB-5C-3-MP	6.2	-	0.65	-	38	U	10300	-	18.9	-	497	-	0.91	U
4	OSB-5C-4-MP	7.7	-	0.9	-	40	U	14600	-	15.1	-	555	-	0.97	U
5	OSB-5C-5-MP	9.8	-	0.89	-	41	U	20500	-	18.7	-	198	-	0.99	U
6	OSB-5C-6-MP	6.6	-	0.81	-	39	U	13700	-	12	-	722	-	0.49	U
7	OSB-5C-7-MP	5.1	-	0.55	-	39	U	8950	-	13.1	-	524	-	0.95	U
8	OSB-5C-8-MP	4.2	-	0.38	-	39	U	7100	-	13.3	-	448	-	0.95	U
9	OSB-5C-9-MP	4.8	-	0.37	-	38	U	7010	-	9.8	-	439	-	0.92	U
10	OSB-5C-10-MP	7.4	-	0.66	-	40	U	12100	-	10.9	-	451	-	0.98	U
10	OSB-5C-10-MP-D	9.1	-	0.8	-	39	U	13200	-	14.5	-	422	-	0.95	U
11	OSB-5C-11-MP	7.8	-	0.85	-	39	U	12700	-	18.3	-	591	-	0.95	U
12	OSB-5C-12-MP	14.5	-	1.1	-	40	U	18600	-	17.2	-	1000	-	0.98	U
13	OSB-5C-13-MP	5.7	-	0.59	-	38	U	8670	-	8	-	743	-	1.2	-
14	OSB-5C-14-MP	9.2	-	0.85	-	39	U	12800	-	12.8	-	1530	-	0.95	U
15	OSB-5C-15-MP	14.4	-	1.3	-	42	U	19300	-	22.3	-	957	-	1.1	-
16	OSB-5C-16-MP	7.1	-	0.76	-	38	U	11500	-	10.7	-	853	-	0.94	U
	FRL (* = BTV)	**12**		**1.5**		**130**		**10103**		**200**	*	**1500**	*	**10**	*
	Background UCL	5.6		0.6		n/a		8812		18.9		814		n/a	
	Background 95%	8.2		0.6		n/a		11880		26.4		1348		n/a	
	Samples	16		16		16		16		16		16		16	
	Hits	16		16		0		16		16		16		2	
	Max	**14.5**		**1.30**		**21.0**		**20500**		**22.3**		**1530**		**1.20**	
	Mean	7.9		0.79		19.7		13061		14.8		671		0.55	
	St.Dev.	3.0		0.26		0.6		4206		4.0		309		0.24	
	UCL	**8.9**		**0.88**		**19.9**		**14471**		**16.1**		**775**		**0.6[redacted]**	
	t-Stat	5.56		10.82		739.65		--		--		--		--	
	Prob.	0.0%		0.0%		0.0%		--		--		--		--	
	Pass/Fail	**Pass**		**Pass**		**Pass**		--		--		--		--	

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AREA 1 PHASE I CERTIFICATION REPORT

JUNE
1997

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