3006-0605100004

CH2M HILL Mound, Inc.
1075 Mound Road
P.O. Box 750
Miamisburg, OH 45343-0750

CH2MHILL

SMO-065/06
January 24, 2006

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152:** Deliverable #36 Building Data Package; Section C.2.1.1 Facility Demolition; Buildings WH-1, WH-2, and WH-3 Closeout Report, Final

Dear Mr. Pfister:

Attached is the following Final document for your records:

- Buildings WH-1, WH-2, and WH-3 Closeout Report, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

John Lehew
Site Manager

JL/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
F. Bullock, MMCIC, (2) w/attachments
Public Reading Room, (1) w/attachments
S. Davis, CH2M Hill, (1) w/attachs
ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
J. Lehew, CH2M Hill, w/o attachments
K. Armstrong, CH2M Hill, w/o attachments
D. Rakel, CH2M Hill, w/o attachments
D. Kramer, CH2M Hill, w/o attachments
A. Upshaw, CH2M Hill, w/o attachments
MOAT Coordinator, CH2M Hill, w/o attachs
S. Barr, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

01-24-06 13:42 RCVD

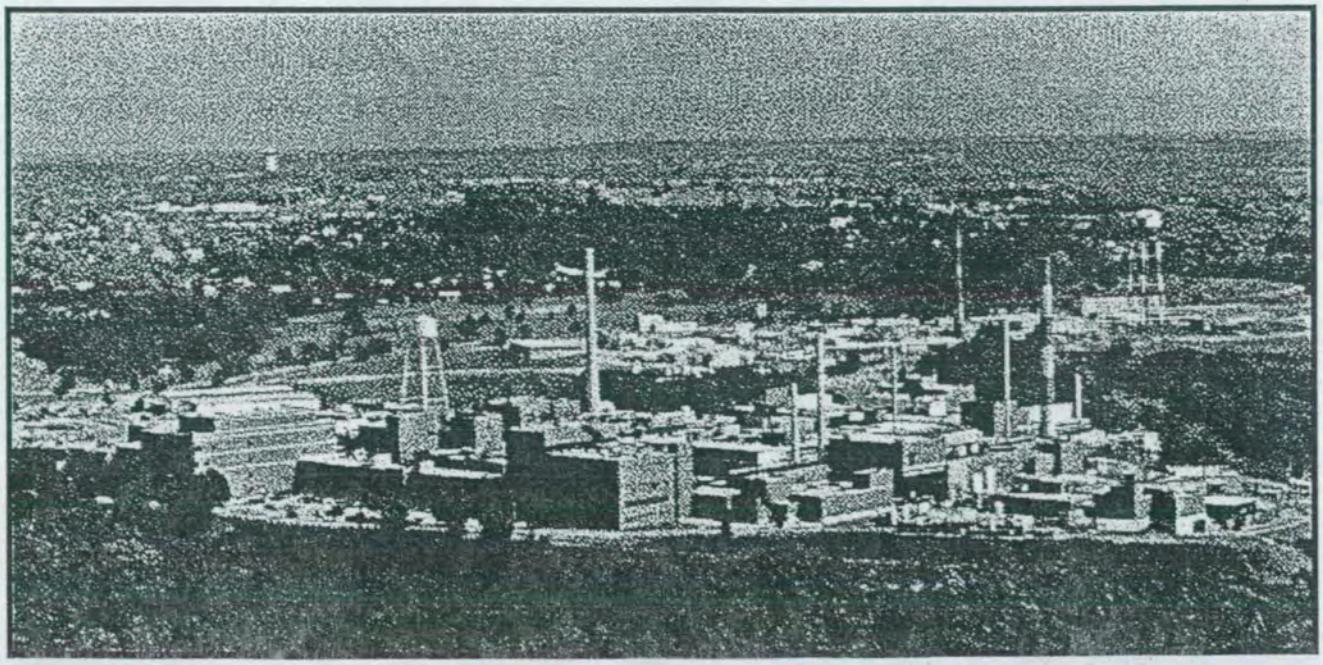
Environmental
Restoration
Program

Miamisburg Closure Project
CLOSEOUT REPORT

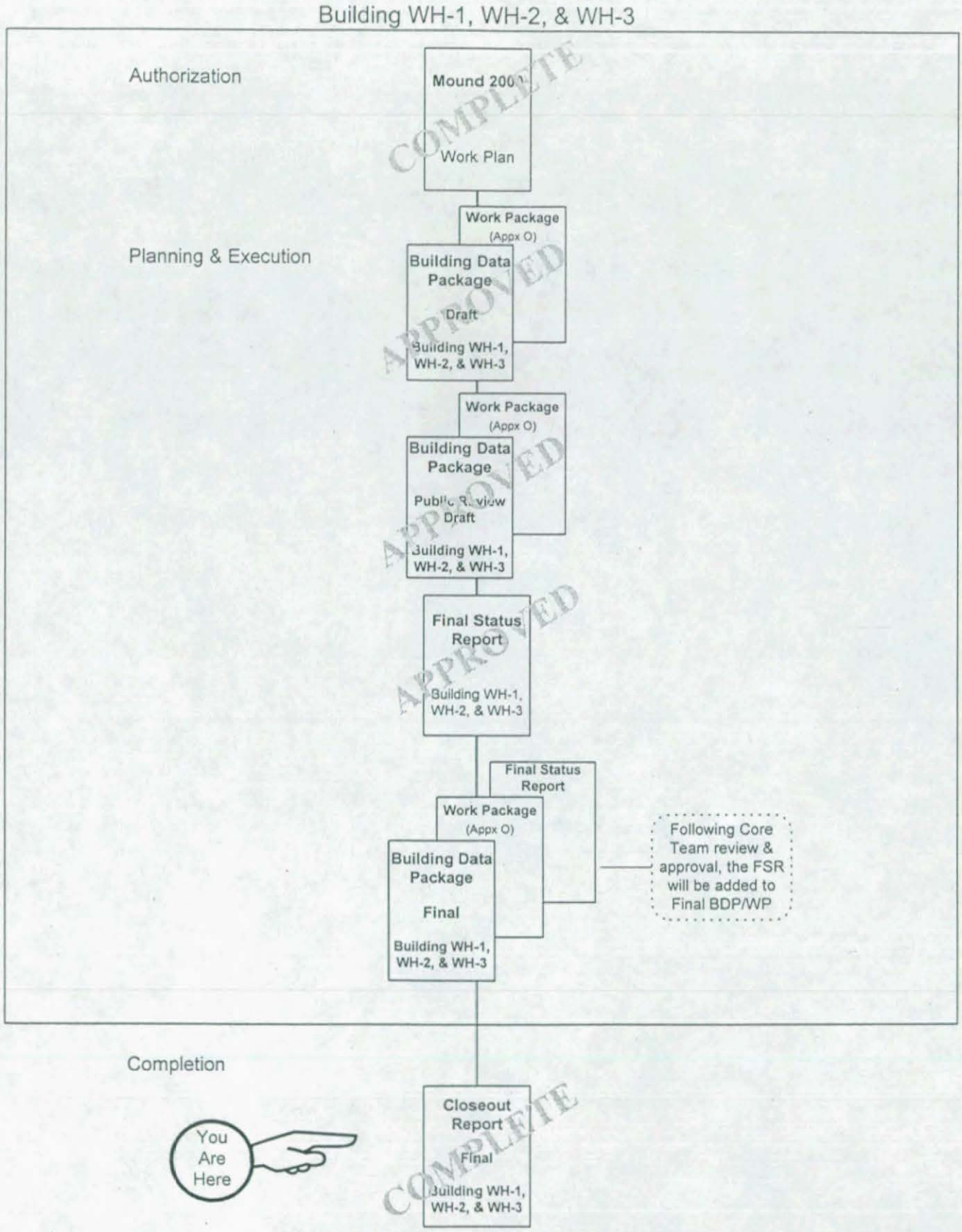
Buildings WH-1, WH-2, and WH-3

(Demolition)

Final
January 2006



Building WH-1, WH-2, & WH-3



24Jan06dck

TABLE OF CONTENTS

Section | Page

1.0 Purpose 1
2.0 Background 1
  2.1 Buildings WH-1, WH-2, and WH-3 1
  2.2 Potential Release Sites (PRSs) 3
3.0 Actions Taken 3
4.0 Problems Encountered 6
5.0 Resources Committed 6
  5.1 Personnel Organization 6
  5.2 Demolition Cost 7

Tables

Table 1: PRSs in Proximity to Buildings WH-1, WH-2, and WH-3 3
Table 2: Materials Disposition 5
Table 3: Personnel Organization for the Demolition 6

Appendices

Appendix A Figures
  Figure 1: Site Map
  Figure 2: Buildings WH-1, WH-2, and WH-3 and Vicinity
  Figure 3: Building Photos

Appendix B Post-Final Status Survey Report Radiological Surveys

Appendix C PRS Recommendation Sheets

Appendix D Notification Correspondence

1.0 PURPOSE

This is the final report documenting completion of the demolition of Buildings Well House-1 (WH-1), Well House-2 (WH-2), and Well House-3 (WH-3) located at the Department of Energy (DOE) Miamisburg Closure Project (MCP) Site, as shown in the figures provided in Appendix A. The demolition of the three well houses and all associated foundation wall/footers to three feet below grade were accomplished per the Work Package for the Demolition of Buildings WH-1, WH-2, and WH-3 (BOSS-40596). Also accomplished per the Work Package for the Demolition of Buildings WH-1, WH-2, and WH-3 was the sealing of the three site water wells, which were protected by the three well houses. A copy of the Work Package was included in Appendix O of the Building Data Package (BDP) for Buildings WH-1, WH-2, and WH-3. The scope of work relating to this building and adjacent structures, including final site restoration, is considered complete.

2.0 BACKGROUND

2.1 Buildings WH-1, WH-2, and WH-3

The three site well houses were located in the southwestern portion of the site and were adjacent to the site's west boundary fence. WH-1 was the northern-most of the three structures. WH-2 was located approximately 145 feet (ft.) south of WH-1 and WH-3 was located approximately 265 ft. south of WH-2. Each well house covered one of the three site water wells and housed the wells respective deep well pump. The site wells provided the plant with raw water for subsequent treatment and distribution as service, fire system, and potable water.

Building WH-1

WH-1 was constructed as the third well house in 1962. When this well house was constructed, it was designated as WH-1 and the two original well houses were designated as WH-2 and WH-3. The former location of WH-1 is shown in Figure 1 of Appendix A.

WH-1 was a single-story structure with approximately 128 square feet of floor space [10-ft. 8-inches (in.) wide x 12-ft. long x 12-ft. high]. The building was an Armco Steelox Zincgrip Type LS-1 metal building built on an 8-in. thick floor slab. Supporting the floor slab were 12-in. wide footers that extended approximately 3-ft. below grade. The WH-1 100 horsepower (H.P.) deepwell pump [rated at 700 gallons per minute (gpm)] was electric powered and did not have a backup/emergency source to drive the pump if the electric power supply failed. The outer 38-in. diameter steel well casing for the WH-1 deepwell pump was ¼-in. thick and the inner 26-in. diameter steel well casing was also ¼-in. thick. Unlike the deep wells in WH-2 and WH-3, a 20-in. inner casing was not installed in deep well #1.

The building had two electric wall heaters to prevent freezing of piping. The building had no cooling system. Electrical service was 480 volts. The building had no potable water, fire sprinkler system, or sanitary services (drains). The building had not had any major modifications.

WH-1 was used for the same purpose since construction and no research, development, or production activities using radioactive or energetic materials occurred in the building.

Buildings WH-2 and WH-3

WH-2 and WH-3 were two of the original structures constructed at Mound in 1948 and were located just south of WH-1. Constructed as the two original well houses (originally designated as WH-1 and WH-2), WH-2 and WH-3 covered the two original site wells and housed their respective deepwell pumps. The former locations of WH-2 and WH-3 are shown in Figure 1 of Appendix A. Except for the locations of electrical and control circuit panels within the structures, the two structures were identical.

The structures were single-story, approximately 375 square foot buildings (22-ft. long x 17-ft. wide x 12-ft. high). The walls of these structures were constructed of reinforced poured concrete. The north walls of both buildings, which contained the entrance door for each well house, were 12-in. thick concrete. The side and rear (south) walls of both buildings were 8-in. thick concrete. For most of the floor area in each building, the floor slabs were 8-in. thick concrete reinforced with #4 rebar on 12-in. centers, each way, top and bottom. In the approximate center of the slab area was a 68-in. x 32-in. x 26-in. thick section of slab that supported a backup/emergency engine to drive the well pump. Approximately 8-ft. (southward) from the center of the engine support area was a 32-in. x 32-in. x 12-in. thick slab section where the well shaft protruded through the slab. Reinforced concrete foundation walls and footers that extended 4-ft. deep supported the walls and floor slab of each building. The ceiling of each building was 5-in. thick reinforced concrete with a built up roof membrane. Additional roof support was provided by a center 12-in. x 18-in. east-west concrete beam, reinforced with two # 8 rebar. In the roof of each building, above the location of the deepwell pump, was a removable 4-ft. x 4-ft. hatch cover that allowed for the removal of the pump. Along the east and west sides of the 4-ft. x 4-ft. ceiling opening for each building, were two 8-in. x 14-in. concrete beams running north and south that were reinforced with two #6 rebar. Center-mounted on each roof was a gravity roof ventilator.

The deepwell pumps housed in WH-2 and WH-3 were rated at 700 gpm. Each pump was of the multi-stage water lubricated type, installed with a combination drive consisting of a direct connected vertical shaft 100 H.P. electric motor and a 150 H.P. propane-fueled engine (originally gasoline-fueled engines were used) connected to the pump shaft through an over-running clutch and a right angle gear. Under normal operation, the deep well pumps were driven by the electric motors. In the case of a power failure, sensing circuitry detected the power failure and engaged the backup/emergency engines to drive the pumps. As part of their original construction, both WH-2 and WH-3 had a 280-gallon underground gasoline tank (for storage of fuel for the engines) located just north of their respective locations. In approximately 1973, the gasoline engines were replaced with propane-burning engines and both the gasoline tanks were drained, filled with inert material, and capped. The fuel lines from the gasoline tanks to the engines were also removed at that time. Propane tanks (to provide fuel for the backup/emergency engines) were installed at the southeast corners of both WH-2 and WH-3. The historical 280-gallon underground gasoline tanks just north of WH-2 and WH-3 remained in place until May 2005.

The outer 38-in. diameter steel well casings for the WH-2 and WH-3 deepwell pumps were ¼-in. thick and their inner 26-in. diameter steel well casings were also ¼-in. thick. In 1995, a contractor installed a 20-in. diameter steel well casing inside the original 26-in. diameter well casing for each deep well in WH-2 and WH-3. The annulus spaces between the 26-in. and 20-in. casings were filled-in with grout.

WH-2 and WH-3 were supplied with 480-volt electric service. The electric service was used to power the deepwell pumps and wall-mounted electric heating units (two per well house). The heating units were used to keep the raw water piping from freezing in winter. Neither WH-2 nor WH-3 had cooling systems other than cooling provided by natural air circulation through louver vents. The buildings had no potable water, fire sprinkler systems, or sanitary services (drains). The buildings had not had any major modifications. WH-2 and WH-3 each had a propane-fueled, direct-drive engine to drive the well pumps during electrical power outages.

WH-2 and WH-3 were both used for their original purposes since construction and no research, development, or production activities using radioactive or energetic materials occurred in either building.

2.2 Potential Release Sites (PRSs)

As a result of the investigations and documentation accomplished to comply with the CERCLA cleanup process via the Federal Facilities Agreement (FFA)/DOE Environmental Restoration (ER) Program, DOE and the site contractor tabulated all the PRSs identified under the various regulatory programs in effect at the site. Of these PRSs, four are at or near Buildings WH-1, WH-2, and WH-3, as identified in Table 1. The PRS locations are shown in Figure 2 and recommendation sheets are provided in Appendix C.

Table 1 - PRSs in Proximity to Buildings WH-1, WH-2, and WH-3

PRS	CERCLA or Bldg. Related	Binning Status	Comments
13	CERCLA	NFA	Trash incinerator in the old burn area, which is part of operable unit 1.
282	CERCLA	NFA	Spoils disposal area.
414	CERCLA	Retired	South Area Groundwater and Soil Evaluation.
419	CERCLA	NFA	Drainage outflow reroute.

3.0 ACTIONS TAKEN

The Buildings WH-1, WH-2, and WH-3 BDP was submitted for simultaneous Core Team and public review on 07 April 2005, and the 30-day public review period concluded on 07 May 2005.

A Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) study of Buildings WH-1, WH-2, and WH-3 was performed prior to demolition. The core team approved study report (to be provided in Appendix G of the Final BDP) provides details of the survey design and results and indicates that Buildings WH-1, WH-2, and WH-3 met applicable surface release criteria.

In May of 2005, the two historical 280-gallon underground gasoline tanks, located just north of WH-2 and WH-3, were removed by a Bureau of Underground Storage Tank Regulations (BUSTR) certified contractor in accordance with State of Ohio Fire Marshal regulations. The removals of these two tanks were documented in separate (BUSTR) closure reports submitted to the Ohio Department of Commerce, Division of State Fire Marshal in July 2005. Correspondence providing notification of the No Further Action status regarding closure requirements for the tanks was received from Ohio Department of Commerce, Division of State Fire Marshal in October 2005 (reference letters from the Ohio Department of Commerce in Appendix D).

The three site water wells (sheltered by WH-1, WH-2 and WH-3) were sealed and closed in accordance with Ohio Administrative Code 3745-9-07 and 3745-9-10 regulations for sealing public water wells. As required, a well drilling subcontractor that is registered with the Ohio Department of Health was contracted for the sealing and closure of the wells. Prior to commencement of activities to seal and close the wells, the work plan for the sealing/closure of the wells was reviewed by a representative of the Ohio Environmental Protection Agency, Division of Drinking and Ground Water (OEPA/DDGW). Per agreement with the OEPA/DDGW, the well casings for the three wells were to be left in-place but cut-off below final site grade. As part of the well closure activities, the physical removal of the well pumps and sealing of the three site water wells (sheltered by WH-1, WH-2, and WH-3) with bentonite clay grouting material was performed from October 17, 2005 through October 20, 2005. Steel cover plates were then welded to the tops of the well casings for the three wells to prevent debris from falling into the wells during demolition of the well house structures.

Just prior to demolition of the three well house structures, confirmatory radiological surveys were performed on the interior and exterior surfaces of the three well houses. No elevated levels were detected during the confirmatory radiological surveys of the buildings. In addition, a walkover survey was performed at and around surface soil sample location S0905, approximately thirteen feet south of WH-1 [Thorium-232 results above Cleanup Objective (reference Table 2 of BDP)]. No elevated levels were detected during the walkover survey. Also prior to demolition of the well houses, the propane tanks located at the southeast corners of WH-2 and WH-3 (that provided fuel for the backup/emergency engines) were removed to a temporary storage location.

Demolition of Buildings WH-1, WH-2, and WH-3 commenced on 26 October 2005. Demolition activities (including slabs, foundation/footers, asphalt access pads, adjacent utility poles, and adjacent utility position indicating valves), except for final site restoration were completed on 19 November 2005. Following demolition of the building slabs and foundation/footers, Radiological Control performed radiological screening surveys of the exposed concrete soil contact surfaces of the concrete debris. No elevated levels were

detected during radiological screening of the building slab and foundation/footer concrete surfaces in contact with soils. No walkover surveys of the exposed soil surfaces in the areas of Buildings WH-1, WH-2, and WH-3 were performed because no elevated levels were detected on the building/slab surfaces prior to demolition and no elevated levels were detected during radiological screening of concrete surfaces in contact with soils. The results of radiological surveys, performed prior to and after the Buildings WH-1, WH-2, and WH-3 demolition activities, are provided in Appendix B. Construction and concrete building debris was size-reduced, loaded into haulers, and taken to a local sanitary landfill. Recyclable metal debris was loaded into haulers and taken to a local metal recycler.

After demolition of the WH-1, WH-2, and WH-3 structures, slabs, and foundation/footers, the well sealing contractor returned to complete closure of the wells. The soils around the well casings of the three wells were excavated to expose the well casings at each well and the well casings were cut-off a minimum of five feet below final grade. The cut-off well casings were capped with bentonite clay and soil was backfilled over the sealed wells to an elevation slightly higher than grade level to ensure drainage of surface water away from the former well sites. After backfill, final site restoration (grading, seeding, and mulching) was performed by the well sealing contractor. The well sealing contractor has submitted Well Sealing Reports, providing notification of the sealing and closure of the three site wells, to the Ohio Department of Natural Resources, Division of water and the Montgomery County Health Department (reference well closure reports in Appendix D).

This Closeout Report documents the completion of the demolition and removal of Buildings WH-1, WH-2, and WH-3 and the sealing and closure of the three site water wells (sheltered by WH-1, WH-2 and WH-3) in accordance with Ohio Administrative Code 3745-9-07 and 3745-9-10 regulations for sealing public water wells. All preparation and demolition activities for the Buildings WH-1, WH-2, and WH-3, the sealing and closure of the three site water wells, and final site restoration of the Buildings WH-1, WH-2, and WH-3 areas were performed in accordance with the detailed Work Plan. Photographs taken before, during, and after demolition are provided in Appendix A.

Table 2: Materials Disposition

Buildings WH-1, WH-2, and WH-3 Material	Quantity	Disposal Method	Destination
Construction Debris (concrete, rebar, and utility poles)	500 cubic yards	Landfill	Stoney Hollow, Dayton, OH
Scrap Metal	60 cubic yards	Recycle	Metal Shredders, West Carrollton, Ohio

4.0 PROBLEMS ENCOUNTERED

Buildings WH-1, WH-2, and WH-3 were successfully demolished and the three site wells were successfully sealed and closed per the Work Package. No problems were encountered.

5.0 RESOURCES COMMITTED

5.1 Personnel Organization

Table 3 lists the personnel organization for the demolition.

Table 3: Personnel Organization for the Demolition

Agency or Party Involved	Contact	Description of Participation
US EPA (SR-6J) 77 W. Jackson Chicago, IL 60604 312-886-7058	Timothy Fischer	Federal agency responsible for MCP oversight.
Ohio EPA 410 E. Fifth Street Dayton, OH 45402-2911 937-285-6468	Brian Nickel	State agency responsible for MCP oversight.
DOE/ MCP 175 Tri-County Parkway Springdale, OH 45246 513-246-0071	Geoffrey Gorsuch	DOE/ MCP Project Manager responsible for project oversight and success.
CH2M Hill Mound, Inc. 1075 Mound Road P. O. Box 750 Miamisburg, OH 45343-0750 937-673-2874	Allen Upshaw	Provided the DOE/ MCP Project Manager with technical assistance, administrative support, sampling, photo and site documentation, site safety, and report preparation. Provided the equipment necessary for the demolition and performed the building demolition.

5.2 Demolition Cost

Under the new site contract, CH2M Hill Mound, Inc. has elected to cluster financial data for multiple buildings together. Cluster P includes Buildings 24, 56, 57, 112, 113, 415, 432, EG-8, P, PH, and WH1-3. As a result, cost data for individual building demolitions are not available. When Cluster P is completed (after the demolition of the Mound Waste Water Treatment Plant (MWWTP) [Buildings 57, 112, 113, 415, 432, and EG-8], Buildings PH and 24, or the well houses, whichever is completed last), the total cost for the cluster will be reported in the last respective On-Scene Coordinator Report or the Closeout Report for the above listed structures.

APPENDIX A

Figures

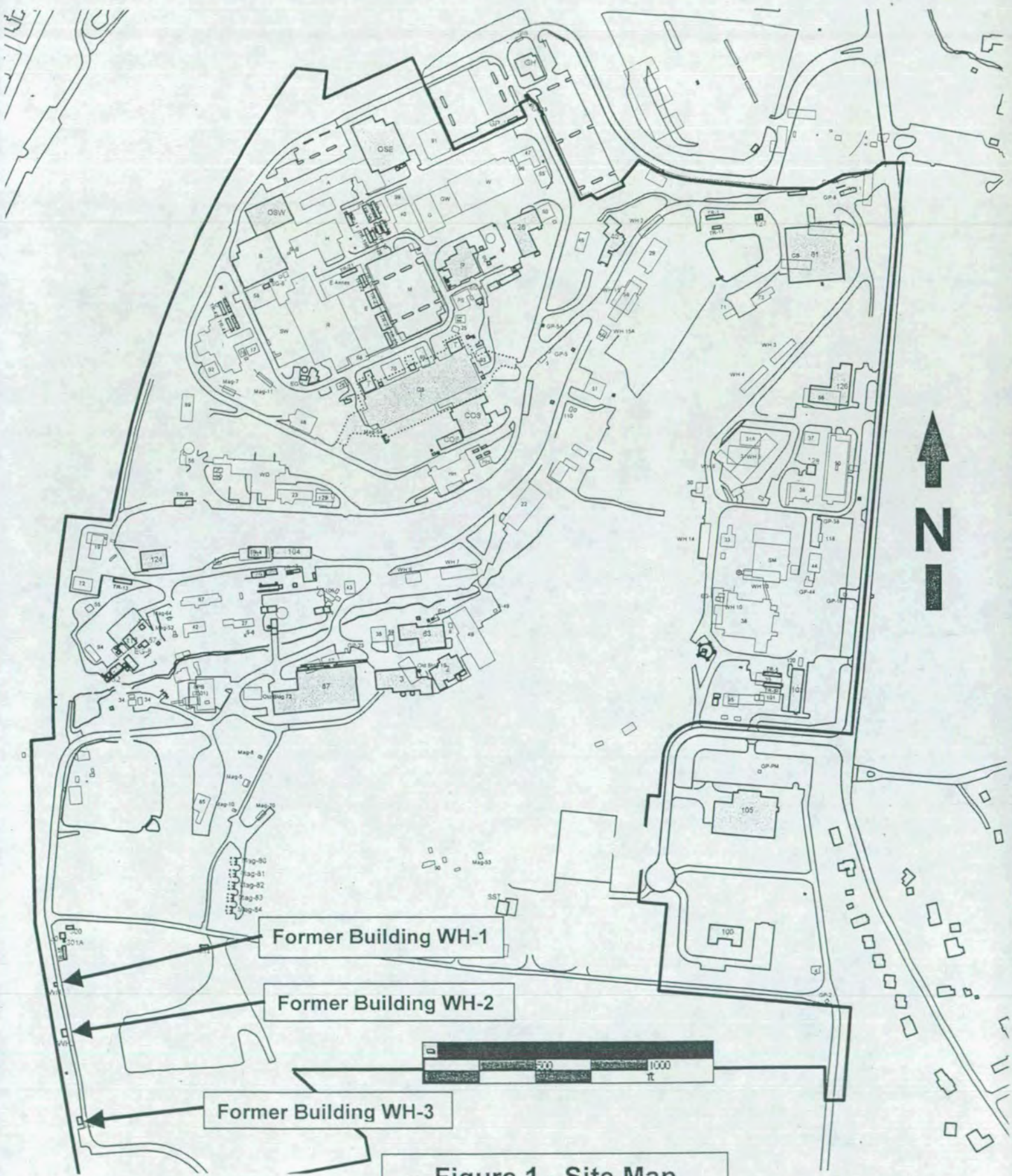
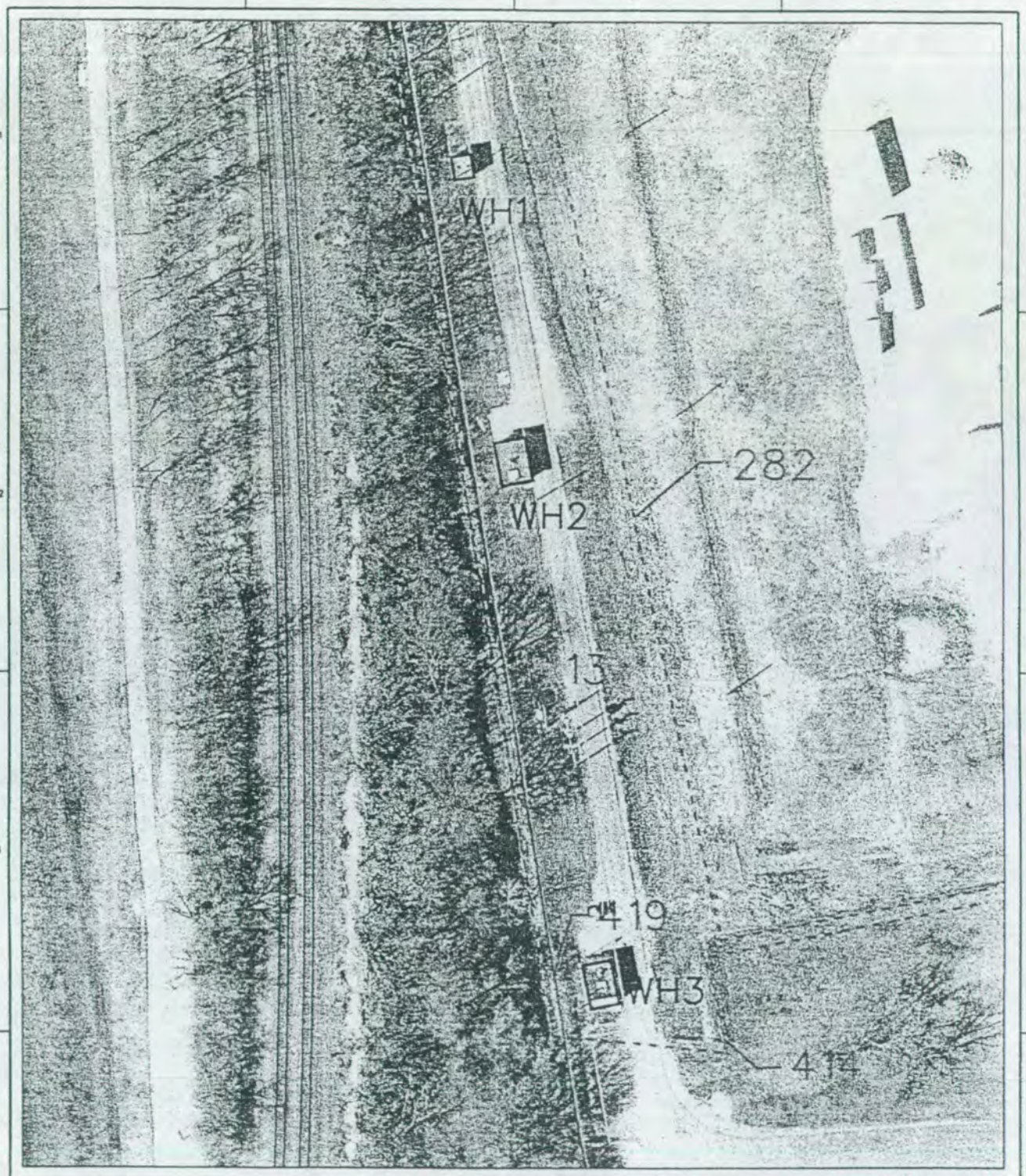


Figure 1 - Site Map

Figure 2 - Buildings WH-1, WH-2, and WH-3 and Vicinity



PRS Point
PRS Area
PRS Line

20 10 0 20 40FT
GRAPHIC SCALE

Aerial Photograph dated April 5, 2004

MOUND
Environmental Restoration Geographic Information System

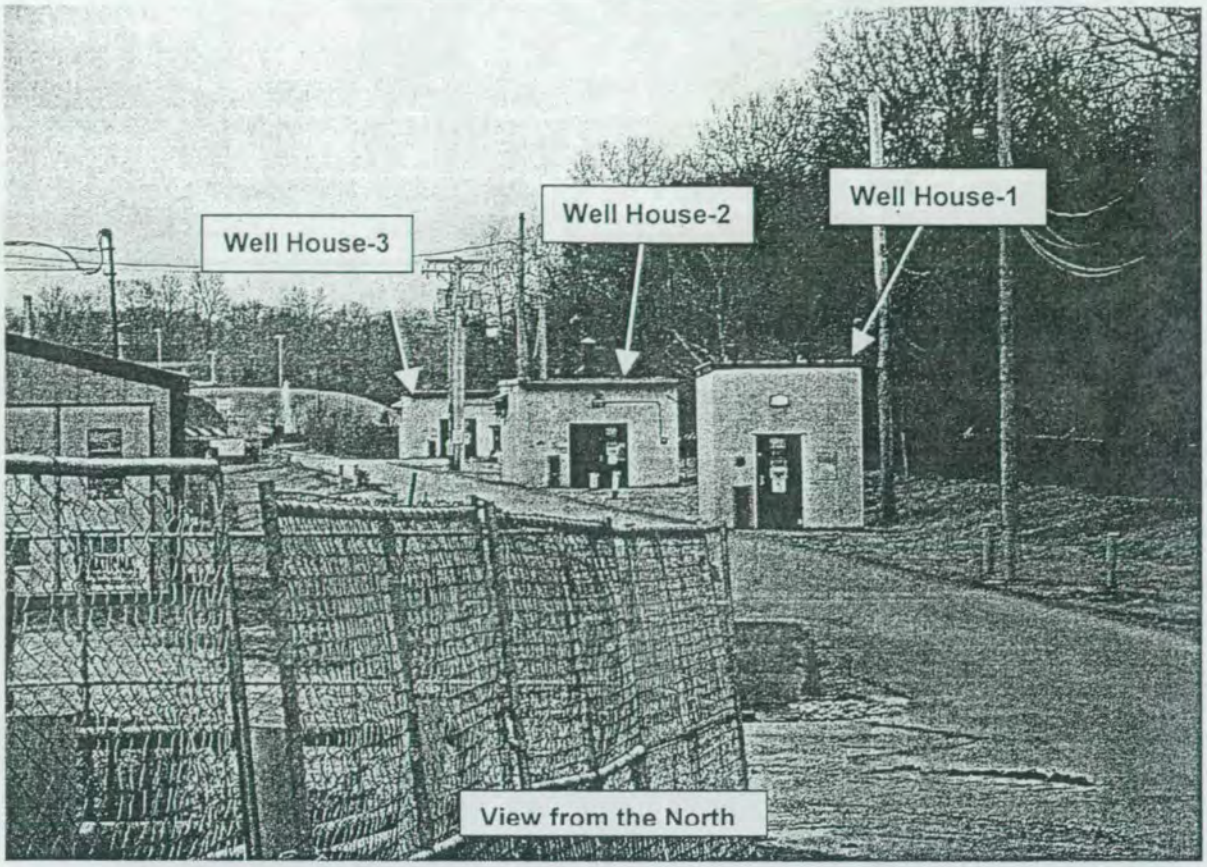
Figure 2
Well Houses 1,2,3 and Vicinity

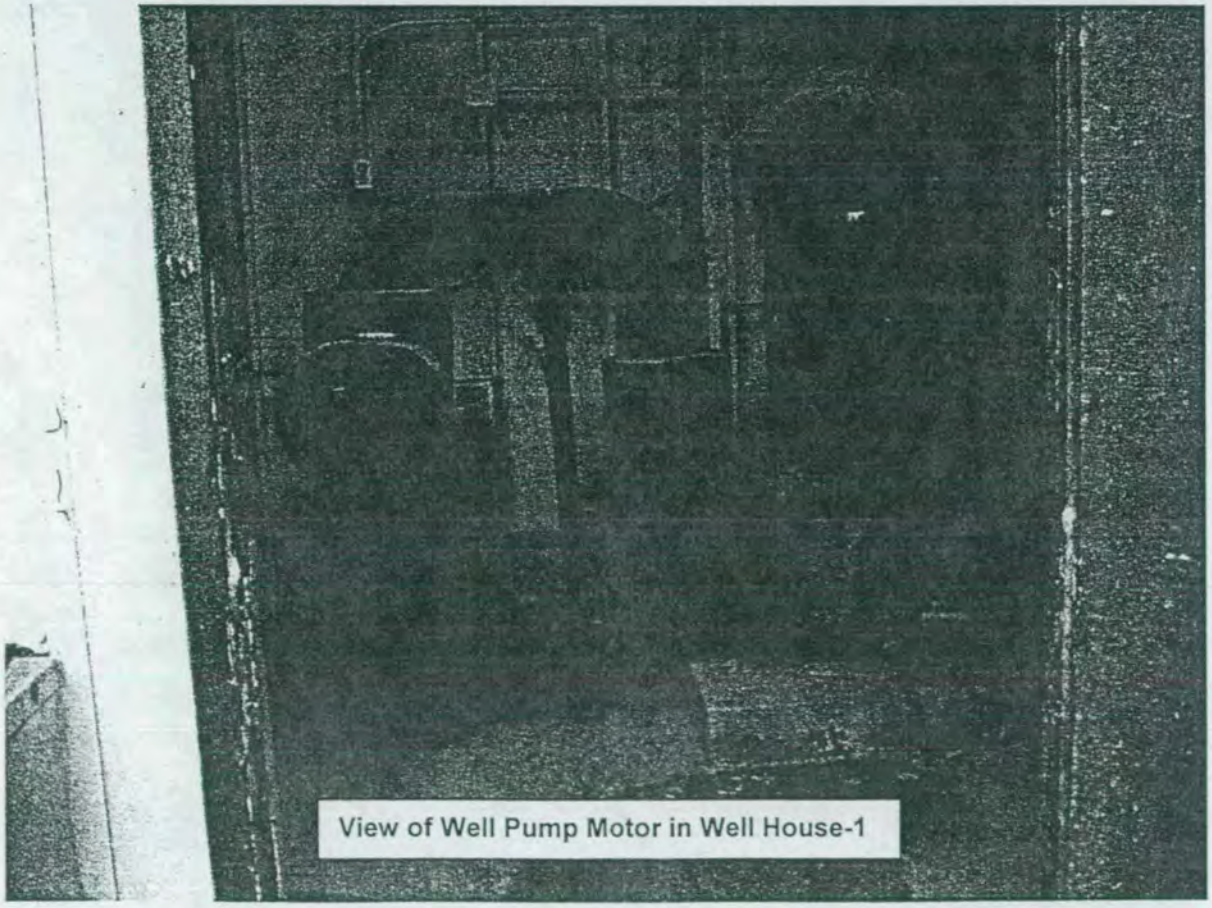
UNCLASSIFIED
vicinity.dgn

ISS	DATE	REVISION	BY	CHKR	DNG	UPDC	APVD	R
	11/10/04		SSR					

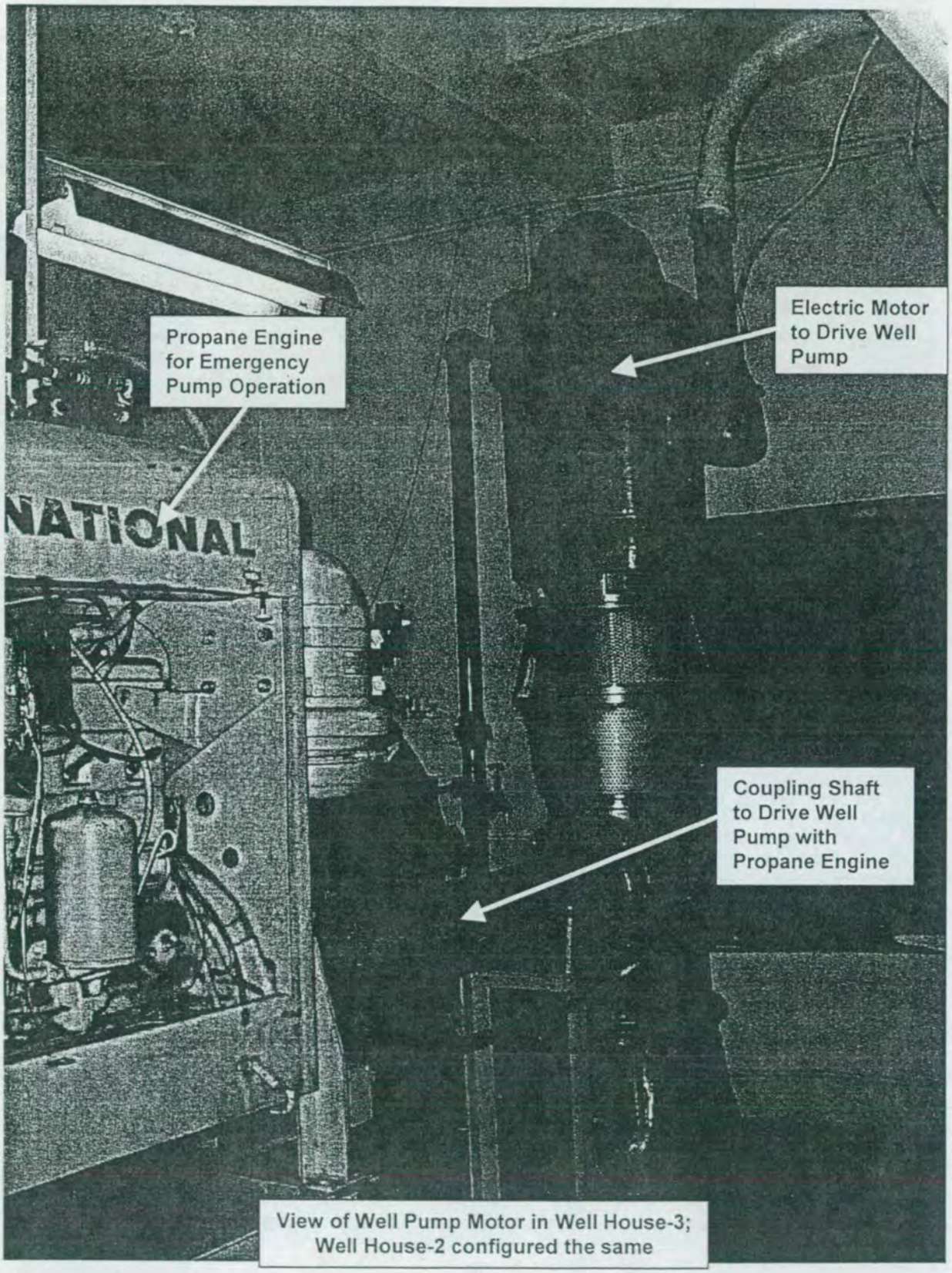
DWG TYPE STE FRAME ER-GIS
STATUS WD-REL-##/##/## ORIGIN MSTATION / J

Figure 3 - Building Photos





Buildings WH-1, WH-2, and WH-3 – Prior to Demolition



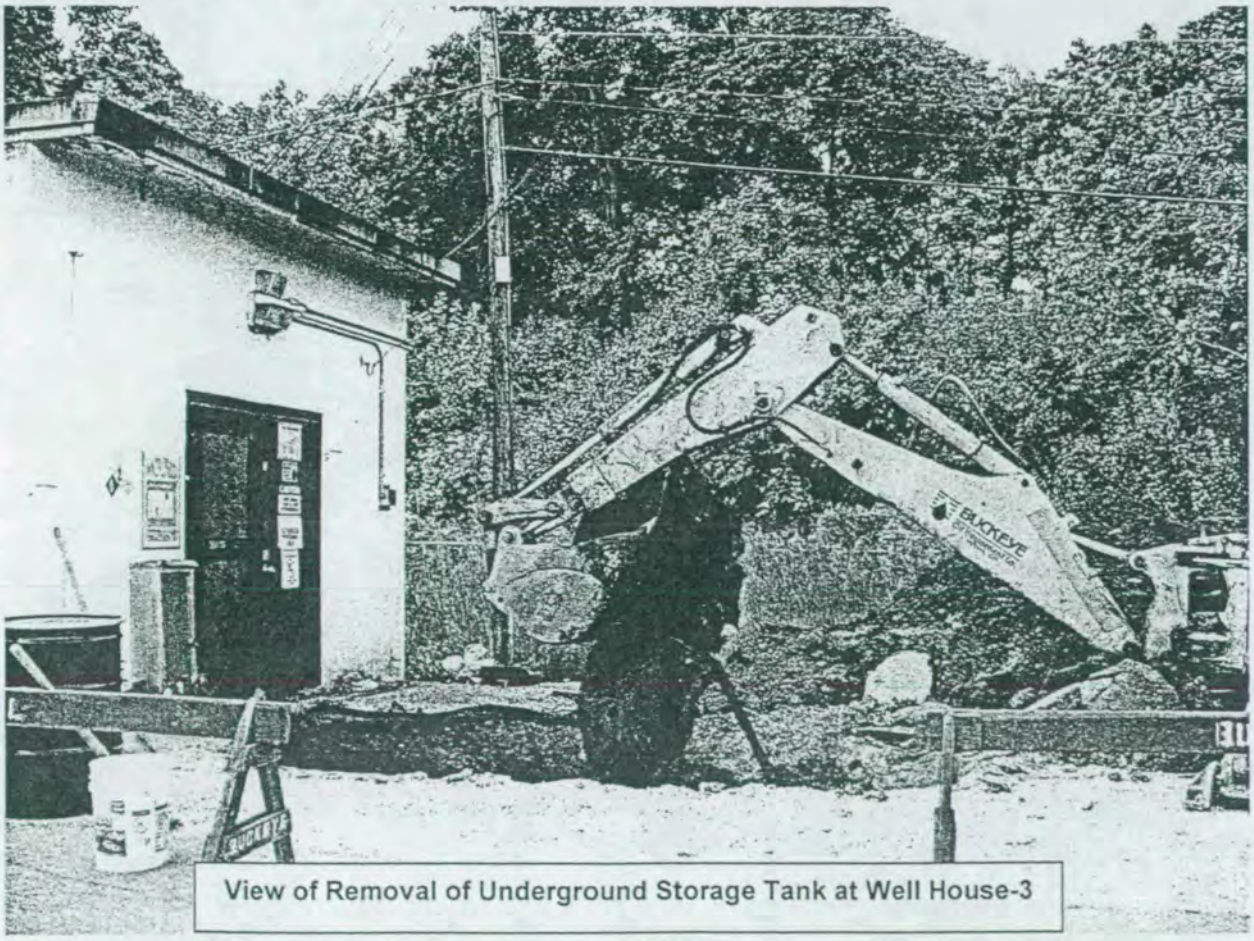
Buildings WH-1, WH-2, and WH-3 – Prior to Demolition

View of Pumping Out Underground Storage Tank Prior to Removal at Well House-2

View of Removal of Underground Storage Tank at Well House-2

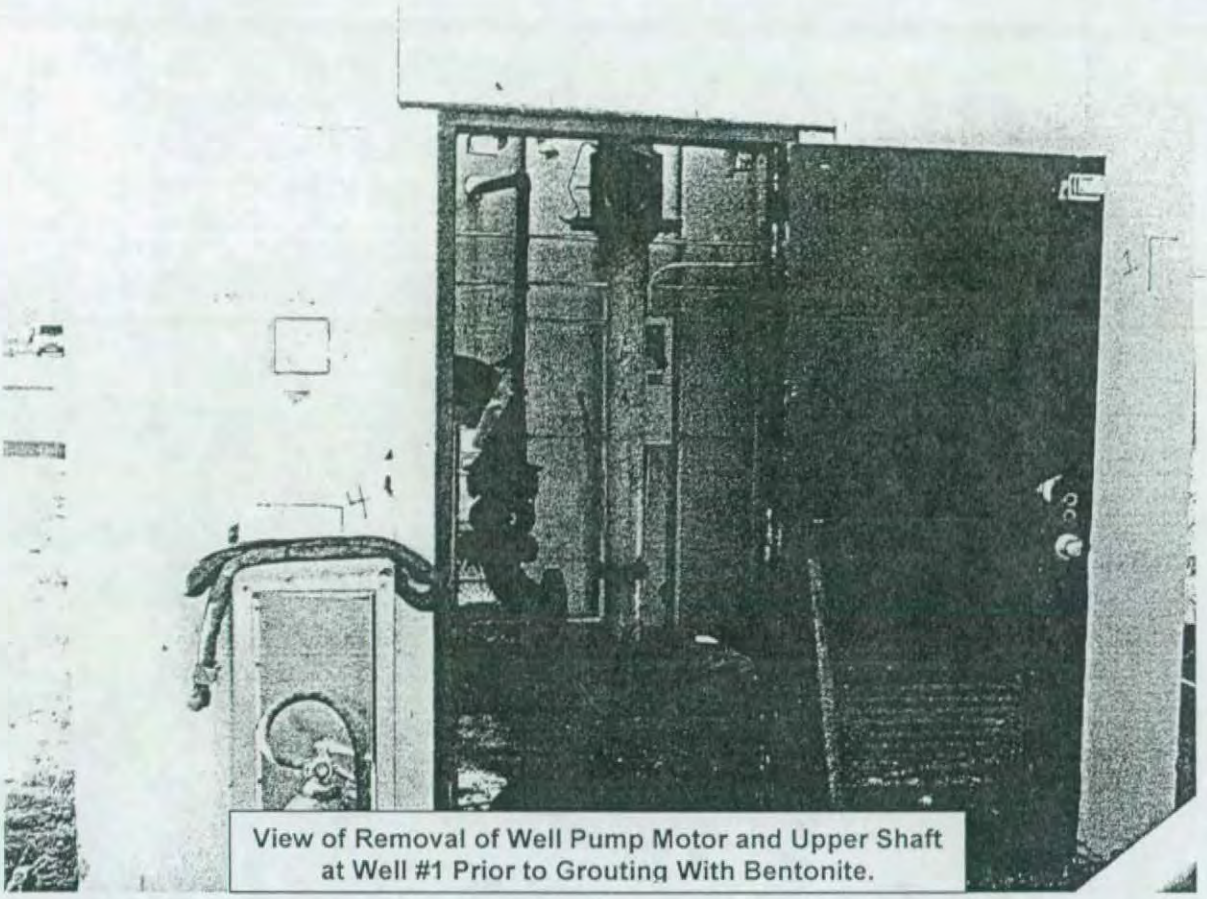
Buildings WH-1, WH-2, and WH-3 – Prior to Demolition

View of Pumping Out Underground Storage Tank Prior to Removal at Well House-2

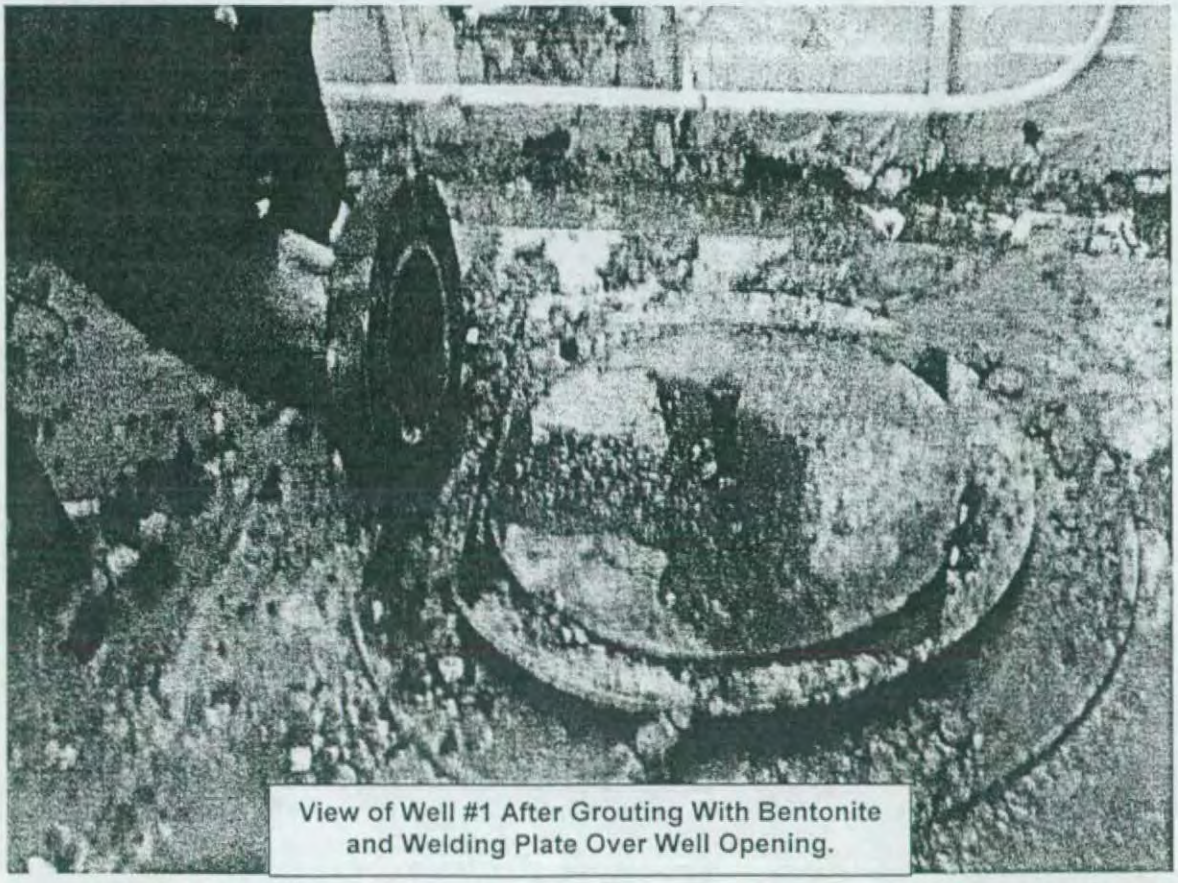


View of Removal of Underground Storage Tank at Well House-3

Buildings WH-1, WH-2, and WH-3 – Prior to Demolition



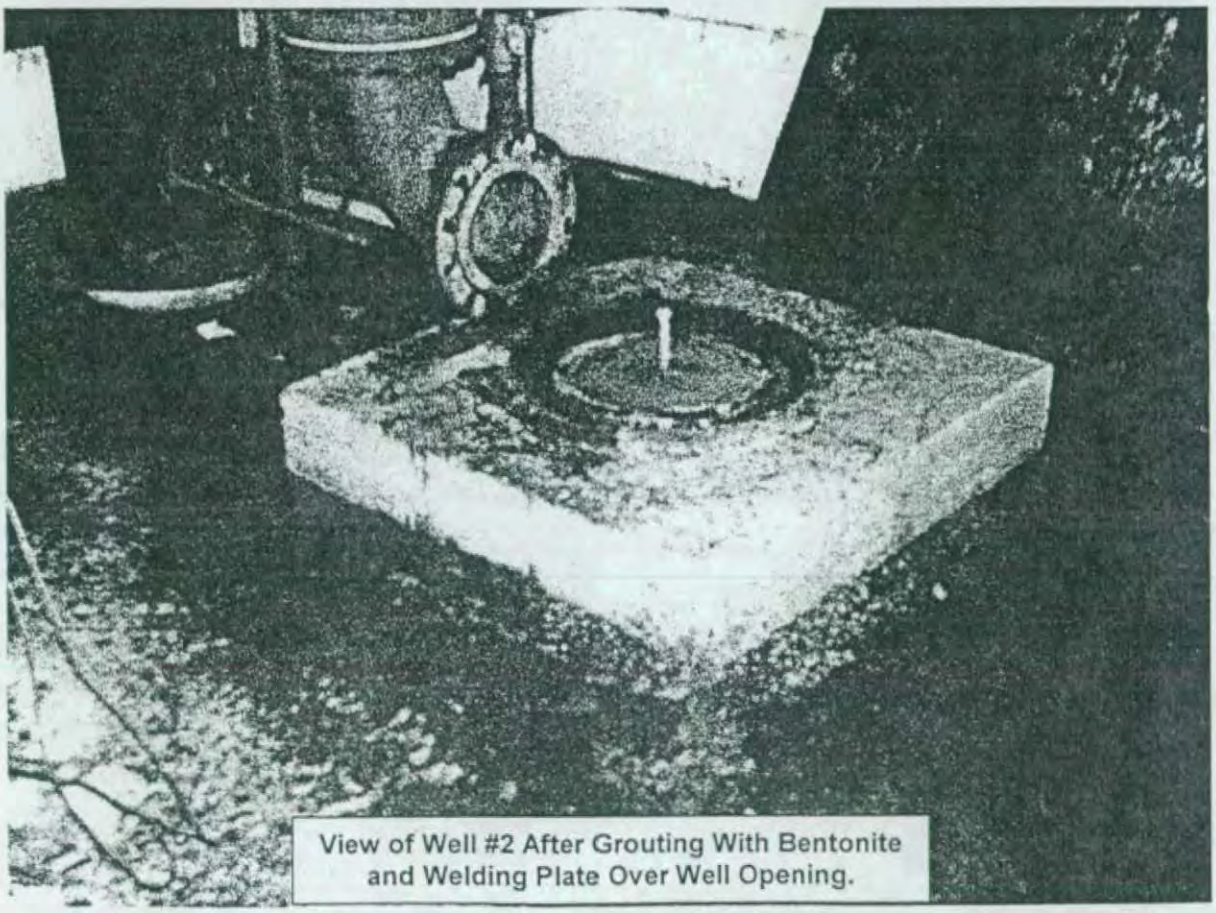
View of Removal of Well Pump Motor and Upper Shaft at Well #1 Prior to Grouting With Bentonite.



View of Well #1 After Grouting With Bentonite and Welding Plate Over Well Opening.

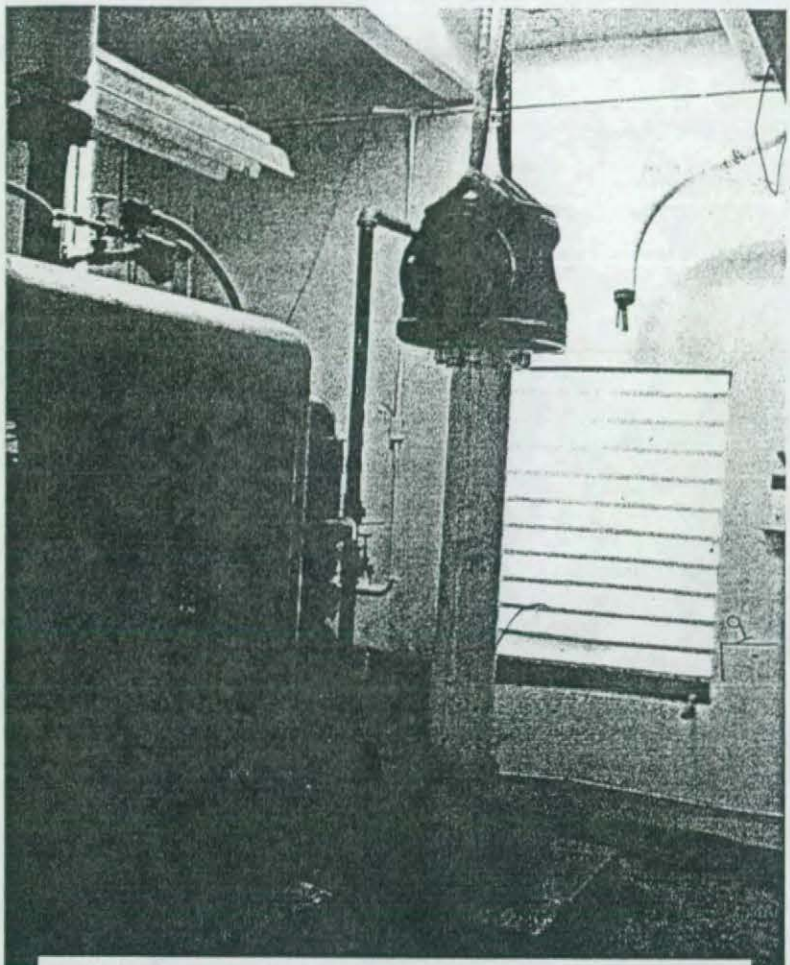
Buildings WH-1, WH-2, and WH-3 – Prior to Demolition

View of Removal of Well Pump Motor and Well Shaft at Well #2 Prior to Grouting With Bentonite.



View of Well #2 After Grouting With Bentonite and Welding Plate Over Well Opening.

Buildings WH-1, WH-2, and WH-3 – Prior to Demolition

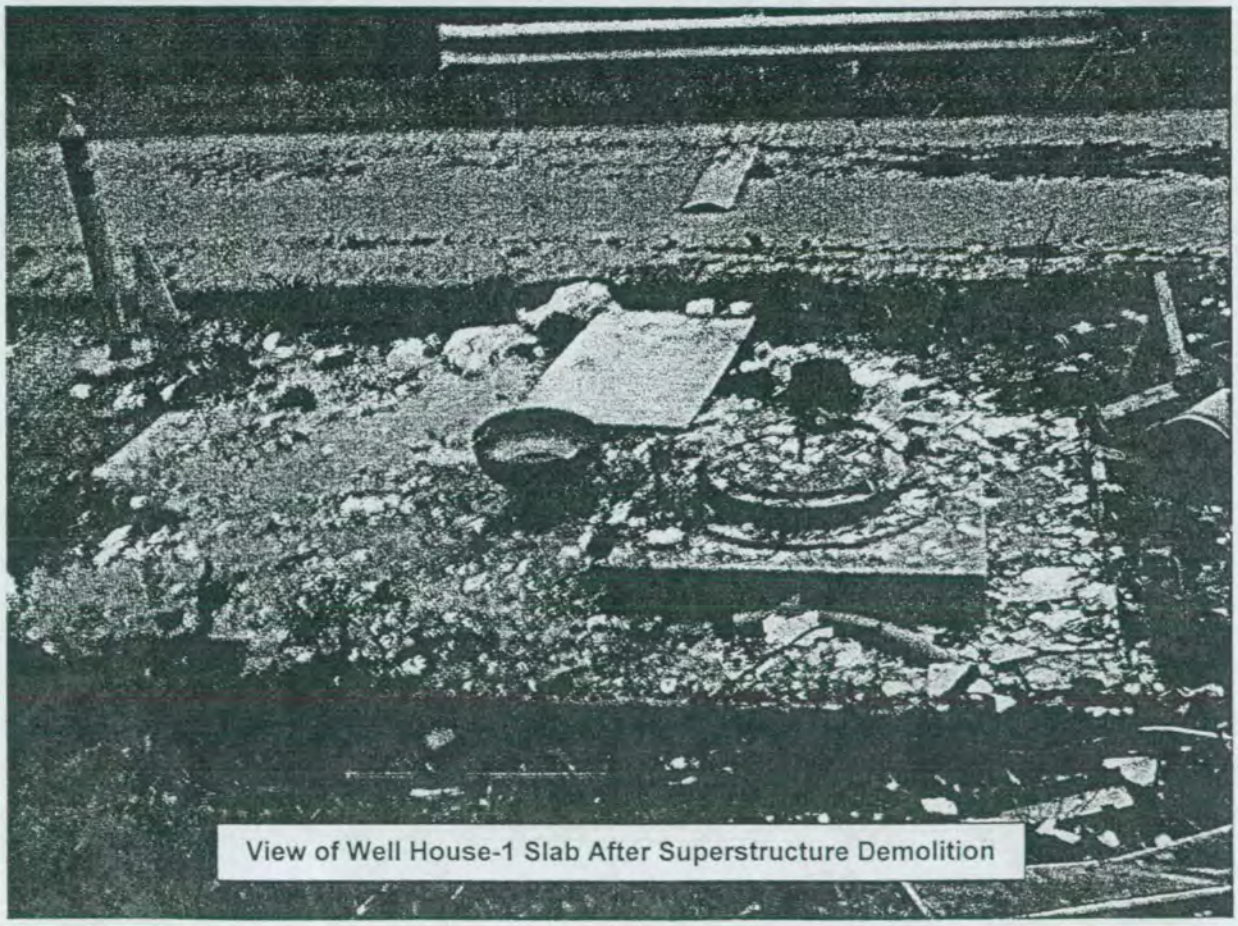


View of Removal of Well Pump Motor and Well Shaft at Well #3 Prior to Grouting With Bentonite.

View of Well #3 After Grouting With Bentonite and Welding Plate Over Well Opening.

Buildings WH-1, WH-2, and WH-3 – Prior to Demolition

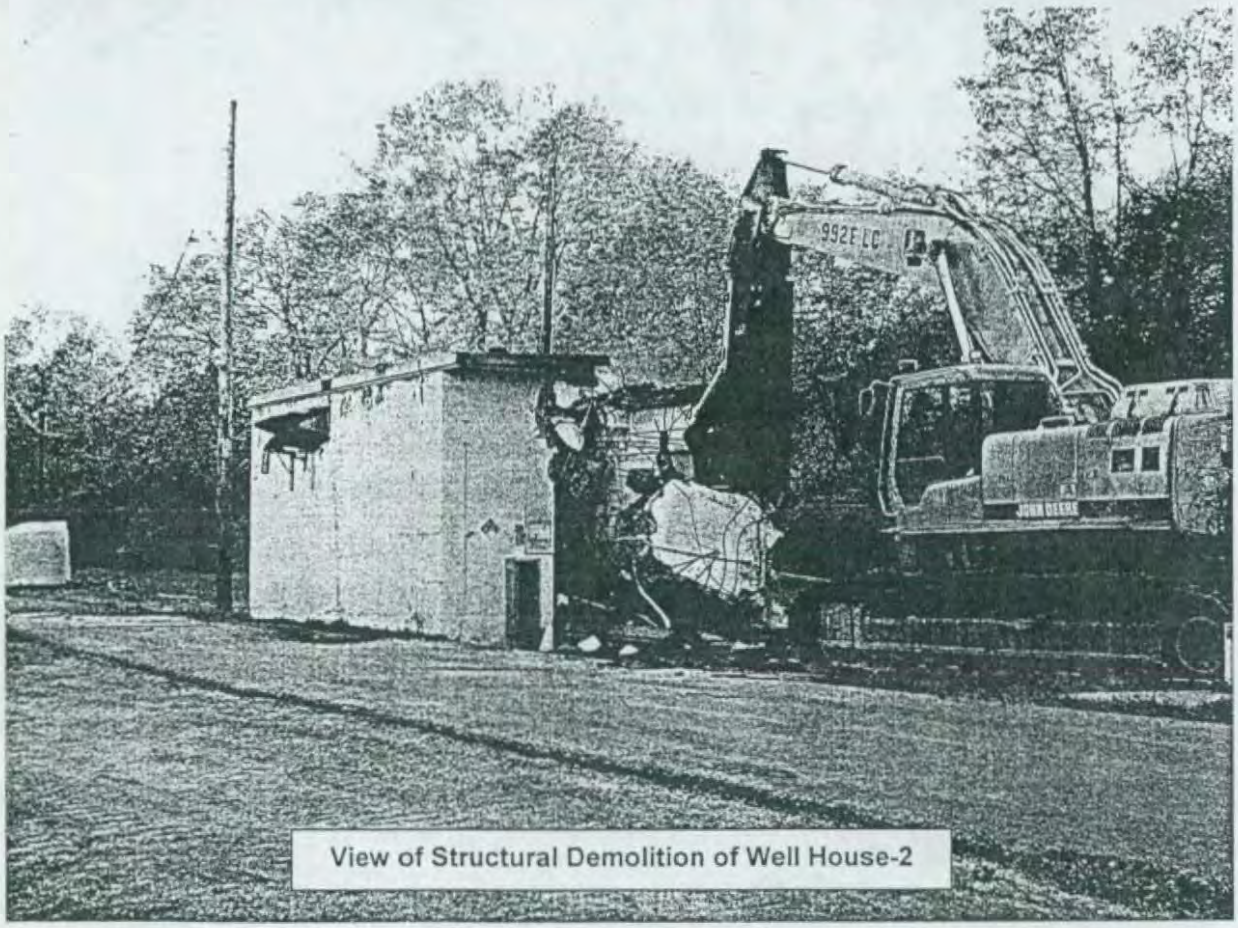
View of Structural Demolition of Well House-1



View of Well House-1 Slab After Superstructure Demolition

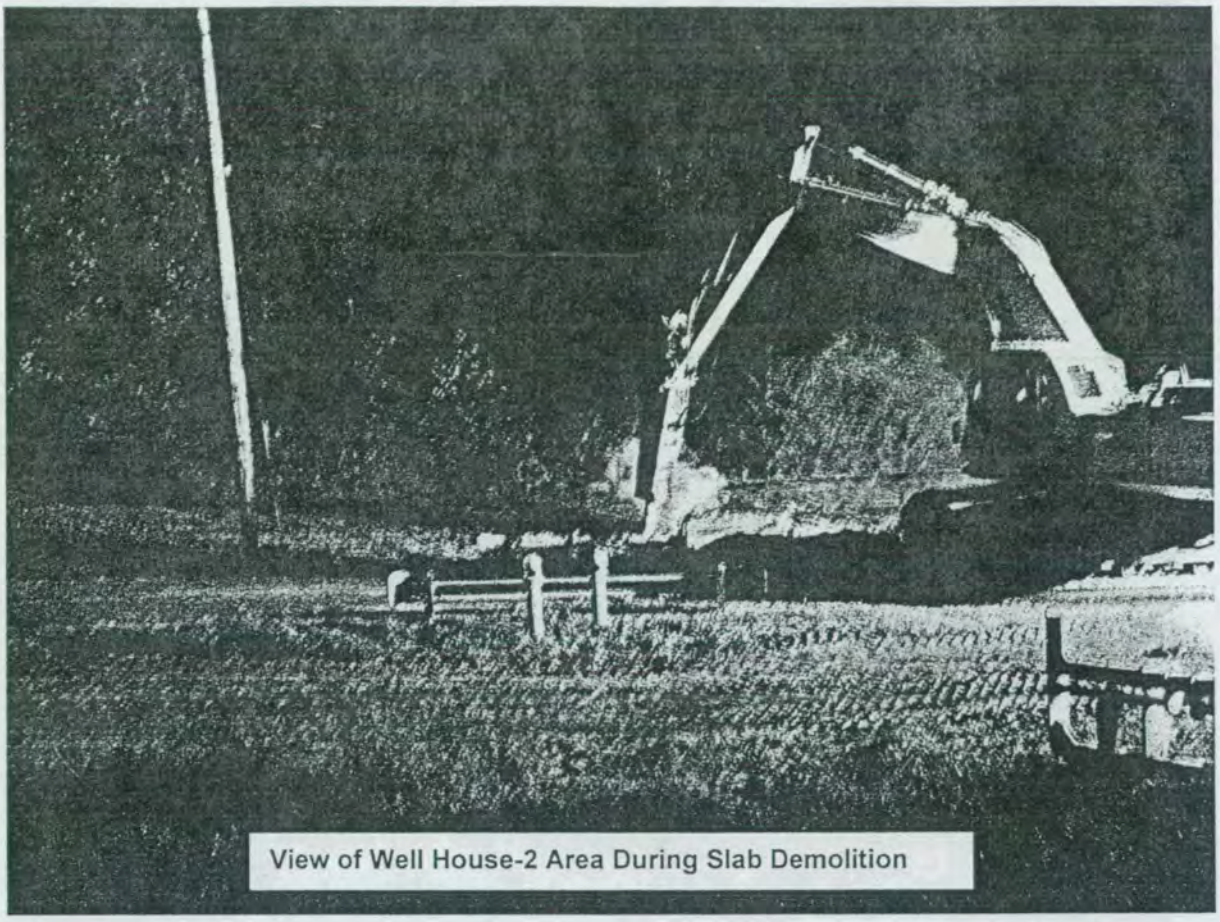
Buildings WH-1, WH-2, and WH-3 – During Demolition

View of Well House-1 Area After Slab Demolition



View of Structural Demolition of Well House-2

Buildings WH-1, WH-2, and WH-3 – During Demolition



View of Well House-2 Area During Slab Demolition

View of Well House-2 Area After Slab Demolition

Buildings WH-1, WH-2, and WH-3 – During Demolition

View of Structural Demolition of Well House-3

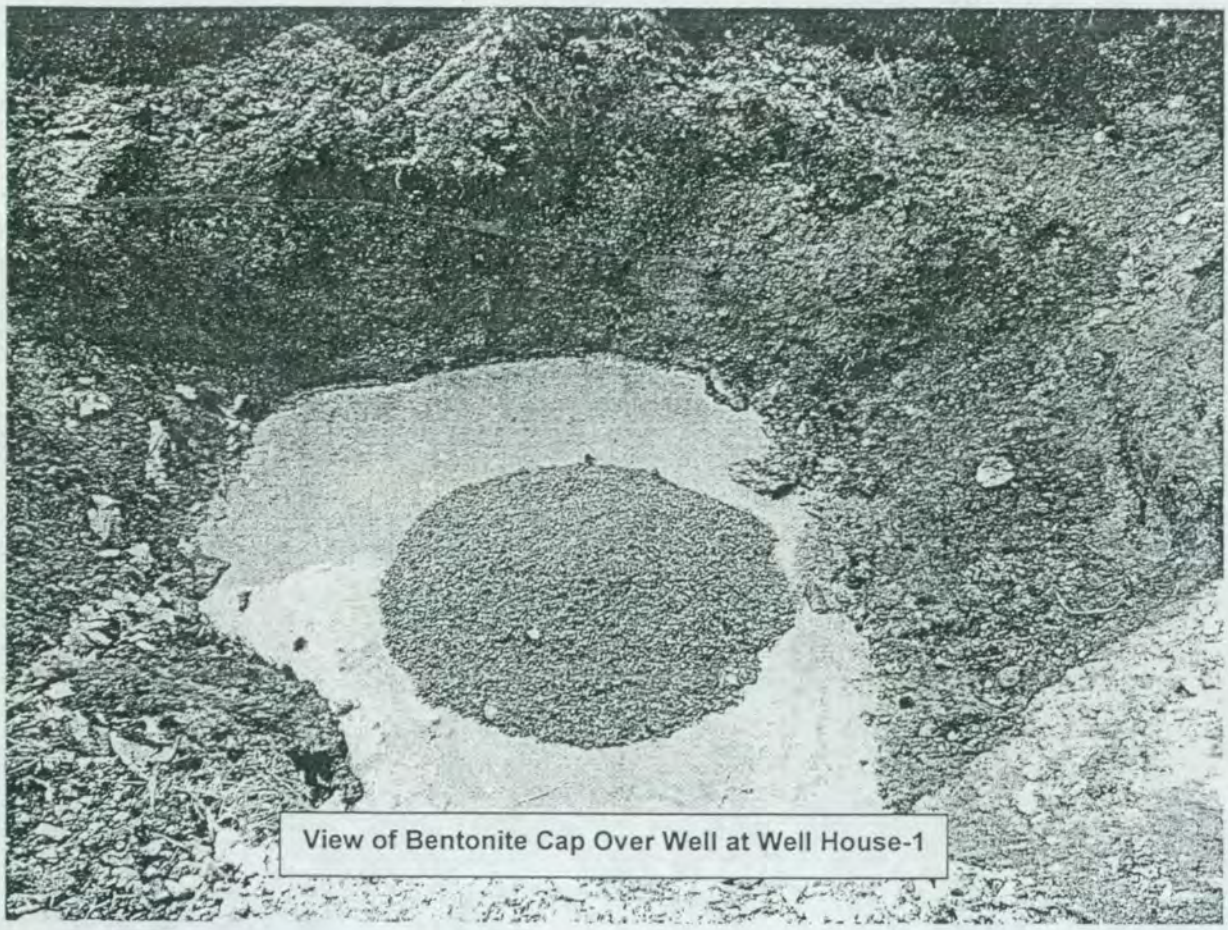
View of Well House-3 Slab After Superstructure Demolition

Buildings WH-1, WH-2, and WH-3 – During Demolition

View of Well House-3 Area After Slab Demolition

View of Removal of Well Casings at Well House-1

Buildings WH-1, WH-2, and WH-3 – After Demolition

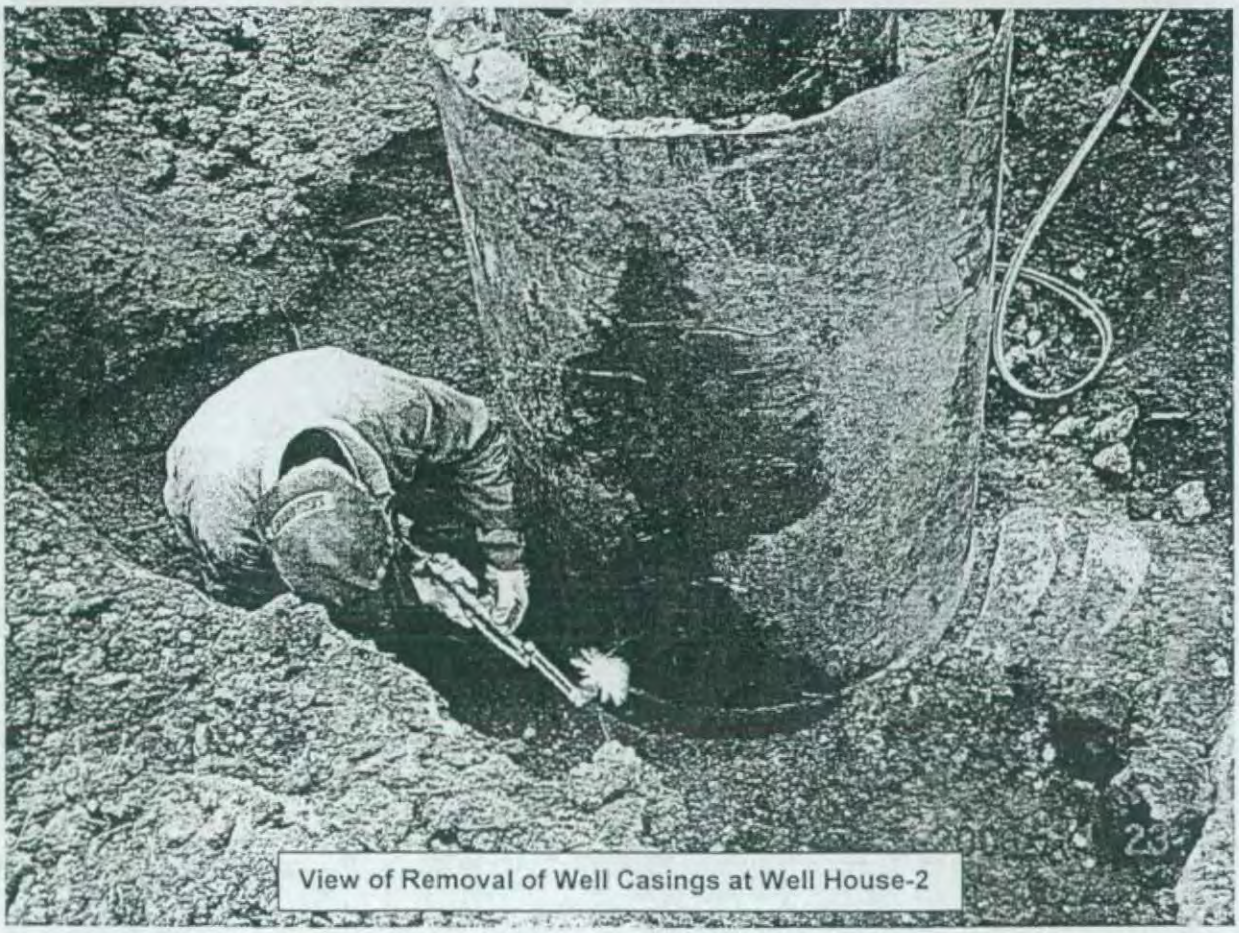


View of Bentonite Cap Over Well at Well House-1

View of Final Grading at Well House-1 Area

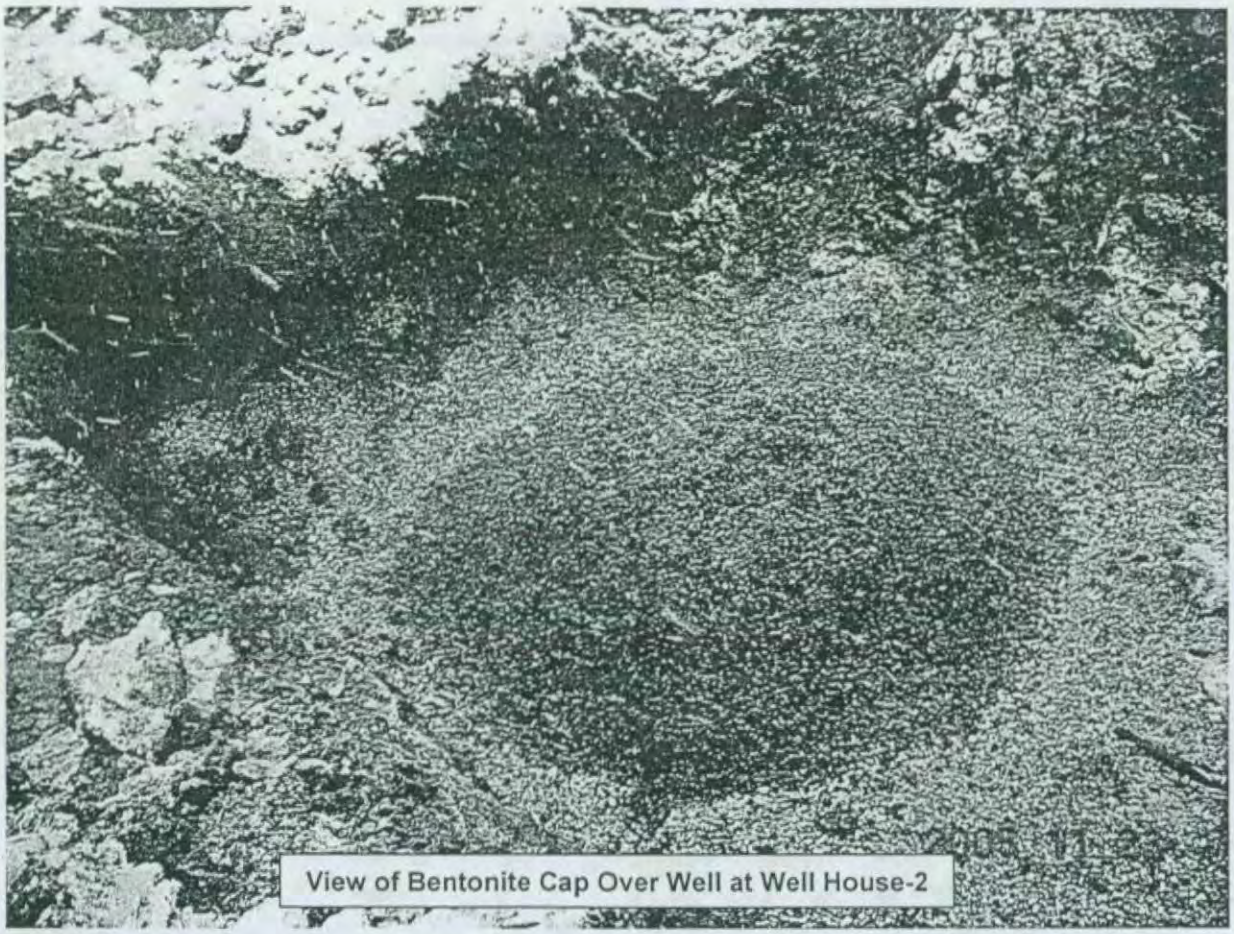
Buildings WH-1, WH-2, and WH-3 – After Demolition

View of Seeding/Final Site Restoration at Well House-1 Area



View of Removal of Well Casings at Well House-2

Buildings WH-1, WH-2, and WH-3 – After Demolition



View of Bentonite Cap Over Well at Well House-2

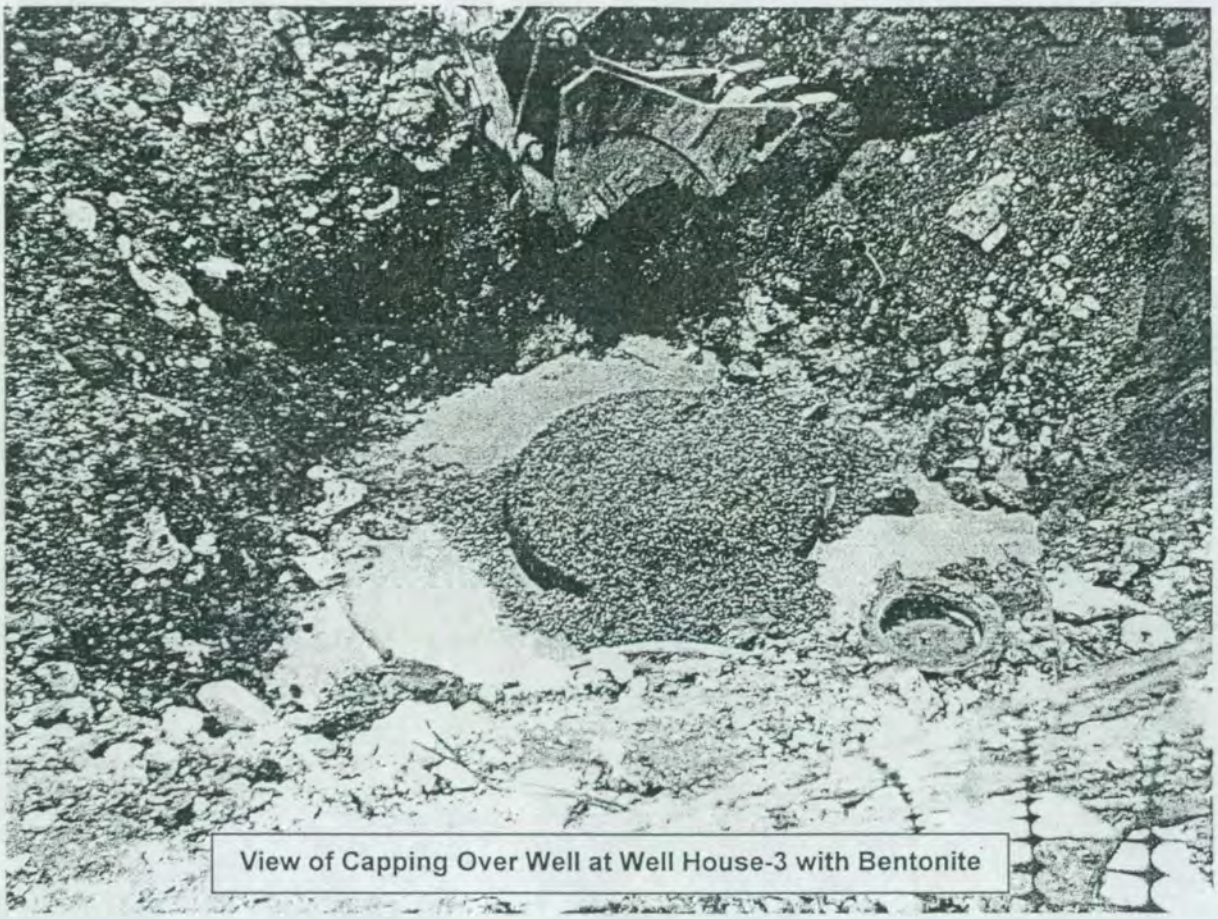
View of Final Grading at Well House-2 Area

Buildings WH-1, WH-2, and WH-3 – After Demolition

View of Seeding/Final Site Restoration at Well House-2 Area

View of Removal of Well Casings at Well House-3

Buildings WH-1, WH-2, and WH-3 – After Demolition



View of Capping Over Well at Well House-3 with Bentonite

View of Final Grading at Well House-3 Area

Buildings WH-1, WH-2, and WH-3 – After Demolition

View of Seeding/Final Site Restoration at Well House-3 Area

View of Former Well House Area After Final Site Restoration

Buildings WH-1, WH-2, and WH-3 – After Demolition

APPENDIX B

Post-Final Status Survey Report
Radiological Surveys

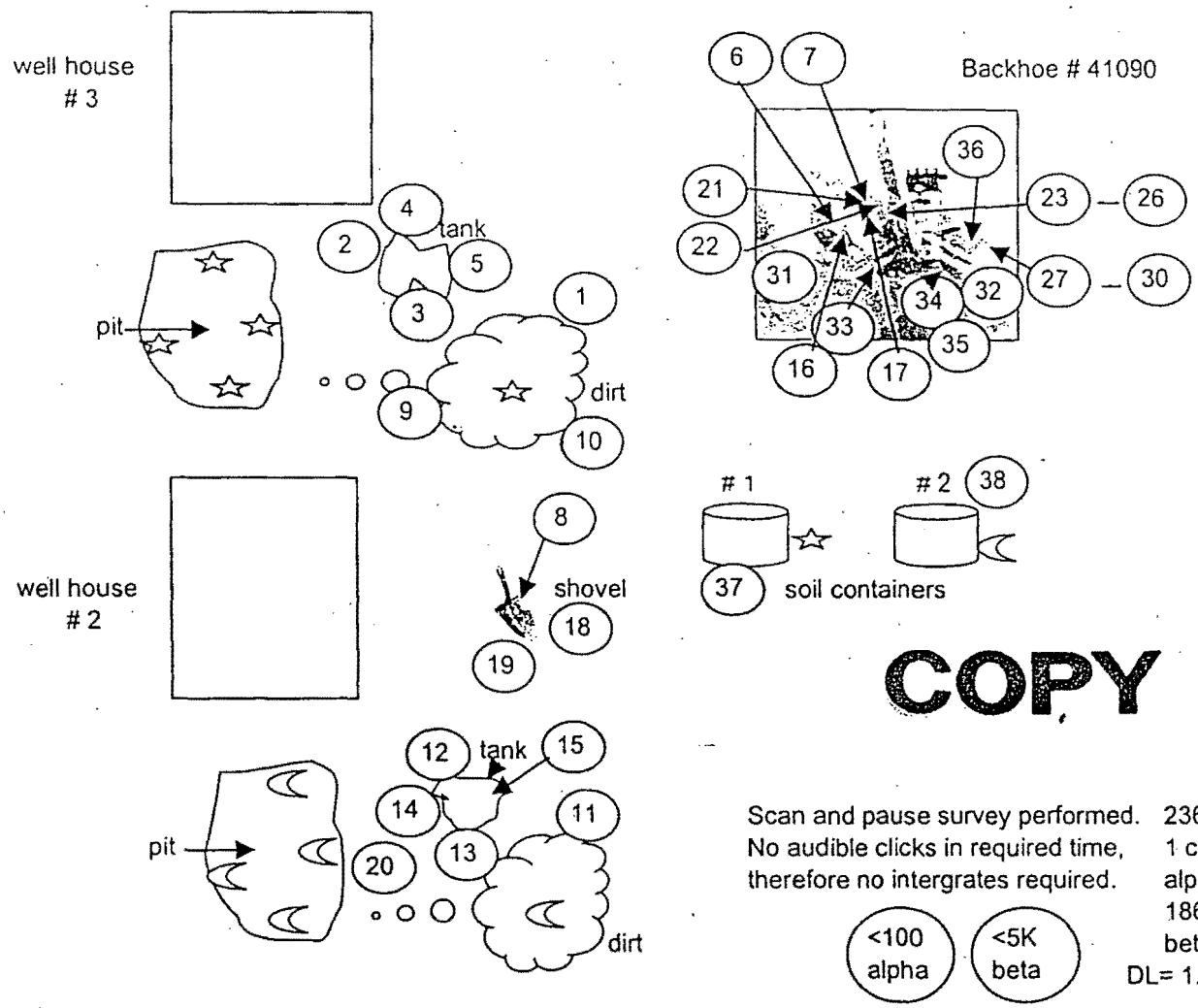
This appendix includes copies of the RSDSs from the confirmatory surveys of the three well house interior and exterior surfaces and the post-demolition surveys of the ground-contact surfaces of the slab and adjacent structures. All results met surface release criteria.

05-TF-0230 (4 Pages)
05-TF-0312 (6 Pages)
05-TF-0314 (6 Pages)
05-TF-0315 (6 Pages)
05-TF-0323 (5 Pages)
05-TF-0327 (9 Pages)
05-TF-0328 (4 Pages)
05-TF-0330 (7 Pages)
05-TF-0333 (6 Pages)
05-TF-0334 (1 Page)
05-TF-0335 (7 Pages)
05-TF-0336 (7 Pages)
05-TF-0347 (5 Pages)

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Well Houses # 2, 3	SURVEY NO. 05-TF-0230
PURPOSE: Job coverage of fuel tank(s) removal	RWP NO. N/A
	DATE: 5/24/05
	TIME: 17:30

MAP / DRAWING



LEGEND:
- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5677/5715	12/15/05
Bicron fidler	3853/3965	1/18/06
	NA	

Completed by: (Signature) L Oeffner / Jamie Collins	HP# [redacted]	Date 5/25/05
Completed by: (Printed Name) L. Oeffner Jr. / Jamie Collins		
Counted by: (Signature) See attached	HP#	Date →
Counted by: (Printed Name) ↓		
Reviewed/Approved by: (Signature) RMCoblentz	HP# [redacted]	Date 6/9/05
Reviewed/Approved by: (Print Name) RMCoblentz		

Survey No.
05-TF-0230

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm)				
Sample #	β/γ	Alpha	Tritium	Comments
1	0	0	N/A	dirt (WH 3)
2	0	2		tank O/S
3	0	2		↓
4	5	0		tank I/S
5	0	0		↓
6	17	0		bucket
7	0	0		↓
8	8	0		shovel
9	8	0		dirt (WH 3)
10	0	0		↓
11	11	0		dirt (WH 2)
12	38	0		tank O/S
13	5	0		↓
14	23	0		tank I/S
15	0	0		↓
16	14	2		bucket O/S
17	32	0		bucket I/S
18	50	2		shovels
19	0	2		↓
20	11	0		pipe
21	14	0		teeth
22	0	0		↓
23	0	0		bucket O/S
24	0	5		
25	0	0		
26	32	0		↓
27	17	0		bucket O/S
28	10	0		bucket I/S
29	8	2		↓
30	10	2		bucket O/S
31	0	5		foot
32	0	0		↓
33	0	0		tire
34	0	2		
35	0	0	↓	↓

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
36	23	2	N/A	tire
37	0	0	↓	container
38	0	0	↓	↓

N A

Comments: Soil samples sent to lab for ~~off-site~~ ON-SITE screening. See attached results. Fidler bkgd. 100cpm-all readings < or = bkgd. Except WH-2 ~~dirt reading~~ dirt readings were 100 cpm above bkgd. ☆ Indicates sample locations of container #1. ☾ Indicates sample locations of container #2.

NOTE: ALL FIDLER READINGS IN INSTRUMENT Channel 1. SEE ATTACHED FOR Pu Screening analyses.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

05-TF-0230

PS03452 WH #3 Sample #1
May/25/2005 8:52:22AM

HEADER INFORMATION in PS600454.S0 Collected 05/24/05 by 7244

Identification
User : 5268
MCArd : 6
Detector : F6
Geometry : F6
Sample :
Channels : 2048

Acquisition
Started : May/25/2005 8:37:17AM
Stopped : May/25/2005 8:52:17AM
True Time : 900.101 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 10657 counts
LTC : 1.0000011
Gross Rate : 11.8411 cps

CB

Sample
Sampled from May/25/2005 8:37:17AM to May/25/2005 8:37:17AM
Sample Quantity 917 ± 183.4 g.

Energy Calibration May/21/2005 3:44:45PM QE600144.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS600454.S0 Collected 05/24/05 by 7244

Name	Energy keV	Activity Flag	pCi/g.	Error pCi/g.	MDA pCi/g.	Error pCi/g.
Pu-238	16.00	*	21.82	± 10.65	15.27	± 3.05
Grand Total			21.82	± 10.65		

Activity (pCi) at May/25/2005 8:37:17AM
Divided by Sample Quantity 917 ± 183.4 g.
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

05-TF-0230

HEADER INFORMATION in PS500590.S0 Collected 05/25/05 by 7244

Identification
User : 5268
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : May/25/2005 8:36:32AM
Stopped : May/25/2005 8:51:32AM
True Time : 900.179 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 7236 counts
LTC : 1.00004
Gross Rate : 8.04032 cps

GB

Sample
Sampled from May/25/2005 8:36:32AM to May/25/2005 8:36:32AM
Sample Quantity 738 ± 147.6 g.

Energy Calibration May/21/2005 3:43:55PM QE500149.S0
Resolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS500590.S0 Collected 05/25/05 by 7244

Name	Energy keV	Activity Flag	pCi/g.	Error pCi/g.	MDA pCi/g.	Error pCi/g.
Pu-238	16.00	*	40.26	± 12.23	12.58	± 2.51
Grand Total			40.26	± 12.23		

Activity (pCi) at May/25/2005 8:36:32AM
Divided by Sample Quantity 738 ± 147.6 g.
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

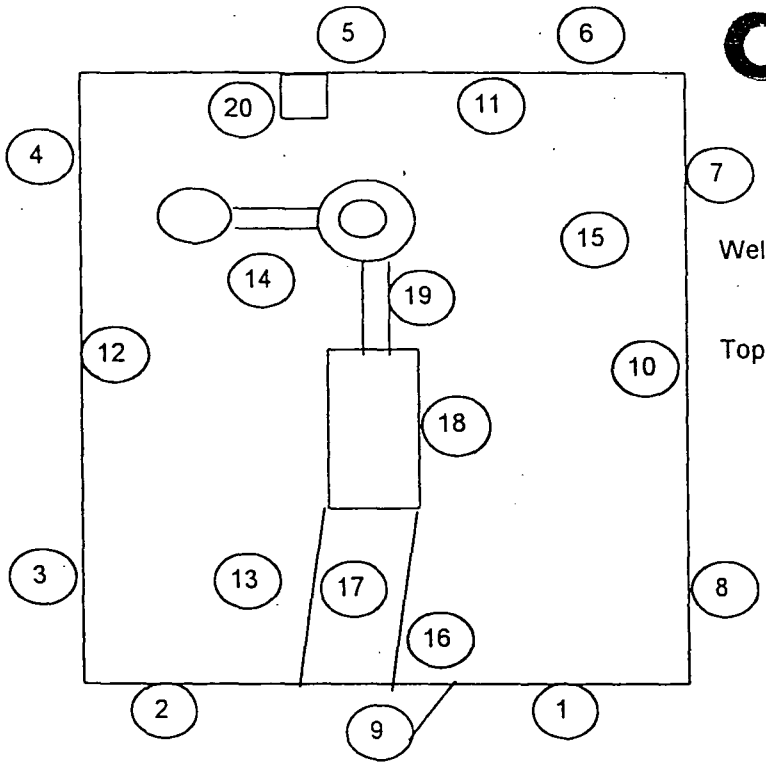
Flags	Meaning
*	Forced MDA from identification

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Well-house #2	SURVEY NO. 05-TF-0312
PURPOSE: Verification survey prior to demo	RWP NO. N/A
	DATE: 9/6/05
	TIME: 14:00

MAP / DRAWING

COPY



Well house #2

Top view

Bk= 3 cpm alpha
160 cpm beta
DL= 2.2 cpm alpha
20 cpm beta

<100 alpha

<5K beta

LEGEND:

= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron

- swipe number

- air sample number

#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5704/5714	10/21/05
	NA	

Completed by: (Signature) Larry Oeffner / J.M. Collins	HP# [redacted]	Date 10-10-05
Completed by: (Printed) L. Oeffner Jr. / J.M. Collins		
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature) RM Coblentz	HP# [redacted]	Date 10/25/05
Reviewed/Approved by: (Print Name) RM Coblentz		

Survey No.
05-TF-0312

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED RESULTS			North Wall
2				↓
3				East Wall
4				↓
5				South wall
6				↓
7				West wall
8				↓
9				Door
10				West wall
11				South wall
12				East Wall
13				Floor
14				↓
15				↓
16				↓
17				intake duct
18				top of engine
19				shaft housing
20	↓	↓	↓	table
		A		
		N		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		A		
		N		

Comments: Smears #9 - 20 are inside. All smears field checked with 2360 prior to submiting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A. .

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR056
Batch Ended: 10/6/05 14:55

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0312 [20] J. COLLINS 10-6-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.16		0.00	1.33	
A2	2	0.00	2.24		3.04	2.54	
A3	3	0.00	2.16		0.00	1.27	
A4	4	0.00	2.04		0.00	1.78	
B1	5	1.69	1.93		0.00	1.64	
B2	6	0.00	2.05		0.00	1.72	
B3	7	0.00	1.96		1.32	2.50	
B4	8	1.48	1.87		0.00	1.20	
C1	9	0.00	2.34		0.00	1.97	
C2	10	0.94	2.20		0.78	2.72	
C3	11	0.00	2.12		1.52	2.65	
C4	12	0.00	2.10		2.49	2.86	
D1	13	0.00	2.20		0.00	2.08	
D2	14	0.00	2.17		0.00	1.31	
D3	15	0.00	1.96		1.37	2.48	
D4	16	0.00	2.18		3.33	3.07	
C1	17	0.00	2.34		0.00	1.97	
C2	18	0.95	2.16		0.00	1.96	
C3	19	0.00	2.08		0.00	1.39	
C4	20	0.00	2.07		0.00	2.23	

MO MO

06 Oct 2005 15:08 ALPHA/BETA - 1.09 Page #1 10/10
Protocol #: 4 PW H3 403727 User : 5801

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.80
Region B:	2.0	- 18.6	0	0.0	7.34
Region C:	40.0	- 2000	0	0.0	11.34

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0312 COLLINS [20] GWD
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.dat
Count Data Filename: C:\DATA\SDATA4.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.80	7.34	11.34	658.19	3	B		0.00
0	2.00	497.72	483.29	0.00	589.01	0		1057.81	102.93
1	2.00	6.70	6.82	0.00	636.35	0		13.67	11.61
2	2.00	1.70	1.16	0.16	638.13	5		3.46	9.58
3	2.00	3.20	3.01	0.00	627.13	5		6.58	10.32
4	2.00	2.87	3.32	0.00	622.08	0		5.92	10.22
5	2.00	1.20	1.66	0.00	624.95	0		2.47	9.47
6	2.00	3.20	2.50	1.16	630.80	0		6.56	10.28
7	2.00	6.38	5.42	9.08	643.84	0		12.93	11.41
8	2.00	6.69	6.07	19.87	608.59	0		13.98	11.88
9	2.00	2.20	2.35	0.00	618.89	0		4.56	9.96
10	2.00	0.00	0.00	0.00	596.03	0		0.00	0.00
11	2.00	0.00	0.00	0.00	610.17	0		0.00	0.00
12	2.00	2.91	2.55	3.16	621.37	0		6.01	10.25
13	2.00	0.00	0.00	0.00	553.49	0		0.00	0.00
14	2.00	0.00	0.00	0.00	579.03	0		0.00	0.00
15	2.00	0.20	0.10	0.00	603.48	0		0.42	9.18
16	2.00	5.94	5.87	2.41	593.58	4		12.58	11.75
17	2.00	0.00	0.00	0.00	585.47	0		0.00	0.00
18	2.00	0.00	0.00	0.00	510.57	0		0.00	0.00
19	2.00	0.00	0.00	0.00	475.92	0		0.00	0.00
20	2.00	0.95	1.41	0.00	541.90	0		2.11	10.07

MO

Verification Survey of Wellhouse #2

RSDS#: 05-TF-0312 RCT: SMC RCT: MO

43-89 ALPHA BKG:	3	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	160	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
North wall	5704	[redacted]	5714	ALPHA	1	10/6/05	10:00	16	120	40
North wall	5704	[redacted]	5714	ALPHA	2	10/6/05	10:00	7	120	4
East wall	5704	[redacted]	5714	ALPHA	3	10/6/05	10:00	9	120	12
East wall	5704	[redacted]	5714	ALPHA	4	10/6/05	10:00	9	120	12
South wall	5704	[redacted]	5714	ALPHA	5	10/6/05	10:00	4	120	0
South wall	5704	[redacted]	5714	ALPHA	6	10/6/05	10:00	21	120	60
West Wall	5704	[redacted]	5714	ALPHA	7	10/6/05	10:00	11	120	20
West Wall	5704	[redacted]	5714	ALPHA	8	10/6/05	10:00	11	120	20
Door	5704	[redacted]	5714	ALPHA	9	10/6/05	10:00	7	120	4
I/S west wall	5704	[redacted]	5714	ALPHA	10	10/6/05	10:00	3	120	0
I/S south wall	5704	[redacted]	5714	ALPHA	11	10/6/05	10:00	4	120	0
I/S east wall	5704	[redacted]	5714	ALPHA	12	10/6/05	10:00	7	120	4
Floor	5704	[redacted]	5714	ALPHA	13	10/6/05	10:00	3	120	0
Floor	5704	[redacted]	5714	ALPHA	14	10/6/05	10:00	2	120	0
Floor	5704	[redacted]	5714	ALPHA	15	10/6/05	10:00	2	120	0
Floor	5704	[redacted]	5714	ALPHA	16	10/6/05	10:00	11	120	20
intake duct	5704	[redacted]	5714	ALPHA	17	10/6/05	10:00	6	120	0
top of engine	5704	[redacted]	5714	ALPHA	18	10/6/05	10:00	6	120	0
shaft housing	5704	[redacted]	5714	ALPHA	19	10/6/05	10:00	4	120	0
table	5704	[redacted]	5714	ALPHA	20	10/6/05	10:00	6	120	0
		[redacted]								
North wall	5704	[redacted]	5714	BETA	1	10/6/05	10:00	383	120	126
North wall	5704	[redacted]	5714	BETA	2	10/6/05	10:00	351	120	62
East wall	5704	[redacted]	5714	BETA	3	10/6/05	10:00	333	120	26
East wall	5704	[redacted]	5714	BETA	4	10/6/05	10:00	331	120	22
South wall	5704	[redacted]	5714	BETA	5	10/6/05	10:00	342	120	44
South wall	5704	[redacted]	5714	BETA	6	10/6/05	10:00	321	120	2
West Wall	5704	[redacted]	5714	BETA	7	10/6/05	10:00	386	120	132
West Wall	5704	[redacted]	5714	BETA	8	10/6/05	10:00	389	120	138
Door	5704	[redacted]	5714	BETA	9	10/6/05	10:00	386	120	132
I/S west wall	5704	[redacted]	5714	BETA	10	10/6/05	10:00	331	120	0
I/S south wall	5704	[redacted]	5714	BETA	11	10/6/05	10:00	363	120	86

05-TF-0312

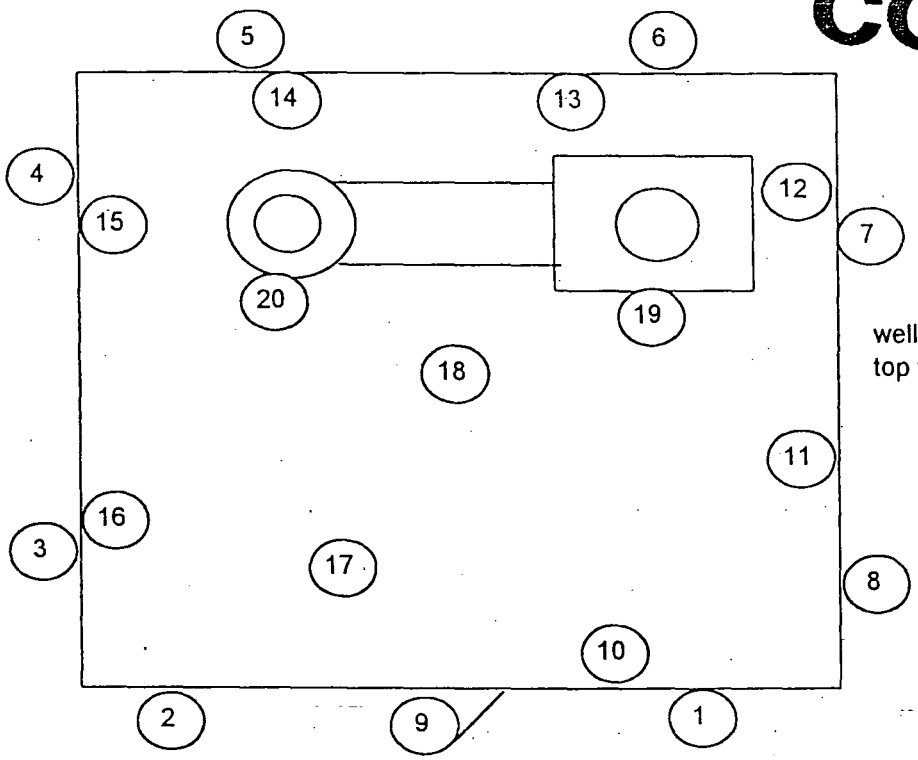
LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
I/S east wall	5704	[redacted]	5714	BETA	12	10/6/05	10:00	327	120	14
Floor	5704	[redacted]	5714	BETA	13	10/6/05	10:00	416	120	192
Floor	5704	[redacted]	5714	BETA	14	10/6/05	10:00	419	120	198
Floor	5704	[redacted]	5714	BETA	15	10/6/05	10:00	335	120	30
Floor	5704	[redacted]	5714	BETA	16	10/6/05	10:00	382	120	124
intake duct	5704	[redacted]	5714	BETA	17	10/6/05	10:00	303	120	0
top of engine	5704	[redacted]	5714	BETA	18	10/6/05	10:00	259	120	0
shaft housing	5704	[redacted]	5714	BETA	19	10/6/05	10:00	282	120	0
table	5704	[redacted]	5714	BETA	20	10/6/05	10:00	253	120	0

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Well house # 1	SURVEY NO. 05-TF-0314
PURPOSE: Verification survey prior to demo	RWP NO. N/A
	DATE: 10/10/05
	TIME: 10:30

MAP / DRAWING

COPY



well house # 1
top view

Bk= 1 cpm alpha
164 cpm beta
DL= 1.4 cpm alpha
30 cpm beta

<100 alpha

<5K beta

LEGEND:

= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5704/5714	10/21/05
	NA	

Completed by: (Signature) J.M. Collins	HP# [redacted]	Date 10/11/05
Completed by: (Printed)	J.M. Collins/L. Oeffner Jr.	
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature) RM Coblentz	HP# [redacted]	Date 10/25/05
Reviewed/Approved by: (Print Name) RM Coblentz		

Survey No.
05-TF-0314

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED RESULTS			North wall
2				↓
3				East wall
4				↓
5				South wall
6				↓
7				West wall
8				↓
9				door
10				North wall
11				West wall
12				↓
13				South wall
14				↓
15				East wall
16				↓
17				floor
18				↓
19				pump
20	↓	↓	↓	↓
		A		
		N		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		A		
		N		

Comments: Smears # 9-16 are inside. All smears field checked with 2360 prior to submiting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR061
Batch Ended: 10/10/05 16:30

Crosstalk correction performed

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0314 J.COLLINS (20) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.92	2.18		0.00	1.83	
A2	2	1.74	2.23		1.62	2.20	
A3	3	1.60	2.17		0.00	1.27	
A4	4	0.00	2.05		1.15	2.16	
B1	5	0.00	1.90		0.00	1.20	
B2	6	1.49	2.07		0.00	2.08	
B3	7	0.00	1.92		0.00	1.32	
B4	8	0.00	1.90		0.43	2.00	
C1	9	0.00	2.41		3.17	3.32	
C2	10	0.94	2.23		3.44	3.31	
C3	11	0.00	2.08		0.00	1.39	
C4	12	0.00	2.06		0.00	1.85	
D1	13	1.05	2.20		0.00	2.08	
D2	14	4.14	3.09		0.70	2.19	
D3	15	0.00	1.97		4.19	3.19	
D4	16	0.00	2.16		0.63	2.39	
A1	17	0.00	2.17		0.00	1.83	
A2	18	1.73	2.26		4.13	2.83	
A3	19	0.00	2.24		4.14	2.76	
A4	20	0.00	2.03		0.00	1.29	

J.C J.C

B13 of 73

~~Page 1 of 1~~

Page 3 of 6

10 Oct 2005 17:09 TRI-CARB - 1.09 ~~Page #1~~
Protocol #: 2 PW H3 #407906 User : 5801

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.65
Region B:	2.0	- 18.6	0	0.0	7.55
Region C:	40.0	- 2000	0	0.0	12.70

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
Q5-TF-0314 COLLINS [20] GWD
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT2.dat
Count Data Filename: C:\DATA\SDATA2.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2SIGMA	CPMC
-1	10.00	7.65	7.55	10	B	636.50		0.000	12.70
0	2.00	473.44	431.72	0		555.15	891.54	74.749	0.80
1	2.00	0.00	0.00	8		618.85	0.00	0.000	0.00
2	2.00	1.85	1.65	5		612.18	3.33	8.523	0.00
3	2.00	0.23	0.00	6		585.07	0.43	8.049	0.80
4	2.00	3.75	2.79	4		603.17	6.80	9.288	0.00
5	2.00	2.85	1.64	0		615.92	5.11	8.873	6.74
6	2.00	0.00	0.00	7		612.97	0.00	0.000	2.80
7	2.00	0.00	0.00	7		576.12	0.00	0.000	0.00
8	2.00	4.21	3.93	4		578.03	7.79	9.637	0.00
9	2.00	1.85	0.69	0		587.26	3.39	8.688	0.00
10	2.00	0.00	0.00	0		583.77	0.00	0.000	0.00
11	2.00	6.62	3.92	0		595.47	12.08	10.328	2.80
12	2.00	0.00	0.00	0		597.51	0.00	0.000	0.00
13	2.00	0.85	0.30	0		626.98	1.51	8.041	0.00
14	2.00	0.00	0.00	0		598.87	0.00	0.000	0.00
15	2.00	0.00	0.00	0		600.06	0.00	0.000	0.00
16	2.00	0.00	0.00	7		578.15	0.00	0.000	0.00
17	2.00	0.00	0.00	11		578.73	0.00	0.000	0.00
18	2.00	0.00	0.00	8		615.08	0.00	0.000	0.00
19	2.00	0.00	0.00	7		524.49	0.00	0.000	0.00
20	2.00	0.00	0.00	0		522.90	0.00	0.000	0.00

Verification Survey of Wellhouse #1

RSDS#: 05-TF-0314 RCT: SJC RCT: MO

43-89 ALPHA BKG:	0.8	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	164	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
North wall	5704	[redacted]	5714	ALPHA	1	10/10/05	8:30	5	60	34
North wall	5704	[redacted]	5714	ALPHA	2	10/10/05	8:30	12	60	90
East wall	5704	[redacted]	5714	ALPHA	3	10/10/05	8:30	7	60	50
East wall	5704	[redacted]	5714	ALPHA	4	10/10/05	8:30	7	60	50
South wall	5704	[redacted]	5714	ALPHA	5	10/10/05	8:30	6	60	42
South wall	5704	[redacted]	5714	ALPHA	6	10/10/05	8:30	7	60	50
West Wall	5704	[redacted]	5714	ALPHA	7	10/10/05	8:30	9	60	66
West Wall	5704	[redacted]	5714	ALPHA	8	10/10/05	8:30	2	60	10
door	5704	[redacted]	5714	ALPHA	9	10/10/05	8:30	1	60	2
I/S North wall	5704	[redacted]	5714	ALPHA	10	10/10/05	8:30	6	60	42
I/S West wall	5704	[redacted]	5714	ALPHA	11	10/10/05	8:30	1	60	2
I/S West wall	5704	[redacted]	5714	ALPHA	12	10/10/05	8:30	5	60	34
I/S South wall	5704	[redacted]	5714	ALPHA	13	10/10/05	8:30	1	60	2
I/S South wall	5704	[redacted]	5714	ALPHA	14	10/10/05	8:30	3	60	18
I/S East wall	5704	[redacted]	5714	ALPHA	15	10/10/05	8:30	3	60	18
I/S East wall	5704	[redacted]	5714	ALPHA	16	10/10/05	8:30	1	60	2
floor	5704	[redacted]	5714	ALPHA	17	10/10/05	8:30	8	60	58
floor	5704	[redacted]	5714	ALPHA	18	10/10/05	8:30	5	60	34
pump	5704	[redacted]	5714	ALPHA	19	10/10/05	8:30	0	60	0
pump	5704	[redacted]	5714	ALPHA	20	10/10/05	8:30	0	60	0
		[redacted]								
North wall	5704	[redacted]	5714	BETA	1	10/10/05	8:30	160	60	0
North wall	5704	[redacted]	5714	BETA	2	10/10/05	8:30	158	60	0
East wall	5704	[redacted]	5714	BETA	3	10/10/05	8:30	151	60	0
East wall	5704	[redacted]	5714	BETA	4	10/10/05	8:30	159	60	0
South wall	5704	[redacted]	5714	BETA	5	10/10/05	8:30	149	60	0
South wall	5704	[redacted]	5714	BETA	6	10/10/05	8:30	169	60	0
West Wall	5704	[redacted]	5714	BETA	7	10/10/05	8:30	148	60	0
West Wall	5704	[redacted]	5714	BETA	8	10/10/05	8:30	154	60	0
door	5704	[redacted]	5714	BETA	9	10/10/05	8:30	135	60	0
I/S North wall	5704	[redacted]	5714	BETA	10	10/10/05	8:30	147	60	0
I/S West wall	5704	[redacted]	5714	BETA	11	10/10/05	8:30	150	60	0

05-TF-0314

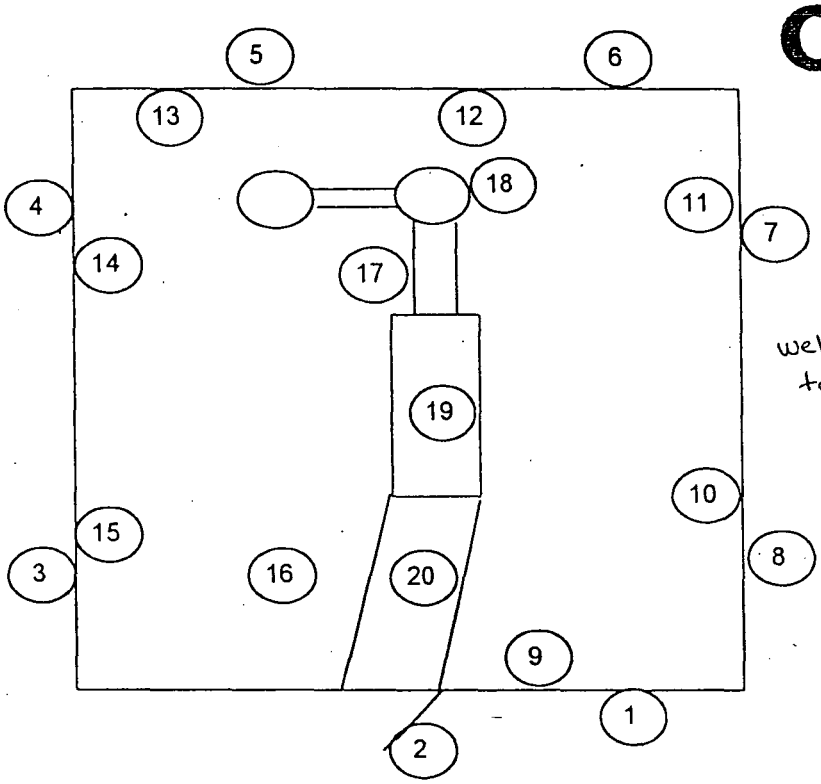
LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
I/S West wall	5704	[redacted]	5714	BETA	12	10/10/05	8:30	164	60	0
I/S South wall	5704	[redacted]	5714	BETA	13	10/10/05	8:30	132	60	0
I/S South wall	5704	[redacted]	5714	BETA	14	10/10/05	8:30	157	60	0
I/S East wall	5704	[redacted]	5714	BETA	15	10/10/05	8:30	139	60	0
I/S East wall	5704	[redacted]	5714	BETA	16	10/10/05	8:30	126	60	0
floor	5704	[redacted]	5714	BETA	17	10/10/05	8:30	182	60	0
floor	5704	[redacted]	5714	BETA	18	10/10/05	8:30	230	60	264
pump	5704	[redacted]	5714	BETA	19	10/10/05	8:30	147	60	0
pump	5704	[redacted]	5714	BETA	20	10/10/05	8:30	148	60	0

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Well house # 3	SURVEY NO. 05-TF-0315
PURPOSE: Verification survey prior to demo	RWP NO. N/A
	DATE: 10/10/05
	TIME: 15:00

MAP / DRAWING

COPY



well house # 3
top view

Bk= 0.6 cpm alpha
171 cpm beta
DL = 1.4 cpm alpha
30 cpm beta

<100 alpha

<5K beta

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5704/5714	10/21/05
	NA	

Completed by: (Signature)	HP# [redacted]	Date 10/11/05
Completed by: (Printed)	L. Oeffner Jr. / J.M. Collins	
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date 10/25/05
Reviewed/Approved by: (Print Name)		

Survey No.
05-TF-0315

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED RESULTS			North wall
2				door
3				East wall
4				↓
5				South wall
6				↓
7				West wall
8				↓
9				North wall
10				West wall
11				↓
12				South wall
13				↓
14				East wall
15				↓
16				floor
17				pump
18				shaft housing
19				intake duct
20	↓	↓	↓	floor
		A		
		N		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		A		
		N		

Comments: Smears # 9-20 are inside. All smears field checked with 2360 prior to submiting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR060
Batch Ended: 10/10/05 16:19

Crosstalk correction performed.

Recalibration Date: 11/03/05
Serial Number: 26966-1

Batch ID: 05-TF-0315 J.COLLINS (20) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.21		2.23	2.56	
A2	2	1.73	2.26		4.13	2.83	
A3	3	1.60	2.20		1.50	2.15	
A4	4	1.39	2.11		5.89	3.28	
B1	5	1.68	2.01		3.00	2.77	
B2	6	0.00	2.11		2.28	2.66	
B3	7	0.00	1.93		0.00	1.80	
B4	8	0.00	1.92		1.56	2.30	
C1	9	0.00	2.32		0.00	1.46	
C2	10	0.00	2.18		0.00	2.37	
C3	11	0.00	2.12		1.52	2.65	
C4	12	0.00	2.09		1.24	2.57	
D1	13	0.00	2.24		4.57	3.53	
D2	14	0.00	2.23		1.26	2.19	
D3	15	0.00	1.96		1.37	2.48	
D4	16	0.57	2.15		0.00	1.44	
A1	17	0.00	2.21		2.23	2.56	
A2	18	0.00	2.20		0.00	1.31	
A3	19	0.00	2.16		0.00	1.27	
A4	20	0.00	2.04		0.00	1.78	

JC JC

10 Oct 2005 17:16 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 1 PW H3 403727 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.98
Region B:	2.0	- 18.6	0	0.0	7.67
Region C:	40.0	- 2000	0	0.0	10.92

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0315 J.COLLINS (20) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT1.DAT
Count Data Filename: C:\DATA\SDATA1.DAT

S#	TIME	CPMA	CPMB	CPMC	tSIE	LUM	FLAG	DPM1	2SIGMA
-1	10.00	7.98	7.67	10.92	660.86	3	B		0.00
0	2.00	343.59	335.32	0.00	583.22	1		734.00	78.34
1	2.00	0.00	0.00	1.08	613.78	0		0.00	0.00
2	2.00	0.02	0.09	0.00	579.92	0		0.05	9.39
3	2.00	0.00	0.00	0.00	601.16	0		0.00	0.00
4	2.00	0.00	0.00	0.00	568.91	0		0.00	0.00
5	2.00	0.00	0.00	0.00	588.52	0		0.00	0.00
6	2.00	0.00	0.00	0.08	615.35	0		0.00	0.00
7	2.00	0.32	0.13	2.58	565.20	0		0.70	9.66
8	2.00	0.06	0.00	0.00	611.32	0		0.13	9.15
9	2.00	0.00	0.00	0.00	620.70	0		0.00	0.00
10	2.00	0.00	0.00	0.00	608.33	0		0.00	0.00
11	2.00	0.00	0.00	0.00	602.30	0		0.00	0.00
12	2.00	1.52	1.54	0.00	607.46	0		3.19	9.85
13	2.00	0.00	0.00	0.00	621.52	0		0.00	0.00
14	2.00	0.00	0.00	0.00	601.60	0		0.00	0.00
15	2.00	0.00	0.00	0.00	606.68	0		0.00	0.00
16	2.00	0.51	0.82	0.00	519.12	0		1.16	10.17
17	2.00	0.00	0.00	0.00	474.88	0		0.00	0.00
18	2.00	0.00	0.00	0.00	491.35	0		0.00	0.00
19	2.00	1.52	1.33	0.00	543.70	0		3.37	10.43
20	2.00	4.86	4.67	0.00	599.09	0		10.23	11.34

RLH

Verification Survey of Wellhouse #3

RSDS#: 05-TF-0315 RCT: JMC RCT:

43-89 ALPHA BKG:	0.6	Factor	8	PROBE AREA:	100	cm2	Surface Eff: 1	ALPHA
43-89 BETA BKG:	171	Factor	4	PROBE AREA:	100	cm2	Surface Eff: 1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
North wall	5704	[redacted]	5714	ALPHA	1	10/10/05	12:30	6	60	43
North wall	5704	[redacted]	5714	ALPHA	2	10/10/05	12:30	4	60	27
East wall	5704	[redacted]	5714	ALPHA	3	10/10/05	12:30	5	60	35
East wall	5704	[redacted]	5714	ALPHA	4	10/10/05	12:30	4	60	27
South wall	5704	[redacted]	5714	ALPHA	5	10/10/05	12:30	3	60	19
South wall	5704	[redacted]	5714	ALPHA	6	10/10/05	12:30	6	60	43
West Wall	5704	[redacted]	5714	ALPHA	7	10/10/05	12:30	3	60	19
West Wall	5704	[redacted]	5714	ALPHA	8	10/10/05	12:30	7	60	51
door	5704	[redacted]	5714	ALPHA	9	10/10/05	12:30	2	60	11
I/S North wall	5704	[redacted]	5714	ALPHA	10	10/10/05	12:30	2	60	11
I/S West wall	5704	[redacted]	5714	ALPHA	11	10/10/05	12:30	1	60	3
I/S West wall	5704	[redacted]	5714	ALPHA	12	10/10/05	12:30	2	60	11
I/S South wall	5704	[redacted]	5714	ALPHA	13	10/10/05	12:30	2	60	11
I/S South wall	5704	[redacted]	5714	ALPHA	14	10/10/05	12:30	1	60	3
I/S East wall	5704	[redacted]	5714	ALPHA	15	10/10/05	12:30	1	60	3
I/S East wall	5704	[redacted]	5714	ALPHA	16	10/10/05	12:30	6	60	43
floor	5704	[redacted]	5714	ALPHA	17	10/10/05	12:30	1	60	3
floor	5704	[redacted]	5714	ALPHA	18	10/10/05	12:30	2	60	11
pump	5704	[redacted]	5714	ALPHA	19	10/10/05	12:30	2	60	11
pump	5704	[redacted]	5714	ALPHA	20	10/10/05	12:30	2	60	11
		[redacted]								
North wall	5704	[redacted]	5714	BETA	1	10/10/05	12:30	171	60	0
North wall	5704	[redacted]	5714	BETA	2	10/10/05	12:30	158	60	0
East wall	5704	[redacted]	5714	BETA	3	10/10/05	12:30	193	60	88
East wall	5704	[redacted]	5714	BETA	4	10/10/05	12:30	187	60	64
South wall	5704	[redacted]	5714	BETA	5	10/10/05	12:30	154	60	0
South wall	5704	[redacted]	5714	BETA	6	10/10/05	12:30	207	60	144
West Wall	5704	[redacted]	5714	BETA	7	10/10/05	12:30	207	60	144
West Wall	5704	[redacted]	5714	BETA	8	10/10/05	12:30	186	60	60
door	5704	[redacted]	5714	BETA	9	10/10/05	12:30	115	60	0
I/S North wall	5704	[redacted]	5714	BETA	10	10/10/05	12:30	155	60	0
I/S West wall	5704	[redacted]	5714	BETA	11	10/10/05	12:30	162	60	0

05-TF-0315

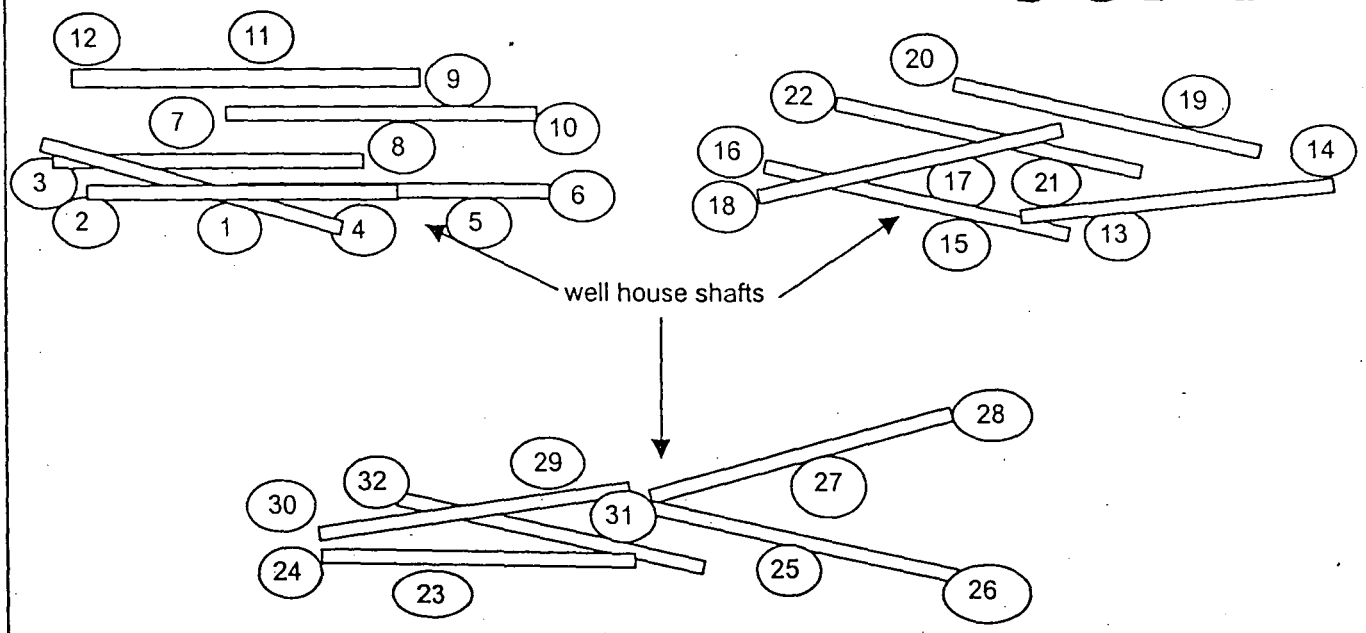
LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
I/S West wall	5704	[redacted]	5714	BETA	12	10/10/05	12:30	175	60	16
I/S South wall	5704	[redacted]	5714	BETA	13	10/10/05	12:30	186	60	60
I/S South wall	5704	[redacted]	5714	BETA	14	10/10/05	12:30	141	60	0
I/S East wall	5704	[redacted]	5714	BETA	15	10/10/05	12:30	146	60	0
I/S East wall	5704	[redacted]	5714	BETA	16	10/10/05	12:30	168	60	0
floor	5704	[redacted]	5714	BETA	17	10/10/05	12:30	157	60	0
floor	5704	[redacted]	5714	BETA	18	10/10/05	12:30	127	60	0
pump	5704	[redacted]	5714	BETA	19	10/10/05	12:30	157	60	0
pump	5704	[redacted]	5714	BETA	20	10/10/05	12:30	207	60	144

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM)	SURVEY NO.
Well houses	05-TF-0323
PURPOSE:	RWP NO.
Characterize well house shafts	N/A
	DATE: 10/19/05
	13:45

MAP / DRAWING

COPY



BK = 4 cpm alpha
289 cpm beta
DL= 2.6 cpm alpha
20 cpm alpha

scan and pause survey performed no audibles detected, therefore no intergrates taken.

< 100 alpha

< 5k beta

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360/4389	5698/5812	5/25/06
	NA	

Completed by: (Signature) JM Collins	[redacted]	Date 10-19-05
Completed by: (Printed Name) L. Oeffner Jr. / JM. Collins		
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature) RM Cobleritz	HP# [redacted]	Date 10/20/05
Reviewed/Approved by: (Print Name) RM Cobleritz		

Survey No. 05-TF-0323

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See	Attached		O/S pipe
2				I/S pipe
3				O/S pipe
4				I/S pipe
5				O/S pipe
6				I/S pipe
7				O/S pipe
8				I/S pipe
9				O/S pipe
10				I/S pipe
11				O/S pipe
12				I/S pipe
13				O/S pipe
14				I/S pipe
15				O/S pipe
16				I/S pipe
17				O/S pipe
18				I/S pipe
19				O/S pipe
20				I/S pipe
21				O/S pipe
22				I/S pipe
23				O/S pipe
24				I/S pipe
25				O/S pipe
26				I/S pipe
27				O/S pipe
28				I/S pipe
29				O/S pipe
30				I/S pipe
31				O/S pipe
32	↓	↓	↓	I/S pipe
		NFE		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
		NFE		

COMMENTS: I/S ⇒ inside ; O/S ⇒ outside ; NFE ⇒ No Further Entries
All smears field checked prior to submitting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR035
Batch Ended: 10/19/05 14:58
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0323 (32) OEFFNER 10-19-05 RLH

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	1.74	2.22		0.81	2.27	
A2	2	0.00	2.05		2.75	2.33	
A3	3	1.77	2.27		0.00	1.27	
A4	4	0.00	2.16		3.94	2.71	
B1	5	0.00	1.90		0.54	1.69	
B2	6	0.00	1.89		1.02	1.94	
B3	7	1.93	2.18		0.00	1.34	
B4	8	0.00	1.97		0.00	1.21	
C1	9	0.00	2.10		3.94	2.75	
C2	10	0.00	1.91		0.00	1.13	
C3	11	0.00	2.12		5.13	2.99	
C4	12	0.00	1.95		0.00	1.12	
D1	13	0.00	2.08		2.79	2.50	
D2	14	1.74	2.15		0.00	1.19	
D3	15	0.00	2.09		0.00	1.24	
D4	16	1.54	2.05		0.06	1.66	
A1	17	1.74	2.23		2.12	2.62	
A2	18	0.00	2.05		2.75	2.33	
A3	19	0.00	2.30		1.98	2.18	
A4	20	0.00	2.16		3.94	2.71	
B1	21	0.00	1.88		0.00	1.20	
B2	22	0.00	1.94		3.25	2.50	
B3	23	0.00	2.18		0.00	1.34	
B4	24	0.00	2.01		1.36	2.08	
C1	25	1.68	2.11		5.02	3.02	
C2	26	0.00	1.93		1.59	1.95	
C3	27	0.00	2.10		2.70	2.43	

MO MO

~~Page 1 of 2~~ MO 10/26/05

B 25 of 73

Page 13 of 15

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR035
Batch Ended: 10/19/05 14:58
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0323 [32] OEFFNER 10-19-05 RLH

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
C4	28	0.00	1.98		1.74	1.95	
D1	29	0.00	2.08		2.79	2.50	
D2	30	0.00	2.18		1.58	2.06	
D3	31	0.00	2.10		0.18	1.75	
D4	32	0.00	2.04		0.00	1.17	

MO MO

~~Page 2 of 2~~ MO 10/20/05

B26 of 43

Page 4 of 5 RLH

19 Oct 2005 14:52 ALPHA/BETA - 1.09 Page #1

Protocol #: 1 PW H3 #405828 User : 5662

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5	18.6	0	0.0	6.58
Region B:	2.0	18.6	0	0.0	6.24
Region C:	40.0	2000	0	0.0	9.42

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0323 [32] OEFFNER 10-19-05 RLH
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\PROT1.DAT
Count Data Filename: c:\data\SDATA1.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.58	6.24	2	B	636.05		0.00	9.42
0	2.00	478.21	450.56	0		572.96	939.13	94.04	0.58
1	2.00	4.62	3.64	9		562.40	9.15	9.94	0.00
2	2.00	1.92	1.68	0		487.93	4.07	9.42	0.00
3	2.00	1.92	2.08	6		546.12	3.85	8.91	7.08
4	2.00	0.00	0.00	0		448.92	0.00	0.00	1.53
5	2.00	0.00	0.00	0		472.43	0.00	0.00	0.00
6	2.00	0.84	0.68	0		574.54	1.64	8.20	1.58
7	2.00	0.00	0.26	8		366.98	0.00	0.00	1.08
8	2.00	0.00	0.00	0		512.41	0.00	0.00	0.00
9	2.00	0.00	0.00	8		534.89	0.00	0.00	1.58
10	2.00	0.00	0.00	0		565.54	0.00	0.00	0.08
11	2.00	0.00	0.00	0		375.18	0.00	0.00	2.74
12	2.00	0.00	0.00	0		413.37	0.00	0.00	1.58
13	2.00	0.00	0.00	0		425.72	0.00	0.00	7.08
14	2.00	0.00	0.00	0		463.75	0.00	0.00	5.58
15	2.00	0.00	0.26	0		482.60	0.00	0.00	0.00
16	2.00	0.00	0.00	0		500.51	0.00	0.00	0.00
17	2.00	0.00	0.00	0		479.31	0.00	0.00	1.08
18	2.00	0.00	0.00	0		541.34	0.00	0.00	0.00
19	2.00	0.00	0.00	0		406.88	0.00	0.00	2.08
20	2.00	0.00	0.00	0		554.39	0.00	0.00	0.00
21	2.00	0.42	0.50	0		520.08	0.86	8.39	5.58
22	2.00	0.00	0.00	0		522.57	0.00	0.00	0.58
23	2.00	0.00	0.00	0		580.35	0.00	0.00	4.58
24	2.00	0.00	0.00	0		524.37	0.00	0.00	1.58
25	2.00	0.00	0.00	0		453.29	0.00	0.00	1.08
26	2.00	0.00	0.00	0		558.02	0.00	0.00	0.00
27	2.00	0.00	0.00	0		403.56	0.00	0.00	4.08
28	2.00	0.00	0.00	0		556.81	0.00	0.00	0.00
29	2.00	0.00	0.00	0		418.68	0.00	0.00	0.58
30	2.00	0.00	0.00	0		496.19	0.00	0.00	1.08
31	2.00	1.92	1.56	0		558.76	3.81	8.81	0.00
32	2.00	1.92	2.00	0		588.93	3.71	8.59	0.00

MC

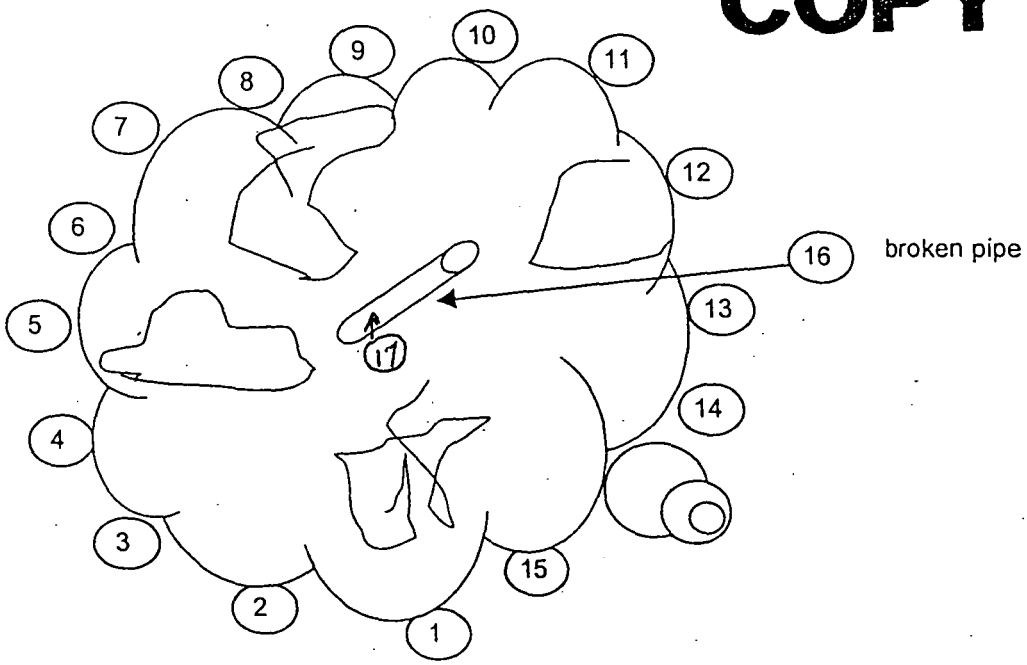
TAS

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM)	SURVEY NO.
Well house #1	05-TF-0327
PURPOSE:	RWP NO.
Survey of foundation debris pile	N/A
	DATE: 10/31/05
	13:00

MAP / DRAWING

COPY



on 10/31/05
Bkgd= 1.4 cpm alpha
168 cpm beta
DL= 1.8 cpm alpha
20 cpm beta

on 11/03/05
Bkgd= 2.6 cpm alpha
164 cpm beta
DL=2.2 cpm alpha
20 cpm beta

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud2360/4389	5698/5812	5/25/06
	NA	

Completed by: (Signature)	HP# [redacted]	Date 11/10/05
Completed by: (Printed)	L. Oeffner Jr. / J.M. Collins	
Counted by: (Signature) See Attached	HP#	Date →
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date 11/28/05
Reviewed/Approved by: (Print Name)	RM Coblentz	

Survey No. 05-TF-0327

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			concrete.
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				pipe
17				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: NFE ⇒ No Further Entries; All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR061
Batch Ended: 10/31/05 14:50
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0327 COLLINS (16) 10/31/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.33	
A2	2	1.56	2.05		2.58	2.33	
A3	3	0.00	2.32		3.23	2.52	
A4	4	0.00	2.12		0.32	1.71	
B1	5	0.00	1.94		2.91	2.39	
B2	6	0.00	1.87		0.00	1.59	
B3	7	0.00	2.26		4.27	2.97	
B4	8	0.00	1.97		0.00	1.21	
C1	9	0.00	2.06		0.26	1.74	
C2	10	3.30	2.69		0.00	1.12	
C3	11	0.00	2.07		0.27	1.72	
C4	12	0.00	1.98		1.74	1.95	
D1	13	0.00	2.06		0.29	1.77	
D2	14	0.00	2.18		1.58	2.06	
D3	15	0.00	2.09		0.00	1.25	
D4	16	1.54	2.14		8.25	3.54	

JC JC

B30 of 73

JC 11/16/05 ~~Page 1 of 1~~ page 3 of 9

TAS

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR030
Batch Ended: 11/3/05 15:30
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0327-A (1) COLLINS 11/03/05 TAS

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
B1	17	0.00	1.90		0.54	1.69	

JC JC

11/14/05 ~~Page 1 of 1~~
Page 4 of 9

TAS

831 of 73

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2SX	BKG
Region A:	0.5 -	18.6	0	0.0	6.29
Region B:	2.0 -	18.6	0	0.0	6.26
Region C:	40.0 -	2000	0	0.0	11.20

Quench Indicator: tSIE/AEC
~~Ext Std Terminator: Count~~
05-TF-0327 J.COLLINS (16) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	6.29	6.26	10	B	636.72		0.00	11.20
0	2.00	487.41	467.23	1		559.88	931.51	91.80	4.80
1	2.00	4.26	3.87	5		565.85	8.10	9.31	6.80
2	2.00	13.21	11.50	12		619.74	23.97	12.67	0.00
3	2.00	18.90	18.16	32		576.59	35.59	18.37	0.00
4	2.00	1.29	0.97	6		643.25	2.29	7.54	2.30
5	2.00	3.21	3.24	0		613.17	5.85	8.52	0.00
6	2.00	15.77	13.42	0		610.72	28.83	12.70	1.30
7	2.00	6.77	6.45	0		642.21	12.06	9.62	2.80
8	2.00	1.71	1.54	6		557.52	3.27	8.30	0.00
9	2.00	0.05	2.82	75		485.17	0.11	17.12	0.00
10	2.00	0.21	0.00	0		597.99	0.38	7.34	1.89
11	2.00	4.24	3.30	9		581.34	7.96	9.17	0.00
12	2.00	1.21	0.15	0		612.60	2.20	7.70	0.00
13	2.00	2.21	2.11	12		471.71	4.61	9.30	5.80
14	2.00	2.71	2.55	24		556.80	5.19	9.92	0.80
15	2.00	8.21	7.65	3		611.81	14.99	10.36	0.00
16	2.00	6.17	3.34	27		399.14	14.33	15.38	0.00

gc

03 Nov 2005 16:17 ALPHA/BETA - 1.09 ~~Page #1~~ User : 2138
Protocol #: 5 Pw H3 #403728

11/10/05 JC

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5 -	18.6	0	0.0	7.59
Region B:	2.0 -	18.6	0	0.0	7.20
Region C:	40.0 -	2000	0	0.0	12.00

Quench Indicator: tSIE/AEC
~~Ext Std Terminator~~: Count
05-JF-0327-A J COLLINS (1) AG
~~Luminescence~~ Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA5.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.59	7.20	3	B	665.73		0.00	12.00
0	2.00	289.67	275.85	0		583.06	544.76	56.41	1.00
~~1~~ 17	2.00	0.00	0.00	7		572.15	0.00	0.00	0.00

JC 11/10/05

JC

TAB

Survey of Foundation Debris Pile (pipe)

RSDS#: 05-TF-0327 RCT: JMC RCT: [illegible]

43-89 ALPHA BKG:	1.4	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	168	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
#16	5698	[redacted]	5812	ALPHA	1	10/31/05	13:00	245	120	969 *
#17	5698	[redacted]	5812	ALPHA	2	10/31/05	13:00	100	120	389*
		[redacted]								
#16	5698	[redacted]	5812	BETA	1	10/31/05	13:00	1094	120	1516
#17	5698	[redacted]	5812	BETA	2	10/31/05	13:00	898	120	1124

* Isotopic analysis showed Po^{210}, therefore the survey measured value is compared to the limit of 5000 dpm/100cm². - RMC

Survey of Foundation Debris Pile (pipe)

RSDS#: 05-TF-0327 RCT: [illegible] RCT: N/A

43-89 ALPHA BKG:	2.6	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	164	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
#16	5698	[redacted]	5812	ALPHA	1	11/3/05	13:00	168	120	651*
#17	5698	[redacted]	5812	ALPHA	2	11/3/05	13:00	214	120	835 *
		[redacted]								
#16	5698	[redacted]	5812	BETA	1	11/3/05	13:00	887	120	1118
#17	5698	[redacted]	5812	BETA	2	11/3/05	13:00	632	120	608

* Isotopic analysis showed Po^{210}, therefore the measured α value is compared to the limit of 5000 dpm/100cm² - DMC 11-8-05 BMW

GAMMA ANALYSIS REPORT

Field Sample ID:
Lab Sample ID:
File ID: wh1jeff.s0
Priority: No

Description\Location
Well House 1 Casing

Collector:
Date Received: 10/ 7/05
Date Collected: 10/ 7/05

Radionuclide	Activity (dpm)	MDA
Pb-210		

Comments

Pb-210 present which is indicative of naturally occurring radon daughters. Alpha measurements detected by field personnel would have been from the daughter Pb-210.

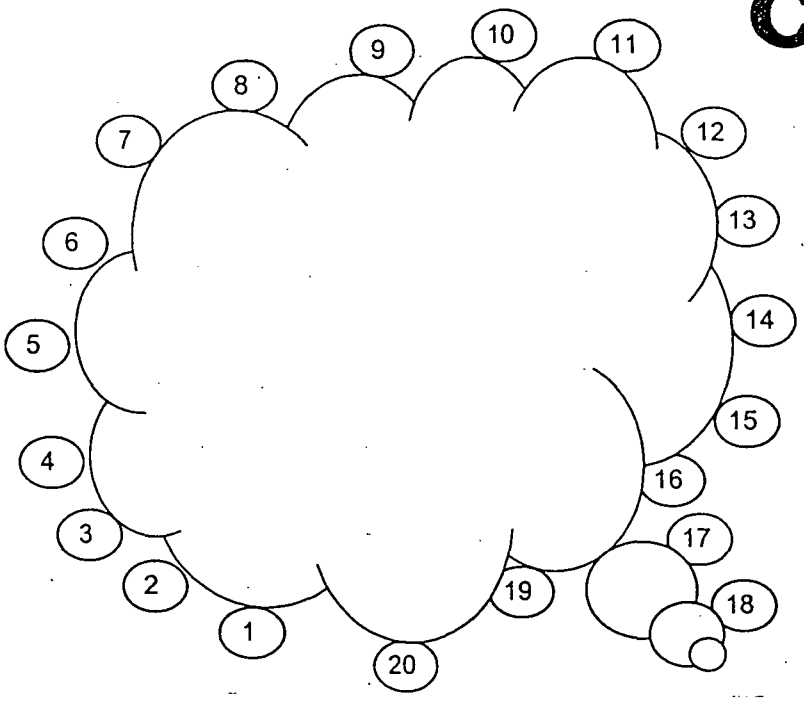
Date: 11/ 9/05 Counted By: 5755 Analyzed By: 5755 Initials JSS/CB

RADIOLOGICAL SURVEY DATA SHEET

Well house #2	SURVEY NO. 05-TF-0328
PURPOSE: Survey of foundation debris pile	RWP NO. N/A
	DATE: 10/31/05
	13:30

MAP / DRAWING

COPY



- Scan and pause survey conducted at each shear location and various locations
- No audible clicks in required time
- Integrated counts not required.

Bkgd= 1.4 cpm alpha
168 cpm beta
DL= 1.8 cpm alpha
20 cpm beta

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ).extremity on contact
K = factor of 1000
— · — · — · - = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
lud2360/4389	5698/5812	5/25/06
	NA	

Completed by: (Signature) James H. Collins	HP# [redacted]	Date 11/7/05
Completed by: (Printed) J.M. Collins / L. Oeffner Jr.		
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature) RM Coblentz	[redacted]	Date 11-9-05
Reviewed/Approved by: (Print Name) RM Coblentz		

Survey No.
05-TF-0328

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination							
Swipes (dpm/100cm)							
Sample #	β/γ		Alpha		Tritium		Comments
1	SEE ATTACHED RESULTS						concrete
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
			A				
			N				

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		A		
		N		

Comments: All smears field checked with 2360 prior to submiting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR063
Batch Ended: 10/31/05 15:08
Cal. Due Date: 11/17/05
Serial Number: ~~26966-3~~

Batch ID: 05-TF-0328 (20) COLLINS 10/31/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.20		0.00	1.86	
A2	2	0.00	2.00		0.00	1.18	
A3	3	0.00	2.28		0.72	1.78	
A4	4	0.00	2.10		0.00	1.22	
B1	5	0.00	1.88		0.00	1.20	
B2	6	0.00	1.89		1.02	1.94	
B3	7	0.00	2.18		0.00	1.34	
B4	8	0.00	2.03		2.76	2.40	
C1	9	0.00	2.05		0.00	1.23	
C2	10	0.00	1.92		0.47	1.59	
C3	11	0.00	2.06		0.00	1.22	
C4	12	0.00	1.99		2.87	2.25	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.11		1.42	2.15	
D4	16	1.54	2.05		0.06	1.66	
A1	17	0.00	2.20		0.00	1.86	
A2	18	0.00	2.00		0.00	1.18	
A3	19	0.00	2.27		0.00	1.27	
A4	20	0.00	2.10		0.00	1.22	

gc gc

gc ~~Page 1 of 1~~
11/1/05

01 Nov 2005 05:10 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 1 Pw H3 #403728 User : 2138

11/1/05

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5 -	18.6	0	0.0	7.45
Region B:	2.0 -	18.6	0	0.0	6.82
Region C:	40.0 -	2000	0	0.0	11.20

Quench Indicator: tSIE/AEC
~~Ext Std Terminator~~: Count
05-TF-0328 J.COLLINS (20) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA1.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.45	6.82	1	B	656.30		0.00	11.20
0	2.00	470.55	452.51	0		583.44	884.65	78.78	0.00
1	2.00	1.05	1.68	0		604.73	1.94	8.26	1.30
2	2.00	0.00	0.00	0		521.92	0.00	0.00	0.00
3	2.00	4.70	5.18	0		666.34	8.26	9.19	0.00
4	2.00	0.00	0.00	10		360.55	0.00	0.00	0.00
5	2.00	0.00	0.00	0		422.25	0.00	0.00	0.00
6	2.00	0.00	0.00	9		633.69	0.00	0.00	0.00
7	2.00	0.00	0.00	0		672.17	0.00	0.00	0.00
8	2.00	0.00	0.00	0		408.61	0.00	0.00	0.00
9	2.00	0.00	0.00	8		483.32	0.00	0.00	1.80
10	2.00	2.55	1.81	5		569.11	4.85	9.13	0.00
11	2.00	0.00	0.00	11		600.44	0.00	0.00	0.00
12	2.00	0.55	0.26	0		678.62	0.95	7.58	0.00
13	2.00	1.76	2.03	5		534.83	3.45	9.07	0.00
14	2.00	0.00	0.00	0		605.14	0.00	0.00	0.00
15	2.00	0.00	0.00	0		635.32	0.00	0.00	0.00
16	2.00	0.00	0.00	9		564.27	0.00	0.00	0.00
17	2.00	0.00	0.00	7		645.90	0.00	0.00	0.00
18	2.00	0.00	0.00	0		617.74	0.00	0.00	0.00
19	2.00	0.00	0.00	0		585.55	0.00	0.00	0.00
20	2.00	0.00	0.00	8		477.76	0.00	0.00	0.00

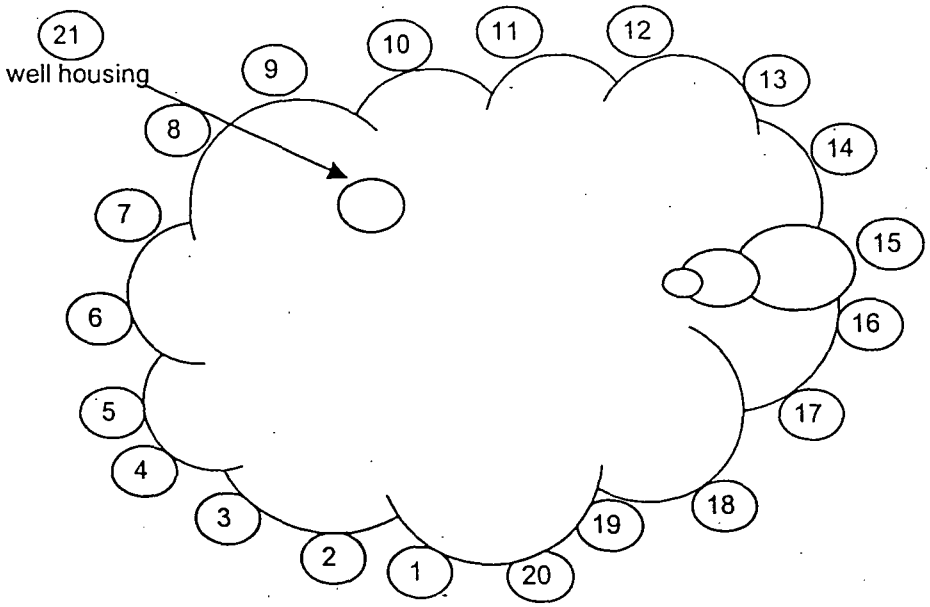
J.C

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM)	SURVEY NO.
Well house #3	05-TF-0330
PURPOSE:	RWP NO.
Survey of foundation debris pile	N/A
	DATE: 10/31/05
	14:00

MAP / DRAWING

COPY



on 10/31/05
bkgd= 2.6 cpm alpha
164 cpm beta
DL= 2.2 cpm alpha
20 cpm beta

on 11/07/05
Bkgd= 2.0 cpm alpha
115 cpm beta
DL= 1.8 cpm alpha
20 cpm beta

Scan and pause survey conducted at each smear location and various locations
See attached for integrated counts

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Lud 2360 / 4389	5698/5812	5/25/06
Lud 2360 / 4389	5762/5763	1/13/06
	NA	

Completed by: (Signature) L. Oeffner / J. M. Collins	HP# [redacted]	Date 11/10/05
Completed by: (Printed Name) L. Oeffner Jr./ J. M. Collins		
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature) RM Colbert	HP# [redacted]	Date 11/29/05
Reviewed/Approved by: (Print Name) RM Colbert		

Survey No.
05-TF-0330

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED RESULTS			concrete
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
		A		
		N		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		A		
		N		

Comments: All smears field checked with 2360 prior to submiting to count lab.

NOTES:

1. See MD-80036 10002 for calculations of WEB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR064
Batch Ended: 10/31/05 17:29
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 0005-TF-0330 J.COLLINS (21) AG

Detector ID	Sample ID	Alpha Activity			Beta Activity		
		DPM	σ	flags	DPM	σ	flags
A1	1	1.74	2.22		0.81	2.27	
A2	2	0.00	2.00		0.00	1.18	
A3	3	0.00	2.30		1.98	2.18	
A4	4	0.00	2.10		0.00	1.22	
B1	5	0.00	1.88		0.00	1.20	
B2	6	0.00	1.89		1.02	1.94	
B3	7	0.00	2.18		0.00	1.34	
B4	8	0.00	1.97		0.00	1.21	
C1	9	0.00	2.07		1.49	2.13	
C2	10	0.00	1.91		0.00	1.12	
C3	11	0.00	2.08		1.49	2.11	
C4	12	0.00	1.95		0.00	1.13	
D1	13	1.75	2.06		0.15	1.77	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.09		0.00	1.24	
D4	16	0.00	2.06		1.37	2.03	
A1	17	1.74	2.20		0.00	1.86	
A2	18	1.56	2.03		1.42	2.02	
A3	19	0.00	2.27		0.00	1.27	
A4	20	0.00	2.12		0.32	1.71	
B1	21	0.00	2.04		8.85	3.59	

J.C. J.C.

31 Oct 2005 18:48 TRI-CARB - 1.09 ~~Page #1~~
Protocol #: 5 PW H3 #407906 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	8.68
Region B:	2.0	- 18.6	0	0.0	8.41
Region C:	40.0	- 2000	0	0.0	9.00

Quench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
05-TF-0330 J COLLINS (21) AG
~~Luminescence~~ Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT5.DAT
Count Data Filename: C:\DATA\SDATA5.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2SIGMA	CPMC
-1	10.00	8.68	8.41	8	B	635.32		0.000	9.00
0	2.00	346.99	321.17	1		531.24	666.12	62.164	0.50
1	2.00	0.00	0.00	18		613.13	0.00	0.000	0.00
2	2.00	9.69	8.66	3		622.79	17.32	11.401	1.50
3	2.00	0.06	0.00	43		484.06	0.11	12.852	0.00
4	2.00	3.20	2.90	12		605.27	5.79	10.161	0.00
5	2.00	9.80	7.11	3		627.35	17.45	11.392	5.50
6	2.00	0.00	0.00	0		590.32	0.00	0.000	3.00
7	2.00	1.67	0.99	5		599.21	3.04	8.991	0.00
8	2.00	0.72	0.38	14		565.74	1.34	9.613	0.00
9	2.00	0.00	0.00	7		606.38	0.00	0.000	2.50
10	2.00	0.32	0.00	15		576.17	0.60	9.391	0.00
11	2.00	0.00	0.00	17		591.03	0.00	0.000	0.84
12	2.00	0.00	0.00	7		528.24	0.00	0.000	2.50
13	2.00	0.00	0.00	11		605.93	0.00	8.309	2.50
14	2.00	0.00	0.00	14		596.88	0.00	0.000	0.00
15	2.00	0.32	0.33	11		591.43	0.59	8.528	0.00
16	2.00	0.18	0.12	6		630.01	0.32	8.225	4.00
17	2.00	0.00	0.00	24		596.62	0.00	0.000	0.00
18	2.00	0.00	0.00	8		575.14	0.00	0.000	1.50
19	2.00	0.00	0.00	24		576.87	0.00	0.000	0.00
20	2.00	0.00	0.00	8		631.31	0.00	0.000	0.00
21	2.00	15.82	13.74	4		542.13	30.11	13.904	21.00

JC

TAS

Survey of Foundation Debris Pile (housing)

RSDS#: 05-TF-0330 RCT: SJMC RCT: MO

43-89 ALPHA BKG:	2.6	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	164	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
#21	5698	[redacted]	5812	ALPHA	1	10/31/05	14:00	168	120	651
#21	5698	[redacted]	5812	BETA	1	10/31/05	14:00	581	120	506

Isotopic analysis indicates Po^{210}, therefore the measurements are compared to the corresponding 5000 dpm/100cm² limit. RMC

Survey of Foundation Debris Pile (housing)

RSDS#: 05-TF-0330 RCT: JMC RCT: MO

43-89 ALPHA BKG:	2	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	115	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
#21	5762	[redacted]	5763	ALPHA	1	11/7/05	12:30	155	120	604
#21	5762	[redacted]	5763	BETA	1	11/7/05	12:30	575	120	690
Prior to scraping rust to be sent for analysis										
#21	5762	[redacted]	5763	ALPHA	1	11/7/05	12:30	64	120	240
#21	5762	[redacted]	5763	BETA	1	11/7/05	12:30	395	120	330
After scraping rust										

05-TF-0330

page 7 of 7

CH2MHILL

ANALYTICAL SERVICES REQUEST FOR ANALYSIS

DATE:	SAMPLE TYPE:	COLLECTED BY:	NUMBER OF SAMPLES:
11/7/05	1) Metal 2) Metal 3) Rust	1) ~~Metalic~~ L. Oeffner ~~2) M.~~ J. Collins	3
PROJECT/FUNCTION:	**PRIMARY CONTACT/PHONE NO.:**		
BOSS	B. Coblentz 608-8206		
CHARGE NUMBER:	**DATE(S) COLLECTED:**	**RSDS# (if applicable):**	**ATTACHMENTS (list):**
	11/7/05	05-TF-0327 05-TF-0333 05-TF-0330	

ANALYSES REQUESTED (check):

- ☐ ^3H
- ☐ Characterize/Approve for Sanitary or Storm Discharge.
  Estimated Volume for release:_____ Approved by:_____
- ☐ Gross α
- ☐ pH
- ☐ Moisture
- ☑ Isotopic Analysis: Pu_____ U_____ Th_____ Am_____ Other All
- ☐ Other _____

Additional Information:

NOTE: Attach additional information (e.g. RSDS, collection data, and gamma spec. results) if applicable

LAB IDENTIFICATION	SAMPLE LOCATION	SAMPLE NUMBER	RESULTS
0506110	WH-1	1	Po210 via γ-spec, see results via email.
0506111	WH-2	2	(Guard rail) ~~BH~~
0506112	WH-3	3	Po210 observed from γ spec qualitative
			analysis. Nature of particulate sample
			prohibits quantification in pCi/g or dpm/100cm
			~~BH~~

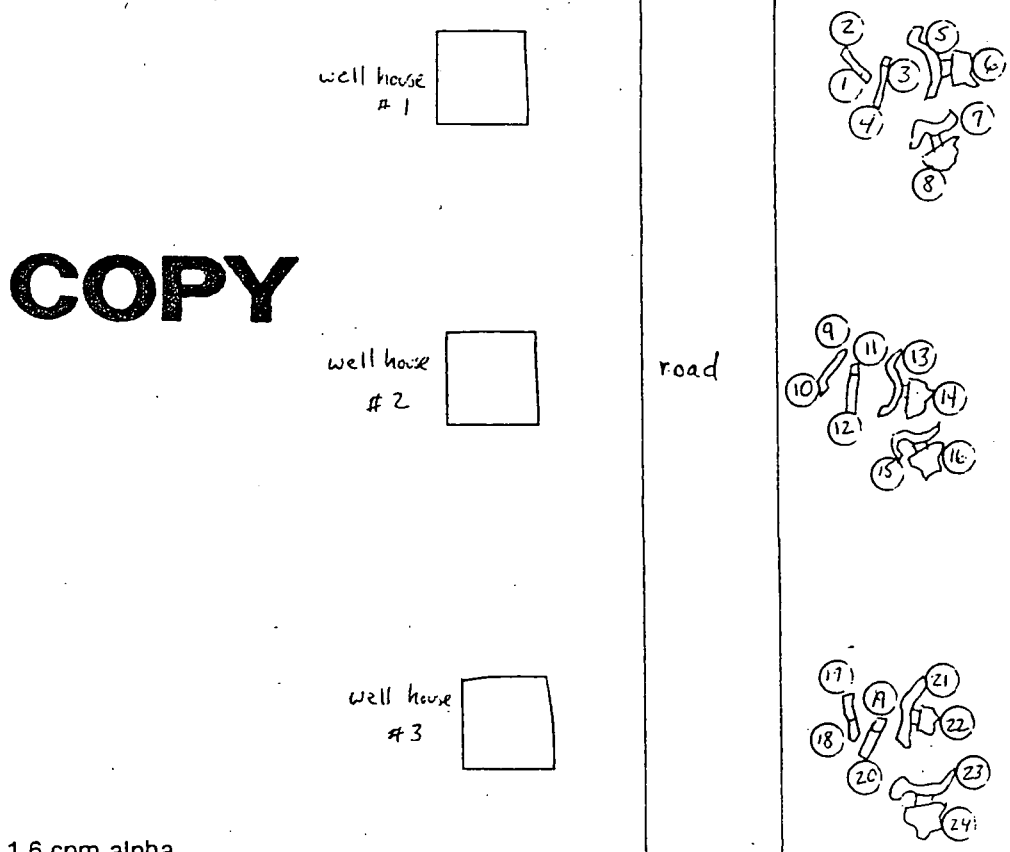
COMMENTS:

ANALYZED BY:	DATE:
[signature]	11/16/05

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) well houses	SURVEY NO 05-TF-0333
PURPOSE: survey guard rails and PIV's	RWP NO. N/A
	DATE: 11/2/05
	14:00

MAP / DRAWING



bkgd= 1.6 cpm alpha
137 cpm beta
DL= 1.8 cpm alpha
20 cpm beta

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
lud 2360/4389	5698/5812	5/25/06
	NA	

Completed by: (Signature)	HP# [redacted]	Date 11-2-05
Completed by: (Printed) L. Oeffner Jr.		
Counted by: (Signature) See Attached	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date 11/28/05
Reviewed/Approved by: (Print Name)		

Survey No.
05-TF-0333

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
1	SEE ATTACHED SHEET			Wh#1 pipe #1 u/g
2				wh#1 pipe #1 a/g
3				wh#1 pipe # 2 u/g
4				wh#1 pipe # 2 a/g
5				guard rail #1
6				guard rail #1 cement
7				guard rail # 2
8				guard rail # 2 cement
9				wh#2 pipe #1 u/g
10				wh#2 pipe #1 a/g
11				wh#2 pipe 2 u/g
12				wh#2 pipe 2 a/g
13				guardrail #1
14				guard rail #1 cement
15				guardrail #2
16				guardrail #2 cemsnt
17				wh#3 pipe #1 u/g
18				wh#3 pipe #1 u/g
19				wh#3 pipe #2 u/g
20				wh#3 pipe #2 a/g
21				guard rail #1
22				guard rail # 1 cement
23				guard rail #2
24				guard rail #2 cement
	N	A		

Removable Contamination				
Swipes (dpm/100cm^2)				
Sample #	β/γ	Alpha	Tritium	Comments
		N	A	

COMMENTS: All smears field counted prior to submitting to count room. All <1K dpm per 100 cm2 alpha, beta

wh= well house, u/g = under ground, a/g= above ground

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR010
Batch Ended: 11/2/05 13:13
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0333 OEFFNER (24) 11/02/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	3.91	3.12		1.94	2.62	
A2	2	1.57	2.00		0.00	1.18	
A3	3	0.00	2.28		0.72	1.78	
A4	4	0.00	2.12		0.32	1.71	
B1	5	0.77	1.90		0.33	1.69	
B2	6	0.00	1.89		1.02	1.94	
B3	7	0.00	2.18		0.00	1.34	
B4	8	0.00	1.99		0.37	1.70	
C1	9	0.00	2.07		1.49	2.13	
C2	10	0.00	1.95		2.71	2.25	
C3	11	0.00	2.06		0.00	1.22	
C4	12	1.68	1.95		0.00	1.12	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.15		0.00	1.19	
D3	15	0.00	2.11		1.42	2.15	
D4	16	0.00	2.06		1.37	2.03	
A1	17	1.74	2.22		0.81	2.27	
A2	18	0.00	2.02		0.42	1.65	
A3	19	0.00	2.27		0.00	1.27	
A4	20	0.00	2.10		0.00	1.22	
B1	21	0.76	1.96		3.89	2.67	
B2	22	0.00	1.87		0.00	1.59	
B3	23	1.93	2.22		1.41	2.30	
B4	24	0.00	2.01		1.56	2.08	

JC JC

B50 of 73

3 of 6

11/2/05 ~~Page 1 of 1~~

Page 3 of 6

02 Nov 2005 16:00 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 2 PW H3 #403728 User : 5379

Time: 2.00
Data Mode: DPM Nuclide: SMGL02 Quench Set: SMGL02
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5	18.6	0	0.0	7.90
Region B:	2.0	18.6	0	0.0	7.41
Region C:	40.0	2000	0	0.0	9.37

Quench Indicator: tSIE/AEC
Ext Std Terminator: Count
05-TF-0333 OEFFNER (24) 11/02/05 TAS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA2.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.90	7.41	3	B	659.54		0.00	9.37
0	2.00	433.89	412.53	0		596.44	806.86	73.55	1.13
1	2.00	0.00	0.00	0		538.47	0.00	0.00	0.00
2	2.00	0.00	0.00	0		642.08	0.00	0.00	0.00
3	2.00	0.00	0.00	0		468.06	0.00	0.00	0.00
4	2.00	0.00	0.00	0		465.30	0.00	0.00	0.00
5	2.00	0.60	0.75	0		632.85	1.08	8.10	0.00
6	2.00	0.00	0.00	8		510.31	0.00	0.00	0.00
7	2.00	3.30	2.95	0		679.82	5.73	8.80	1.13
8	2.00	0.00	0.00	8		546.60	0.00	0.00	0.00
9	2.00	1.10	1.45	0		485.54	2.27	9.51	3.42
10	2.00	0.00	0.00	27		363.24	0.00	0.00	0.00
11	2.00	0.00	0.00	11		627.89	0.00	0.00	3.13
12	2.00	0.00	0.00	0		687.36	0.00	0.00	0.00
13	2.00	0.00	0.00	0		655.86	0.00	0.00	0.00
14	2.00	0.10	0.20	0		555.92	0.19	8.43	1.13
15	2.00	0.00	0.00	0		645.94	0.00	0.00	0.00
16	2.00	0.00	0.00	17		590.03	0.00	0.00	3.13
17	2.00	1.07	1.32	0		577.33	2.02	8.68	0.00
18	2.00	0.00	0.00	0		599.48	0.00	0.00	0.00
19	2.00	0.91	1.40	0		568.17	1.74	8.69	2.80
20	2.00	0.00	0.00	0		606.36	0.00	0.00	2.63
21	2.00	0.00	0.00	0		625.77	0.00	0.00	1.63
22	2.00	0.00	0.00	0		602.08	0.00	0.00	1.63
23	2.00	0.00	0.00	0		649.00	0.00	0.00	0.00
24	2.00	0.40	0.07	0		537.46	0.78	8.70	0.00

JC

Survey No.
05-TF-0333

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Ludlum 2360 Integrated Measurement Results							
		Alpha			Beta		
		BKGD	1.6	cpm	BKGD	137	cpm
		DL	1.8	Net cpm	DL	20	Net cpm
No.	Item/Location Description	Gross (cpm)	CF	Results (dpm/100cm2 or Sample)	Gross (cpm)	CF	Results (dpm/100cm2 or Sample)
1	sample # 5	22	8	176	199	4	248
2	sample # 5	24	8	192	216	4	316
* 3	sample # 5	30	8	240	216	4	316
4	sample # 7	26	8	208	179	4	168
5	sample # 13	15	8	120	200	4	252

* sample of guard rail sent for isotopic analysis. See attached for results.

ML-9620C

Laboratory ID#:	0506111
Project/function:	Well Housing (#1) Guard Rail
Submitted:	Nov 7, 2005
Submitted by:	Larry Offener (sp)
Point of Contact:	R. Coblentz
RSDS#:	unknown, not provided
Date:	Nov 10, 2005

Lab ID	0506111		
Sample Location	Well House #1 Guard Rail		
Sample Descrition	Acid Etch/leach of marked location of stell rail piece		167.00
Insitu Survey Result, via 5929	~215 DPM alpha	Not provided	
Survey Result post acid etch	48 DPM alpha	Not provided	

Isotopic Results — Sample of ~100 cm2 acid etching solution

Isotope	dpm/spl	Uncertainty +/-	LDL	Est. % of alpha activity
Po-210	113.00	6.78	nc	67.66%

*Counting uncertainty only. Error of field survey, post- and pre-, along with acid leach efficieny could account for unknown alpha percentage.
Isotopic thorium and plutonium analyses can be performed if necessary - residual sample solution in archive.

Note: Using a conservative assumption that 33% is transuranics, the sum of the ratios of

$$\frac{67\%\ Po^{210}}{5000\ \text{limit}} + \frac{33\%\ Pu^{238}\ (\text{or other trans.})}{100\ \text{limit}} = 0.82$$

(~~1.0~~ 11-28-05 < 1.0 is acceptable)

B53 of 73

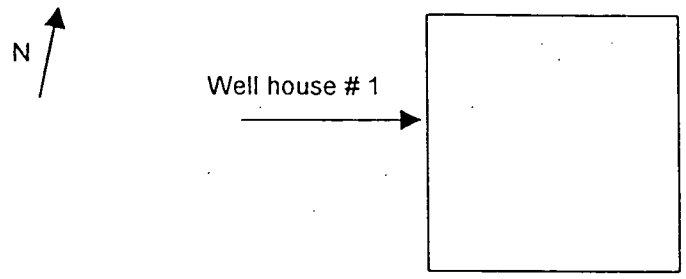
RSDS 05-TF-0333

6 of 6

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Well house # 1	SURVEY NO. 05-TF-~~0331~~ ~~0337~~ 0334 & 11-30-05
PURPOSE: Bicron walkover survey of previously elevated Th-232 sample area	RWP NO. N/A
	DATE: 10/26/05
	14:00

MAP / DRAWING



road

COPY

X
Location of previously elevated Th-232 sample

Bicron bkgd= 600-800 cpm on Channel 1
6000-8000 cpm on Out channel

• NO READINGS OVER BACKGROUND

** BICRON USED AS INDICATOR ONLY

readings taken in approximately 100 square foot area around "X" location

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — · · = radiological boundary

- mrem/hr neutron
- swipe number
- air sample number
#/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Bicron	3853/3965	6/1/06
	NA	

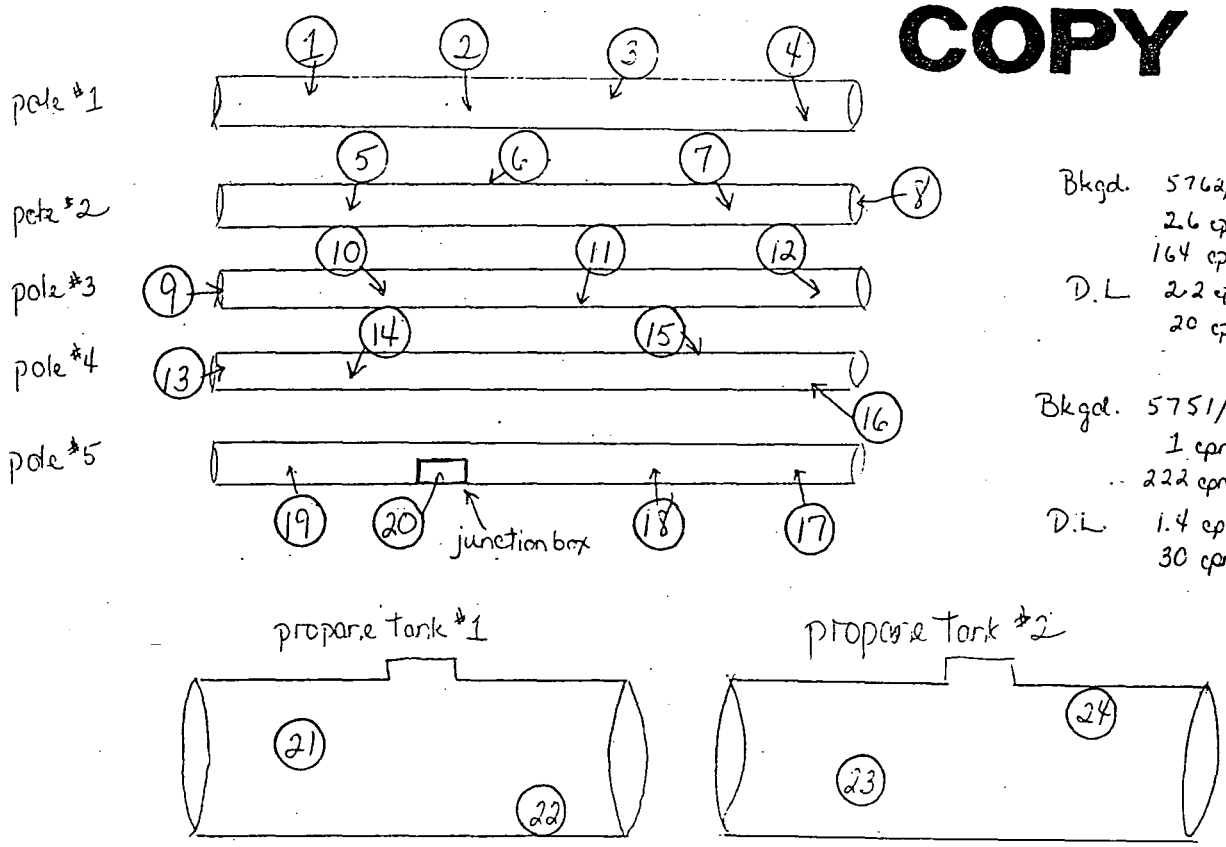
Completed by: (Signature)	HP# [redacted]	Date 10-26-05
Completed by: (Printed) L. Oeffner Jr.		
Counted by: (Signature) N/A	HP#	Date
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date 10/27/05
Reviewed/Approved by: (Print Name) RM Ciblentz		

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) WH-road	SURVEY NO. 05-TF-0335
PURPOSE: Characterization survey of telephone poles and propane tanks	RWP NO. N/A
	DATE: 11/2/05
	TIME: 1330

MAP / DRAWING

COPY



Bkgd. 5762/5763
2.6 cpm α
164 cpm β
D.L 2.2 cpm α
20 cpm β

Bkgd. 5751/5785
1 cpm α
222 cpm β
D.L 1.4 cpm α
30 cpm β

Bkgd. 5772/5713
.8 cpm α
147 cpm β
D.L 1.4 cpm α
30 cpm β

Scan and pause survey conducted at each similar location and other various locations
See attached for Integrated counts

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360-89	5772/5713	10/5/06
	N/A	11/15/05
2360-89	5762/5763	1/13/06
[illegible]	5751/5785	11/7/06

Completed by: (Signature) Jamie M. Collins	HP# [redacted]	Date: 11/15/05
Completed by: (Print Name) Jamie M. Collins		
Counted by: (Signature) See	HP#	Date:
Counted by: (Print Name) Attached		
Reviewed/Approved by: (Signature) Ron Coblentz	HP# [redacted]	Date: 11/28/05
Reviewed/Approved by: (Print Name) Ron Coblentz		

Survey No. 05-TF-0335

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			pole #1
2				
3				
4				
5				pole #2
6				
7				
8				
9				pole #3
10				
11				
12				
13				pole #4
14				
15				
16				
17				pole #5
18				
19				
20				junction box
21				propane tank #1
22				
23				propane tank #2
24				
	NFE			

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
	NFE			

COMMENTS: NFE ⇒ No Further Entries. All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR011
Batch Ended: 11/2/05 13:21
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0335 COLLINS (20) 11/02/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.18		0.00	1.33	
A2	2	0.00	2.00		0.00	1.18	
A3	3	0.00	2.27		0.00	1.27	
A4	4	0.00	2.10		0.00	1.22	
B1	5	0.00	1.88		0.00	1.20	
B2	6	0.00	1.85		0.00	1.13	
B3	7	0.00	2.22		1.63	2.30	
B4	8	0.00	1.97		0.00	1.21	
C1	9	1.68	2.10		3.79	2.75	
C2	10	0.00	1.91		0.00	1.13	
C3	11	0.00	2.07		0.27	1.72	
C4	12	0.00	1.96		0.62	1.59	
D1	13	0.00	2.05		0.00	1.25	
D2	14	0.00	2.18		1.58	2.06	
D3	15	0.00	2.09		0.00	1.25	
D4	16	0.00	2.04		0.00	1.17	
A1	17	0.00	2.29		7.51	3.71	
A2	18	0.00	2.00		0.00	1.18	
A3	19	0.00	2.27		0.00	1.27	
A4	20	0.00	2.10		0.00	1.22	
B1	21	0.00	1.92		1.73	2.07	
B2	22	0.00	1.92		2.13	2.24	
B3	23	0.00	2.20		0.31	1.88	
B4	24	0.00	1.97		0.00	1.21	

gc

gc

02 Nov 2005 14:30 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 1 Pw H3 #403728 User : 5379

Time: 2.00
Data Mode: DPM Nuclide: SM6L02 Quench Set: SM6L02
Background Subtract: 1st Vial

	LL	UL	LCR	2SZ	BKG
Region A:	0.5 -	18.6	0	0.0	7.51
Region B:	2.0 -	18.6	0	0.0	7.16
Region C:	40.0 -	2000	0	0.0	11.70

Quench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
05-TF-0335 COLLINS (24) 11/02/05 TAS
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: c:\data\prot1.dat
Count Data Filename: c:\data\SDATA1.DAT
Spectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.51	7.16	3	B	654.56		0.00	11.70
0	2.00	474.57	452.80	0		580.75	894.24	79.45	0.00
1	2.00	0.00	0.00	17		568.99	0.00	0.00	0.00
2	2.00	2.48	1.83	29		499.35	5.04	12.01	0.00
3	2.00	6.83	7.01	10		629.16	12.37	10.84	0.00
4	2.00	9.49	9.21	16		521.11	18.84	13.36	0.00
5	2.00	0.00	0.00	25		546.02	0.00	0.00	0.00
6	2.00	5.30	5.91	29		597.41	9.84	12.42	0.00
7	2.00	0.00	0.00	96		156.62	0.00	0.00	0.90
8	2.00	0.62	0.97	16		616.36	1.13	8.82	0.00
9	2.00	0.49	0.84	6		584.03	0.92	8.19	1.30
10	2.00	3.99	2.68	12		633.44	7.20	9.89	0.00
11	2.00	0.00	0.00	7		671.25	0.00	0.00	0.00
12	2.00	0.00	0.00	44		499.93	0.00	0.00	1.80
13	2.00	2.84	3.19	0		629.72	5.14	8.81	0.30
14	2.00	0.00	0.00	53		600.00	0.00	0.00	0.00
15	2.00	3.50	3.05	16		609.25	6.43	9.92	0.00
16	2.00	2.49	2.84	60		585.50	4.68	15.36	0.00
17	2.00	0.00	0.00	21		577.63	0.00	0.00	0.00
18	2.00	0.00	0.00	19		560.37	0.00	0.00	0.00
19	2.00	0.00	0.00	69		547.84	0.00	0.00	0.00
20	2.00	0.26	0.00	6		624.68	0.47	7.82	0.00
21	2.00	0.00	0.00	0		631.50	0.00	0.00	0.00
22	2.00	2.49	2.34	0		608.66	4.59	8.83	0.50
23	2.00	0.49	0.84	6		668.71	0.86	7.65	0.00
24	2.00	0.00	0.00	15		489.90	0.00	0.00	1.30

JC

Characterization Survey of Telephone Poles

RSDS#: 05-TF-0335 RCT: JYAC RCT: N/A

43-89 ALPHA BKG:	0.8	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	147	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
junction box	5772	[redacted]	5713	ALPHA	1	11/2/05	13:30	20	60	154
junction box	5772	[redacted]	5713	BETA	1	11/2/05	13:30	302	60	620

Characterization Survey of Telephone Poles

RSDS#: 05-TF-0335 RCT: [illegible] RCT: [illegible] N/A

43-89 ALPHA BKG:	2.6	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	164	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
Junction box	5762	[redacted]	5763	ALPHA	1	11/3/05	13:00	19	120	55
Junction box	5762	[redacted]	5763	BETA	1	11/3/05	13:00	321	120	0

Follow-up Re-Survey

Characterization Survey of Telephone Poles

RSDS#: 05-TF-0335 RCT: Gyrne RCT: N/A

43-89 ALPHA BKG:	1	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	222	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
Junction box	5751	[redacted]	5785	ALPHA	1	11/10/05	13:00	5	60	32
Junction box	5751	[redacted]	5785	BETA	1	11/10/05	13:00	179	60	0

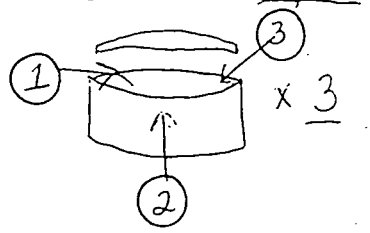
Survey to confirm 2nd Readings

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) WH - 1, 2 & 3	SURVEY NO. 05-TF-0336
PURPOSE: Soil samples from Wellhouses #1, #2 & #3	RWP NO. N/A
	DATE: 11/3/05
	TIME: 0900

MAP / DRAWING

Soil Containers w/ lids



See Attached

COPY

Bkgd α 2 cpm α
238 cpm β⁻

D.L 1.8 cpm α
20 cpm β⁻

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary

△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360-89	5762/5763	1/13/06
	N A	

Completed by: (Signature) Jamie M. Collins	HP# [redacted]	Date: 11/7/05
Completed by: (Print Name) Jamie M. Collins		
Counted by: (Signature) See	HP#	Date:
Counted by: (Print Name) Attached		
Reviewed/Approved by: (Signature) RM Coblentz	HP# [redacted]	Date: 11/9/05
Reviewed/Approved by: (Print Name) RM Coblentz		

Survey No. 05-TP-0336

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			container #1
2	↓	↓	↓	↓ #2
3	↓	↓	↓	↓ #3

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: NFE ⇒ No Further Entries All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Green
Data file name: SMEAR029
Batch Ended: 11/3/05 15:29
Cal. Due Date: 11/17/05
Serial Number: 26966-3

Batch ID: 05-TF-0336 COLLINS (3) 11/03/05 TAS

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.20		0.00	1.86	
A2	2	0.00	2.02		0.42	1.65	
A3	3	0.00	2.30		1.98	2.18	

g.c. g.c

B64 of 73

TAS

03 Nov 2005 17:10 ALPHA/BETA - 1.09 ~~Page #1~~
Protocol #: 4 PW H3 #410462 User : 2138

Time: 2.00
Data Mode: DPM Nuclide: SMGLS02 Quench Set: SMGLS02
Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.5	- 18.6	0	0.0	7.40
Region B:	2.0	- 18.6	0	0.0	7.18
Region C:	40.0	- 2000	0	0.0	10.50

Quench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
05-TF-0336 J.COLLUINS (3) AG
Luminescence Correction On
Coincidence Time(ns): 18
Delay Before Burst(ns): Normal
Protocol Data Filename: C:\DATA\PROT4.DAT
Count Data Filename: C:\DATA\SDATA4.DAT
Spectrum Data Drive & Path: C:\DATA

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.40	7.18	1	B	653.28		0.00	10.50
0	2.00	481.12	442.00	0		592.19	904.61	76.49	0.00
1	2.00	0.10	0.32	7		543.67	0.20	8.30	0.00
2	2.00	0.00	0.00	0		581.68	0.00	0.00	0.00
3	2.00	0.00	0.00	0		585.11	0.00	0.00	0.00

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL08412
File ID: 1SC02946.s0
Priority: Yes

Description\Location
Soil from WH-1
Long Count

Collector: 7244
Date Received: 11/03/05
Date Collected: 11/03/05

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0.01	0.04
Pb-210		0.74	0.52
Ra-226		1.26	0.56
Ac-227 (D)	*	0.1	0.2
Th-230	*	0	5.9
Th-232 (D)		0.33	0.14
Pu-238	*	0	10.68
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 11/07/05 Counted By: 5755 Analyzed By: 5288 Initials GB

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL08411
File ID: 1SC02945.s0
Priority: Yes

Description\Location
Soil from WH-2
Long Count

Collector: 7244
Date Received: 11/03/05
Date Collected: 11/03/05

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.01	0.04
Pb-210	*	0.03	0.62
Ra-226		1.32	0.68
Ac-227 (D)	*	0	0.24
Th-230	*	2.29	6.26
Th-232 (D)		0.26	0.18
Pu-238	*	0	12.59
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 11/07/05 Counted By: 5755 Analyzed By: 5288 Initials GB

gc 11/7/05

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL08410
File ID: 1SC02944.s0
Priority: Yes

Description\Location
Soil from WH-3
Long Count

Collector: 7244
Date Received: 11/03/05
Date Collected: 11/03/05

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.04
Cs-137	*	0	0.05
Pb-210	*	0.61	0.7
Ra-226	*	0.62	0.8
Ac-227 (D)	*	0	0.32
Th-230	*	0	7.45
Th-232 (D)		0.32	0.24
Pu-238	*	0	12.55
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.02 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

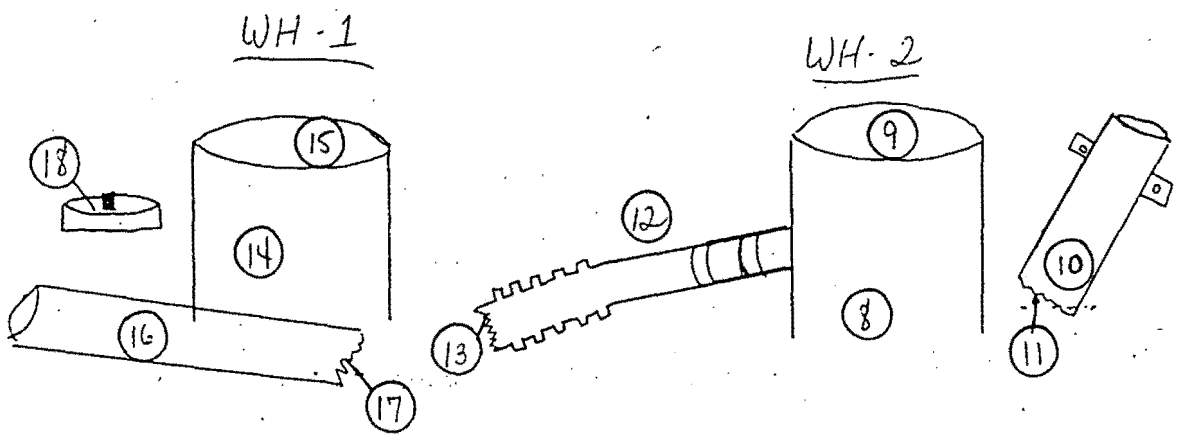
Comments:

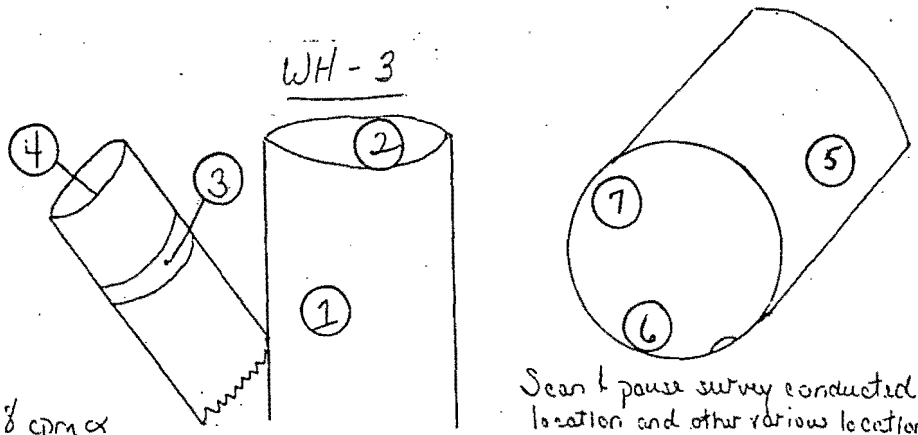
Date: 11/07/05 Counted By: 5755 Analyzed By: 5288 Initials GB

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) Wellhouses #1, #2 & #3	SURVEY NO. 05-TF-0347
PURPOSE: Characterization Survey of well casings	RWP NO. N/A
	DATE: 11/30/05
	TIME: 1300

MAP / DRAWING





Bkgd. .8 cpm α
250 cpm β-

D.L 1.4 cpm α
30 cpm β-

Scan & pause survey conducted at each similar location and other various locations
See attached for integrated counts where audible clicks were detected
Refer to RSDS 05-TF-0327 & 05-TF-0330

LEGEND:

- # = mrem/hr (γ) whole body
- #E = mrem/hr (β+η+γ) extremity on contact
- K = factor of 1000
- — · — · — · · = radiological boundary
- △ # - mrem/hr neutron
- □ # - air sample number
- ◯ # - swipe number
- ◯ #/α or /β - direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360-89	5751/5785	11-7-06
	N/A	

Completed by: (Signature) Jamie H Collins	HP# [redacted]	Date: 12-1-05
Completed by: (Printed Name) Jamie M. Collins / L. Deffner Jr		
Counted by: (Signature) See Attached	HP#	Date:
Counted by: (Printed Name)		
Reviewed/Approved by: (Signature)	HP# [redacted]	Date: 12/21/05
Reviewed/Approved by: (Print Name) R.M. Coblentz		

Survey No. 05-TF-0347

RADIOLOGICAL SURVEY DATA SHEET

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments
1	See Attached			WH-3 O/S #1
2				I/S
3				O/S #2
4				I/S
5				O/S #3
6				I/S
7				well liner
8				WH-2 O/S #1
9				I/S
10				O/S #2
11				I/S
12				O/S #3
13				I/S
14				WH-1 O/S #1
15				I/S
16				O/S #2
17				I/S
18				lid

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	Tritium	Comments

COMMENTS: WH ⇒ Wellhouse; O/S ⇒ outside; I/S ⇒ inside; NFE → No Further Entries
All smears field checked with 2360 prior to submitting to count lab.

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Aqua
Data file name: SMEAR026
Batch Ended: 12/1/05 11:21

Crosstalk correction performed.

Recalibration Date: 11/03/06
Serial Number: 26966-1

Batch ID: 05-TF-0347 COLLINS (18) AG

Detector ID	Sample ID	Alpha Activity DPM	Alpha Activity σ	Alpha Activity flags	Beta Activity DPM	Beta Activity σ	Beta Activity flags
A1	1	0.00	2.09		0.04	1.77	
A2	2	0.00	2.19		0.00	1.77	
A3	3	1.56	1.97		2.00	2.36	
A4	4	1.53	1.95		0.00	1.67	
B1	5	1.50	1.94		0.19	2.23	
B2	6	1.36	2.07		0.48	2.04	
B3	7	0.00	1.83		0.00	1.21	
B4	8	0.00	1.87		0.00	1.55	
C1	9	0.00	2.14		0.00	1.29	
C2	10	0.00	2.25		3.50	2.97	
C3	11	0.00	2.00		0.65	1.76	
C4	12	1.41	1.91		0.00	1.18	
D1	13	0.00	2.22		1.64	2.25	
D2	14	1.63	2.07		2.57	2.46	
D3	15	0.00	1.87		0.00	1.68	
D4	16	0.00	1.89		0.00	1.12	

JC JC

B71 of 73

JC 12/1/05 ~~Page 1 of 1~~ Page 3 of 5

ec 2005 12:01
ocol #: 3

ALPHA/BETA - 1.09
PW H3 #403728

gc 12/4/05 ~~Page #1~~ User : 5801

ime: 2.00
ata Mode: DPM
ackground Subtract: 1st Vial

Nuclide: SMGL02

Quench Set: SMGL02

	LL	UL	LCR	2S%	BKG
egion A:	0.5	18.6	0	0.0	7.60
egion B:	2.0	18.6	0	0.0	7.04
egion C:	40.0	2000	0	0.0	14.00

ench Indicator: tSIE/AEC
~~Ext Std~~ Terminator: Count
5-TF-0347 COLLINS [18] GWD
minescence Correction On
incidence Time(ns): 18
lay Before Burst(ns): Normal
otocol Data Filename: c:\data\prot1.dat
unt Data Filename: c:\data\SDATA3.DAT
ectrum Data Drive & Path: c:\data

S#	TIME	CPMA	CPMB	LUM	FLAG	tSIE	DPM1	2Sigma	CPMC
-1	10.00	7.60	7.04	3	B	668.42		0.00	14.00
0	2.00	374.22	356.92	0		605.57	690.64	65.79	0.00
1	2.00	0.00	2.77	100		502.02	0.00	0.00	0.00
2	2.00	0.82	0.88	6		634.06	1.48	8.04	0.00
3	2.00	2.92	2.98	13		594.80	5.44	9.87	0.00
4	2.00	0.00	0.00	0		593.57	0.00	0.00	0.00
5	2.00	0.90	0.72	0		579.16	1.69	8.45	0.00
6	2.00	2.40	1.07	5		639.29	4.30	8.62	0.00
7	2.00	0.00	0.00	8		642.67	0.00	0.00	0.00
8	2.00	0.00	0.00	8		606.02	0.00	0.00	1.00
9	2.00	0.00	0.00	0		550.84	0.00	0.00	0.00
10	2.00	1.90	2.96	19		614.51	3.48	9.35	0.00
11	2.00	0.00	0.00	50		466.45	0.00	0.00	1.00
12	2.00	1.35	1.49	0		562.84	2.58	8.76	0.72
13	2.00	2.03	1.59	0		616.95	3.72	8.64	0.00
14	2.00	0.00	0.00	0		546.38	0.00	0.00	0.00
15	2.00	0.00	0.00	0		593.07	0.00	0.00	0.00
16	2.00	0.00	0.00	0		605.58	0.00	0.00	0.00
17	2.00	0.42	0.98	0		580.56	0.79	8.23	0.00
18	2.00	0.00	0.00	0		559.84	0.00	0.00	0.00

gc

Survey of Wellcasings at WH-2 & 3

RSDS#: 05-TF-0347 RCT: JMC RCT: 140

43-89 ALPHA BKG:	0.8	Factor	8	PROBE AREA:	100	cm2	Surface Eff:	1	ALPHA
43-89 BETA BKG:	250	Factor	4	PROBE AREA:	100	cm2	Surface Eff:	1	BETA

LOCATION	2360#	RCT ID	PROBE	RAD TYPE	ITEM	DATE	TIME	CNTS	CT TIME (sec)	dpm/100cm2
#3	5751	[redacted]	5785	ALPHA	1	11/30/05	13:00	50	60	394
#5	5751	[redacted]	5785	ALPHA	2	11/30/05	13:00	38	60	298
#6	5751	[redacted]	5785	ALPHA	3	11/30/05	13:00	49	60	386
#10	5751	[redacted]	5785	ALPHA	4	11/30/05	13:00	20	60	154
#3	5751	[redacted]	5785	BETA	1	11/30/05	13:00	298	60	192
#5	5751	[redacted]	5785	BETA	2	11/30/05	13:00	313	60	252
#6	5751	[redacted]	5785	BETA	3	11/30/05	13:00	284	60	136
#10	5751	[redacted]	5785	BETA	4	11/30/05	13:00	298	60	192

* Refer to RSDS 05-TF-0327
05-TF-0330

APPENDIX C

PRS Recommendation Sheets

MOUND PLANT
PRS 13
FORMER TREATMENT SITE - TRASH INCINERATOR

RECOMMENDATION:

Potential Release Site (PRS) 13 was identified as a trash incinerator in the old burn area which is part of Operable Unit 1. This area has been addressed under the Remedial Investigation/Feasibility Study (RI/FS) process for Operable Unit 1. Operable Unit 1 will proceed with the CERCLA process as per the regulatory approved Operable Unit 1, Record of Decision (ROD).

The selected remedy for controlling contamination from the soils and groundwater at Release Block I, Operable Unit 1, is the Collection, Treatment, and Disposal of groundwater. Additionally, the Innovative Treatment Remediation Demonstration Program will be independently evaluating remedial technologies which could augment the technologies presently selected.

Because the area containing this PRS has been addressed by the OU1 ROD, NO FURTHER ASSESSMENT is recommended for PRS 13 beyond the remediation being implemented as described in the OU1 ROD.

CONCURRENCE:

DOE/MEMP: Arthur W. Kleinrath, Remedial Project Manager — 12/18/96 (date)

USEPA: Timothy J. Fischer, Remedial Project Manager — 12/18/96 (date)

OEPA: Brian K. Nickel, Project Manager — 12/18/96 (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 2/27/97 to 4/3/97

☒ No comments were received during the comment period.

☐ Comment responses can be found on page _____ of this package.

MIAMISBURG CLOSURE PROJECT
PRS 282

RECOMMENDATION:

Potential Release Site (PRS 282) is identified as the site's historic soil spoils area. It became a PRS based on historic soil excavation activities that may have included common site contaminants, namely plutonium-238 and thorium-232. Even though existing sample results indicated that radionuclide contamination was not present, Further Assessment was warranted based on the large area involved versus the number of historic sample results. Additionally FA was performed to investigate a report of disposal of gasoline contaminated soil at PRS 282. Further Assessment was performed and confirmed the absence of radionuclide contamination in excess of cleanup objectives (10^{-5} Risk-Based Guideline Values plus background). It also confirmed that BTEX/VOCs were at acceptable levels (when compared to available hazard index of one values) and do not have the potential to leach unacceptable concentrations to groundwater.

Therefore, the Core Team recommends a **No Further Assessment** for PRS 282.

A PRS Package with an NFA recommendation signed by the Core Team will be placed in the Public Reading Room for a 30-day review period. Upon closure of the public review comments, if any, the PRS Package will be issued as a final document and made available in the Public Reading Room.

CONCURRENCE:

DOE/MCP: _____ 01/02/03
Robert S. Rothman, Remedial Project Manager (date)

USEPA: _____ 12/30/02
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: _____ 2/3/03
Brian K. Nickel, Project Manager (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from _____ to _____

MIAMISBURG CLOSURE PROJECT
PRS 414

RECOMMENDATION:

Potential Release Site (PRS) 414 is located on the south western portion of the site. PRS 414 was identified as a potential release site as a result of localized low level concentrations of VOCs in groundwater. The Core Team binned PRS 414 further assessment in May, 1998. Groundwater sampling activities occurred from 1998 through 2004. Sampling occurred during both active groundwater remediation (the pump and treat system operated continuously from Jan 1997 through May 2003) and during the OU-1 rebound test (initiated May 2003 involving shut down of the pump and treat system). Upon review of historical sampling data and rebound test data for OU1 and adjacent areas, the Core Team has concluded that PRS 414 represents the southern extent of the low level volatile organic compound (VOC) groundwater plume extending out from Operable Unit 1 (OU-1).

Therefore, the Core Team recommends that PRS 414 not be treated as a separate, independent Potential Release Site, but a manifestation of the OU-1 groundwater plume. Any continued monitoring or remediation will be addressed as part of the remedy for OU-1.

This PRS Package signed by the Core Team will be placed in the Public Reading Room for a 30-day review period. Upon closure of the public review comments, if any, the PRS Package will be issued as a final document and made available in the Public Reading Room.

CONCURRENCE:

DOE/MCP: Paul Lucas 12/2/04
Paul Lucas, Remedial Project Manager (date)

USEPA: Timothy J. Fischer 12/1/04
Timothy J. Fischer, Remedial Project Manager (date)

OEPA: B. K. Nickel 12/2/04
Brian K. Nickel, Project Manager (date)

MOUND PLANT
PRS 419
DRAINAGE OUTFLOW REROUTE

RECOMMENDATION:

Potential Release Site (PRS) 419 is the Mound Plant Drainage Outflow Reroute. It was constructed as part of the Miami-Erie Canal Remediation Project during the period from June to November 1996[1]. The reroute extends for a length of approximately 4500 feet proceeding south from its entrance near the concrete sealed "Twin 60s" before exiting the Mound Plant property and emptying into the Great Miami River. It conveys the Plant site's non-process and storm water off-site. Since its construction, the Mound Plant Drainage Outflow Reroute has been monitored for contamination at Outfall 002 under two programs. Monitoring for radiological parameters is required under DOE Order 5400.1 and the DOE Regulatory Guide. Monitoring for non-radiological parameters is required by the Plant site's NPDES permit. Monitoring of the Outfall 003 will continue as required by the Authorization to Discharge. Monitoring of Outfall 002 will continue as required by the NPDES permit for non radiological parameters. To address potential radiological releases, including those undergoing investigation and clean up under CERCLA, Outfall 002 will be also monitored daily for gross alpha and tritium, bi-weekly from flow-proportional 24 hour composite samples for Pu-238, Pu-239/240, U-233/234, U-238, Th-228, Th-230, and Th-232.

Therefore NO FURTHER ASSESSMENT is recommended for PRS 419.

CONCURRENCE:

DOE/MEMP: Arthur W. Kleinrath, Remedial Project Manager — 11/17/99 (date)

USEPA: Timothy J. Fischer, Remedial Project Manager — 11/17/99 (date)

OEPA: Brian K. Nickel, Project Manager — 11/17/99 (date)

SUMMARY OF COMMENTS AND RESPONSES:

Comment period from 1/19/2000 to 2/19/2000

☐ No comments were received during the comment period.

☒ Comment responses can be found ~~on page~~ at beginning A of this package.

APPENDIX D

Notification Correspondence

Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 E Main St. • P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Doug White
Director

October 04, 2005

WILLIAM TAYLOR
DIRECTOR MCP
US DEPT OF ENERGY
175 TRI COUNTY PARKWAY
SPRINGDALE, OH 45246

SITE: U.S. DEPT OF ENERGY
WELL HOUSE # 2 EMERGENCY
GENERATOR UST# 2
1 MOUND AVE
MIAMISBURG OH
MONTGOMERY COUNTY
RELEASE #57000630-N00006

RE: NO FURTHER ACTION STATUS REGARDING CLOSURE REQUIREMENTS

Dear Director Taylor:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed all information submitted for this UST closure assessment. Based on this information, BUSTR requires no further action (NFA) involving closure requirements under Ohio Administrative Code (OAC) 1301:7-9-12, effective March 2005.

Thank you for your cooperation. The submitted information for this UST closure assessment is available from BUSTR as a public record. If you have any questions, please contact our office at (614) 752-7938.

Sincerely,

Kelly J. Gill
Corrective Action Supervisor

XC: Site File
John Lehew, CH2M HILL
Mark Case, Montgomery County Health Department
Robert L Bobbitt, Miamisburg Fire Dept

DNR 7810.04

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
2045 Morse Rd., Bldg B
Columbus, OH 43229-6605
Voice: (614) 265-6740 Fax: (614) 265-6767

0155107

LOCATION

Circle One or Both: WELL #1

County: Montgomery Township: Miami Section/Lot Number:

Owner/Builder (Circle One or Both): U.S. Department of Energy - Mound Closure Project

Address of Well Location: 1075 (Number) Mound Road (Street Name)

City: Miamisburg Zip Code: 45343

Property Location Description: 1/2 miles N (n, e, s, w) of Old 25 & Progress Blvd. (nearest intersection)

on the W (n, e, s, w) side of Progress Blvd. (road name)

Location of Well in either: State Plane (N ☐ S ☐) X ____ +/- ____ ft. or m Y ____ +/- ____ ft. or m
OR
Latitude/Longitude (Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.) Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other

ORIGINAL WELL ODNR Well Log Number: N/A Copy attached? (circle one) Yes or No

MEASURED CONSTRUCTION DETAILS Date of measurements: 10-17-05

Depth of Well: 50'6" Static Water Level: 24'4"
Size of Casing: 26" Length of casing: 40'6"
Well Condition: Fair

SEALING PROCEDURE
Method of Placement: Bentonite Chips & Bentonite Slurry

Placement:			Sealing Material	Volume
From 50'6"	To 35'		61 bags Bentonite Chips	
From 35'	To 7'		24 Bags Quickgrout	
From 7'	To 4'		15 Bags Bentonite chips after cutting casings	

Was Casing Removed? Yes or No (circle one)

Condition of Casing: Fair

Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed: 10-20-05
Reason(s) for Sealing: Abandon

CONTRACTOR
Name: Moody's of Dayton ODH Registration #: 636
Address: PO Box 509
City/State/Zip: Miamisburg OH 45343

Signature: Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.
ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 2045 MORSE ROAD, COLS., OHIO 43229-6605
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.04

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
2045 Morse Rd., Bldg B
Columbus, OH 43229-6605
Voice: (614) 265-6740 Fax: (614) 265-6767

0155108

LOCATION

County Montgomery Township Miami Circle One or Both Section/Lot Number WELL #2

Owner/Builder U.S. Department of Energy - Mound Closure Project
Circle One or Both

Address of Well Location 1075 Mound Road (Number / Street Name)

City Miamisburg Zip Code 45343

Property Location Description 1/2 miles N (n, e, s, w) of Old 25 & Progress Road (nearest intersection)

on the W (n, e, s, w) side of Progress Blvd (road name)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. or m Y ____ +/- ____ ft. or m
OR
Latitude/Longitude {Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec. Latitude ____ Longitude ____}

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL

ODNR Well Log Number N/A Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS

Date of measurements 10-17-05

Depth of Well 59' Static Water Level 25'
Size of Casing 16" Length of casing 44'
Well Condition Fair

SEALING PROCEDURE

Method of Placement Bentonite Chips & Bentonite~~XXXX~~ Slurry

Placement:			Sealing Material	Volume
From 59'	To 39'		35 Bags Bentonite Chips	
From 39'	To 7'		12 Bags Quickgrout	
From 7'	To 4'		13 Bags Bentonite after cutting casings	

Was Casing Removed? Yes or No (circle one)

Condition of Casing Fair
Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 10-20-05
Reason(s) for Sealing Abandon

CONTRACTOR

Name Moody's of Dayton ODH Registration # 636
Address PO Box 509
City/State/Zip Miamisburg OH 45343

Signature Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.
ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 2045 MORSE ROAD, COLS., OHIO 43229-6605
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7810.04

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
2045 Morse Rd., Bldg B
Columbus, OH 43229-6605
Voice: (614) 265-6740 Fax: (614) 265-6767

0155109

LOCATION WELL #3

County Montgomery Township Miami Section/Lot Number (Circle One or Both)

Owner/Builder (Circle One or Both) U.S. Department of Energy - Mound Closure Project

Address of Well Location 1075 Mound Road (Number / Street Name)

City Miamisburg Zip Code 45343

Property Location Description 1/2 miles N (n, e, s, w) of Old 25 & Progress Blvd (nearest intersection)

on the W (n, e, s, w) side of Progress Blvd. (road name)

Location of Well in either: State Plane N ☐ S ☐ X ____ +/- ____ ft. or m Y ____ +/- ____ ft. or m
OR Latitude/Longitude (Check ONE ☐ In Decimal Degrees ☐ Degrees Minutes ☐ Degrees Min. Sec.) Latitude ____ Longitude ____

Elevation of Well ____ +/- ____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other ____

ORIGINAL WELL ODNR Well Log Number N/A Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements 10-18-05

Depth of Well 59' Static Water Level 24'10"
Size of Casing 20" Length of casing 44'
Well Condition Fair

SEALING PROCEDURE
Method of Placement Bentonite Clay & Bentonite Slurry

Placement:	From	To	Sealing Material	Volume
	59'	39'	57 Bags Bentonite Chips	
	39'	8'	14 Bags Quickgrout	
	8'	4'	11 Bags Bentonite Chips - after cutting casir	

Was Casing Removed? Yes or No (circle one)

Condition of Casing Fair
Perforations: From ____ To ____
From ____ To ____

Date Sealing Performed 10-19-05
Reason(s) for Sealing Abandon

CONTRACTOR
Name Moody's of Dayton ODH Registration # 636
Address PO Box 509
City/State/Zip Miamisburg, OH 45343

Signature Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.
ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 2045 MORSE ROAD, COLS., OHIO 43229-6605
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy