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OHIO ENVIRONMENTAL PROTECTION AGENCY DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE REPORT QUARTERLY TECHNICAL PROGRESS REPORT FOR APRIL 1, 1994 THROUGH JUNE 30, 1994

07/19/94

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REPORT

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Department of Energy
Fernald Environmental Management Project
P. O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 648-3155

JUL 19 1994

DOE-2105-94

Mr. Thomas A. Winston, District Chief
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Winston:

OHIO ENVIRONMENTAL PROTECTION AGENCY DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE REPORT QUARTERLY TECHNICAL PROGRESS REPORT FOR APRIL 1, 1994 THROUGH JUNE 30, 1994

Enclosed is the quarterly technical progress report describing Fernald Environmental Management Project (FEMP) progress with respect to compliance with the Stipulated Amended Consent Decree and the Ohio Environmental Protection Agency (OEPA) Director's Findings and Orders.

In addition to this report, enclosed are three documents: (1) a revised Table C-4, boring logs and revised 1993 Resource Conservation and Recovery Act (RCRA) Annual Report. The revised Table C-4 provides a list of all waste streams identified under the Stipulated Amended Consent Decree, as well as waste streams identified as a result of routine RCRA determinations. Forty-eight (48) borings (enclosed) were taken between April 1, 1994 through June 30, 1994, as part of the Uranium soils Integrated Demonstration project. The 1993 RCRA Annual Report was revised to reflect seven inventory corrections and the addition of nineteen waste streams.

If you or your staff have any questions, please contact Ed Skintik at (513) 648-3151.

Sincerely,

Wally Quaider

Wally J. Quaider
Acting Associate Director
Safety, Operations & Technical Support

FN:Skintik

Enclosures: As Stated

Recycled and Recyclable

cc w/enc:

J. E. Baublitz, EM-40/FORS
K. A. Chaney, EM-423/QO
J. Van Kley, Ohio AGO
J. S. Rogers, DOJ
G. E. Mitchell, OEPA-Dayton
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J. A. Saric, USEPA-V
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N. Alhadeff, FERMCO/81-4
L. Clauss, FERMCO/80-1
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J. Theising, FERMCO/2
R. Glenn, PARSONS

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

Introduction

Section 4.13 of the Stipulated Amended Consent Decree requires that beginning October 20, 1990, and continuing on the twentieth day of every third month thereafter, DOE shall submit a quarterly technical progress report to Ohio EPA. In accordance with this section, the option of combining this report with ongoing reports being submitted pursuant to the Director's Findings and Orders issued June 4, 1987, is exercised.

This report describes activities at the Fernald Environmental Management Project (FEMP) from April 1, 1994 through June 30, 1994, and status as of June 30, 1994. The report contains two sections. Section I addresses outstanding commitments contained within the Stipulated Amended Consent Decree. Section II pertains to compliance with Section IV of the Consent Decree, and incorporates remaining outstanding items from the Ohio EPA Director's Findings and Orders that have not been addressed within the Consent Decree.

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

Section I - Stipulated Amended Consent Decree

Section	Activity	Status
3.5.1.(d)(i)	Submit report on results and analysis for remaining drums identified under the Stipulated Amended Consent Decree by September 30, 1992.	**COMPLETE.** Sampling and analysis report was submitted to the Ohio EPA on September 25, 1992.
3.8(b)	Daily/weekly inspection of Plant 1 Pad.	**ONGOING.** Inspections are performed as required to meet the proposed requirements.
3.11	Report all Hazardous Waste Management Units (HWMU).	**ONGOING.** Investigation of the following HWMUs to change their status to Solid Waste Management Units (SWMUs) is ongoing: Primary Calciner, Hilco Oil Recovery Unit, Wheelabrator Shot Blaster, Biosurge Lagoon. The Tank Farm Sump remains a HWMU since the composition of the underlying basin could not be verified. Tank T-2 which contains thorium nitrate (pH less than 2) has been identified as a new HWMU.

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

Section II - Consent Decree

Section	Activity	Due Date	Status
4.9	Perform cleanout of SWRB (when approximately 150,000 gallons of sediment is accumulated) at 24-month intervals on maintenance schedules approved in the SWRB PTI.	6/30/94	**AS REQUIRED**. The SWRB west chamber was inspected July 1993 and several leaks in the liner were noted. The integrity of the entire liner system is not in jeopardy. As part of the Federal Atomic Trades and Labor Council (FATLC) agreement, the solids removal and liner repair will be completed by the existing FEMP labor force. The solids were transported to Plant 8 via the FEMP "Super Sucker" vacuum truck. Use of the new line constructed for the SPIT Project, as previously reported in the Quarterly Report, proved to be less efficient. The solids are being stored in dedicated tankage and processed through the existing ELMCO vacuum filter. Subsequent disposition will be to NTS. All solids were removed from the West basin during this quarter. Repair of the last few leaks (holes) in the liner will be completed during the first week of July. Extreme hot and humid weather during June has effected worker efficiency. The East basin shows no indication of leaking. The sediment level in the East basin was revised from the Mid-March indication of a maximum 6-inch depth and average depth of 4-inches. The revised readings based on actual grid measurements indicate an average depth of 2-3/4 inches over the bottom of the basin (Nominally 190' x 190'). This equates to approximately 62,000 gallons of sediment accumulation.

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
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April 1, 1994 - June 30, 1994

Section	Activity	Due Date	Status
4.9	Perform cleanout of BSL (when approximately 500,000 gallons of sediment is accumulated, but no more than once per year, as stated in the BSL PTI).	7/30/94	AS REQUIRED. The lagoon was evaluated for cleanout in July 1993. The volume of sediment was below the level requiring cleanout. The next survey is scheduled for July 1994.
4.11(a)	Implement a Best Management Practices (BMP) Plan after approval by Ohio EPA for control of wastes that may be discharged from the FEMP.	4/18/88	ONGOING. The Ohio EPA approved the BMP Plan on 7/10/89. Documentation for required actions is being reviewed to assure that all requirements of the plan have been satisfied. Follow-up actions are being identified based on this review.
4.11(b) DFO11	Maintain BMP Plan.		ONGOING. See previous item.
4.11(c)	Amended BMP whenever there is a change in the facility which has the potential to affect the discharging of waste.		AS REQUIRED. No amendments were required during the reporting period. The BMP committee has reviewed the plan to determine what modifications are needed. A comprehensive revision of the BMP Plan is presently in preparation. Issue of this revision to the Ohio EPA for approval is anticipated during CY1994.
4.11(d) DFO 13	If requested by Ohio EPA, modify the BMP Plan within 45 days.		AS REQUIRED. No requests for modifications were received during the reporting period.

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

Section	Activity	Due Date	Status
4.12	Modify the Zone of Influence Study Report within 30 days of Ohio EPA request.		**AS REQUIRED**. No requests for changes and/or additions to the report were received during the reporting period.
(DFO) 14(a)	Study the integrity of the FEMP outfall.		**COMPLETE**. A new effluent/outfall line was installed as part of Removal Action 3 - South Groundwater Contamination Plume. This task was identified as part of the work plan for Part 2 of the South Plume Removal Action submitted to the Ohio EPA. The new outfall line was designed to handle future FEMP remediation flows. The line was placed into operation on May 1, 1993. The existing line was subsequently removed from service and will be remediated in the future. Investigation of past possible leakage of the original outfall line is being done as a work plan addendum for Operable Unit 5.
4.14	Comply with any permits issued to DOE pursuant to ORC 6111.03 (J) with regard to sewage, industrial wastes or other wastes, and to comply with OAC 3745-31-02 and any permits issued pursuant to OAC 3745-31-02.		**ONGOING**. Compliance with issued permits is ongoing. One exceedance of the discharge limits specified by the FEMP's NPDES permit occurred during the reporting period. The dissolved oxygen content was below the minimum level specified by the permit for one sample during May 1994. This sample is taken upstream of the point where process waste water and sanitary waste water streams combine with south plume and storm water flows prior to discharge to the Great Miami River. The dissolved oxygen content at the discharge was within acceptable levels.

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TABLE C – 4

REVISED: 01-Jul-94

RCRA REGULATED HAZARDOUS WASTE STREAMS

WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
12	AEROSOL PAINT CANS	D001	PK
46	BARIUM CHLORIDE LIQUID HEAT 980	D005	PK
47	BARIUM CHLORIDE (LIQUID HEAT 800)	D005	PK
89	BORING #1412	F002	PK
119	BARIUM CHLORIDE SOLUTION	D005	PK
157	WD-40 SPRAY CAN	D001	MSDS
160	SPEED E NAMEL SPRAY PAINT	D001	MSDS
162	KRYLON CAR COLOR SPRAY PAINT	D001	MSDS
163	AEROSOL PAINT	D001	MSDS
177	RAGS, GLOVES, PROTECTIVE COVERALLS, DOP, FORMULA 401	U107	MSDS
180	RAGS SOLVENT	F002	PK,8
183	WATER\GAS MIXTURE TANK #8	D001 D008 D018	PK
201	CRANKCASE OIL	D018	MSDS, PK
344	ITEK DEVELOPER (LIQUID)	D011	MSDS
345	KEROSENE FROM ABANDONED UNDERGROUND STORAGE TANKS 11 & 13	D001 D018	PK,MSDS,1,3,8,9
358	CAUSTIC SOLUTION (NaOH) FROM PLANT 8 RAFFINATE PROCESSING	D002 D019	PK,1,3,5,7,8,9
376	OILY RAGS, ABSORBENT PADS	F002	PK,1,3,5,9
379	SPENT 1,1,1-TRICHLOROETHANE	D008 D018 F001 F002	MSDS, PK
380	ABSORBENT PADS, RAGS AND GLOVES	D039 F002 F003	PK,1,3,5,6,9
381	AEROSOL PAINT CANS	D001	MSDS
383	X-RAY FIXER & DEVELOPER, CLEAR LIQUID MODERATE ACIDIC SOL	D011	MSDS
385	SPENT SOLVENTS	D018 F001 F002	PK,MSDS,7,8
386	FLOOR SUMP CLEANOUT SLUDGE	D019 D039 F001 F002	PK,1,3,7,8
387	OIL SOAKED RAGS	D010 D018 F002	MSDS, PK
388	USED OIL	D010 D018 F002	MSDS, PK
389	OILY RAGS FROM WATER TREATMENT AREA	D008 D009 D010	PK,1,3,5,9
390	OILY SEMI-SOLID	D005 D008 F001 F002	PK,1,4,7,8,9
391	WASTE AEROSOL PAINT CANS	D001	MSDS
392	DRY CELL ELECTRONIC STORAGE BATTERIES	D002 D006 D009	PK
393	LUBRICATING OIL FROM REDUCTION REMELT.	D008	1,3,8,9
395	PAINT THINNERS AND PAINT RESIDUES	D001 F002 F003 F005	PK
396	PAINT THINNER RAGS	F002 F003 F005	PK
397	1,1,1,-TRICHLOROETHANE (CLEANING SOLVENT)	D018 F001 F002	MSDS, PK
398	NON-RECOVERABLE TRASH CONTAMINATED ABSORBANT PADS	D008 D009 F001	PK,MSDS,1,3,5,9
399	OILY RAGS, PADS AND TRASH FROM BOILER PLANT MACHINERY	D008 D039 F001	PK,1,3,5,9
400	USED OIL FROM MAINTENANCE	D001 D008 F001	PK,MSDS,1,4,8,9
402	USED OIL	D008 D018 F001 F002	PK
403	1,1,1,-TRICHLOROETHANE RAGS	D018 F001 F002	PK
404	OILY RAGS	D008 D018 F002	PK
405	DRY CELL BATTERIES	D002 D009	PK
406	AEROSOL CANS	D001	MSDS
408	USED OIL FROM GEAR BOXES, LATHES, AND MOTORS	D005 D006 D008 F001	PK,1,3,7,8,9
410	OILY RAGS	F001 F002	PK,1,3,5,9
412	1,1,1-TRICHLOROETHANE	D001 D006 F001 F002	PK,MSDS,1,3,8,9
413	SPENT SOLVENT CONTAMINATED RAGS	D008 D039 F002	PK,1,3,5,9
414	USED OIL	D001 D006 D008 D009 D039 F001 F002	PK,1,3,8,9
415	OILY RAGS AND ABSORBENTS WD-40 AND VARIOUS OILS	D008 D018 F002	PK
418	SPENT ACETONE	D001 F003	PK,MSDS
419	XYLENE	D001 F003	MSDS, PK
421	METHANOL	D001 F003	PK,MSDS
422	SPENT METHYLENE CHLORIDE	F002	PK,MSDS
423	ELEMENTAL MERCURY	D009	MSDS
425	LABORATORY ACIDS (NITRIC AND CYCLOHEXANE)	D001 D002	PK
426	METHANOL AND CYCLOHEXANE MIXTURE	D001	PK
427	NICKEL-CADMIUM BATTERIES	D002 D006	PK
428	ACETONITRILE IN WATER	D001	MSDS
429	HG BATTERIES	D002 D009	PK
432	MERCURY THERMOMETER SPILL CLEAN-UP MATERIALS FROM LAB	D006 D008 D009	MSDS,PK,4,5,9
433	AEROSOL SPRAY CANS PROPELLANT	D001	MSDS

NOTE: SEE FINAL PAGE FOR KEY TO DETERMINATION BASIS CODES

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REVISED: 01-Jul-94

RCRA REGULATED HAZARDOUS WASTE STREAMS

WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
434	SOLIDS CONTAMINATED BY LAB SAMPLES & MATERIALS	D004 D005 D006 D007 D008 D022 F002 F003	PK
435	PAINT HYPALON COATING	D001	MSDS,PK
436	SEALANT POLYCHLOROPENE SOLUTION	D001	MSDS,PK
438	HYDRAULIC OIL FROM BALER IN DRUM RECONDITIONING	D018	PK,1,3,4,7,8,9
455	UNLABLED DRUM CONTAINING 1,1,1 TRICLOROETHANE.	D001 F001	MSDS,PK,1,3,7,8,9
456	SOLVENT WASTES STORED ON PLANT 1 PAD	D007 D039 D040 F001 F002	PK,1,3,4,7,8,9
459	PAINT	D001 F001 F002	PK,1,4,8,9
460	LIQUID & SOLID WASTE SAMPLES	D004 D005 D006 D007 D008 D010 D018 F002	PK,1,3,7,8,9
468	OIL AND SOLVENTS W/ ANALYSIS	D001 D007 D008 D010 D018 F002	PK,1,3,7,8,9
473	ANTI-C PAPER COVERALLS & BOOTIES W/ LIME SLURRY	F001 F005	PK
476	LAB PACKED WATER AND RESIDUE SAMPLES	D007	PK,2,4
479	USED PAINT THINNER	D001 D008 D009 D035 F003 F005	PK,1,3,8,9
480	USED OIL	D018 F002	PK,1,3,7,9
485	KEROSENE	D001	MSDS,PK,1,3,7,8,9
486	TETRACHLOROETHYLENE SPILL CLEANUP	U210	MSDS
487	RAIN WATER FROM UST #8 FORMERLY STORING GASOLINE	D008 D018	PK
507	CONTAMINATED SOLVENT GENERATED IN THE PILOT PLANT. (MEK)	D001 D035 F005	MSDS,PK,1,3,7,8,9
508	UNUSED PAINT THINNER	D001 D035	PK,1,4,7,8,9
514	PAINT WASTE FROM PAINTING BOOTH	D001 D007 D008 F002 F003 F005	PK,1,4,7,8,9
517	OIL DRY CONTAMINATED WITH OIL FROM BALER	D007 D008	PK,1,3,4,6,7,8,9
520	PETROLEUM PRODUCT WITH RAIN WATER	D018	MSDS, PK
524	IGNITIBLE LIQUID, UNKNOWN ORIGIN	D001	1,4,7,8,9
526	CONTAMINATED SOIL FROM PIT 5 HWMU AREA	F001 F002	PK,1,4,6,9
533	PAINT: GRAY EPOXY	D001 D006	PK,1,3,8,9
534	MEK MARKED ON DRUM BLUEDRUM FLAMMABLE	U159	MSDS, PK
538	BORING # 1508	D006 D007 D008	2,6,10,11,12
539	BORING # 1509	D004 D006 D007 D008	2,6,10,11,12
540	BORING # 1512	D004 D005 D006 D007 D008 D011	2,6,10,11,12
541	BORING # 1513	D005 D006 D007 D008	2,6,10,11,12
542	BORING # 1514	D004 D005 D006 D007 D008	2,6,10,11,12
543	BORING #1515, FROM THE FIRE TRAINING GROUNDS	D004 D005 D006 D007 D008	2,6,10,11,12
545	BORING # 1511	D004 D005 D006 D007	2,6,10,11,12
547	MISCELLANEOUS LEAD TOOLS PIPING, ETC...	D008	PK
548	LEAD – COUNTERWEIGHTS, BEARINGS	D008	PK
584	KEROSENE (DIESEL FUEL)/SLUDGE/WATER FROM PUMP UST #3	D018	PK
585	ZINC COMPOUND (AEROSOL)	D001	MSDS
587	GREASE AND WATER	D001	1,3,7,8,9
588	MERCO DRY AND OILY MERCO DRY	F002	PK,1,2,4,9
627	5-GAL CAN W/ SPILL CLEANOUT MATERIAL	F001	PK
628	SPILL CLEAN-UP MATERIALS	F001	PK
633	OIL FROM UNKNOWN GENERATION SOURCE	D007 D008 D009	PK,1,3,4,7,8,9
634	BUFFERED KCN SOLUTION (ABOUT 2 LITERS @ 30 G PER LITER)	P098	PK
635	MERCURY SPILL CLEAN-UP AND SPENT MERCURY BATTERIES	D009	PK
638	USED OIL	D018	PK
644	TRASH, PADS, RAGS, WATER	D008 D010	PK,1,3,5,7,8,9
658	CODED AS OIL – STRONG SOLVENT ODOR	D018	PK
659	LEAD AND WOOD SHAVINGS – UNKNOWN ORIGIN	D008	PK
661	BORING # 1594 – FROM NORTHWEST CORNER BLDG. 12	F001	PK,2,4,9,12
675	NON-EMPTY AEROSOL CANS, BUILDING 11	D001	MSDS
677	NON-EMPTY AEROSOL CANS, BUILDING 12	D001	MSDS
696	KODAK ROYALPRINT ACTIVATOR	D002	MSDS,PK
697	ROYALPRINT STOP BATH	D002	MSDS,PK
700	MAGNESIUM FLAKE AND OILY RAGS	D003	PK
720	BORING #1261	F001	PK,2,4,9,12
743	CONTAINER OF PUMP OIL AND RAGS	F001	PK
757	BROWN PARTICULATE SOLID (DIRT AND RUBBLE)	D004 D007 D008 D010 D011	PK,1,4,9,11
768	DAAP/SOLVESSO MIXTURE	D001	PK,1,4,8
769	PAINT	D001	MSDS
772	RESPIRATOR CANISTER	D007 D011	MSDS

NOTE: SEE FINAL PAGE FOR KEY TO DETERMINATION BASIS CODES

TABLE C – 4

REVISED: 01-Jul-94

RCRA REGULATED HAZARDOUS WASTE STREAMS

WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
776	BORING #1674, LOCATED INSIDE PILOT PLT ON NORTHWEST SIDE OF	F001	PK,2,4,9,12
777	USED AGITENE	D001 D008 F001 F002	PK,MSDS,1,4,7,8,9
817	PAINT CHIPS FROM SAND FILTERS AT WATER PLANT	D008	MSDS,4,9
818	OIL AND WATER FROM DRUM DECON. PAD	D001 D008	PK,1,3,7,8,9
819	BORING #1251	F001	PK,2,4,9,11,12
820	LEAD ACID BATTERIES	D002 D004 D008	MSDS
826	METHYL ISOBUTYL KETONE, LABPACKED	D001 U161	PK
827	SODIUM AMIDE, STABILIZED AND LABPACKED	D003	PK
828	1,4-DIOXANE, STABILIZED, LABPACKED	D001 U108	PK
844	URANYL NITRATE SOLUTION IN TANKS	D002 D005 D007	PK
850	PAINT WASTE FROM TANK FARM	D001 D035 F002 F003	PK,1,3,4,7,8,9
854	NI CD BATTERIES	D006	MSDS
855	MERCURY BATTERY	D009	MSDS
868	OILY WASTE AND SOLIDS, POSSIBLY FROM DRUM RECONDITIONING	D039	PK,1,3,4,7,8,9
870	VARNISH – UNUSED	D001	MSDS
873	SPENT FIXER	D011	MSDS
874	LEAD BRICKS, LEAD WINDOW SASHINGS, BABBIT HAMMER	D008	PK
876	METAL FRAMES FROM HEPA FILTERS	D006	PK
1058	DECANT WATER FROM NPR/AAF PRIMARY SEPARATOR	D001 D009	PK,1,3,7,8,9
1080	CADMIUM SPRINGS	D006	4
1081	CADMIUM SPRINGS	D006	PK
1178	GROUNDWATER FROM WELL #2649	D007 F002	PK,2,4,7,9
1182	CLEAR DISPERSANT,TYPE (H) PREMIX-BLACK,CYAN,YELLOW & MAGENTA	D001	MSDS
1183	CLEAR DISPERSANT, TYPE (H) PREMIX, TYPE (H) CONCENTRATE	D001	MSDS
1184	CLEAR DISPERSANT, TYPE (H) PREMIX, TYPE (H) CONCENTRATE	D001	MSDS
1185	TYPE 028 FIX; CD-5 DEVELOPER	D011	MSDS
1187	SPENT ACTIVATED CARBON, FROM PERCHED WATER PROJECT	D040	PK,MSDS
1199	MERCURY CONTAMINATED FLOOR TILE & PIPE INSULATION	D009	PK,MSDS
1229	CONTAMINATED SUMP WATER	D001 D008 D018 D019 D039 D040 F002 F003	PK,2,4,7,8,9,11
1251	FREON 11	U121	PK,MSDS,5
1271	LEAD SOLDER JOINTS	D008	PK
1272	MERCURY CONTAMINATED MATERIALS FROM SINK TRAPS IN LAB	D007 D008 D009	PK,1,4,7,8,9,13
1273	CONTAMINATED WATER	D007 D008 D009	PK,1,3,7,8,9
1279	PLUTONIUM 239 SOLUTION	D002	PK,9
1281	LEAD BRICKS	D008	PK
1297	PC 49896 ITEK UNIVERSAL DEVELOPER	D011	MSDS,4
1298	ITEK PC 49907 ITEK INSTACOLOR ACTIVATOR	D002 D011	MSDS
1306	SPILL CLEAN-UP FROM K-65 AREA.	D001 D008	PK,1,3,5,7,8,9
1337	UNSPECIFIED IGNITIBLE LIQUID	D001	1,3,7,8,9
1363	OILY SLUDGES FROM WWTS AREA	D005 D006 D007 D008 D009	PK,1,4,5,7,8,9
1380	NON OILY SUMP CLEANOUT MATERIAL FROM PLANT 8 OPERATIONS	D007 D008	PK,1,3,4,5,7,8,9
1389	SCRAP U308 FROM OXIDATION FURNACE #1	F002	PK,1,4,5,9
1404	EXCAVATED SOIL FROM SPILL UNDER BLDG 64 LATHES	D008	MSDS,PK,1,4,5,9
1405	CLEANING AND WASH BATH WASTE FROM DECON. PAD	D008	MSDS,PK,1,3,7,8,9
1411	CONTAMINATED SOLVENT FROM PAINT SHOP	D001 D005 D007 D008 D009 D010 D011 D019 F002 F003 F005	PK,1,3,6,7,8,9
1412	USED SOLVENT; 1,1,1 TRICHLOROETHANE	D001 D006 D008 F001 F002	1,3,8,9
1414	OIL AND FUEL FROM GARAGE AREA	D001 D008	PK,1,3,8,9
1415	CONTAMINATED INSOLUBLE OIL	D001 F001 F002	PK,1,3,7,8,9
1421	OILY RAGS, PADS, GLOVES AND PLASTIC WITH GREASE	D008	PK,1,4,6,9
1423	CONTAMINATED INSOLUBLE OIL	D008 D009 D039 D040 F001 F002 F003 F005	PK,1,3,7,8,9
1425	CONTAMINATED RAGS PAPER POLYETHYLENE FROM RMI	D005 F001	PK,1,4,5,9
1427	MOP HEADS AND PADS CONTAMINATED WITH 1,1,1 – TRICHLOROETHANE	F002	PK,1,4,5,9
1428	SPILL CLEANUP MATERIAL FROM BLDG 79 RCRA STORAGE PAD	F001 F002	PK
1429	CONTAMINATED ORGANIC CHEMICAL SOLVENT	D001 D008 D018 D028 D035	PK,1,3,7,8,9
1430	PLASTIC SHEETING, GLOVES, FLOOR SWEEPINGS	D010	PK,1,3,4,5,7,8,9
1432	NON CHLORIDE CONTAMINATED SUMP LIQUOR (KEROSENE)	D001	1,3,7,8,9
1438	NON-OILY CLEANOUT SLUDGES FOR ROASTING	D039	PK,1,3,4,7,8,9
1447	SUMP WASTE FROM PLT 1 PAINTING BOOTH	D001 D008 F003 F005	PK,1,3,7,8,9
1462	CONTAMINATED WATER FROM CHEMICAL PIT #2 SURFACE CAP	D002	PK,1,3,7,8,9

NOTE: SEE FINAL PAGE FOR KEY TO DETERMINATION BASIS CODES

TABLE C – 4

REVISED: 01-Jul-94

RCRA REGULATED HAZARDOUS WASTE STREAMS

WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
1501	SPILL CLEANUPS OF OIL AND GAS FROM GASOLINE ENGINES	D018	MSDS
1504	FLAMMABLE PAINTS AND PAINT RELATED PRODUCTS	D001	MSDS
1532	BIODENITRIFICATION SURGE LAGOON SLUDGE	D018 D039	PK,2,4,7,9,11
1536	RAINWATER FROM WASTE PIT AREA	F001 F002	PK
1537	FILTER MATERIAL – SAND, GRAVEL, FLYASH	F001 F002	PK
1544	MAGNESIUM	D001 D003	PK
1550	URANIUM HEXAFLUORIDE AND URANIUM TETRAFLUORIDE	D003	MSDS
1560	BLACK OXIDE FROM CRUCIBLE BURNOUT	D004	MSDS
1575	URANYL NITRATE (UNH)	D001	PK
1585	LEAD ACID BATTERY (BROKEN)	D002 D008	MSDS
1589	RAFFINATES – NON-NEUTRALIZED	D001 D002	MSDS
1613	123 PROCESSOR CLEANER	D002	MSDS
1617	CONTAMINATED PPE, PLASTIC, TRASH (CONTACT WASTE)	F001 F003 F005	PK
1620	VEGITATION FROM THE ETF CLOSURE	F001 F002	PK
1621	HYDROCHLORIC ACID	D002 D006 D007 D008	PK,4,7
1622	NITRIC ACID	D002 D006 D007 D008	4
1665	ELECTROSTATIC MASTER LIQUID DEVELOPER	D001	MSDS
1667	ISOPROPYL ALCOHOL	D001	MSDS
1691	HYDROFLUORIC ACID	D002 U134	MSDS
1692	NITRIC ACID	D002 D007	PK,MSDS
1694	QC WATER BLANKS	D006 D009 D010 D011 D018 D039 D040	1,4,9
1705	LAB GENERATED WASTE, OIL FROM TCLP EXTRACTS	D001 D004 D006 D008 D010	1,3,7,8,9
1706	LAB WASTE, TCLP EXTRACT	D018 D021 D035 D038 D039 D040 D043 F002 F005	PK,1,4,7,8,9
1707	LAB GENERATED WASTE, ACID DIGESTATES	D002 D007 D008 D019 D028 D039 F001 F002	PK,2,4,7,8,9,11,12
1708	LAB GENERATED WASTE, METHYLENE CHLORIDE EXTRACTS	F002	PK,2,4,7,8,9
1709	LAB GENERATED WASTE FLAMMABLE ORGANIC EXTRACTS	D001 D002	PK,2,4,7,8,9
1710	ORGANIC LIQUID WASTE	D001 D010 F002	PK,1,3,7,8,11,12
1711	METALS EXTRACTS AND DIGESTS	D002 D008 D009 D010 F001 F002 F005	PK,1,3,7,8,11,12
1712	DIGEST FROM MERCURY LAB WASTE	D002 D008 D010	1,3,7,8,11,12
1713	OIL FROM TCLP EXTRACTS	D040 F001 F002 F005	PK,1,3,8,11,12
1714	VOLATILE SOLID WASTE	D010	2,4,11,12
1715	CONTACT WASTE (LAB GENERATED WASTE)	D004 D008 D010 F001 F002 F005	2,4,7,11,12
1716	LAB GENERATED WASTE, CONTACT WASTE SOLID	F001 F002 F005	PK,1,4,11,12
1725	LUBRICATING OIL FROM GASOLINE ENGINES	D018	MSDS
1728	CRANKCASE OIL	D018	MSDS
1729	GASOLINE	D001 D008 D018	1,3,5-9
1731	LEAD	D008	PK
1737	HARDENER	D002	MSDS
1740	(DOP) DI OCTYL PHTHALATE	U107	PK
1751	SPENT FIXER	D011	MSDS
1764	MULTILITH BLANKROLA SOLVENT	D039	MSDS
1773	CONCENTRATE FIXER	D011	PK
1775	DEGLAZING SOLVENT	F002	PK,MSDS
1789	UNH	D004 D006 D007 D008 D010	4,7,9,13
1799	USED MINERAL SPIRITS	D001 D018	MSDS
1815	SPENT FUELS	D001 D018	MSDS
1819	WHATMAN RAD-CON	D001	MSDS
1822	SPRAY ADHESIVE	D001	MSDS
1829	AEROSOL PAINT	D001	MSDS
1841	SOIL	F001 F002	PK,1,9,11
1842	GRASS ON THE SOIL	F001 F002	PK,1,9,11
1849	BUFFER SOLUTIONS PH 1 & 2	D002	MSDS
1856	SOLVENT CONTAINING MATERIAL, NON-SPECIFIC ORIGIN	F001 F002	PK,1,4,9
1895	PAINT BRUSHES WITH DRIED PAINT	D007 D008	PK
1904	CENOLLO E100 OVERNIGHT SPRAY	D001	MSDS
1906	HF TANK CLEAN-OUT MATERIAL	U134	PK,MSDS,5
1922	LEAD SHIELDING FROM X-RAY SYSTEM	D008	PK
1927	METALS EXTRACTS AND DIGESTS (IGNITABLE)(LAB GENERATED WASTE)	D001 D002 D008 D009 D010 F001 F002 F003 F005	PK,1,3,7,8,11,12
1928	COMPUBLEND CLEANING LIQUID (IGNITIBLE)	D001	MSDS

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WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
1937	COMPUBLEND CLEANING LIQUID (CORROSIVE)	D002	MSDS
1938	LIQUID SOLVENT WASTE FROM PAINT BOOTH SUMP	D007 D008 D010 F005	PK,1,3,7,8,9
1946	SOIL CUTTINGS FROM OUTDOOR FIRING RANGE	D008	1,4,9,11
1949	DRAW TEMP 275	D001	PK,MSDS,5
1952	TBP & KEROSENE DAAP & SOLVESSO	D001 D008	1,4,8
1969	FLAMMABLE AEROSOLS	D001 D007 D008 D018 D019 D035 D039	MSDS
1973	ETHOXYETHANEL, MIBK, METHOXYETHONAL 1,4 DIOXANE, ETHYL ETHER	D001 U108 U117 U161 U213 U359	PK
1974	ANYDROUS ETHER, STABILIZED	D001 U117	PK
1975	PVC PIPING FROM PLT 6 PERCHED WATER EXTRACTION PROJECT	F001	PK,2,4,9,10,11,12
1987	LEAD & DEBRIS	D008	PK
1998	METHANOL AND CYCLOHEXANE	D001 F003	PK,MSDS
1999	NESSLER, REAGENT; COD DIGESTION SOLUTION ROCHELLE SALT	D002 D007 D009 D011	PK,MSDS
2006	CURING COMPOUND	D001	MSDS
2014	EPOXY-PRIME COAT LDC-1000	D001 D035	MSDS
2016	PAINT BITUMASTIC 300 M A & B COLD TAR COATING	D001 D018 D026	MSDS
2021	BARIUM CARBONATE	D005	MSDS
2024	PAINT	D005	MSDS
2036	SAVIN PRODUCT CODE 4537 T-D PAK 4522 SAVIN 765 DISPERSANT	D001	MSDS
2037	SAVIN PRODUCT CODE 4536	D001	MSDS
2048	SOLIDIFIED LAB WASTE	F001 F002 F005	PK
2053	SILVER THIOSULFATE	D011	MSDS,PK
2063	TEXO CORP. TEXOL-7	D001	MSDS
2064	DIVERSEY SUPER MUL SOLVENT CLEANER	D001	MSDS
2066	VESTAL DOUBLE BARREL CLEANER	D002	MSDS
2067	STATE ACIDINE ACID SCALE AND RUST REMOVER	D002	PK,MSDS
2068	STATE NO. 810 ALUMINUM BRIGHTENER	D002	MSDS
2069	SKC OXIDIZER TUBES	D007	PK,MSDS
2090	VARIOUS AA LAMPS	D005 D006 D008	PK,4
2120	LITHIUM BATTERIES	D003	PK,MSDS
2210	HYDROGEN PEROXIDE SOLUTION	D001	PK,MSDS
2211	USED MERCURY FROM MISC. EQUIPMENT	D009	PK,MSDS
2224	FLOOR COATING BASE	D001	PK,MSDS
2235	LAB GENERATED WASTE ORGANIC LIQUID WASTE	D010 F002	PK,1,3,7,8
2257	TCLP EXTRACTS LAB GENERATED WASTE	D002	PK,3,7,8
2259	TCLP LEACHATE	D009 F001 F002	PK,5
2362	RADIOACTIVE ACIDIC LAB WASTE FROM THE ANALYSIS OF SAMPLES	D002 D007 D008 D018 D035 D039 D040	PK,1,3,7,8,9,11
2363	RADIOACTIVE CAUSTIC LAB WASTE FROM THE ANALYSIS OF SAMPLES	D001 D002 D006 D008 D009 D018 D035 D038 D039 D040	PK,1,3,7,8,9,11
2364	RADIOACTIVE NEUTRAL LAB WASTE FROM THE ANALYSAS OF SAMPLES	D001 D006 D007 D008 D018 D035 D039 D040	PK,1,3,7,8,9,11
2395	CONTACT WASTE FROM CTC LAB	D007 D008 D009 D039 F001 F002 F005	PK
2401	CONTACT WASTE FROM PACD SAMPLING	F001 F002 F003 F005	PK
2402	WATER USED TO CLEAN SAMPLING EQUIPMENT	F001 F002 F005	PK
2403	DIRT, ROCKS, AND WOOD WITH LIQUID; UNKNOWN SOURCE	D001	PK,1,3,4,5,7,8,9
2418	BROKEN GLASS AND OLD FLOURESCENT LIGHT BULBS	D009	PK,MSDS,5
2425	CTC CORROSIVE WASTE	D002 F001 F002 F005	PK
2443	TRASH AND DEBRIS FROM UNKNOWN SOURCE	D008	PK,1,4,5,9
2465	CONTAMINATED WATER/SUMP LIQUOR FROM UNKNOWN SOURCE	D001 D007 D008 D010	PK,1,3,7,8,9
2489	LAB PACK	PLCS	PK
2498	SUMP LIQUOR	D008 D012 D039 F002 F003	MSDS,PK,1,3,7,8,9,12
2499	CONCRETE ABANDONED PILOT PLANT SUMP	F002 F003	PK,1,4,9,13
2500	METAL TANK ABANDONED PILOT PLANT SUMP	F002 F003	PK
2501	SOILS ABANDONED PILOT PLANT SUMP	F002 F003	1,3,4,12
2507	PILOT PLANT SUMP (HWMU) BOTTOMS/SEDIMENT	D007 D008 D009 D039 F002 F003	MSDS,PK,1,4,9
2524	ALKALINE CONTAMINATED SUMP WATER FROM DECON. PAD	D002	PK,1,3,4,7,8
2527	PAPER, PLASTIC, PPE (TYVEK, SARANEX) ABSORBENT PADS	F002 F003	PK
2530	MAGNAFLUX CLEANER	F002	MSDS,PK
2547	GASOLINE/DIESEL FUEL FILTERS	D018	PK,MSDS
2578	LAB PACKS	PLCS	PK
2581	CONTAMINATED PALLETS	D039	MSDS,PK
2599	LAB PACKS, NON-RAD CONTAMINATED	PLC	PK,MSDS

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WASTE IC #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
10002	SCRAP SALTS	D005 D008	1,4,9
10003	OILY OXIDATION SLUDGES WITH HIGH FREE METAL	D001 D039 F001	1,4,7,8,9
10004	CONTAMINATED SOLVENT – TRICHLOR, PERCHLOR	D007 D018 D019 D021 D029 D039 D040 F001	PK,1,4,7,8,9
10005	CONTAMINATED SOIL, ROCKS, BRICKS AND CERAMICS	D008	1,4,9
10006	CONTAMINATED OIL – INSOLUBLE	D008 D009 D039 F002 F003 F005	PK,1,2,4,7,8,9
10007	OILY SLUDGES	D007 F001	1,4,7,8,9
10009	SLUDGES – SOLVENT (TRICHLOR, PERCHLOR, ETC.)	D001 D008 D035 F005	1,4,7,8,9
10010	SLUDGES, OILY	D029 D039 D040 F001	PK,1,4,7,8,9
10011	CONTAMINATED BURNABLES	D005	PK,1,4,9
10012	CONTAMINATED BURNABLES	D029 D039 D040 F001	PK,1,4,9
10013	SUMP CAKE	D005 D007	1,4,9
10014	U-CONTAMINATED WATER	D039	1,4,9
10015	U-CONTAMINATED WATER FROM PILOT PLANT EXTRACTION AREA	D039	1,4,7,8,9
10016	OILY SLUDGE	D010 D035 F001	PK,1,4,7,8,9
10021	SLUDGES, OILY	D008 D039 D040 F001	PK,1,4,7,8,9
10022	GRIT BLAST	D008	3,4,9
10023	NON-RECOVERABLE TRASH	D008 F001	PK,1,3,10
10024	TRASH CONT. TO SOLVENT	D018 F001	PK,1,4,5,9
10025	CONTAMINATED SOIL AND ROCKS	D005	PK
10026	1,1,1-TRICHLOROETHANE STILL BOTTOMS	D001 F001	PK,2,4,7,8,9
10027	CONTAMINATED OIL, INSOLUBLE	D039 D040 F001	MSDS,PK,1,4,7,8,9
10028	SLUDGES, OILY	D008 F001	PK,2,4
10029	CONTAMINATED INSOLUBLE OIL	D006 D007 D008 D019 D029 D040 F001	PK,1,4,7,8,9
10030	CONTAMINATED SOLVENTS (METHANOL)	D001 F003	PK
10031	FLOOR SUMP CLEANOUT SLUDGE	D029 D039 F001	PK,1,4,7,8,9
10032	CONTAMINATED OIL, INSOLUBLE	F001	PK,2,4
10034	BENZENE (LABPACKED)	D001 D018 U019	PK
10035	CARBON TETRACHLORIDE (LABPACKED)	D019 U211	PK
10036	ETHYL ETHER (LABPACKED)	D001 U117	PK
20003	DEGREASING SOLVENT	D001 D019 D022 D028 D029 D035 D039 D040 F001 F003 F005	PK,1,2,9,11
20006	OIL CONTAMINATED WET SUMP OR FILTER CAKE	F002	1,4,7,8,9
20007	OIL CONTAMINATED WET SUMP OR FILTER CAKE	D011	1,4,7,8,9
20015	SCRAP SALTS AND FLOOR SWEEPINGS – LOW FLUORIDE	D007	PK,1,4,5,9
20021	CONTAMINATED INSOLUBLE OIL	D019 D029 D039 D040 F001	PK,1,2,4,7,8,9
20024	SCRAP SALTS AND FLOOR SWEEPINGS – HIGH FLUORIDE	D007 D008	1,4,9
20027	DUST COLLECTOR RESIDUES – HIGH FLUORIDE	D004 D011	2,4,9,11
20028	CONTAMINATED OIL – INSOLUBLE	D039 D040 F001	1,2,4,7,8,9
20031	CONTAMINATED OIL, INSOLUBLE GEAR OIL, LUBRICATING OIL	D008 D018 D019 D028 D029 D039 D040 F002	1,2,4,7,8,9
20033	DRY DUST COLLECTOR POWDER	D008	1,4,9,11
20035	DUST COLLECTOR RESIDUES – HIGH FLUORIDE	D007	4,9
20036	SCRAP SALTS AND FLOOR SWEEPINGS – LOW FLUORIDE	F001	PK,2,4,9,11
20037	PROCESS RESIDUES, TRAILER CAKES, SLURRIES, RAFFINATES	D029	2,4,9,11
20038	CONTAMINATED OIL – INSOLUBLE	D006 D008 D018 D019 D028 D029 D039 D040 F002 F005	PK,1,2,4,7,8,9,11
20045	CONTAMINATED TBP AND/OR KEROSENE MIXTURES AND SLUDGES	D019 D022 D039 F002	PK,1,2,4,7,8,9,11
20046	NON-METALLIC MISCELLANEOUS SAMPLES	D007	3,9
20047	SCRAP SALTS AND FLOOR SWEEPINGS – LOW FLUORIDE	D004 D008	2,4,9,11
20048	PROCESS RESIDUES, TRAILER CAKES, SLURRIES, RAFFINATES	F005	PK,1,4,9
20054	CONTAMINATED SOLVENT – TRICHLOR, PERCHLOR	D019 D022 D028 D029 D039 F001 F005	PK,1,2,4,7,8,9
20055	CONTAMINATED OIL – INSOLUBLE	D029 D039 F002	PK,1,2,4,7,8,9,11
20056	DUST COLLECTOR RESIDUES – HIGH FLUORIDE	D006 D008	1,4,9
20092	CONTAMINATED BURNABLES	F001 F005	PK,1,4,9
20094	CONTAMINATED BURNABLES, RAGS, FILTER, CLOTH	D008 D011 F001	PK,1,4,7,8,9
20095	RAGS CONTAMINATED, TETRACHLOROETHYLENE SILVER	D011 D039	PK,1,4,9
20107	GRIT-BLAST RESIDUE FROM LEAD PAINT REMOVAL ON EAST TOWER	D008	PK,1,4,5,9
20109	DUST COLLECTOR BAGS	D004 D006 D008	1,4,9
20114	CONTAMINATED BURNABLES	F001	PK,1,4,7,8,9
20120	DUST COLLECTOR BAGS	D007	4,9
20139	SAMPLES, NON-METALLIC	D005	1,4,7,8,9
20142	CONTAMINATED TBP-KEROSENE	D001 D019 D022 D039 F002 F003	PK,1,2,4,7,8,9,11

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WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
20143	NON-RECOVERABLE TRASH	D011	1,4,5,7,8,9
20145	DECANTED WATER FROM SUMP/FILTER CAKES	D002 D007	PK,1,3,4,7,8,9
30004	INCINERATOR CINDERS	F001	1,4,9
30005	OILY SLUDGES	D001 D019 D039 D040 F001 F003 F005	PK,1,4,7,8,9
30009	SCRAP SALTS AND FLOOR SWEEPINGS – HIGH FLUORIDE	D008	4,9
30010	WET SUMP OR FILTER CAKE – OIL CONTAMINATED	D039 D040 F002	PK,1,7,8,9
30018	WET SUMP OR FILTER CAKE – NON-OILY, NON-HALIDE	D039 F002	PK,1,4,7,9
30026	NON-OILY CLEANOUT SLUDGES FOR ROASTING	D039 F002	PK,1,4,7,8,9
30027	CONTAMINATED SOIL, ROCKS, BRICKS AND CERAMICS	D004 D005 D007 D008 D010 D011	1,2,4,5,7,8,9
30033	CONTAMINATED SOLVENT – TRICHLOR, PERCHLOR	D001 D039 F003 F005	PK,1,4,5,7,8,9
30034	OIL CONTAMINATED WITH SOLVENTS (TANK 5)	D018 F001	PK,2,4,7,8,9
30036	DUST COLLECTOR RESIDUES – HIGH FLUORIDE	D006 D008	1,4,9
30037	PROCESS RESIDUES, TRAILER CAKES, SLURRIES, RAFFINATES	D039 F002	PK,1,4,9
30039	CONTAMINATED ROCKS, SOIL, ETC., WITH NO FREE LIQUIDS	D011	1,2,4,7,8,9
30042	WET SUMP OR FILTER CAKE – NON-OILY, NON-HALIDE	D039 F002	PK,1,4,9
30045	OILY SLUDGES, HIGH FREE METAL	D001	1,4,7,8,9
30046	NON-OILY CLEANOUT SLUDGES FOR ROASTING	D019 F001	1,4,7,8,9
30047	SOLVENT SLUDGE, TRICHLOR, PERCHLOR, ETC...	D007 D011	1,4,9
30051	MAGNESIUM FLUORIDE SAMPLES	D001 D003	PK,5
30053	PROCESS RESIDUES, TRAILER CAKES, SLURRIES, RAFFINATES	D006 D007 D008 D018 D040 F002 F005	PK,1,4,9
30060	WET SUMP OR FILTER CAKE – NON-OILY, NON-HALIDE	D005	1,4,9
30065	CONTAMINATED NON-BURNABLES	D008	4,9
30074	CONTAMINATED NON-BURNABLES	F002	PK,1,4,5,9
30075	CONTAMINATED NON-BURNABLES	F002	PK,1,4,5,9
30080	CONTAMINATED SOIL, ROCKS, DEBRIS, W/ FREE LIQUIDS	D002 D004 D007 D008 D011	1,2,4,7,8,9
30081	DISCARD PROCESS RESIDUES, TRAILER CAKES, SLURRIES,RAFFINATES	D002	1,4,7,8,9
30174	CONTAMINATED NON-BURNABLES	D004 D008 D011 F005	PK,1,4,5,6,9
40122	THORIUM TRAILER CAKES; WASTE SLURRIES	D002 D005 D009	1,3,8
40137	UNFIRED REDUCTION CHARGES PLUS CaF2	D001	PK,MSDS
40152	SCRAP THO2 – HIGH F	D005	4,5
40181	THORIUM NITRATE SOLUTION	D002 D007 D008	PK
40182	THORIUM NITRATE SOLUTION	D002 D007 D008	PK
40185	IMPURE THORIUM NITRATE (SOLID)	D001 D007 D008	PK
40186	IMPURE THORIUM NITRATE (SOLID)	D001 D007 D008	PK
40187	IMPURE THORIUM NITRATE (SOLID)	D001 D007 D008	PK
40188	IMPURE THORIUM NITRATE (SOLID)	D001 D007 D008	PK
40189	IMPURE THORIUM NITRATE (SOLID)	D001 D007 D008	PK
40192	THO2 POWDER REFINERY FEED	D008	7
50002	NON-RECOVERABLE TRASH	D001 F003 F005	PK,1,4,7,8,9
50008	SUMP CAKE – COPPER CONTAMINATED	D001	1,4,7,8,9
50010	NON-RECOVERABLE TRASH	F002 F005	PK,1,4,5,7,8,9
50014	NON-RECOVERABLE TRASH	D019 F002	PK,1,4,5,7,8,9
50022	CONTAMINATED WATER	D001 F003	PK,1,4,7,8,9
50025	CONTAMINATED GRAPHITE	F001 F002	PK,9
50031	CONTAMINATED METALLIC FILTER ELEMENTS AND OIL	D008 D010	1,4,5,8,9
50036	CONTAMINATED BURNABLE	D007 F002	PK,1,4,9
50058	DUST COLLECTOR BAGS	D007	PK,1,4,9
50063	ROASTED MG F2/OTHER MATERIAL	D004 D008	4,9
50068	NON-OILY SLUDGE FOR ROASTING	D001	1,4,7,8,9
50070	NON-OILY SLUDGE FOR ROASTING	D008 F001 F002	PK,1,4,7,8,9
50071	SOLVENT SLUDGE	D001 D007	1,4,8,9
50072	CONTAMINATED SUMP WATER AND HYDRAULIC OIL	D001 D008 D019 D039 D040 F002 F003 F005	PK,1,4,7,8,9
50079	INCINERATOR CINDERS	F002	5
50085	WET CAKE, NON-OILY/HALIDE	D001 F002 F003 F005	PK,1,4,7,8,9
50089	CONTAMINATED MAGNESIUM	D001 D003	PK,9
50090	CONTAMINATED MAGNESIUM	D001 D003	PK,9
50091	DUST COLLECTOR RESIDUES –	D004 D008	4,9
50095	CONTAMINATED INSOLUBLE OIL	D007	1,4,7,8,9
50096	CONTAMINATED SOLVENTS FROM WATER TREATMENT	D001 D007 F003	PK,1,4,7,8,9

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WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
50102	PROCESS RESIDUES, TRAILER CAKES, SLURRIES, RAFFINATES	D006 D008	1,4,9
50113	ROASTED CALCIUM-PRECIPITATED SUMP AND FILTER CAKES	F001	PK,1,4,9
50129	SCRAP U3O8 – LOW F	F001	PK,4,9
50131	SCRAP U3O8 – LOW F	F002	PK,9
50139	U3O8, +8MESH, LOW F	D039	1,4,5,9
50148	SCRAP U3O8 HIGH F	D004	1,4,6,7,8,9
50152	SCRAP U3O8 OR THO2, HIGH FLUORIDE	F002	PK,9
50154	ROASTED CALCIUM-PRECIPITATED SUMP OR FILTER CAKES	F001	PK,1,4,9
50165	ROASTED OFF-SITE SUMP CAKE	D007	4,9
50169	NON-OILY SLUDGE FOR ROASTING	D007	1,4,9
50170	SALT SLUDGE FOR PLANT 8	D004 D019 D039 F002	PK,1,4,9
50173	SALT SLUDGE, CHLORIDE	D007	1,4,7,8,9
50174	SALT SLUDGE, CHLORIDE	D007	PK,MSDS,4,6,7,8,9
50175	SALT SLUDGE,CHLORIDE	F002	PK,1,4,7,8,9
50177	FURNACE SALT,NON CHLORIDE	D001 D004 D008	4,7,8,9
50178	FURNACE SALT,NON-CHLORIDE	D001	4,7,8,9
50180	FURNACE SALT,NON-CHLORIDE	D007 D008 D010	1,4,9
50183	SCRAP SALTS,LOW F	F001	PK,1,4,9
50185	SCRAP SALT,HIGH F	D009	4,5,9
50188	SCRAP SALTS,HIGH F	D004 D007 D008 D010	1,4,9
50197	SLUDGES FOR BLENDING	D007	1,2,6,7,8,9
50200	OILY SLUDGE FOR OXIDATION	D001 F001	1,4,7,8,9
50202	OILY SLUDGE FOR OXIDATION	D001 D010	1,4,7,8,9
50203	OILY SLUDGE FOR OXIDATION	D008	1,4,9
50204	OILY SLUDGE FOR OXIDATION	D001 D010	1,4,7,8,9
50293	U3O8 FOR REOXIDATION	D004	4,9
50314	SCRAP SALTS AND FLOOR SWEEPINGS – HIGH FLUORIDE	D010	1,4,9
50323	SOLIDIFIED FURNACE SALTS – NON-CHLORIDE	D004	4,7,8,9
50339	SLUDGES, OILY, FOR OXIDATION, HIGH FREE METAL	F002	PK,1,4,7,8,9
50346	OILY SLUDGE FOR OXIDATION	D001	1,4,7,8,9
50347	DISCARD PROCESS RESIDUE	D001	1,4,7,8,9
50349	DUST COLLECTOR RESIDUES – HIGH FLORIDE	D008	PK,1,4,9
50351	DUST COLLECTOR RESIDUES-HIGH FLOURIDE	D004 D008	4,7,8,9
50355	DISCARD PROCESS RESIDUE	D001	1,4,7,8,9
50358	CONTAMINATED NON-BURNABLE	D001	1,4,7,8,9
50359	NON-RECOVERABLE TRASH	F002	PK,1,4,6,9
50361	NON-RECOVERABLE TRASH	D009	5
50364	U3O8, +8MESH, LOWF	D007 F001 F002	PK,4,5,9
50367	NON-RECOVERABLE TRASH	D008	PK,9
50387	SALT SLUDGE, CHLORIDE	D005	PK,4,9
50405	NON-RECOVERABLE TRASH	D006 D007	4,5,7,8,9
50406	FURNACE SALT, CHLORIDE	D004 D011	4,5,9
50407	NON-RECOVERABLE TRASH	D001	1,3,5,6,8,9
50408	FURNACE SALT NON-CHLORIDE	D008 D010	4,7,8,9
60017	OILY RAGS AND CLOTHING	D039	PK,2,3,4,9
60055	LEADED GASOLINE FROM TANK # 12	D001 D008 D018	PK,MSDS,1,3,8,9
60056	USED CHLORINATED SOLVENT MIXTURE	D001 D007 D008 D009 D039 F002	PK,MSDS,1,3,7,8,9
60059	USED 1,1,1 TRICHLOROETHANE MIXTURE	D001 D008 F002	PK,MSDS,1,3,8,9
60062	CONTAMINATED INSOLUBLE OIL	D001 D008 D009 F002	PK,1,3,7,8,9
60067	USED OIL WITH 1,1,1 TRICHLOROETHANE	D008 F002	PK,1,4,7,8,9
60068	CONTAMINATED INSOLUBLE OIL	D008 F001	1,4,7,8,9
60069	CONTAMINATED INSOLUBLE OIL	D008 F001	1,4,7,8,9
60072	SOLVENT CONTAMINATED WASTE OIL	D008 F002	PK,1,4,7,8,9
60083	CONTAMINATED INSOLUBLE OIL	D001 D008 D019 F002	1,4,7,8,9
60085	CONTAMINATED INSOLUBLE OIL	D001 D005 D006 D007 D008 D010 F002	1,3,4,7,8,9
60087	USED OIL CONTAMINATED WITH SOLVENTS	D001 D008 D039 F002	PK,1,3,8,9
60099	RAGS, SCREEN, PLASTIC AND PAPER	D008	PK,1,2,3,4,6,9
60100	CONTAMINATED BURNABLE TRASH	D039 U210	PK,MSDS,5
60105	CONTAMINATED BURNABLE TRASH	D006 D007	PK,4,6,9

NOTE: SEE FINAL PAGE FOR KEY TO DETERMINATION BASIS CODES

TABLE C – 4

5774

REVISED: 01-Jul-94

RCRA REGULATED HAZARDOUS WASTE STREAMS

WASTE ID #	WASTE NAME	U.S. EPA HAZARDOUS WASTE #	DETERMINATION BASIS
60119	SLUDGES, OILY, FOR OXIDATION HIGH FREE METAL	D001 F001 F002	PK,1,2,4,5,6,7,8,9
60123	SOLVENT SEMISOLID	D039 F002	PK,1,2,4,5,6,7,8,9
60140	STEEL SHOT	D010	PK,MSDS,1,4,9
60149	U3O8 FROM BOX FURNACE	F001-F002	PK,1,4,9
60152	U3O8 ROTEXED PLANT 8 FURNACE PRODUCT	F001	PK,1,4,9
60160	IMPURE UNH	D001	PK,MSDS
60193	PURE UNH SOLUTION	D001 D002	PK,MSDS
60307	FURNACE SALT, SOLIDIFIED, CHLORIDE (PLANT 8 RECOVERY)	D005 D008	PK
60331	WATER\GAS MIXTURE TANK #9	D001 D018	1,4,7,8,9
60450	CRUCIBLE COATING POWERS	D007	PK,MSDS

Key to "Determination Basis" Codes :

PK Process Knowledge
MSDS Material Safety Data Sheet

ANALYSES:

1 Total Volatile Organic
2 TCLP Volatile Organic
3 Total (TC) Metals
4 TCLP Metals
5 Visual Inspection of Waste
6 Paint Filter Liquids Test (PFLT)
7 pH
8 Flash Point
9 U-Total, % U235
10 PCBs
11 Total Semivolatile Organic
12 Total Pesticides
13 Total Thorium

NOTE: SEE FINAL PAGE FOR KEY TO DETERMINATION BASIS CODES

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

BORING LOGS

During the period of April 1, 1994 through June 30, 1994 there were 48 - 4 inch diameter borings at a total depth of no more than 12 feet. These borings were done for the Uranium Soils Integrated Demonstration in connection with the Infiltration Study for the Sandia National Laboratory. (Copies of the boring logs are attached.)

FEMP LITHOLOGIC LOG

Page 1 of 2

CONTROL NUMBER:	
PROJECT NAME: USDOE Infiltration Study	PROJECT NUMBER: [illegible]
BORING NUMBER: 11300	COORDINATES:
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE STARTED: 5/3/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE COMPLETED: 5/3/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA; DRILLING EQUIPMENT: Hand Auger; DRILLER/HELPER: NA

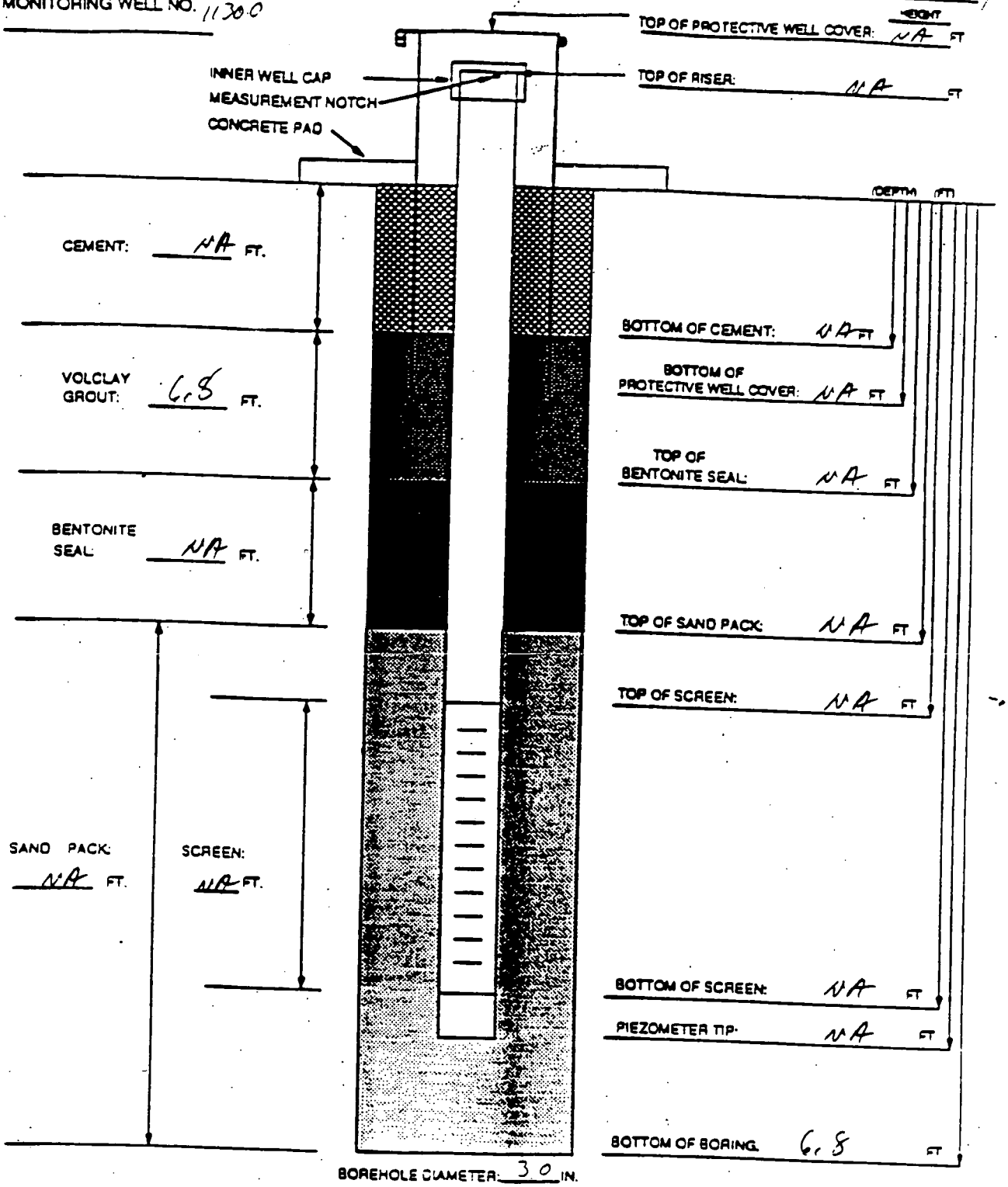
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) silt Clay w/ roots, Low plasticity very slightly Damp.	CL	NA	PID=0 3μ=NAB [illegible] NA
1	NA	NA	12	Light Olive Brown (2.5Y, 5/6) silt clay Low to med. Plasticity, Slightly Damp.	CL	NA	PID=0 3μ=NAB [illegible] NA
2	NA	NA	12	SAA	CL	NA	PID=0 3μ=NAB [illegible] NA
3	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silt Clay with Iron, Low to Med. Plasticity, moist	CL	NA	PID=0 3μ=NAB [illegible] NA
4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) silty Sandy Clay, Low to med. Plasticity, wet	CL	NA	PID=0 3μ=NAB [illegible] NA
5	NA	NA	12	SAA	CL	NA	PID=0 3μ=NAB [illegible] NA
6	NA	NA	9.5 H 50 5/2/94	Light Olive Brown (2.5Y, 5/6) Silty sandy clay with Gravel Low to med. Plasticity Very Moist Bottom of Boring at 6.8 Ft	CL	NA	PID=0 3μ=NAB [illegible] NA
7							

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1130.0

INSTALLATION DATE: 5/3/94



BOREHOLE DIAMETER: 30 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USTU Investigation Study

PROJECT NUMBER: [illegible]

BORING NUMBER: 11301

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inches)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay w/ Roots, Low Plasticity, Very Slightly Damp	CL	NA	PID=0 Bp=NAB; Corrected Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y, 5/5) Silt Clay, Low to Med. Plasticity, slightly Damp.	CL	NA	PID=0 Bp=NAB; Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 Bp=NAB; Corrected Depth NA
3–4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay w/ Iron, Low to med. Plasticity Moist.	CL	NA	PID=0 Bp=NAB; Corrected Depth NA
4–5	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Sandy Clay, Low to med. Plasticity, Wet	CL	NA	PID=0 Bp=NAB; Corrected Depth NA
5–6	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Clayey Sand, Wet ~~SAA~~ 6/1/94	SC ~~CL~~ TC 6/1/94	NA	PID=0 Bp=NAB; Corrected Depth NA
6–7	NA	NA	12	SAA	SC	NA	PID=0 Bp=NAB; Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USTD Investigation Study

PROJECT NUMBER: [illegible]

BORING NUMBER: 11301

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/04

GEOLOGIST: Clegg Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/04

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

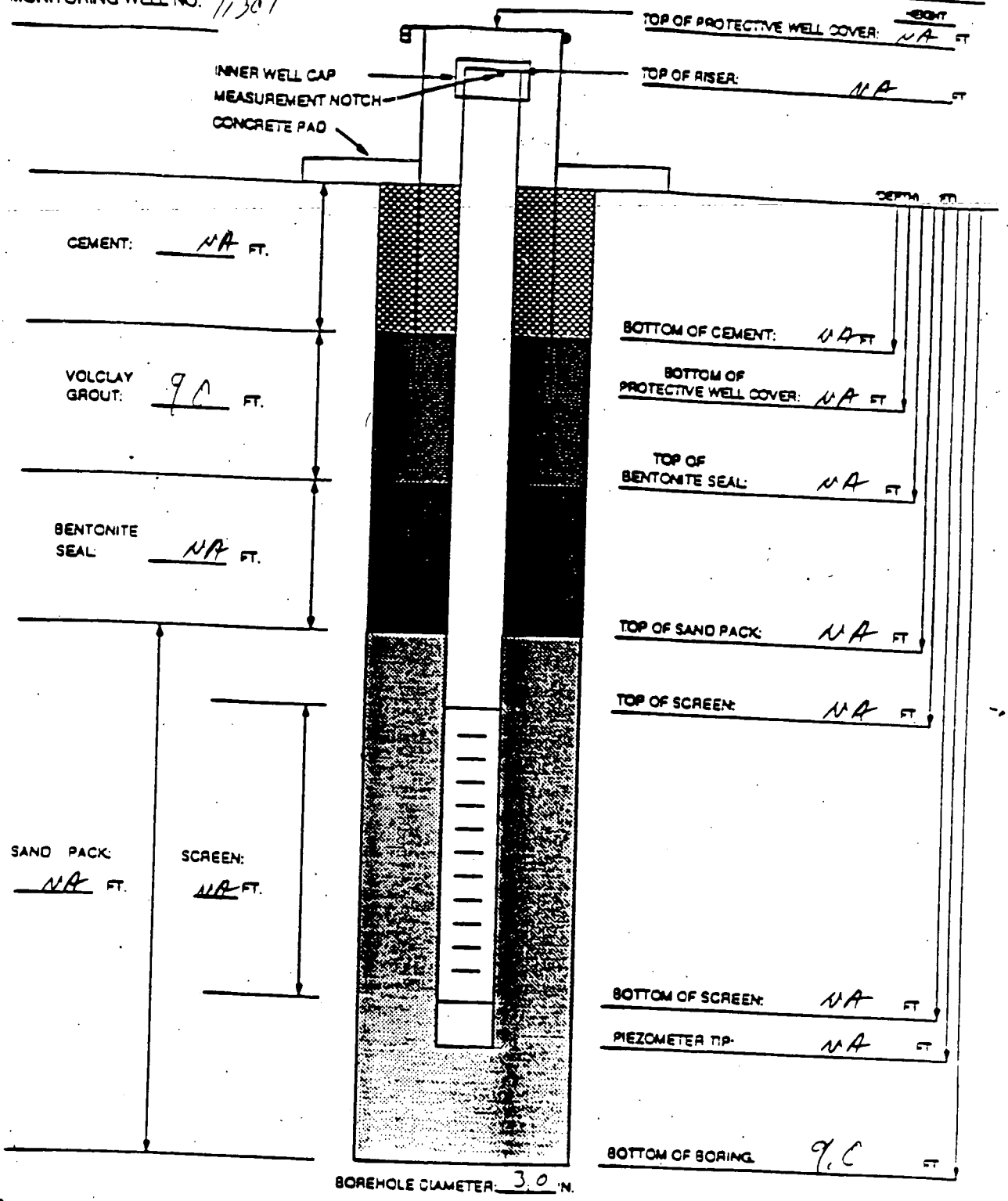
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Clayey Sand with Gravel WET	SC	NA	PID=0 3p=NA3 Depth NA
8	NA	NA	12	SAA	SC	NA	PID=0 3p=NA3 Depth NA
9				Bottom of Boring at 9.0 ft			
	NA	NA				NA	PID=0 3p=NA3 Depth
	NA	NA				NA	PID=0 3p=NA3 Depth
	NA	NA				NA	PID=0 3p=NA3 Depth
	NA	NA				NA	PID=0 3p=NA3 Depth
	NA	NA				NA	PID=0 3p=NA3 Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not About Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1130 1

INSTALLATION DATE: 5/31/90



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M:RT(TA):94-0002

BORING NUMBER: 1130 2

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR,5/4) Silty Clay w/ Roots, Low Plasticity, Very Slightly Damp	OL	NA	PID=0 By=NAB Connected Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y,5/4) Silty Clay, Low to Med Plasticity, Damp	CL	NA	PID=0 By=NAB Connected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
3–4	NA	NA	12	Light Olive Brown (2.5Y,5/4) Silty Clay with Iron, Low to Med. Plasticity, Damp	CL	NA	PID=0 By=NAB Connected Depth NA
4–5	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
5–6	NA	NA	12	Light Olive Brown (2.5Y,5/6) Silty Sandy Clay, Low to Med. Plasticity, Wet	CL	NA	PID=0 By=NAB Connected Depth NA
6–7	NA	NA	12	Light Olive Brown (2.5Y,5/6) Clayey Sand, Wet	SC	NA	PID=0 By=NAB Connected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of 2

PROJECT NAME: USID Infiltration Study			PROJECT NUMBER: MRT(TA)-94-0002
BORING NUMBER: 11302	COORDINATES:	RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 5/31/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 5/31/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA	

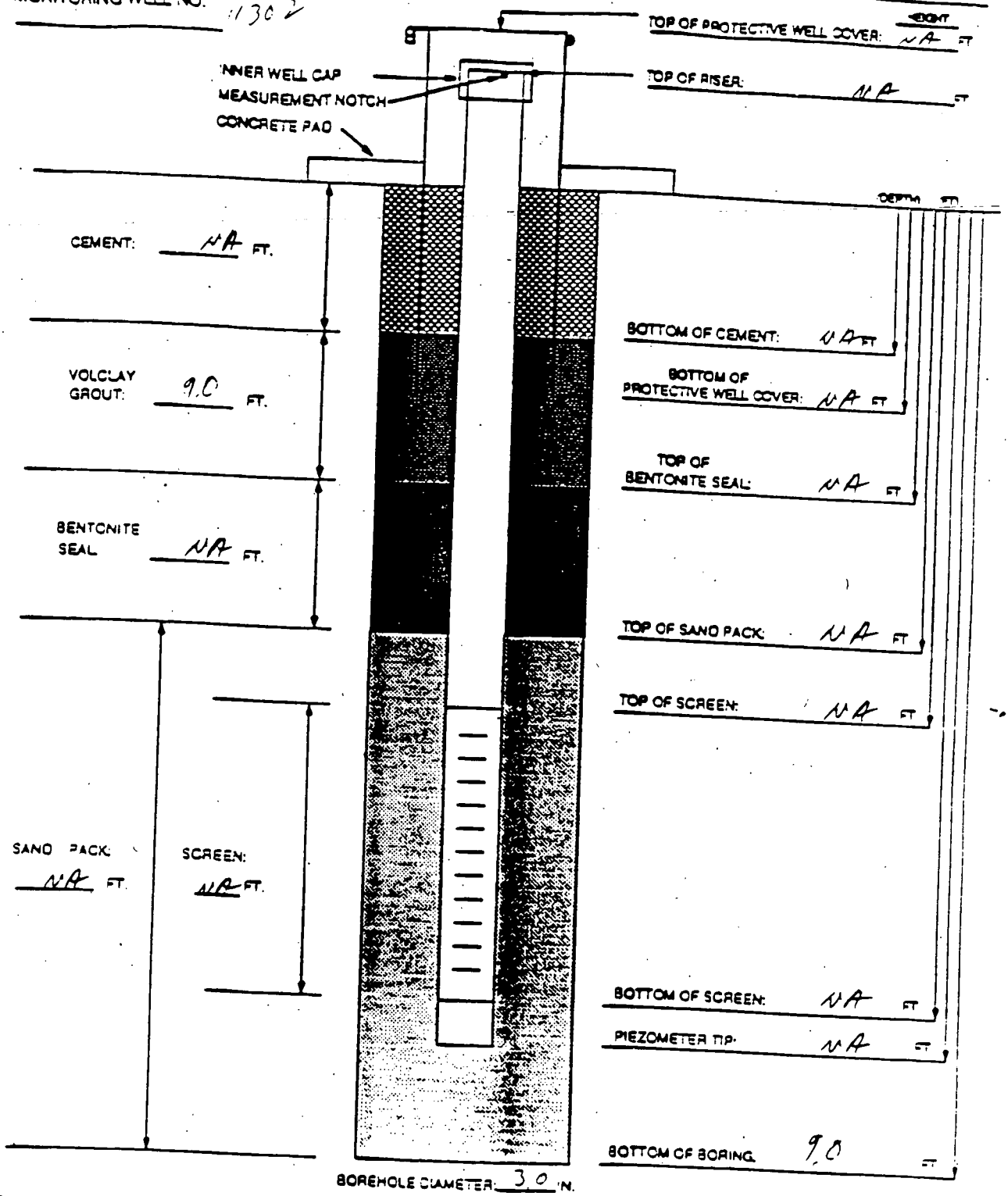
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	SAA	SC	NA	PID=0 By=NAB Corrected Depth NA
8	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Clayey Sand with Gravel, wet	SC	NA	PID=0 By=NAB Corrected Depth NA
9	NA	NA		Bottom of Boring 9.0 ft		NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0	000024	
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1302

INSTALLATION DATE: 5/21/94



	HEIGHT	DEPTH FT.
TOP OF PROTECTIVE WELL COVER:	NA FT	
TOP OF RISER:	NA FT	
BOTTOM OF CEMENT:	NA FT	
BOTTOM OF PROTECTIVE WELL COVER:	NA FT	
TOP OF BENTONITE SEAL:	NA FT	
TOP OF SAND PACK:	NA FT	
TOP OF SCREEN:	NA FT	
BOTTOM OF SCREEN:	NA FT	
PIEZOMETER TIP:	NA FT	
BOTTOM OF BORING:	9.0 FT	

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP LITHOLOGIC LOG

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: MIRT(TP)194-0042

BORING NUMBER: 11303

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) Silt Clay w/ Roots, Low plasticity ~~Damp~~ Very Slightly Damp KG 7/12/94	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1	NA	NA	12	Light Olive Brown, (2.5Y, 5/6) Silt Clay, Low to Med. Plasticity, Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silt Clay w/ Iron, Low to Med Plasticity Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
5	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clayey Sand, Poorly Sorted, ~~Dry~~ Wet KG 7/12/94	SC	NA	PID=0 Bz=NAB Corrected Depth NA
6				Bottom of Boring 6.0 ft			
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

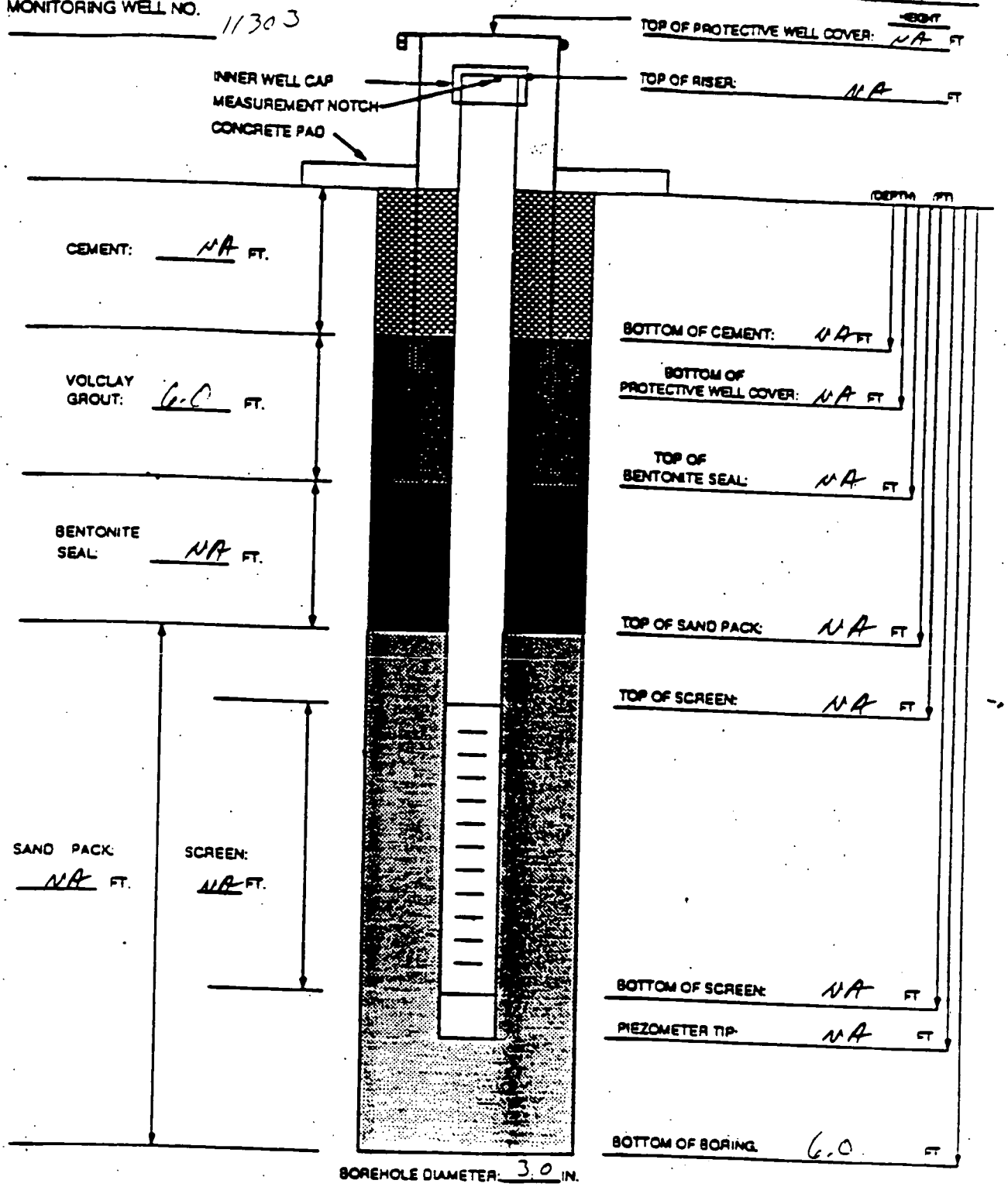
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

19 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11303

INSTALLATION DATE: 6/1/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER Cliff Lee

5774

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11304

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay with Roots, Low Plasticity, very slightly Damp	CL	NA	PID=0 B>=NAB Corrected Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay, Low to med. Plasticity, Damp	CL	NA	PID=0 B>=NAB Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Corrected Depth NA
3–4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay with Fe at Base, Low to Med. Plasticity	CL	NA	PID=0 B>=NAB Corrected Depth NA
4–5	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay with Gravel, moist	GC	NA	PID=0 B>=NAB Corrected Depth NA
5–6	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Clayey Sand with Iron, wet	SC	NA	PID=0 B>=NAB Corrected Depth NA
6–7	NA	NA	12	SAA	SC	NA	PID=0 B>=NAB Corrected Depth NA

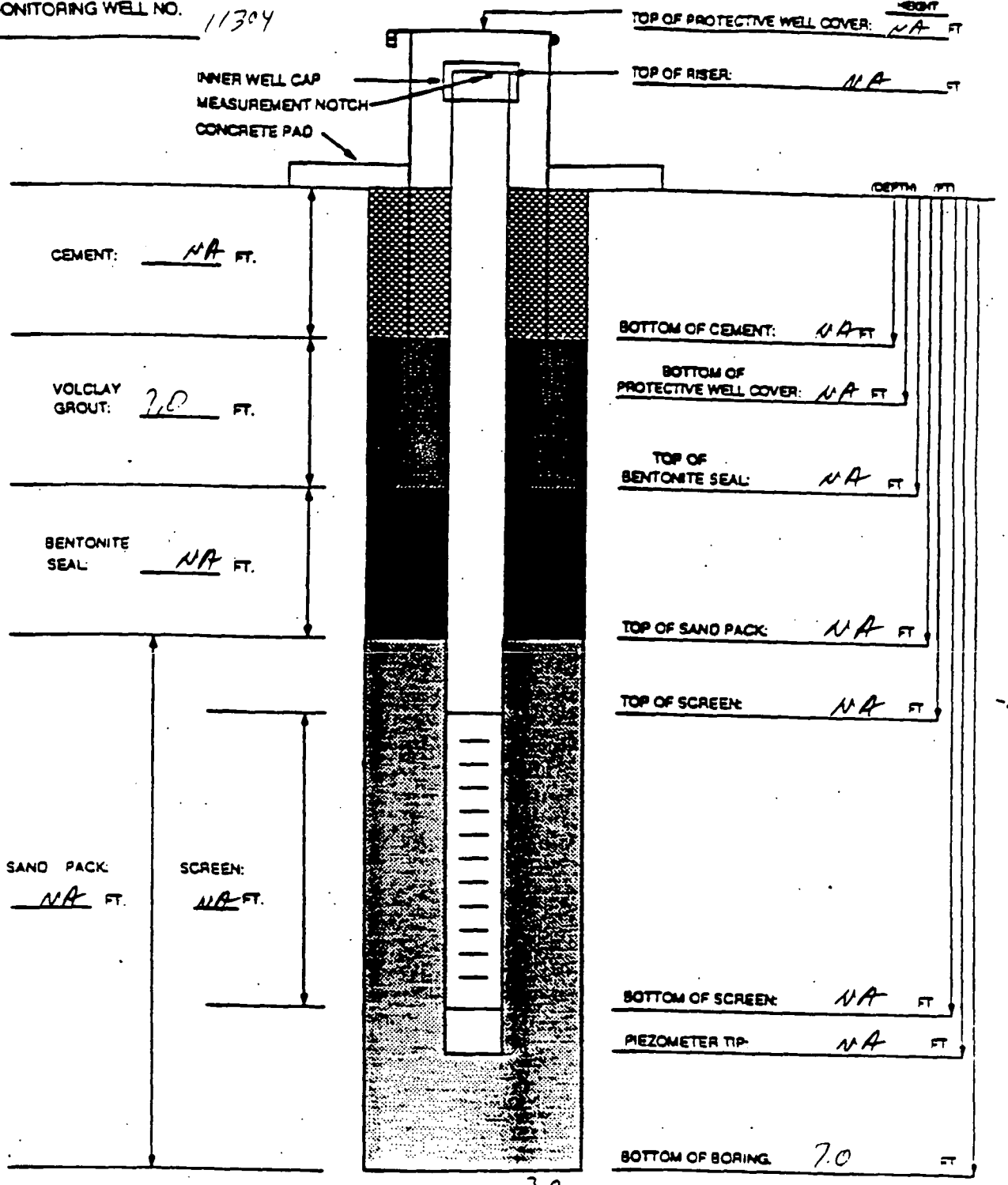
Bottom of Boring 7.0 ft

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1130Y

INSTALLATION DATE: 5/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

5774

CONTROL NUMBER:

FEMP LITHOLOGIC LOG

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PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TP):44-0042

BORING NUMBER: 11305

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay with Roots, Low Plasticity very slightly Damp	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay, Low To med ~~Plasticity~~ Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3–4	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4–5	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Clay, Low To Med Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
5–6	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Sand w/ Pebbles very Damp	Sm	NA	PID=0 Bz=NAB Corrected Depth NA
6–7	NA	NA	12	Light Olive Brown (2.5Y, 5/6) fine Grained, Poorly Sorted Sand, slightly moist	SP	NA	PID=0 Bz=NAB Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000030

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11305

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: C. LL LEE

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
7	NA	NA	12	SAA	SP	NA	PID=0 By=NAB Corrected Depth NA
8				Bottom of Boring at 8.0 ft			
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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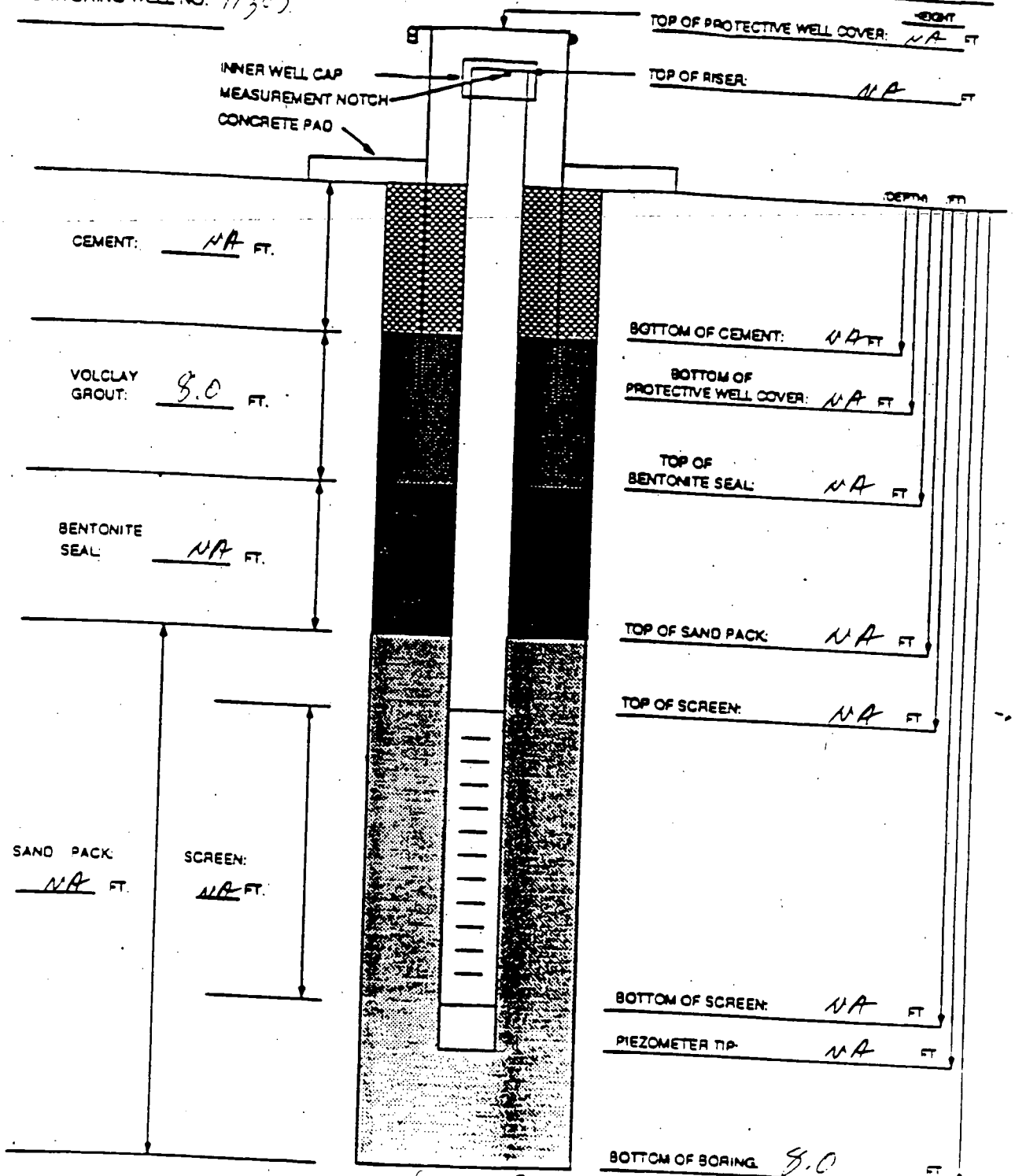
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11305

INSTALLATION DATE: 6/11/94



MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0042

BORING NUMBER: 11306

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) Silt Clay w/ Roots, Low Plasticity, slightly Damp	CL	NA	PID=0 B>=NAB Connected Depth NA
1	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silt Clay, Low to med Plasticity, Damp	CL	NA	PID=0 B>=NAB Connected Depth NA
2	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Connected Depth NA
3	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Connected Depth NA
4	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Connected Depth NA
5	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay, Low to med Plasticity, Damp	CL	NA	PID=0 B>=NAB Connected Depth NA
6	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Connected Depth NA
7							

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TB):94-0002

BORING NUMBER: 1306

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7							
7.5	NA	NA	6	Light olive Brown (2.5Y, 5/6) silty Clay w/ Fe stains, Low to med plasticity very moist	CL	NA	PID=0 BZ=NAB Corrected Depth
8				Bottom of Boring at 7.5 ft			
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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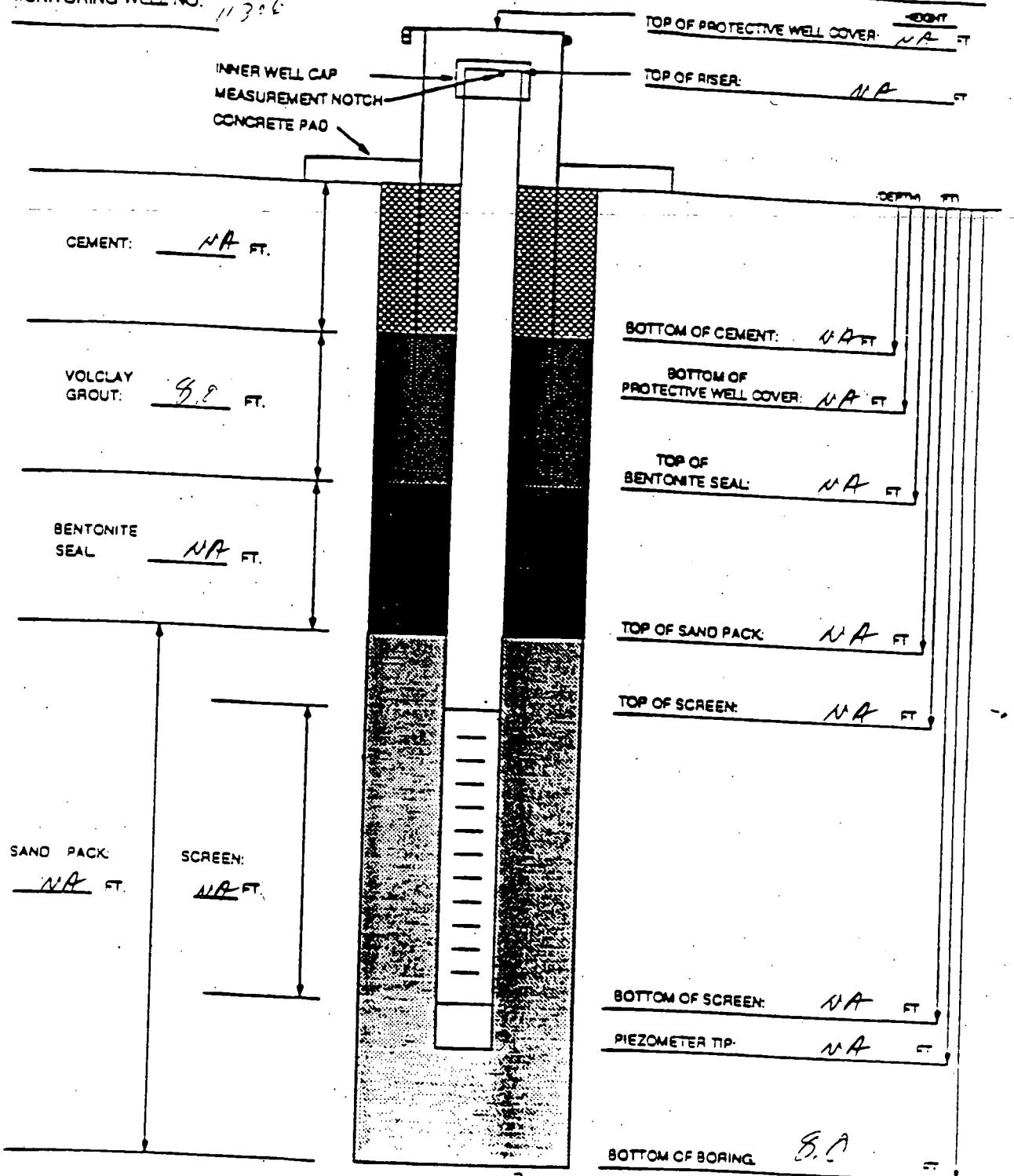
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1136

INSTALLATION DATE: 6/1/94



MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

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FEMP LITHOLOGIC LOG

CONTROL NUMBER:

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PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MIRT(TP):94-0042

BORING NUMBER: 11307

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR 5/4) Silty Clay w/ Roots Low Plasticity, Slightly Moist	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay, Low To Med Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3	NA	NA	12	Olive Brown (2.5Y, 4/4) SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Sand w/ Pebbles, Damp	Sm	NA	PID=0 Bz=NAB Corrected Depth NA
5	NA	NA	12	SAA	Sm	NA	PID=0 Bz=NAB Corrected Depth NA
6	NA	NA		Bottom of Boring 6.0 ft		NA	PID=0 Bz=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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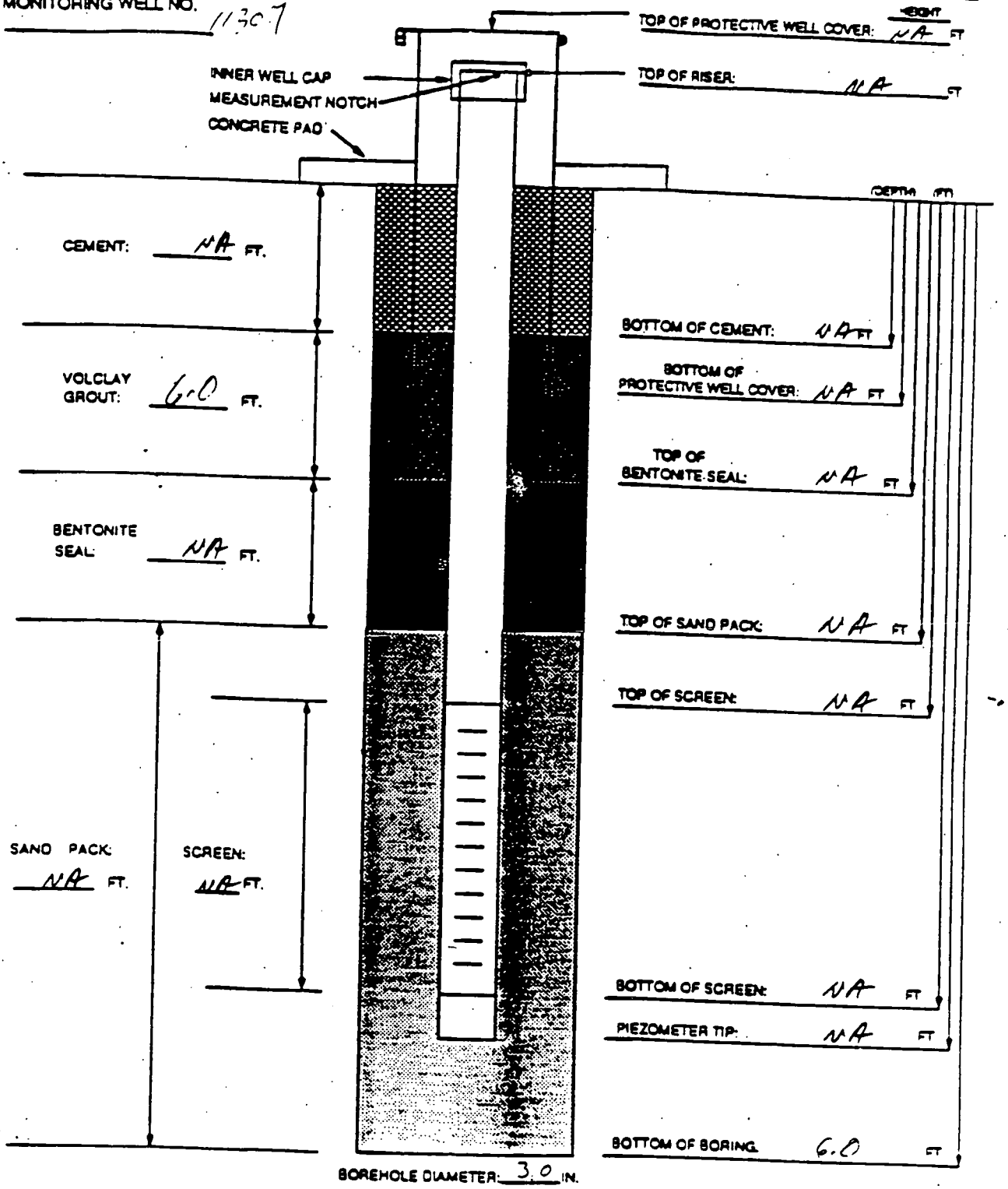
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1130-7

INSTALLATION DATE: 6/1/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED:

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TA)-94-0002

BORING NUMBER: 11309

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR 5/4) Silty Clay w/ Roots Low Plasticity Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
1	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay; Low Plasticity, Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
2	NA	NA	12	Light Olive Brown (2.5Y, 5/6) SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Fine Grained Silty Sand w/ pebbles wet	SM	NA	PID=0 By=NAB Corrected Depth NA
5	NA	NA	12	SAA	SM	NA	PID=0 By=NAB Corrected Depth NA
6				Bottom of Boring 60 ft			
	NA	NA				NA	PID=0 By=NAB Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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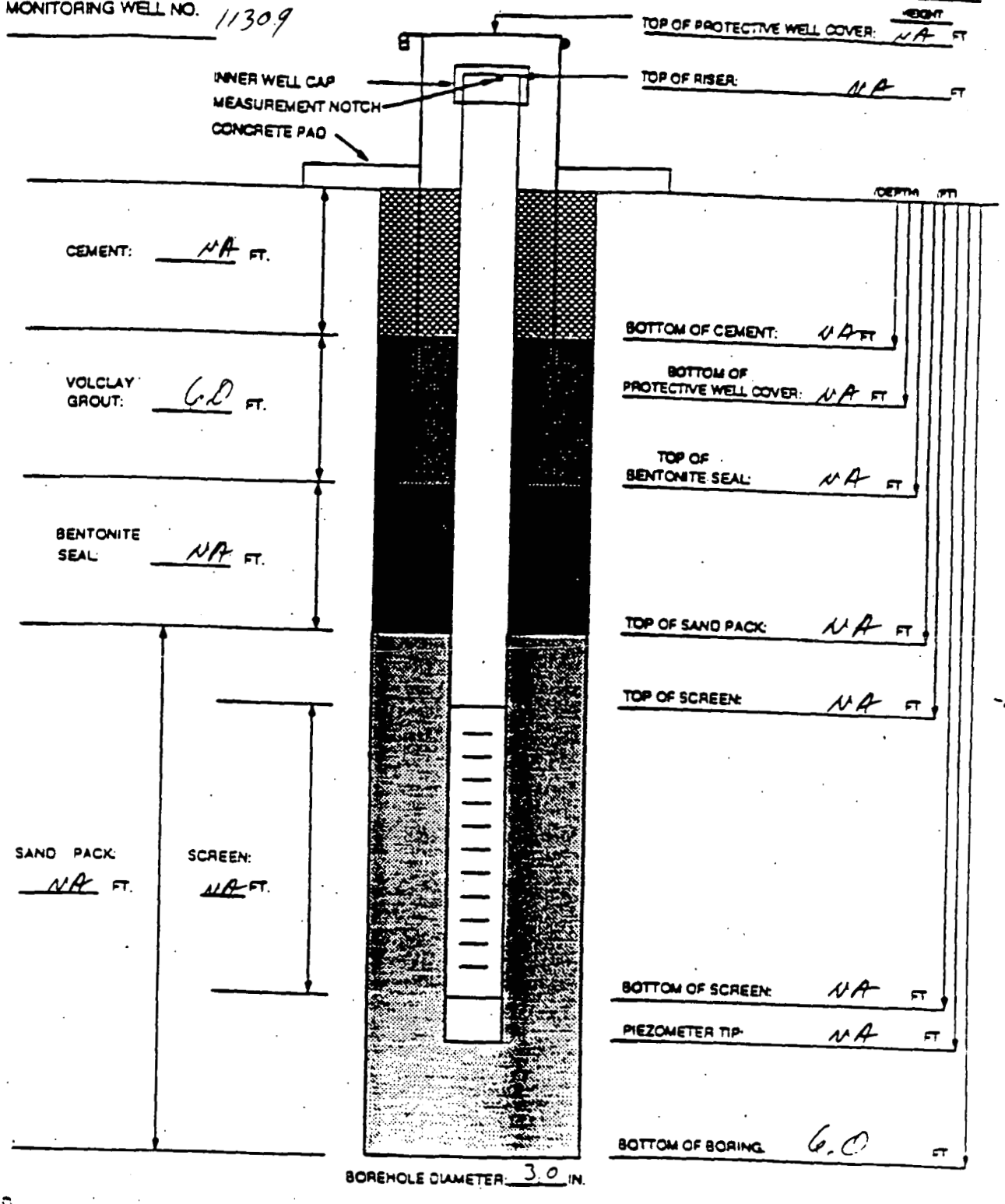
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11309

INSTALLATION DATE: 6/1/74



	HEIGHT	
TOP OF PROTECTIVE WELL COVER:	NA	FT
TOP OF RISER:	NA	FT

	DEPTH (FT)	
BOTTOM OF CEMENT:	NA	FT
BOTTOM OF PROTECTIVE WELL COVER:	NA	FT
TOP OF BENTONITE SEAL:	NA	FT
TOP OF SAND PACK:	NA	FT
TOP OF SCREEN:	NA	FT
BOTTOM OF SCREEN:	NA	FT
PIEZOMETER TIP:	NA	FT
BOTTOM OF BORING:	6.0	FT

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER Cliff Lee

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FEMP LITHOLOGIC LOG

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CONTROL NUMBER:	
PROJECT NAME:	USED Infiltration Study
PROJECT NUMBER:	MRT(TP)1 94-0002
BORING NUMBER:	1308
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/1/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/1/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay w/Roots, Low Plasticity, Slightly Damp	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay, Low to Med Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4	NA	NA	12	Olive Yellow (2.5Y, 6/6) fine Grained Silty Sand w/Gravel wet	SM	NA	PID=0 Bz=NAB Corrected Depth NA
5	NA	NA	6 ~~12~~ 6/1/94	Olive Yellow (2.5Y, 6/6) Coarse Sand Poorly Graded w/Gravel wet	SP	NA	PID=0 Bz=NAB Corrected Depth NA
6				Bottom of Boring 5.5 ft			
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth NA

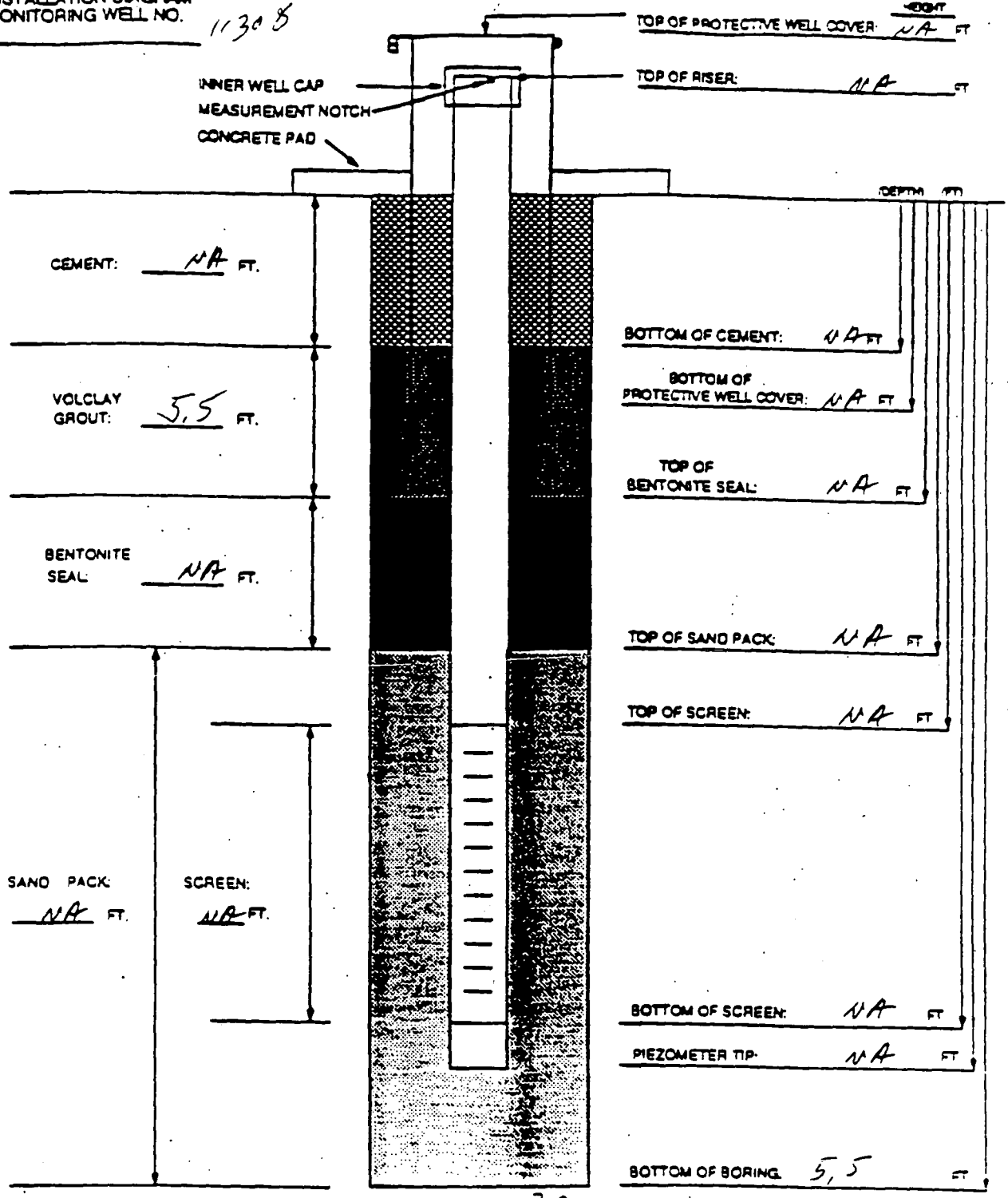
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000040

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11308

INSTALLATION DATE: 6/1/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP.
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL.
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK.

GEOLOGIST ENGINEER Cliff Lee

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FEMP LITHOLOGIC LOG

CONTROL NUMBER:

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PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M.RT(TP)1 94-0042

BORING NUMBER: 11310

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Brown (10YR, 4/3) Silty Clay w/ Roots, Low Plasticity, Slightly Damp	OL	NA	PID=0 Corrected By=NAB Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay, Low to Med Plasticity Damp	CL	NA	PID=0 Corrected By=NAB Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 Corrected By=NAB Depth NA
3–4	NA	NA	12	SAA w/ Rust Stains	CL	NA	PID=0 Corrected By=NAB Depth NA
4–5	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Poorly Graded Fine Sand w/ some pebbles, wet	SP	NA	PID=0 Corrected By=NAB Depth NA
5–6	NA	NA	12	SAA Slightly Coarser WET	SP	NA	PID=0 Corrected By=NAB Depth NA
6–7	NA	NA	6	Lt Olive Brown (2.5Y, 5/6) Poorly Graded Coarse Sand w/ Gravel WET	SP	NA	PID=0 Corrected By=NAB Depth NA

Bottom of Boring 6.5 ft

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000042

* Samples [illegible]

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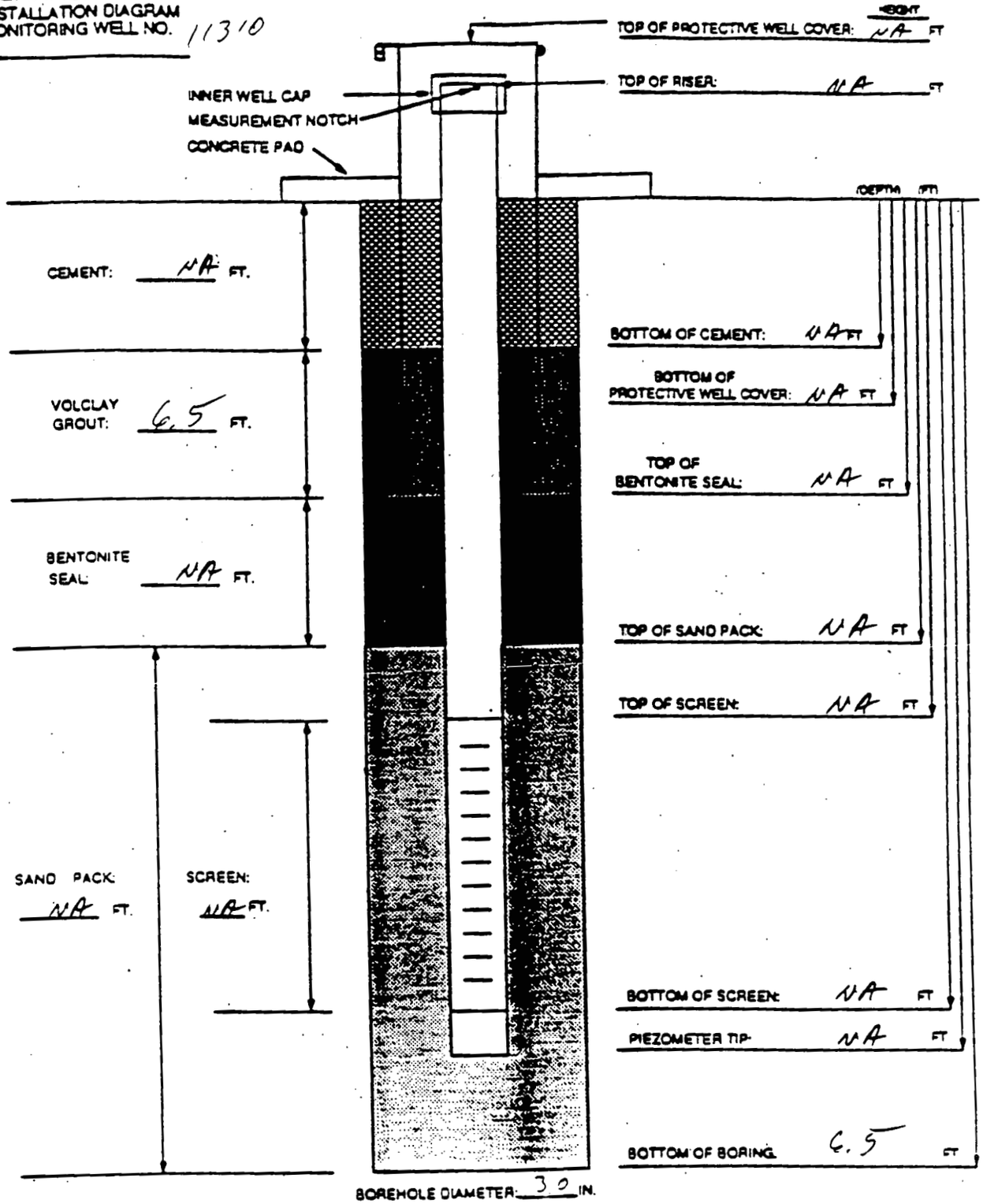
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11310

INSTALLATION DATE: 5/31/94



	HEIGHT	
TOP OF PROTECTIVE WELL COVER:	NA	FT
TOP OF RISER:	NA	FT

	DEPTH (FT)	
BOTTOM OF CEMENT:	NA	FT
BOTTOM OF PROTECTIVE WELL COVER:	NA	FT
TOP OF BENTONITE SEAL:	NA	FT
TOP OF SAND PACK:	NA	FT
TOP OF SCREEN:	NA	FT
BOTTOM OF SCREEN:	NA	FT
PIEZOMETER TIP:	NA	FT
BOTTOM OF BORING:	6.5	FT

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TA)-00-0002

BORING NUMBER: 1131

COORDINATES:

RELATED PAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5-3-94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay w/ Roots, Low Plasticity, Slightly Damp	OL	NA	PID=0 Bg=NAB Corrected Depth NA
1–2	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay, Low to Med Plasticity, Damp	CL	NA	PID=0 Bg=NAB Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 Bg=NAB Corrected Depth NA
3–4	NA	NA	12	SAA	CL	NA	PID=0 Bg=NAB Corrected Depth NA
4–5	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Clay w/ Fe Stains, Low to Med Plasticity, Damp	CL	NA	PID=0 Bg=NAB Corrected Depth NA
5–6	NA	NA	12	Lt. Olive Brown (2.5Y, 5/6) Fine Grained Poorly Graded Sand, Wet	SP	NA	PID=0 Bg=NAB Corrected Depth NA
6–7	NA	NA	12	SAA	SP	NA	PID=0 Bg=NAB Corrected Depth NA

Bottom of Boring 7.0 ft

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not About Background

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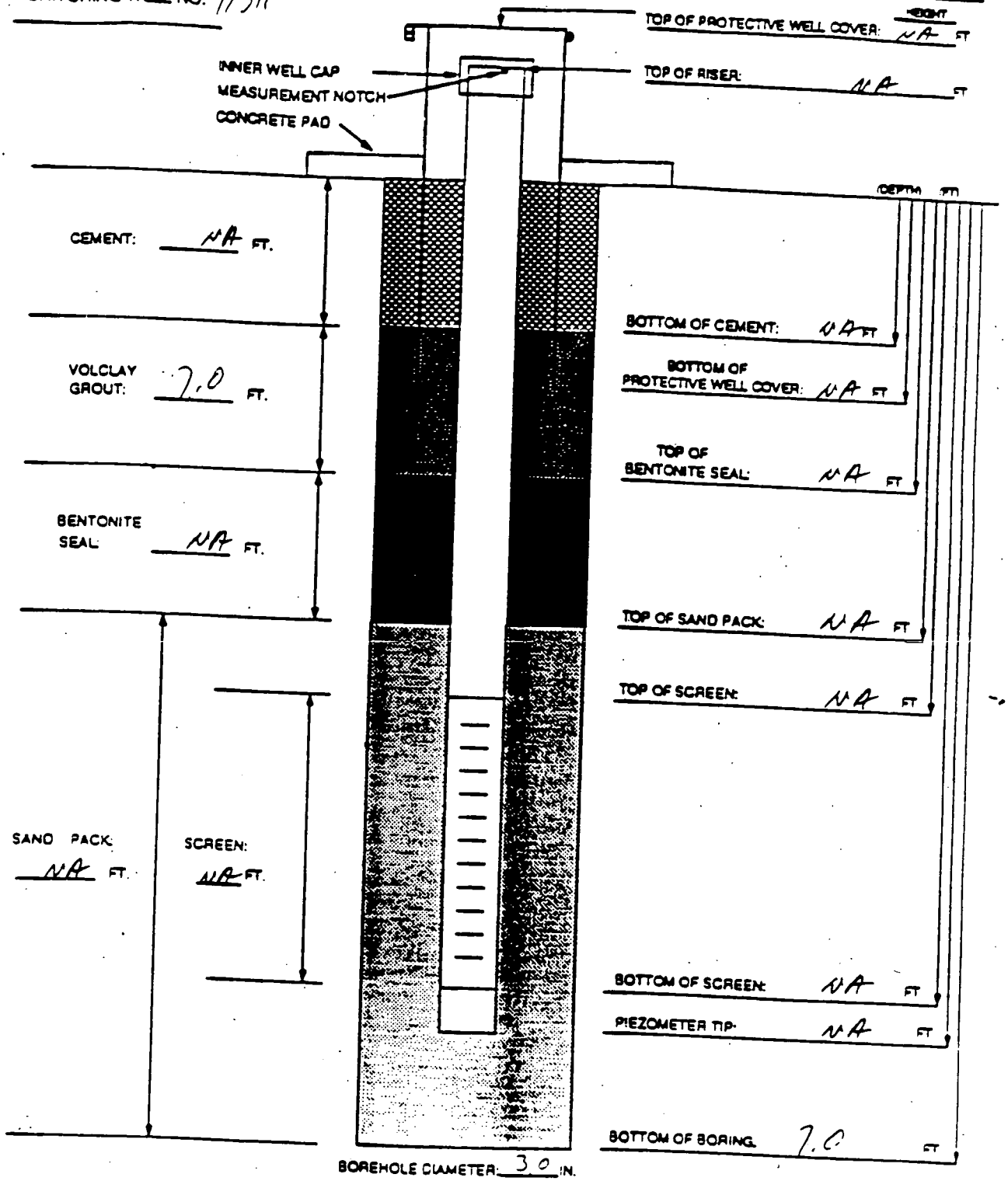
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11311

INSTALLATION DATE: 5/31/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Gift Lee

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FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 1 of 2

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: MIRT(TD)1 94-0042

BORING NUMBER: 11312

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/1/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/1/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	olive yellow (2.5Y, 6/6) Silty Clay w/ Roots, Low to Med Plasticity, Damp	CL	NA	PID=0 Corrected Bz=NAB Depth
1	NA	NA	12	SAA	CL	NA	PID=0 Corrected Bz=NAB Depth
2	NA	NA	12	olive yellow (2.5Y, 6/6) Silty Clay w/ Fe partings, Low to Med Plasticity, Damp.	CL	NA	PID=0 Corrected Bz=NAB Depth
3	NA	NA	12	SAA	CL	NA	PID=0 Corrected Bz=NAB Depth
4	NA	NA		Lt olive Brown (2.5Y, 5/4) Poorly Graded Sand w/ Pebbles, wet	SP	NA	PID=0 Corrected Bz=NAB Depth
5	NA	NA		SAA Somewhat coarser	SP	NA	PID=0 Corrected Bz=NAB Depth
6	NA	NA		Bottom of Boring 5.5 ft		NA	PID=0 Corrected Bz=NAB Depth

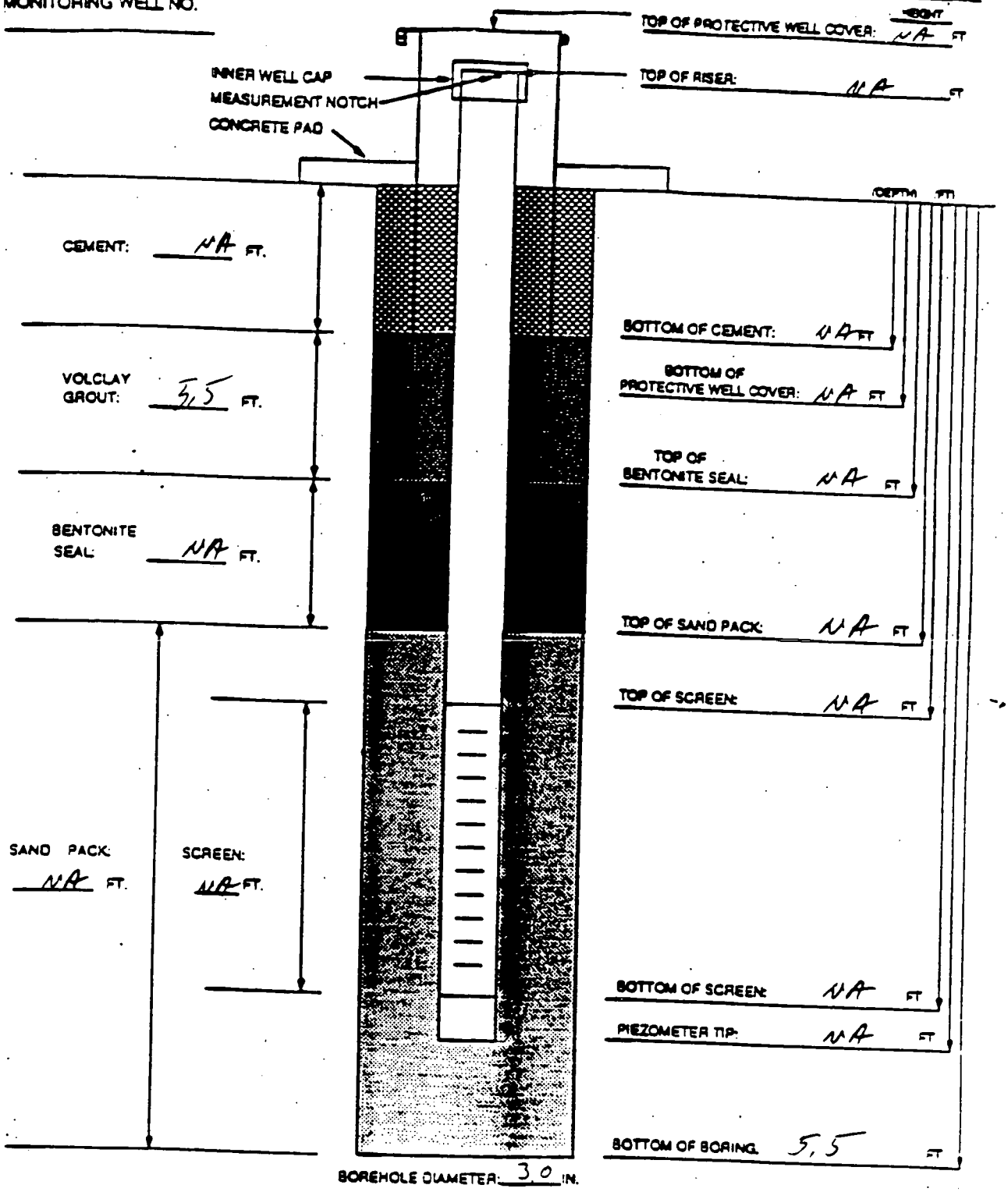
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000046

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO.

INSTALLATION DATE: 6/1/94



	HEIGHT	
TOP OF PROTECTIVE WELL COVER:	NA	FT
TOP OF RISER:	NA	FT

	DEPTH (FT)	
BOTTOM OF CEMENT:	NA	FT
BOTTOM OF PROTECTIVE WELL COVER:	NA	FT
TOP OF BENTONITE SEAL:	NA	FT
TOP OF SAND PACK:	NA	FT
TOP OF SCREEN:	NA	FT
BOTTOM OF SCREEN:	NA	FT
PIEZOMETER TIP:	NA	FT
BOTTOM OF BORING:	5.5	FT

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

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FEMP LITHOLOGIC LOG

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CONTROL NUMBER:	
PROJECT NAME:	USED Infiltration Study
PROJECT NUMBER:	MIRT(TP)1 94-0002
BORING NUMBER:	11313
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	5/31/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	5/31/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Loamy Silty Clay, Roots Low Plasticity, Slightly Damp	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1–2	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) Silty Clay, Low to med Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3–4	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Clay, Low to Med Plasticity, Moist	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4–5	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Sandy Clay w/ Pebbles, Low to med Plasticity, Moist	CL	NA	PID=0 Bz=NAB Corrected Depth NA
5–6	NA	NA	12	Lt. Olive Brown (2.5Y, 5/6) Fine Grained Sand, Poorly Graded, Wet	SP	NA	PID=0 Bz=NAB Corrected Depth NA
6–7	NA	NA	12	Pale Yellow (2.5Y, 7/4) Coarse to Medium Well Graded Gravel, Wet	GW	NA	PID=0 Bz=NAB Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000048

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TB):94-0002

BORING NUMBER: 11313

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	NA	NA	12	Pale Yellow (2.5Y, 7/4) Gravel, Poorly Graded, WET	GP	NA	PID=0 Corrected Depth By=NAB
5	NA	NA	6	Pale yellow (2.5Y, 7/4) Gravel, ~~Poorly~~ Well Graded WET	GW	NA	PID=0 Corrected Depth By=NAB
9				Bottom of Boring 9.5 ft			
	NA	NA				NA	PID=0 Corrected Depth By=NAB
	NA	NA				NA	PID=0 Corrected Depth By=NAB
	NA	NA				NA	PID=0 Corrected Depth By=NAB
	NA	NA				NA	PID=0 Corrected Depth By=NAB
	NA	NA				NA	PID=0 Corrected Depth By=NAB

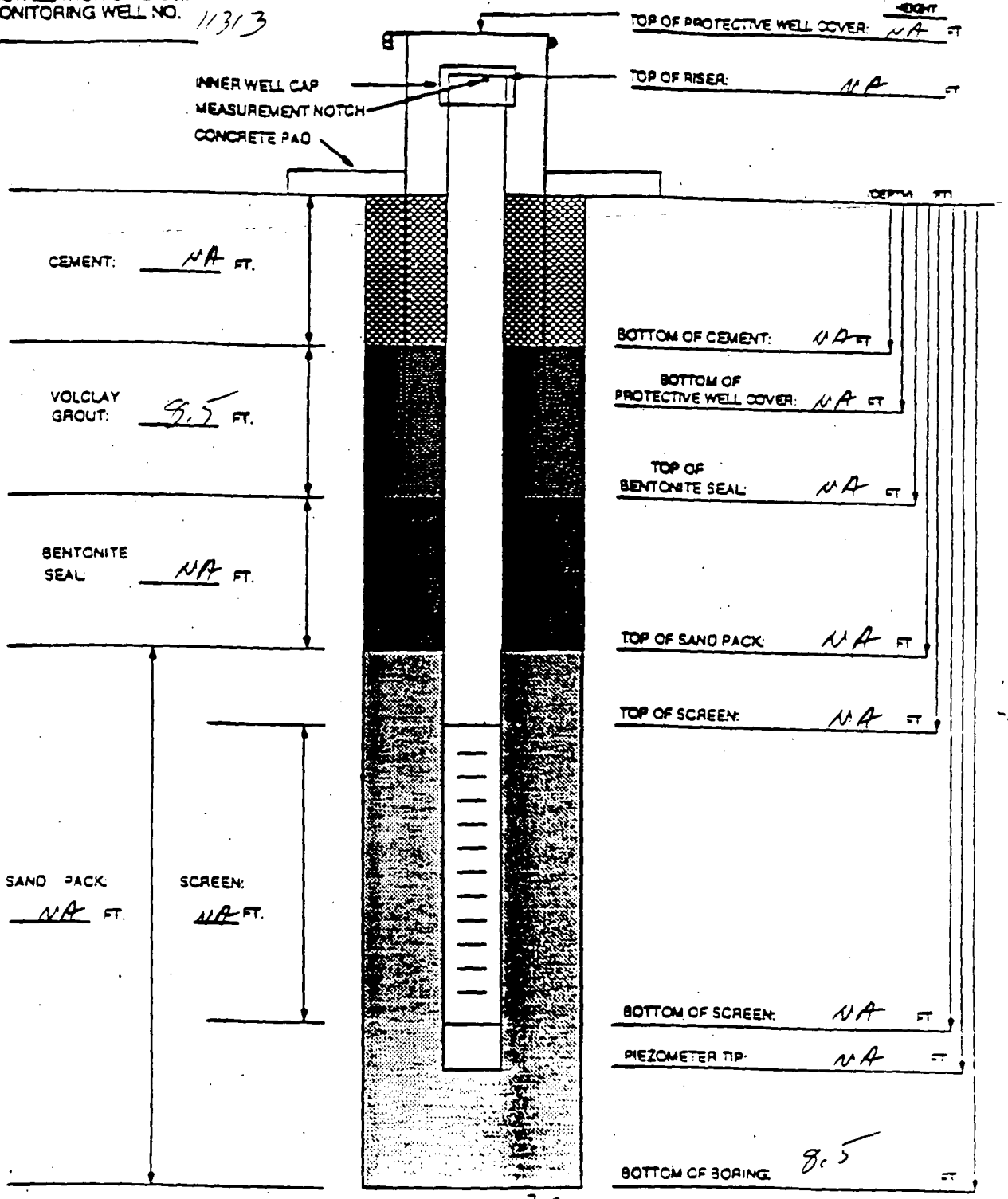
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000049

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1313

INSTALLATION DATE: 5/31/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP.
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL.
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK.

GEOLOGIST ENGINEER: Cliff Lee

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FEMP LITHOLOGIC LOG

Page 1 of 2

CONTROL NUMBER:	
PROJECT NAME:	USED Infiltration Study
PROJECT NUMBER:	MIRT(TP)1 94-0002
BORING NUMBER:	11314
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	5/31/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	5/31/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Brown (10YR 4/3) Silt clay Sand Loam, Low Plasticity, Slightly Damp.	OL	NA	PID=0 Bz=NAB Corrected Depth NA
1	NA	NA	12	LT Olive Brown (2.5Y, 5/4) Silty Clay, Low To med. Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
2	NA	NA	12	LT Olive Brown (2.5Y, 5/4) Silty Clay w/ Fe Partings, Low To med plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth NA
3	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Sandy Clay, Low To med. Plasticity Moist	CL	NA	PID=0 Bz=NAB Corrected Depth NA
4	NA	NA	12	LT Olive Brown (2.5Y, 5/6) Poorly Graded Sand w/ Pebbles, wet	SP	NA	PID=0 Bz=NAB Corrected Depth NA
5	NA	NA	6	Lt Olive Brown (2.5Y, 5/6) Silty Sandy Clay, Low To med plasticity, wet	CL	NA	PID=0 Bz=NAB Corrected Depth
6				Bottom of Boring at 5.5 ft			
7	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

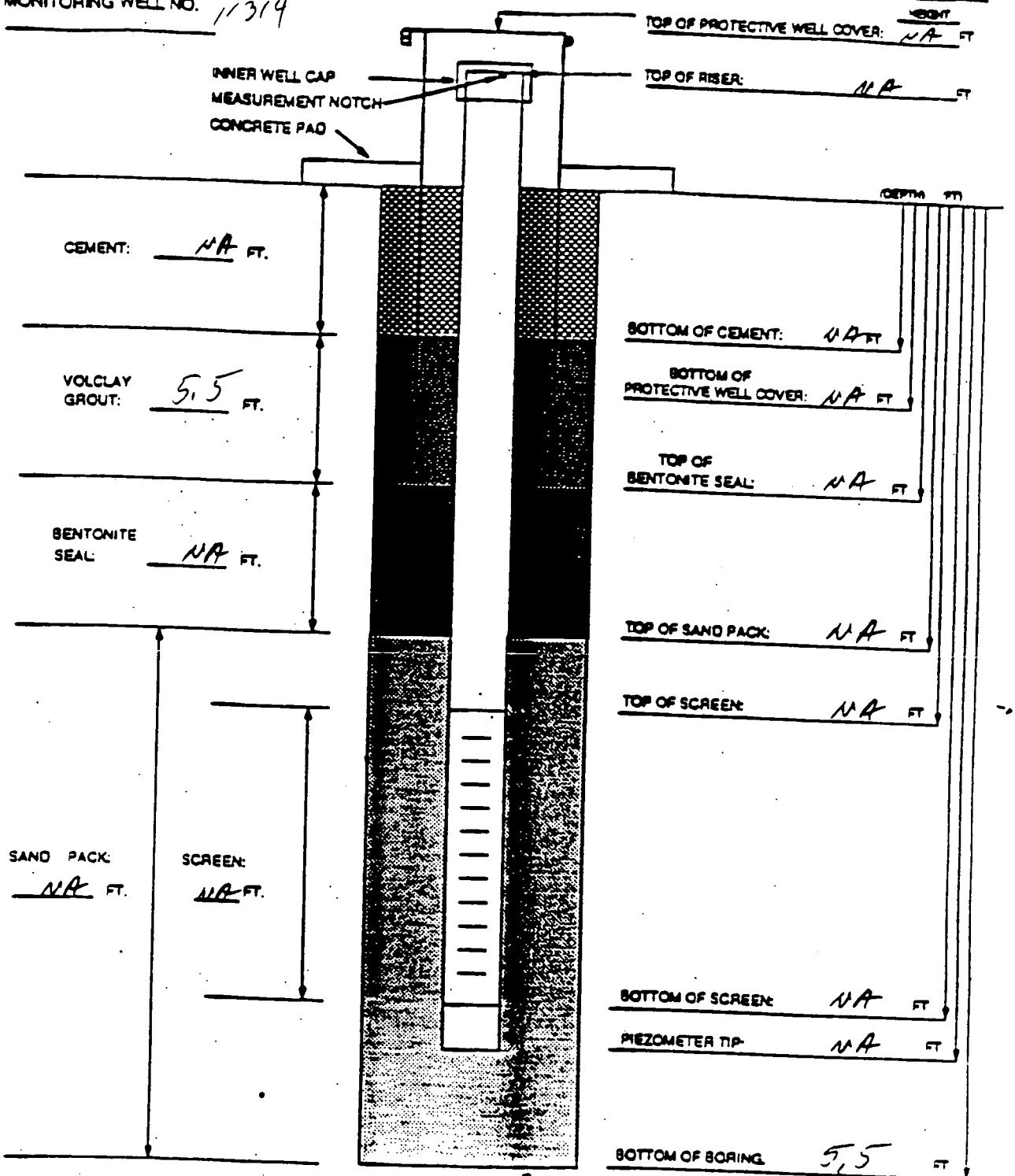
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000051

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1314

INSTALLATION DATE: 5/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

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CONTROL NUMBER:

FEMP LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M.RT(TB): 94-0042

BORING NUMBER: 11315

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 5/31/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 5/31/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Sandy Clay w/ Roots Low Plasticity, Slightly Damp	OL	NA	PID=0 By=NAB Corrected Depth NA
1	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) Silty Clay Low to med. Plasticity, Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
2	NA	NA	12	Olive Brown (2.5Y, 6/6) Silty Clay Low to med Plasticity, Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
3	NA	NA	12	Lt. Olive Brown (2.5Y, 5/6) Silty Clayey Sand w/ pebbles, moist	SC	NA	PID=0 By=NAB Corrected Depth NA
4	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) poorly Graded Sand, wet	SP	NA	PID=0 By=NAB Corrected Depth NA
5	NA	NA	12	Lt Yellowish Brown (2.5Y, 6/4) well Graded Coarse to Medium Gravel, wet	GW	NA	PID=0 By=NAB Corrected Depth NA
6	NA	NA	12	SAA	GW	NA	PID=0 By=NAB Corrected Depth NA
7				Bottom of Boring at 7.0 ft			

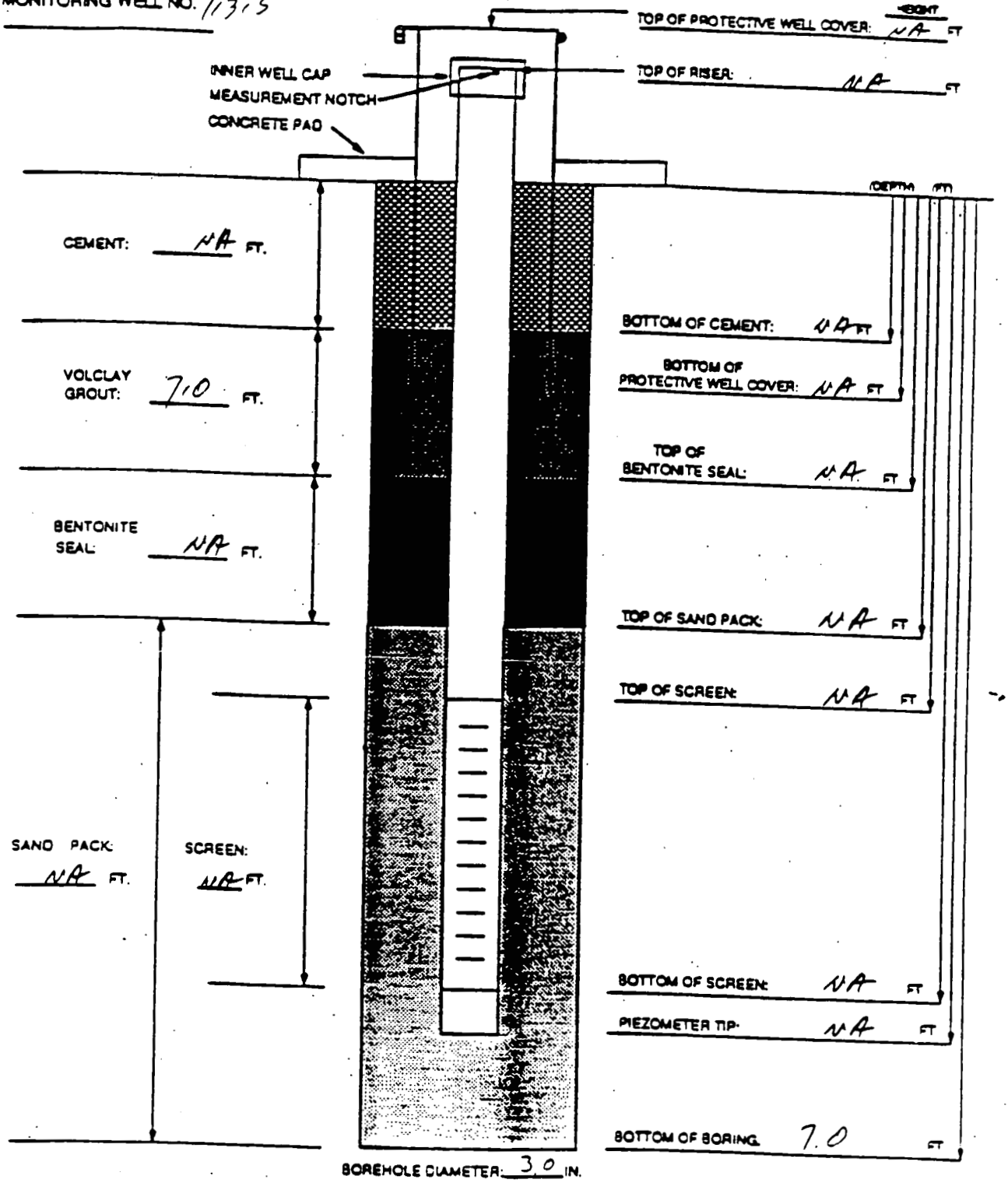
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000053

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1131.5

INSTALLATION DATE: 5/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

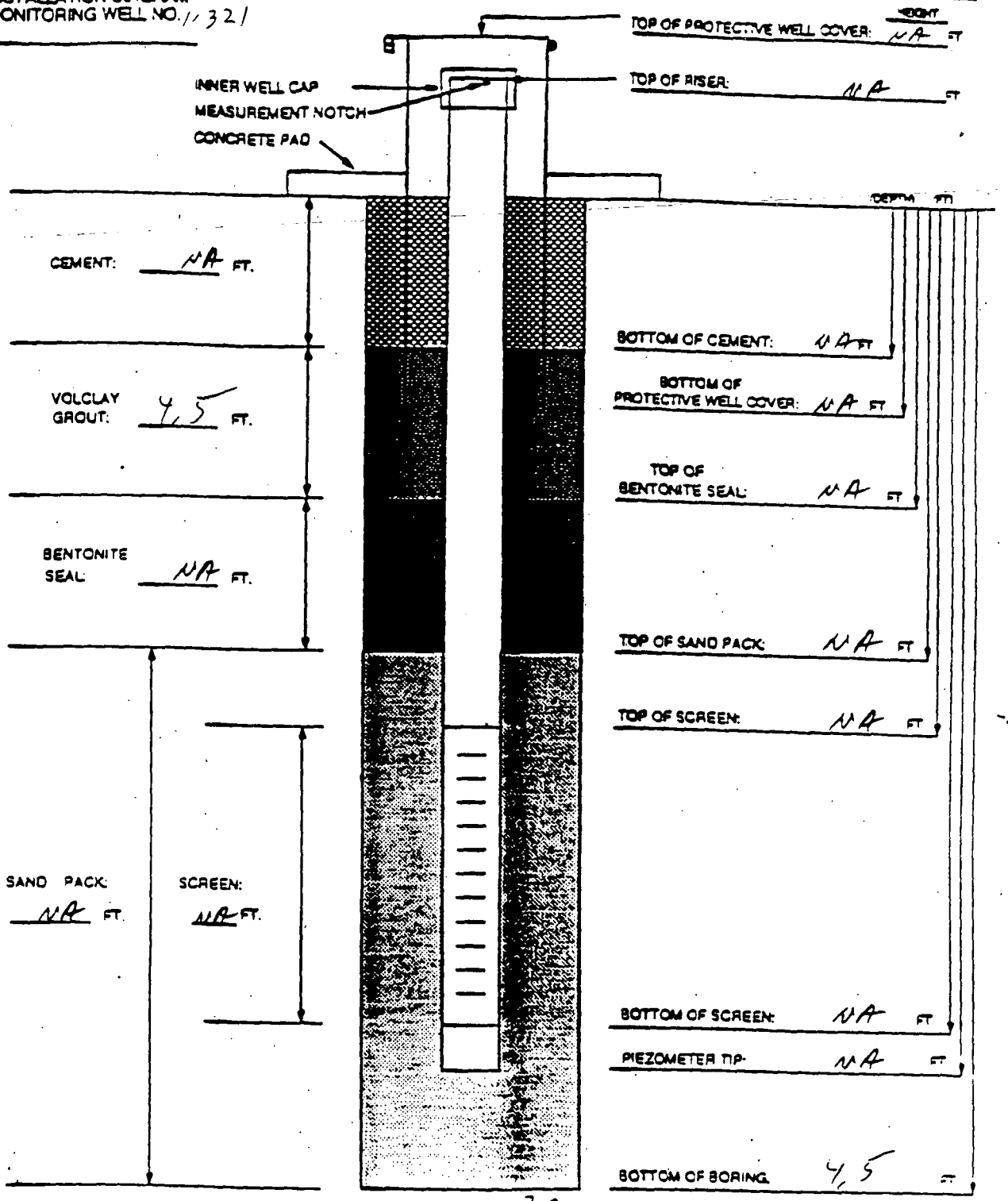
GEOLOGIST ENGINEER: Cliff Lee

5774

Pg 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11321

INSTALLATION DATE: 6/5/94



TOP OF PROTECTIVE WELL COVER: NA FT (HEIGHT)

TOP OF RISER: NA FT

CEMENT: NA FT.

VOLCLAY GROUT: 4.5 FT.

BENTONITE SEAL: NA FT.

SAND PACK: NA FT.

SCREEN: NA FT.

BOTTOM OF CEMENT: NA FT

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 4.5 FT

BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
GEOLOGIST ENGINEER Cliff Lee
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

CONTRACT NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: [illegible]

BORING NUMBER: 11321

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER'S NAME: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Brown (10YR, 5/3) silty Clay w/ Roots slight plasticity, Dry	OL	NA	PID=0 Bp=NAB Connected Depth Sample A- 35° Angle 2.5 ft
1	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) with Lt yellowish Br Mottling (2.5Y, 6/4) silty Clay w/ Fe Stains, Low Plasticity Very Slightly Damp	CL	NA	PID=0 Bp=NAB Connected Depth 1.5 ft
2	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) silty Clay w/ Fe stains Low to Med Plasticity, Slightly Damp	CL	NA	PID=0 Bp=NAB Connected Depth 2.5 ft
3	NA	NA	12	SAA Damp	CL	NA	PID=0 Bp=NAB Connected Depth 3.3 ft
4	NA	NA	6	SAA	CL	NA	PID=0 Bp=NAB Connected Depth
				Bottom of Boring 4.5 ft			
	NA	NA				NA	PID=0 Bp=NAB Connected Depth
	NA	NA				NA	PID=0 Bp=NAB Connected Depth

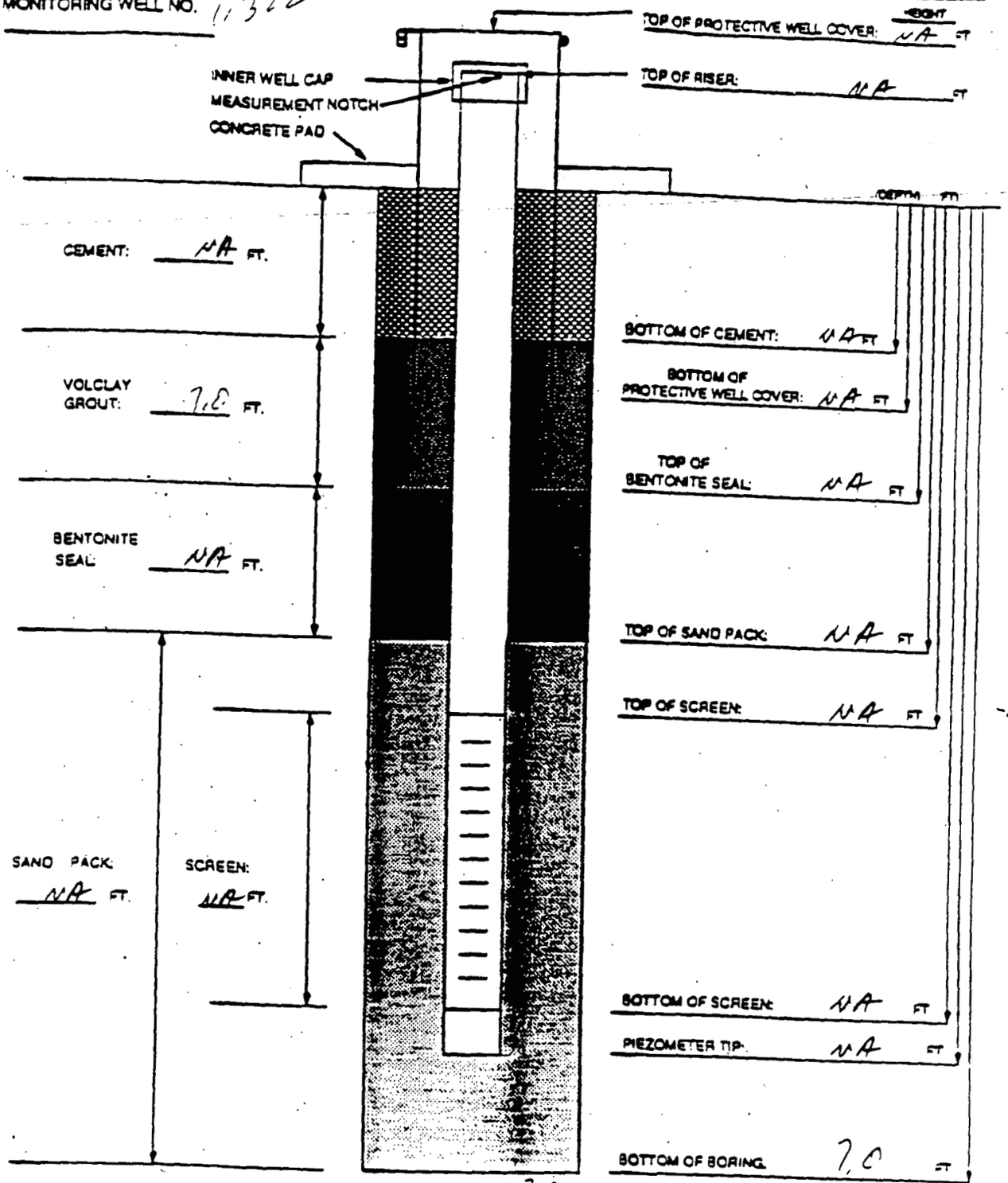
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000056

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1322

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TA): 94-0002

BORING NUMBER: 11322

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-1-A7

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	LIGHT YELLOWISH BROWN SOIL (2.5Y 6/4), LOAMY, SILTY, ROOTED, NON-PLASTIC, DRY	OL	NA	PID=0 By=NAB Corrected Depth 0.8
2'	NA	NA	12"	LIGHT YELLOWISH BROWN SOIL (2.5Y 6/4), LOAMY, SILTY, ROOTED, NON-PLASTIC, DRY	OL	NA	PID=0 By=NAB Corrected Depth 1.6'
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, WITH IRON SPECKS & STAIN ON PARTINGS, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth 2.5'
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, WITH IRON SPECKS & STAIN ON PARTINGS, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth 3.3'
5'	NA	NA	12"	OLIVE BROWN (2.5Y 4/4) TO GRAYISH BROWN (2.5Y 5/2) CLAY, WITH IRON SPECKS & STAIN, SL. Plastic, DAMP	CL	NA	PID=0 By=NAB Corrected Depth 4.1'
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), WITH IRON SPECKS & STAIN, SOFT, V. PLASTIC, MOIST	CL	NA	PID=0 By=NAB Corrected Depth 4.9
TD → 7' (84")	NA	NA	12"	LIGHT OLIVE BROWN SAND (2.5Y 5/4), POORLY SORTED, SILTY, w/ V.f.g. QUARTZ GRAIN SIZES & SOME COARSE ANGULAR GRAVEL, V. SOFT, SATURATED	SC	NA	PID=0 By=NAB Corrected Depth TD 5.7 6.3

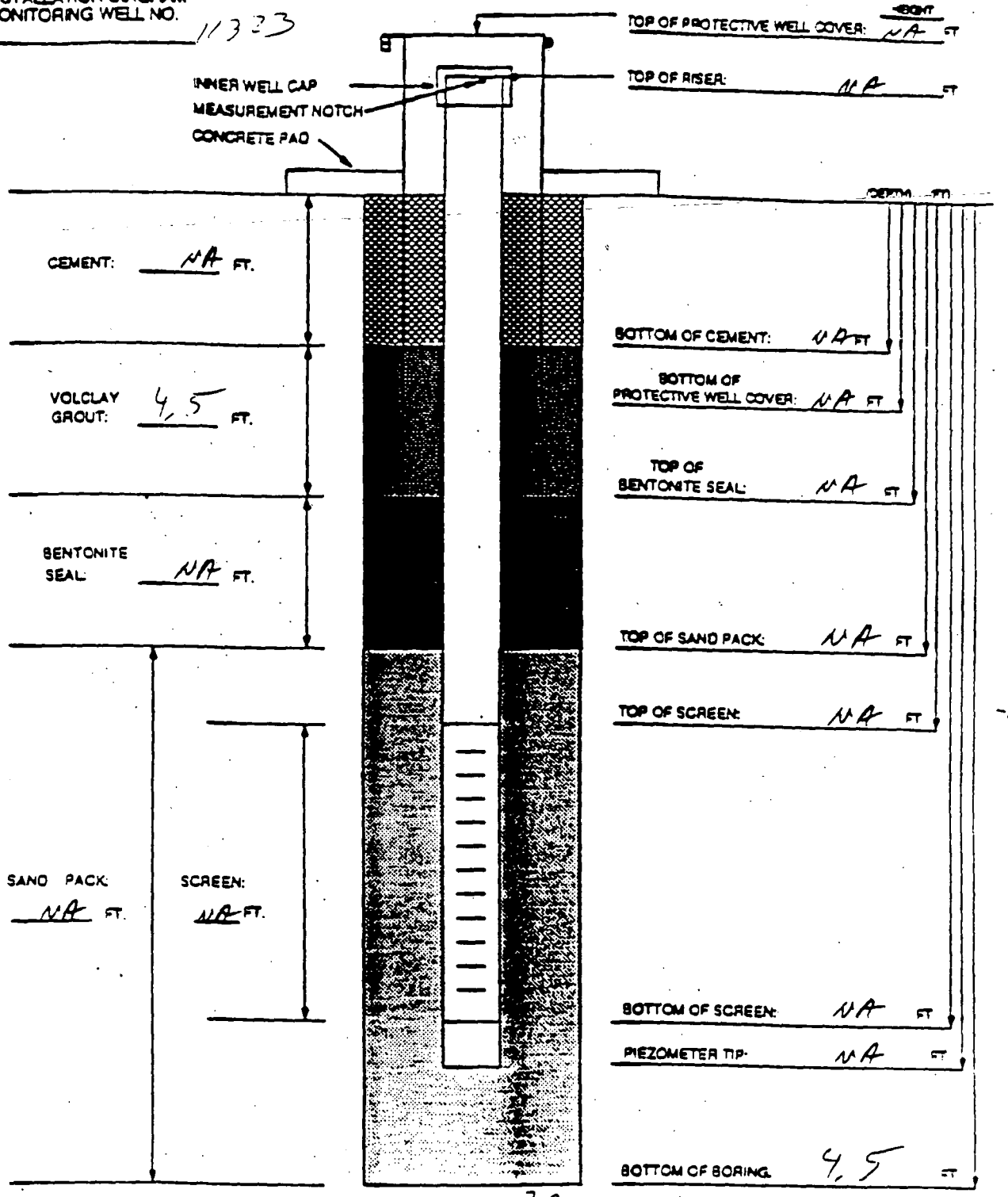
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not About Background

p 9 2d 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11323

INSTALLATION DATE: 4/5/94



TOP OF PROTECTIVE WELL COVER: HEIGHT NA FT

TOP OF RISER: NA FT

CEMENT: NA FT.

VOLCLAY GROUT: 4.5 FT.

BENTONITE SEAL: NA FT.

SAND PACK: NA FT.

SCREEN: NA FT.

BOTTOM OF CEMENT: NA FT

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 4.5 FT

BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USTD Infiltration Study

PROJECT NUMBER: M-RT(TD)-24-0002

BORING NUMBER: 11323

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inches)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
1	NA	NA	12"	BROWN SOIL (10YR 5/3), LOAMY, ROOTED, SILTY, NON-PLASTIC, DRY	OL	NA	PID=0 BZ=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), FRACTURED, WITH IRON SPECKS. LIGHT YELLOWISH BROWN (2.5Y 6/4) SL. MOTTLING, V. SL. PLASTIC, V. SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
3'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), FRACTURED, WITH IRON SPECKS & PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, WITH IRON SPECKS & PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
4.5'	NA	NA	6"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, WITH IRON SPECKS & PARTINGS, SL. PLASTIC, DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth

TD 4'6" (54")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000060

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11324

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-1

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
7'	NA	NA	6"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
7.5'	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
8'	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, SL. PLASTIC TO PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9.5'	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), STIFF, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
10'	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), STIFF, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
	NA	NA				NA	PID=0 By=NAB Corrected Depth

TD 10 (120")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USTD Infiltration Study

PROJECT NUMBER: [illegible]

BORING NUMBER: 11324

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Clegg

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-1

DEPTH (FEET)	SAMPLE TIME, DATE AND NUMBER	BLOWS (per 6 inches)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	DARK YELLOWISH BROWN SOIL (10YR 4/4), LOAMY, ROOTED, NON-PLASTIC, V. SL. DAMP	OL	NA	PID=0 Bg=NAB corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED & BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —
6.5'	NA	NA	6"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not About Background

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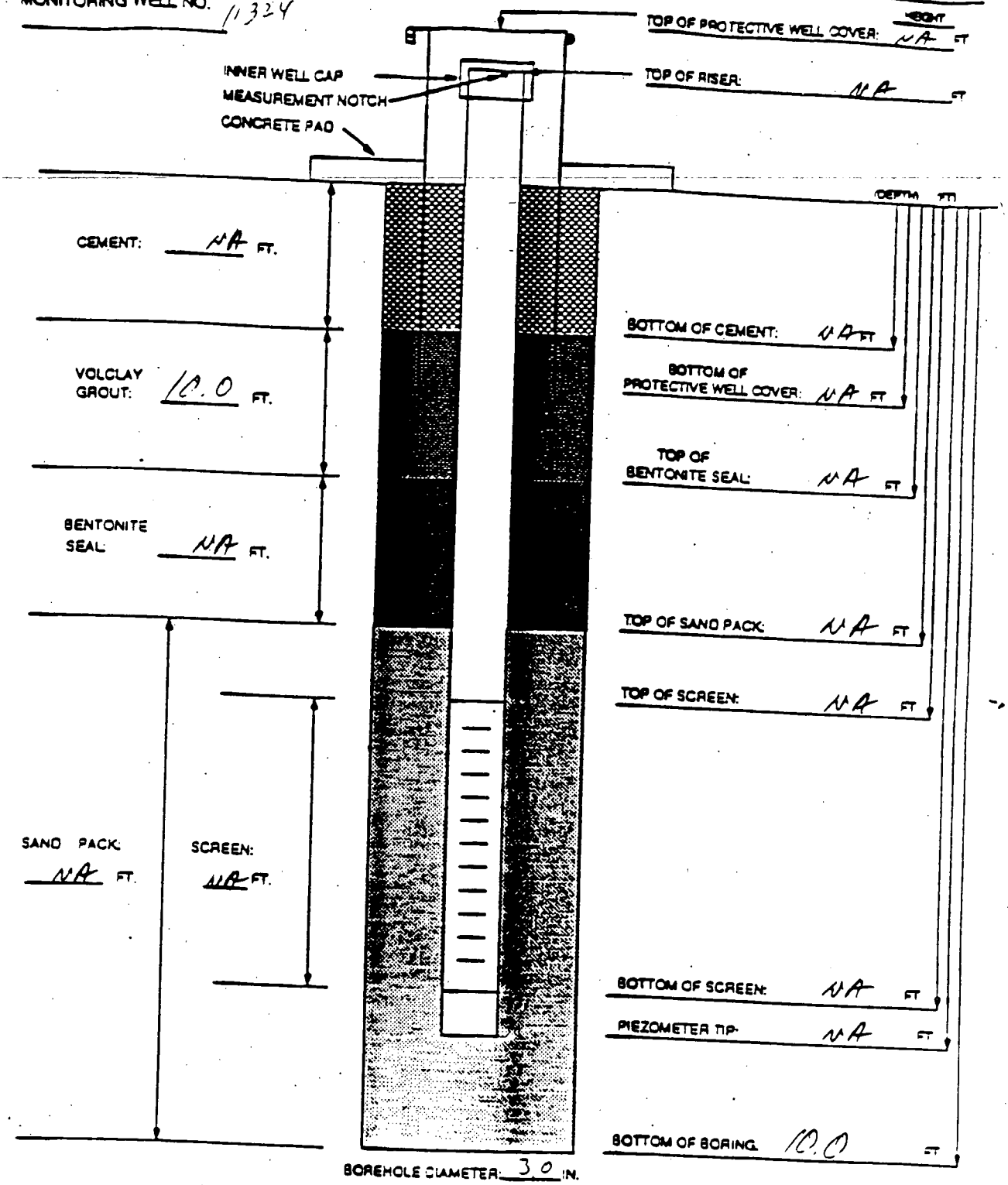
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11324

INSTALLATION DATE: 1/12/94



MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0092

BORING NUMBER: 11325

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER'S NAME: NA

IS-2-2

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7.5'	NA	NA	6'	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
8'	NA	NA	6'	GRAYISH BROWN CLAY (2.5Y 5/2) PLASTIC, DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
9'	NA	NA	12"	GRAYISH BROWN CLAY (2.5Y 5/2) PLASTIC, DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth
	NA	NA				NA	PID=0 BZ=NAB Corrected Depth

TD 108'

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TB):94-0002

BORING NUMBER: 11325

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-2

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	BROWNISH YELLOW SOIL (10YR 6/6), LOAMY, SILTY, ROOTED, NON-PLASTIC, V. SL. DAMP	OL	NA	PID=0 Bg=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, V. SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, V. SL. TO SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. TO SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
7'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

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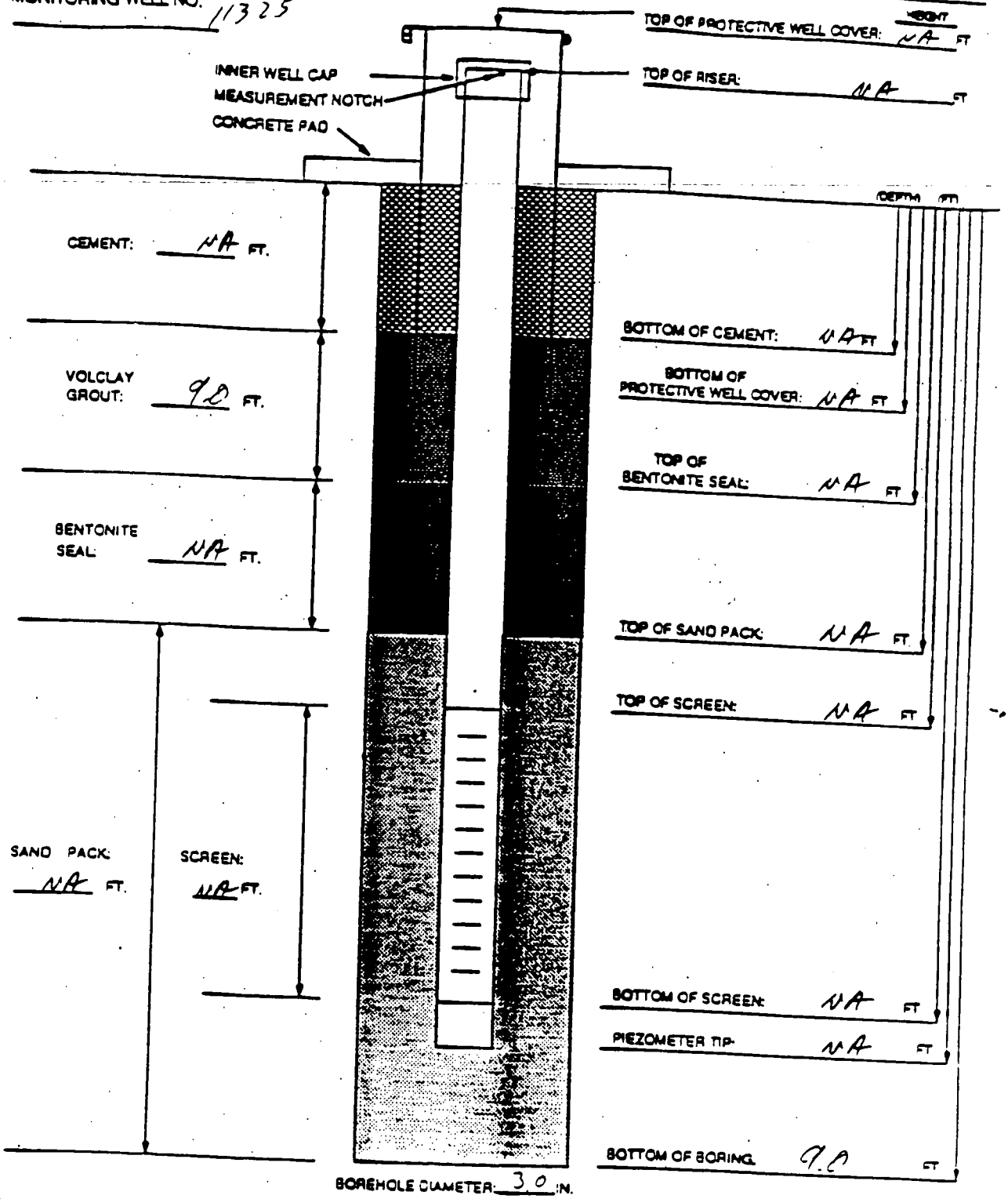
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11325

INSTALLATION DATE: 6/2/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M RT(TA): 24-0002

BORING NUMBER: 11326

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-3

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
8	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
8.5'	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9.0'	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9.5'	NA	NA	6"	LIGHT OLIVE BROWN SAND (2.5Y 5/6), MUDDY, MED GRN'D. QUARTZ, FLUID, V-DAMP, POORLY SORTED	SC	NA	PID=0 By=NAB Corrected Depth —
10	NA	NA	6"	LIGHT OLIVE BROWN SAND (2.5Y 5/6), MUDDY, MED. GRN'D. QUARTZ, FLUID, V. DAMP, POORLY SORTED (CAVED)	SC	NA	PID=0 By=NAB Corrected Depth —
10.5'	NA	NA	7"	LIGHT OLIVE BROWN SAND (2.5Y 5/6), CLAYEY, V. PLASTIC, POORLY SORTED, MOIST	SC	NA	PID=0 By=NAB Corrected Depth —
	NA	NA				NA	PID=0 By=NAB Corrected Depth

TD 10.7' (127")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 1 of 2

PROJECT NAME: USED Infiltration Study			PROJECT NUMBER: MIRT(TP)-94-0002
BORING NUMBER: 11326	COORDINATES:	RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/3/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/3/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA

IS-2-3

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (USE)	REMARKS
1'	NA	NA	12"	YELLOWISH BROWN SOIL (10YR 5/4) LOAMY, ROOTED, NON-PLASTIC, V. SL. DAMP	OL	NA	PID=0 Bz=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
7'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS, PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —

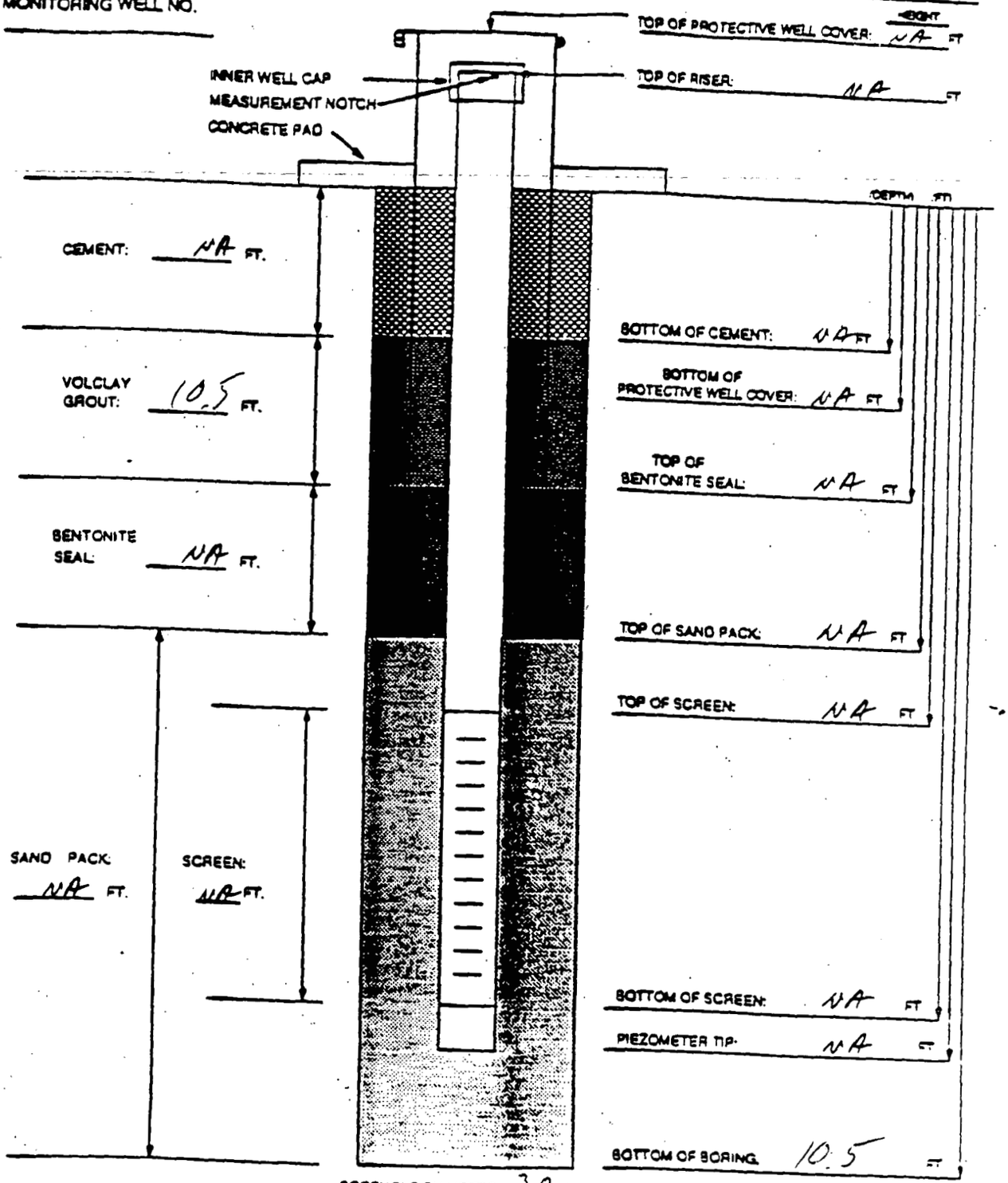
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

Pg 3 of 3

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. _____

INSTALLATION DATE: 4/3/94



TOP OF PROTECTIVE WELL COVER: (HEIGHT) NA FT

TOP OF RISER: NA FT

BOTTOM OF CEMENT: NA FT

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 10.5 FT

BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
GEOLOGIST ENGINEER Cliff Lee
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA): 94-0002

BORING NUMBER: 11327

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: C. LL Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-4

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inches)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), WITH IRON, SOFT, PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), WITH IRON, SOFT, PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
10'	NA	NA	12"	GRAYISH BROWN CLAY (2.5Y 5/2), HOMOGENEOUS, PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
10.7' (TD 129")	NA	NA	9"	GRAYISH BROWN CLAY (2.5Y 5/2), HOMOGENEOUS, PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES.
NA = Not Applicable
NAB = Not Above Background

000070

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11327

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-4

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	BROWNISH YELLOW SOIL (10YR 6/6), LOAMY, ROOTED, NON-PLASTIC, DRY	OL	NA	PID=0 Bg=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), WITH IRON, SOFT, PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

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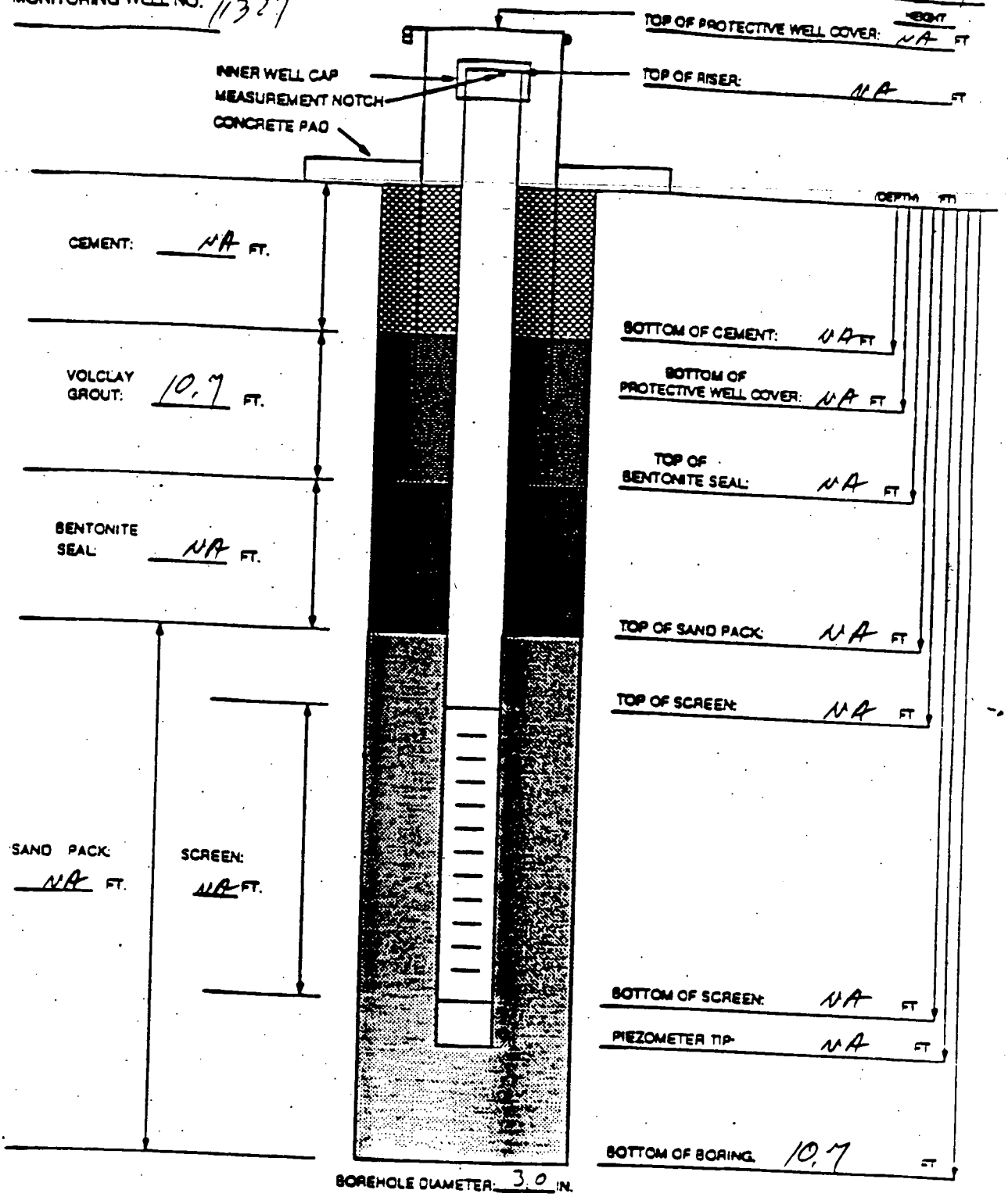
pg 3 of 3

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11327

INSTALLATION DATE: 6/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

000072

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FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 2 of 3

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M:RT(TP):[illegible]

BORING NUMBER: 11328

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-5

DEPTH (FEET)	SAMPLE TIME, DATE AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON, PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
8	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON, PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
8.5	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) V. PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
9	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) V. PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
9.5	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) V. PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
10	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) V. PLASTIC, DAMP	CL	NA	PID=0 Corrected Bz=NAB Depth —
	NA	NA				NA	PID=0 Corrected Bz=NAB Depth

TD 10' (120")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA):94-0092

BORING NUMBER: 11328

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

LS-2-5

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	YELLOWISH BROWN SOIL (10YR 5/4), LOAMY, ROOTED, NON-PLASTIC, V. SL. DAMP	OL	NA	PID=0 By=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, SL. ROOTED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
6.5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON, PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

000074

NOTES:
NA = Not Applicable
NAB = Not About Background

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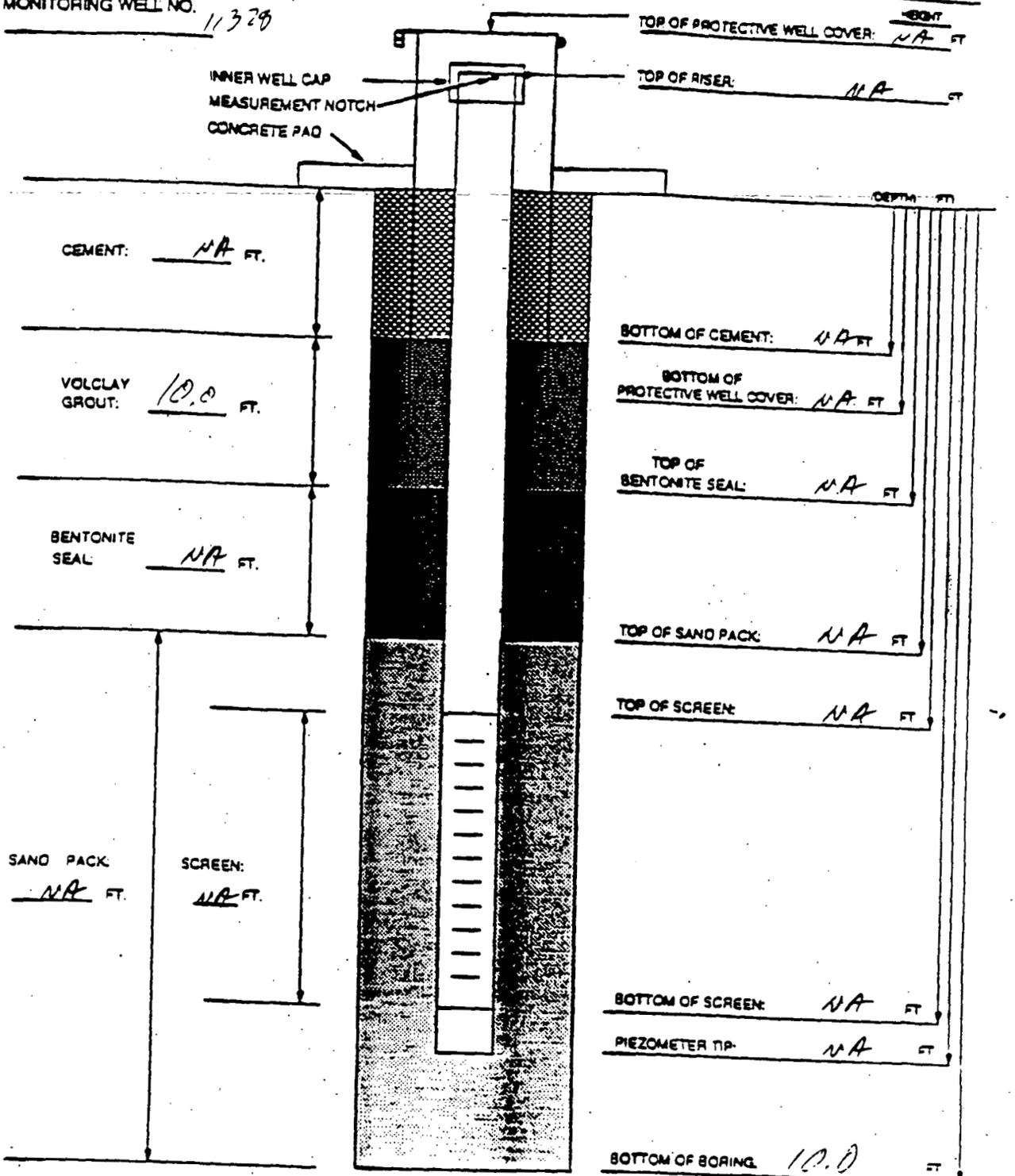
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11328

INSTALLATION DATE: _____



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE. FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

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FEMP LITHOLOGIC LOG

Page 2 of 2

CONTROL NUMBER:	
PROJECT NAME:	USED Infiltration Study
PROJECT NUMBER:	MIRT(TA)1 [illegible]
BORING NUMBER:	11329
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/2/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/2/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

IS 2-6

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5 Y 5/6) WITH IRON PARTINGS, PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
8.5	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), HOMOGENEOUS, V. PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9.0	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), HOMOGENEOUS, V. PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
9.5	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2), HOMOGENEOUS, V. PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth —
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

TD 1/4"

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000076

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA): 94-0002

BORING NUMBER: 11329

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/2/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/2/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-6

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	YELLOWISH BROWN LOAMY SOIL (10YR 5/4), ROOTED NON-PLASTIC, V. SLIGHTLY DAMP	OL	NA	PID=0 Bg=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, V. SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, WITH IRON IN PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, FRACTURED, WITH IRON SPOTS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) WITH IRON PARTINGS, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bg=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000077

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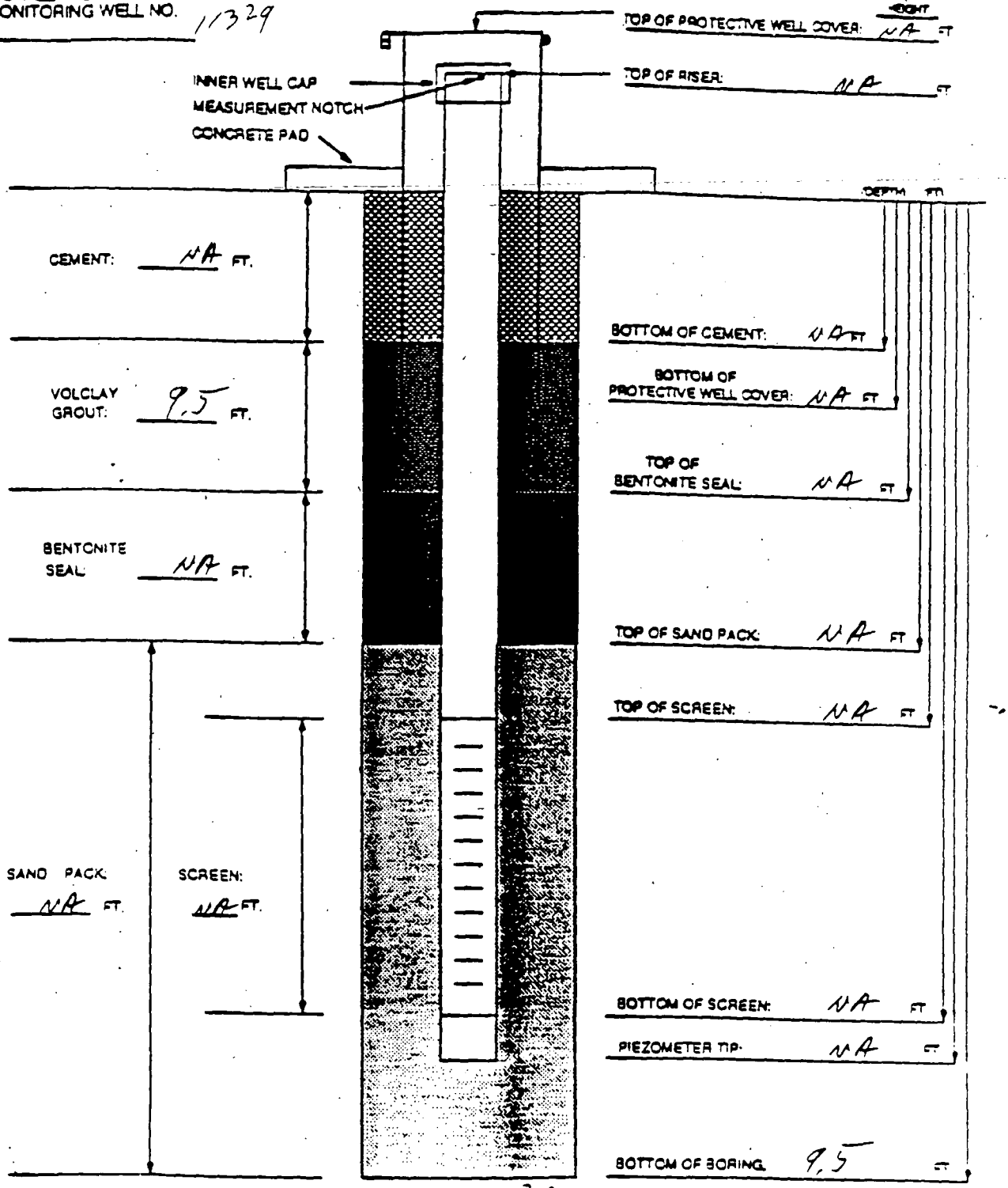
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 1329

INSTALLATION DATE: 6/2/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
GEOLOGIST/ENGINEER: Cliff Lee
4) WATER DEPTH AND DATE: NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

5774

CONTROL NUMBER:

FEMP LITHOLOGIC LOG

Page 1 of 3

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TP)[illegible]

BORING NUMBER: 11330

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-1

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	NA	NA	12"	YELLOWISH BROWN LOAMY SOIL (10 YR 5/4) SL. SILTY, ROOTED, NON-PLASTIC, SL. DAMP	OL	NA	PID=0 By=NAB Corrected Depth
2	NA	NA	12"	OLIVE YELLOW CLAY (2.5Y 6/6), BLOCKY, SL. DAMP, SL. PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth
3	NA	NA	12"	OLIVE YELLOW CLAY (2.5Y 6/6), BLOCKY, SL. DAMP, SL. PLASTIC.	CL	NA	PID=0 By=NAB Corrected Depth
4	NA	NA	12"	OLIVE YELLOW CLAY (2.5Y 6/6), FRACTURED, SL. DAMP SL. PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth
5	NA	NA	12"	OLIVE YELLOW CLAY (2.5Y 6/6), BLOCKY, SL. DAMP SL. PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth
6	NA	NA	12"	OLIVE YELLOW CLAY (2.5Y 6/6), FRACTURED, SL. DAMP SL. PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth
7	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON, DAMP, PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000079

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of 3

PROJECT NAME: USED Infiltration Study			PROJECT NUMBER: MRT(TP)[illegible]
BORING NUMBER: 11330	COORDINATES:	RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/3/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/3/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA

IS-2-7

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON, DAMP, PLASTIC	CL	NA	PID=0 Bz=NAB Corrected Depth
8.5	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) DAMP, PLASTIC	CL	NA	PID=0 Bz=NAB Corrected Depth
9	NA	NA	6"	OLIVE BROWN CLAY (2.5Y 4/4) DAMP, PLASTIC	CL	NA	PID=0 Bz=NAB Corrected Depth
9.5	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2) SL. DAMP, SL. PLASTIC	CL	NA	PID=0 Bz=NAB Corrected Depth
9.7 TD (116")	NA	NA	2"	GRAYISH BROWN CLAY (2.5Y 5/2), SL. DAMP, SL. PLASTIC	CL	NA	PID=0 Bz=NAB Corrected Depth
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0	000080	
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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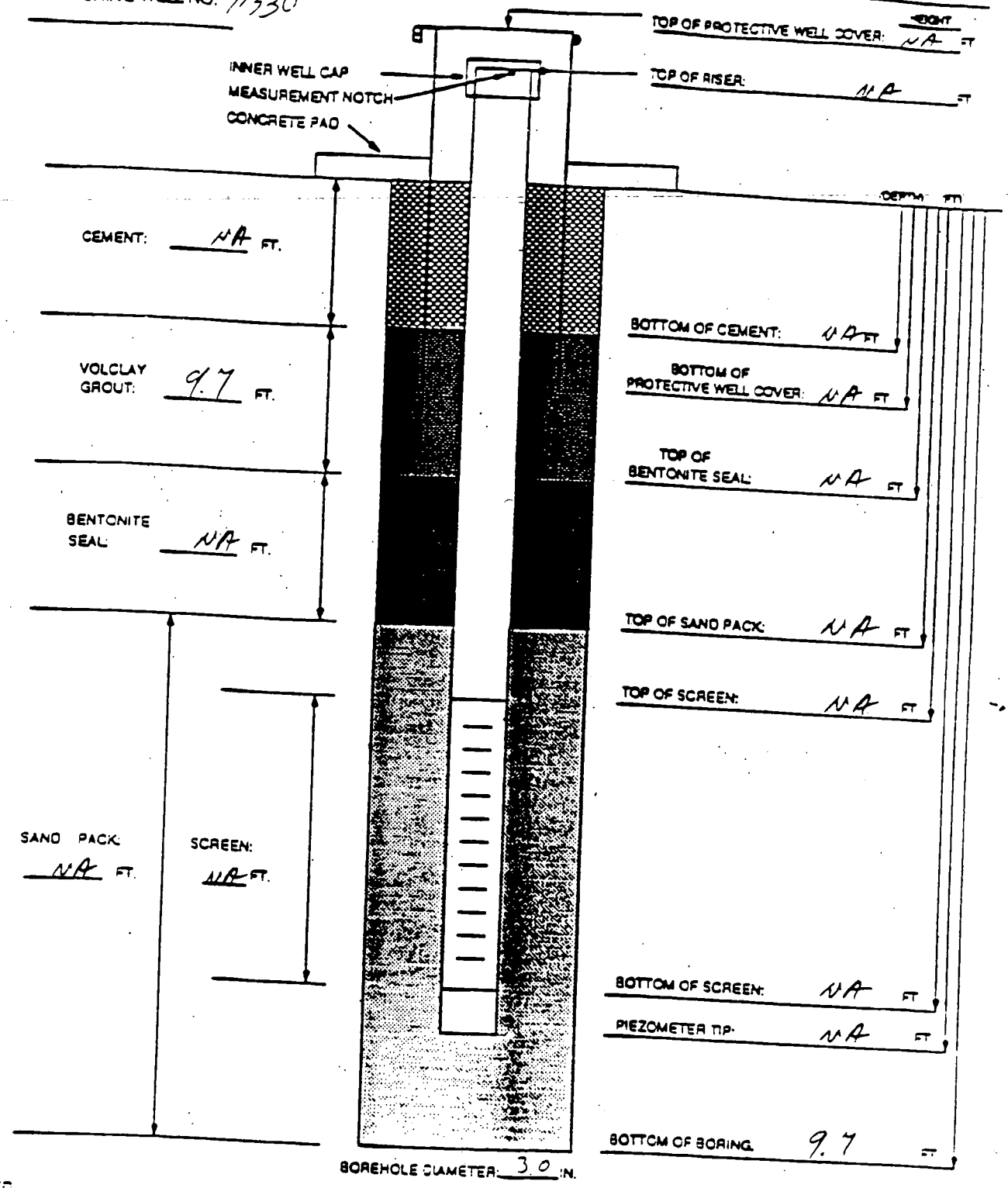
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11330

INSTALLATION DATE: 5/7/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

5774

FEMP LITHOLOGIC LOG

Page 1 of 2

CONTROL NUMBER:	
PROJECT NAME:	USID Infiltration Study
PROJECT NUMBER:	MERT(TA)[illegible]
BORING NUMBER:	11331
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/2/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/2/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

IS-2-8

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (USCS)	REMARKS
1	NA	NA	12"	Yellowish Brown Loamy Soil, (10YR 5/4) Rooted, SL. Silty, Non-Plastic, V. SL. Damp to Dry	OL	NA	PID=0 Bz=NAB Corrected Depth —
2	NA	NA	12"	Light Olive Brown Clay (2.5Y 5/6), Blocky, SL. Plastic, SL. Damp	CL	NA	PID=0 Bz=NAB Corrected Depth —
3	NA	NA	12"	Light Olive Brown Clay (2.5Y 5/6), Blocky, Plastic Moist	CL	NA	PID=0 Bz=NAB Corrected Depth —
4	NA	NA	12"	Light Olive Brown Clay (2.5Y 5/6), Fractured, w/ Iron Partings, Plastic, SL. Damp	CL	NA	PID=0 Bz=NAB Corrected Depth —
5	NA	NA	12"	Light Olive Brown Clay (2.5Y 5/6), Blocky, Iron in Partings, Plastic, SL. Damp	CL	NA	PID=0 Bz=NAB Corrected Depth —
6	NA	NA	12"	Light Yellowish Brown Clay, (2.5Y 6/4), Very Slightly Silty, Very Plastic, Wet	CL	NA	PID=0 Bz=NAB Corrected Depth —
7	NA	NA	12"	Light Olive Brown Clay (2.5Y 5/6) Soft, Plastic, with Iron Partings. Damp	CL	NA	PID=0 Bz=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000082

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of 2

PROJECT NAME: USED Infiltration Study			PROJECT NUMBER: M RT(TP): 44-0042
BORING NUMBER: 11331	COORDINATES:	RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/2/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/2/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA

IS-2-8

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
8	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) SOFT, PLASTIC, WITH IRON PARTINGS, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
9	NA	NA	12"	GRAYISH BROWN CLAY (2.5Y 5/2) PLASTIC TO V. PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
9.5	NA	NA	6"	GRAYISH BROWN CLAY (2.5Y 5/2) V. PLASTIC DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
	NA	NA			CL	NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth

TD (114")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	C.O.		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000083

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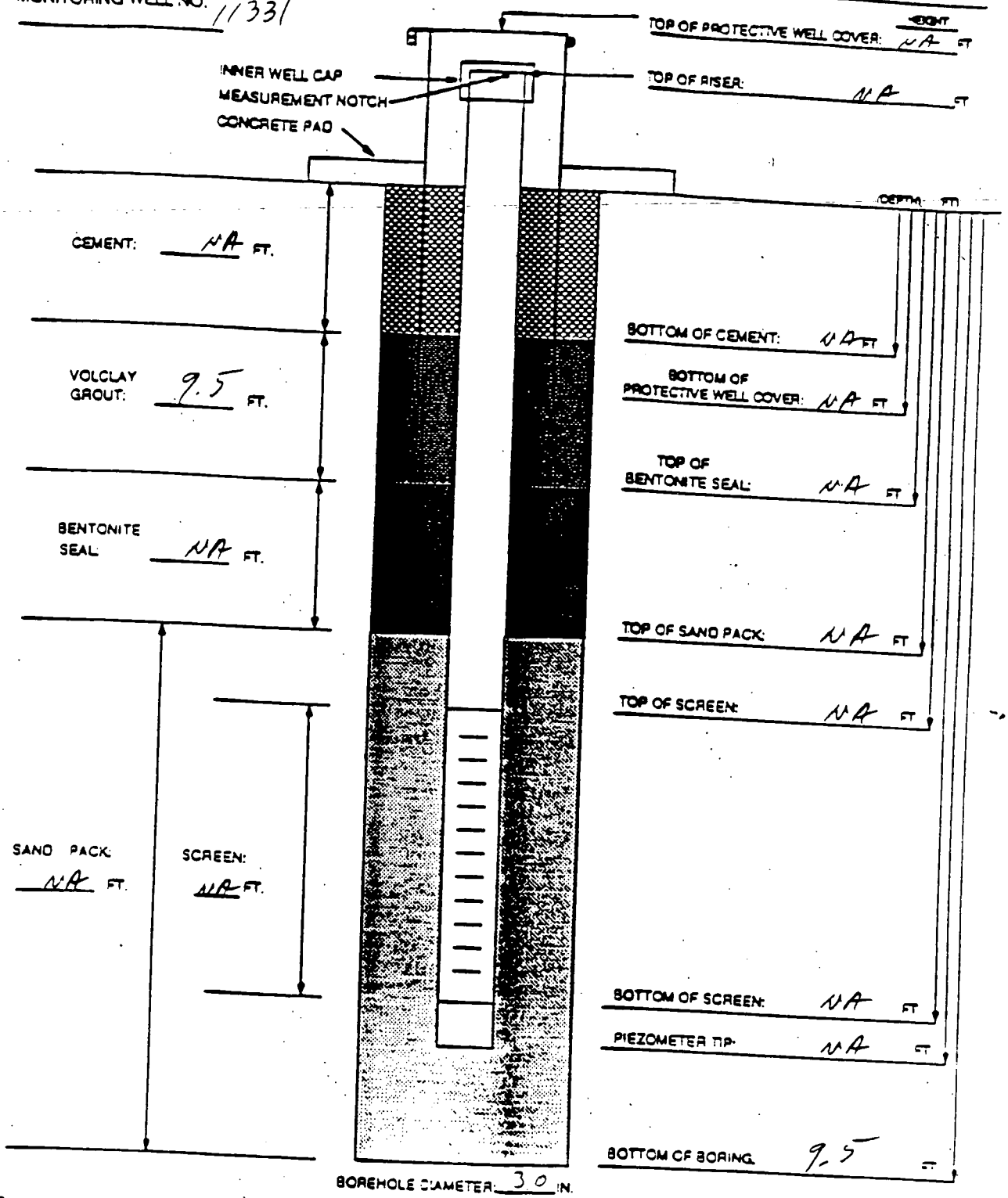
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11331

INSTALLATION DATE: _____



BOREHOLE DIAMETER: 30 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M.R.T(TD): 04-[illegible]02

BORING NUMBER: 11332

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-9

DEPTH (FEET)	SAMPLE TIME, DATE AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (USCS)	REMARKS
1	NA	NA	12"	YELLOWISH BROWN LOAMY SOIL (10YR 5/4) ROOTED, NON PLASTIC, SL. DAMP	OL	NA	PID=0 BZ=NAB Corrected Depth —
2	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
3	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
4	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
5	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
6	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —
7	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PLASTIC, DAMP	CL	NA	PID=0 BZ=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not About Background

FEMP
LITHOLOGIC LOG

CONTROL NUMBER:	
PROJECT NAME:	USED Infiltration Study
PROJECT NUMBER:	MRT(TA)-94-0042
BORING NUMBER:	11332
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/3/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/3/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

IS-2-9

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4) WITH IRON, PLASTIC, DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth
8.5	NA	NA	6"	~~LIGHT~~ OLIVE BROWN CLAY (2.5Y 4/4), ~~WITH IRON~~, MOD. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth
9	NA	NA	6"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) WITH IRON, MOD. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth
10	NA	NA	6"	LIGHT OLIVE BROWN CLAY 2.5Y 5/4) WITH IRON, MOD. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth
10.3	NA	NA	3"	GRAYISH BROWN CLAY (2.5Y 5/2) WITH IRON, MOD. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

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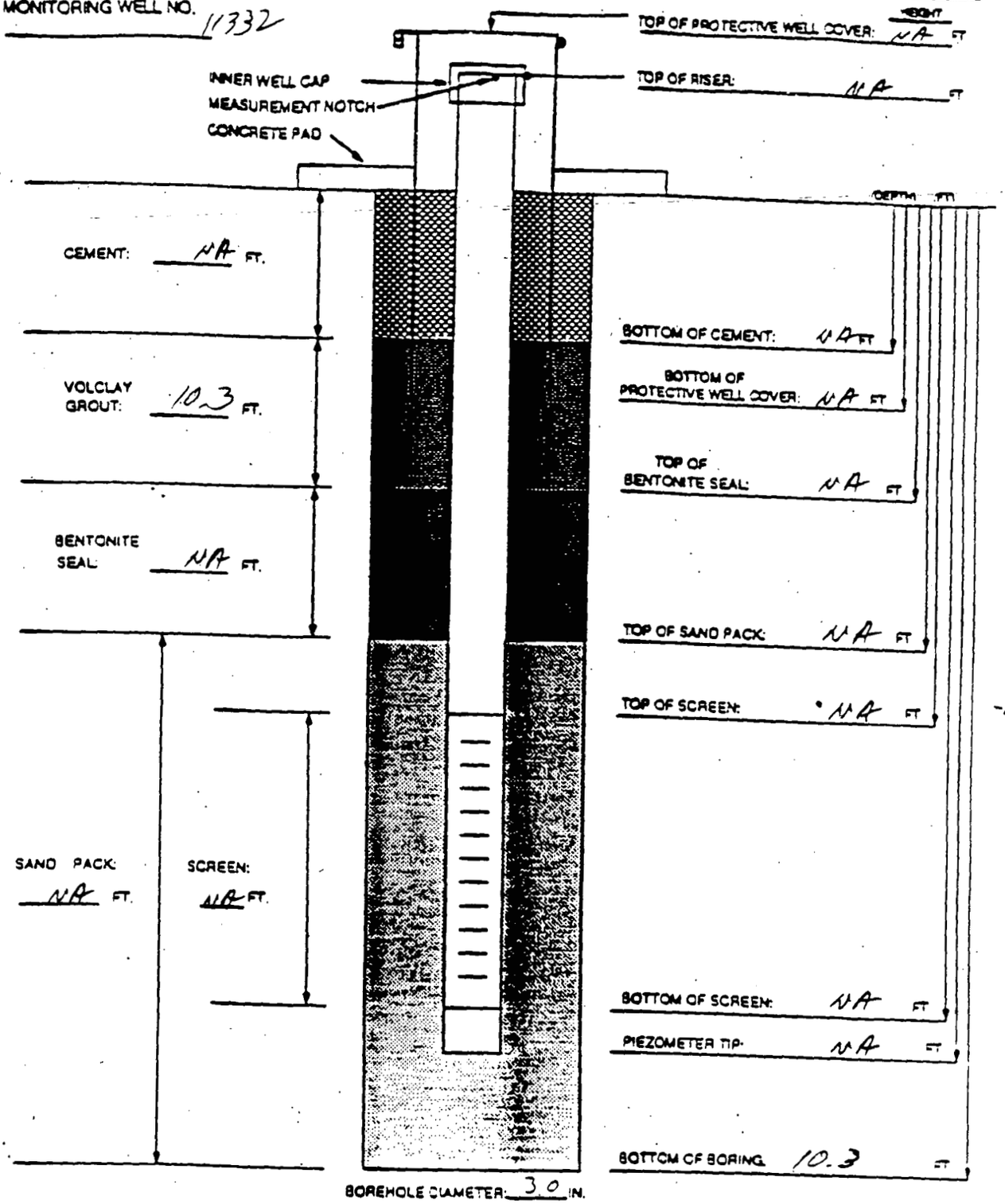
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11332

INSTALLATION DATE: 6/3/84



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP.
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL.
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK.

GEOLOGIST ENGINEER Cliff Lee

5774

FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 1 of 3

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M:RT(TP)[illegible]

BORING NUMBER: 11334

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-11

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (ESF)	REMARKS
1'	NA	NA	12"	YELLOWISH BROWN LOAMY SOIL (10YR 5/4) ROOTED, SL. SILTY NON-PLASTIC, SL. DAMP	OL	NA	PID=0 Bz=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SL. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) FRACTURED, PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) FRACTURED, PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000088

FEMP
LITHOLOGIC LOG

CONTROL NUMBER:

Page 2 of 3

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TA)-[illegible]

BORING NUMBER: 11334

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-11

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7.5'	NA	NA	6"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) WITH IRON, PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
8'	NA	NA	6"	LIGHT OLIVE BRN. CLAY (2.5Y 5/4) W/ IRON, PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
8.5'	NA	NA	6"	OLIVE BROWN (GRAYISH) (2.5Y 4/4) CLAY, W/ IRON, V. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
9'	NA	NA	6"	OLIVE BROWN (GRAYISH) (2.5Y 4/4) CLAY, W/ IRON, V. PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
9.5'	NA	NA	6"	GRAYISH BROWN (2.5Y 5/2) CLAY DENSE, VERY PLASTIC, SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
10'	NA	NA	6"	GRAYISH BROWN (2.5Y 5/2) CLAY DENSE, VERY PLASTIC, SL-DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth —
	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

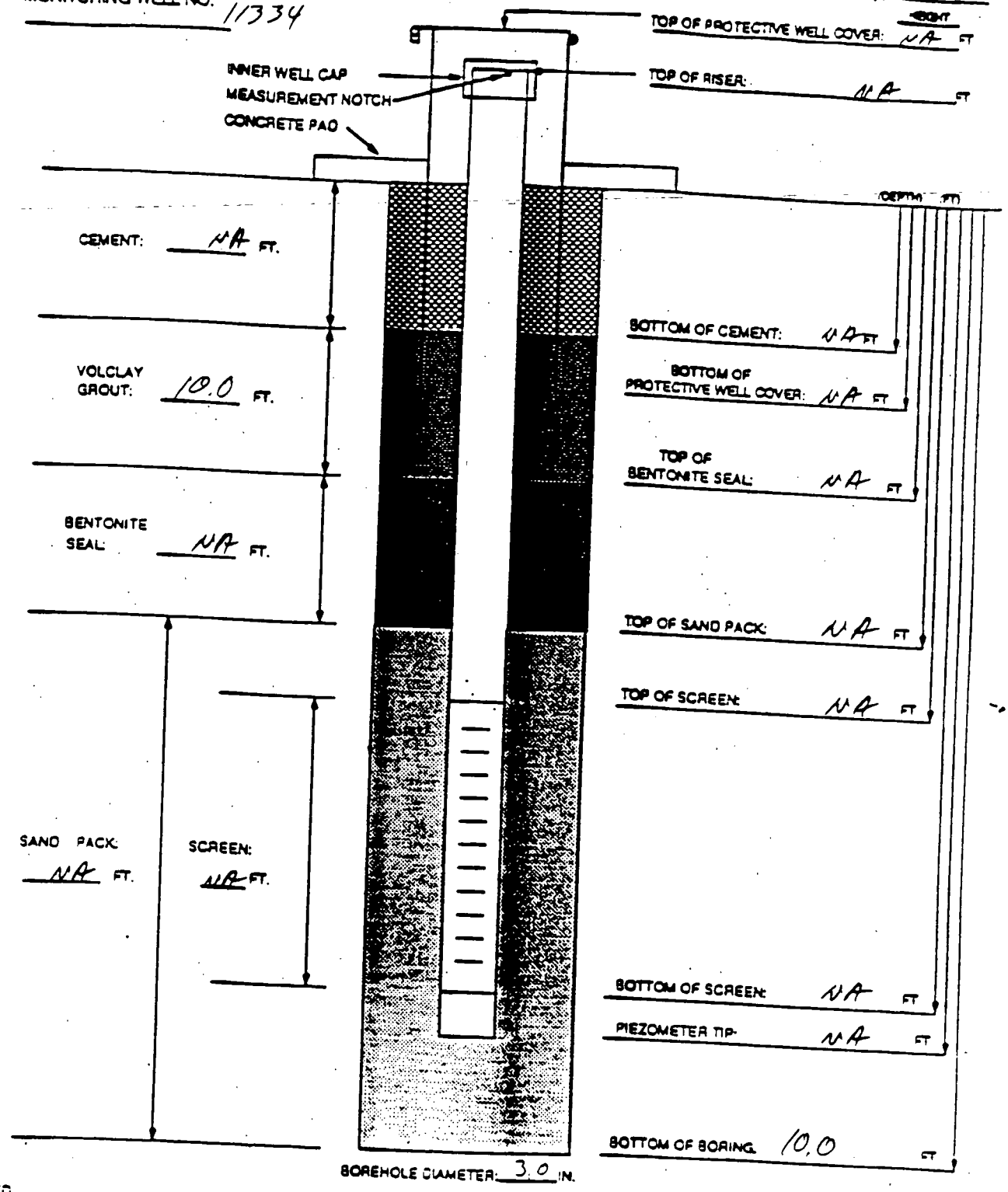
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000089

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11334

INSTALLATION DATE: 6/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

5774

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M: RT(TB): 94-0002

BORING NUMBER: 11335

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-12

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	NA	NA	12"	YELLOWISH BROWN (10 YR 5/4) LOAMY SOIL, ROOTED, NON-PLASTIC, VERY SLIGHTLY DAMP	OL	NA	PID=0 Bp=NAB Corrected Depth —
2'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SL. PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
3	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SL. PLASTIC, SLIGHTLY DAMP.	CL	NA	PID=0 Bp=NAB Corrected Depth —
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) FRACTURED, WITH IRON PARTINGS, PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, WITH IRON PARTINGS, PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) V. SLIGHTLY SILTY, PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) WITH IRON PARTINGS, SOFT, V. PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of 2

PROJECT NAME: USED Infiltration Study	PROJECT NUMBER: M:RT(TD):24-0042
BORING NUMBER: 11335	COORDINATES:
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE STARTED: 6/3/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE COMPLETED: 6/3/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA; DRILLING EQUIPMENT: Hand Auger; DRILLER/HELPER: NA

IS-2-12

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), WITH IRON PARTINGS, SOFT, VERY PLASTIC, DAMP	CL	NA	PID=0 Bp=NAB Corrected Depth —
9'	NA	NA	12"		CL	NA	PID=0 Bp=NAB Corrected Depth —
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth
	NA	NA				NA	PID=0 Bp=NAB Corrected Depth

T.D. (108")

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000092

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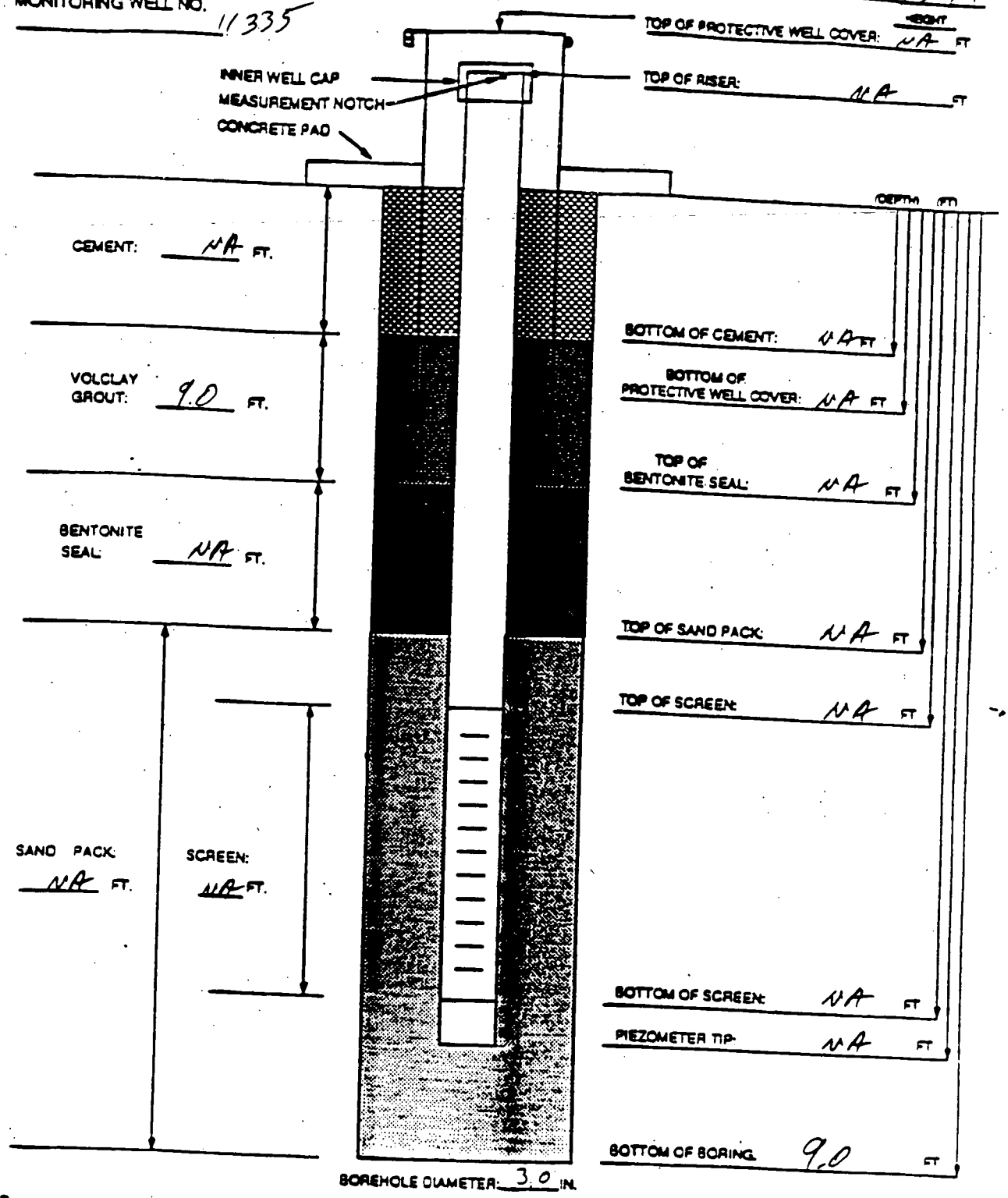
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11335

INSTALLATION DATE: 6/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT NA
AMOUNT OF CEMENT NA
AMOUNT OF WATER USED: NA
OTHER NA
TASK NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(TA)-24-0002

BORING NUMBER: 1336

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) silty clay w/ roots, low plasticity slightly Damp.	OL	NA	PID=0 By=NAB Connected Depth NA
1–2	NA	NA	12	Lt olive Brown (2.5Y, 5/6) silty clay, low to med plasticity, slightly Damp.	CL	NA	PID=0 By=NAB Connected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
3–4	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
4–5	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
5–6	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
6–7	NA	NA	12	Lt olive Brown (2.5Y, 5/4) silty clay w/ Fe staining, low to med plasticity, slightly Damp	CL	NA	PID=0 By=NAB Connected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M RT(TD): 94-0002

BORING NUMBER: 11336

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7 – 8	NA	NA	12	Olive Brown (2.5Y, 4/4) silty Clay w/ Fe stains, low to med Plasticity slightly Damp.	CL	NA	PID=0 By=NAB Connected Depth NA
8 – 9	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
9 – 9.5	NA	NA		Grayish Brown (2.5Y, 5/2) silty Clay, low Plasticity, slightly Damp. Bottom of Boring 9.5 ft	CL	NA	PID=0 By=NAB Connected Depth NA
	NA	NA				NA	PID=0 By=NAB Connected Depth
	NA	NA				NA	PID=0 By=NAB Connected Depth
	NA	NA				NA	PID=0 By=NAB Connected Depth
	NA	NA				NA	PID=0 By=NAB Connected Depth

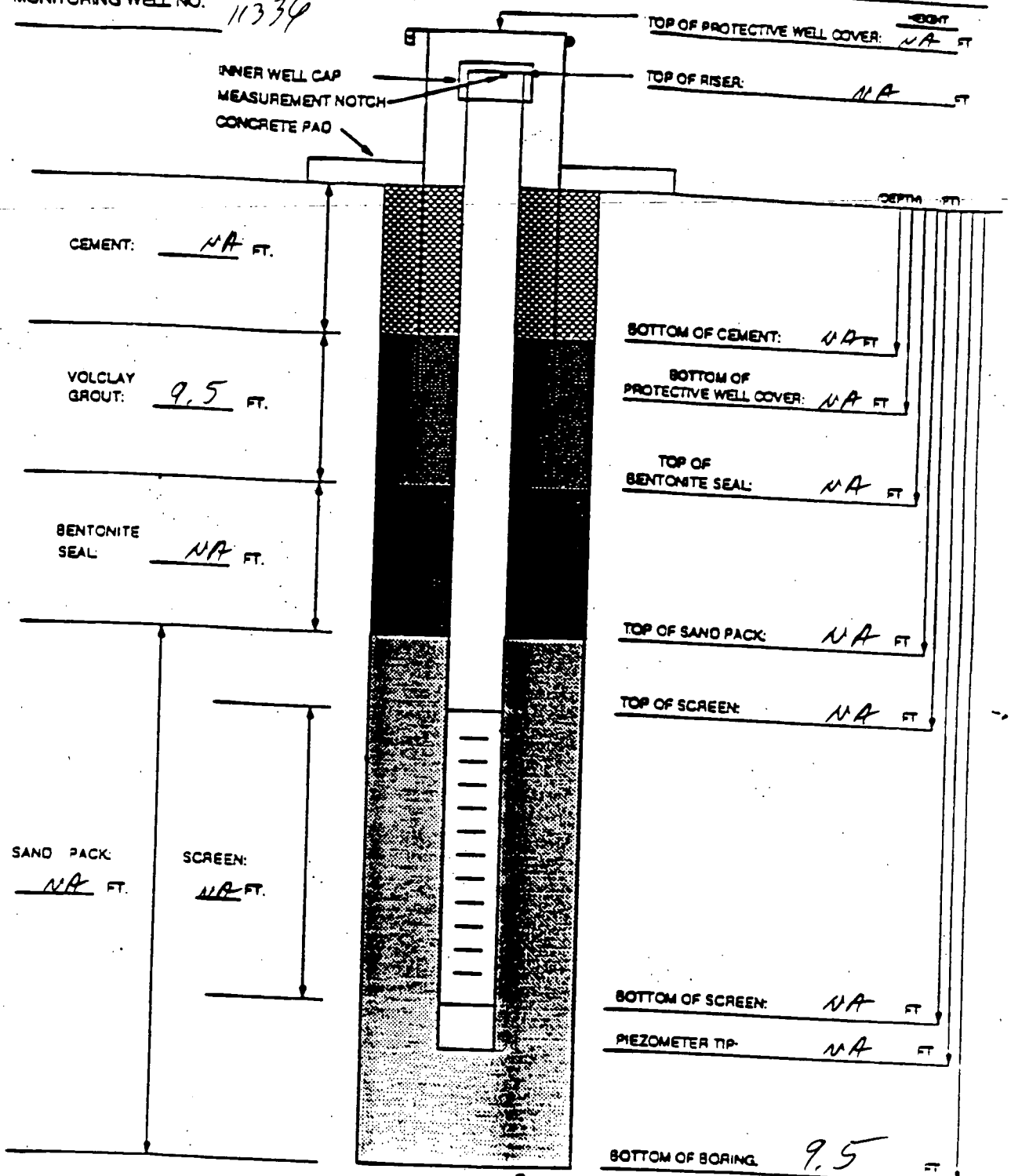
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000095

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11334

INSTALLATION DATE: 9 3 of 3



TOP OF PROTECTIVE WELL COVER: HEIGHT NA FT

TOP OF RISER: NA FT

CEMENT: NA FT.

VOLCLAY GROUT: 9.5 FT.

BENTONITE SEAL: NA FT.

SAND PACK: NA FT.

SCREEN: NA FT.

BOTTOM OF CEMENT: NA FT

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 9.5 FT

BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE: NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

5774

FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 1 of 2

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M.RT(TP)1 94-0042

BORING NUMBER: 11337

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Dark Yellowish Brown Silty Clay Low to Med Plasticity, very slightly Damp.	CL	NA	PID=0 By=NAB Corrected Depth NA
1–2	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Clay, Low to Med Plasticity, Slightly Damp.	CL	NA	PID=0 By=NAB Corrected Depth NA
2–3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
3–4	NA	NA	12	SAA with Fe Stains Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
4–5	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
5–6	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) Silty Clay, Low to Med Plasticity, Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
6–7	NA	NA	12	SAA with Fe Stains	CL	NA	PID=0 By=NAB Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cpm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000097

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MRT(FD): 94-0002

BORING NUMBER: 1337

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
8	NA	NA	6	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
9			6	Lt yellowish Brown (2.5Y, 6/4) Clayey Sand poorly sorted, wet	SC		
	NA	NA		Bottom of Boring		NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not About Background

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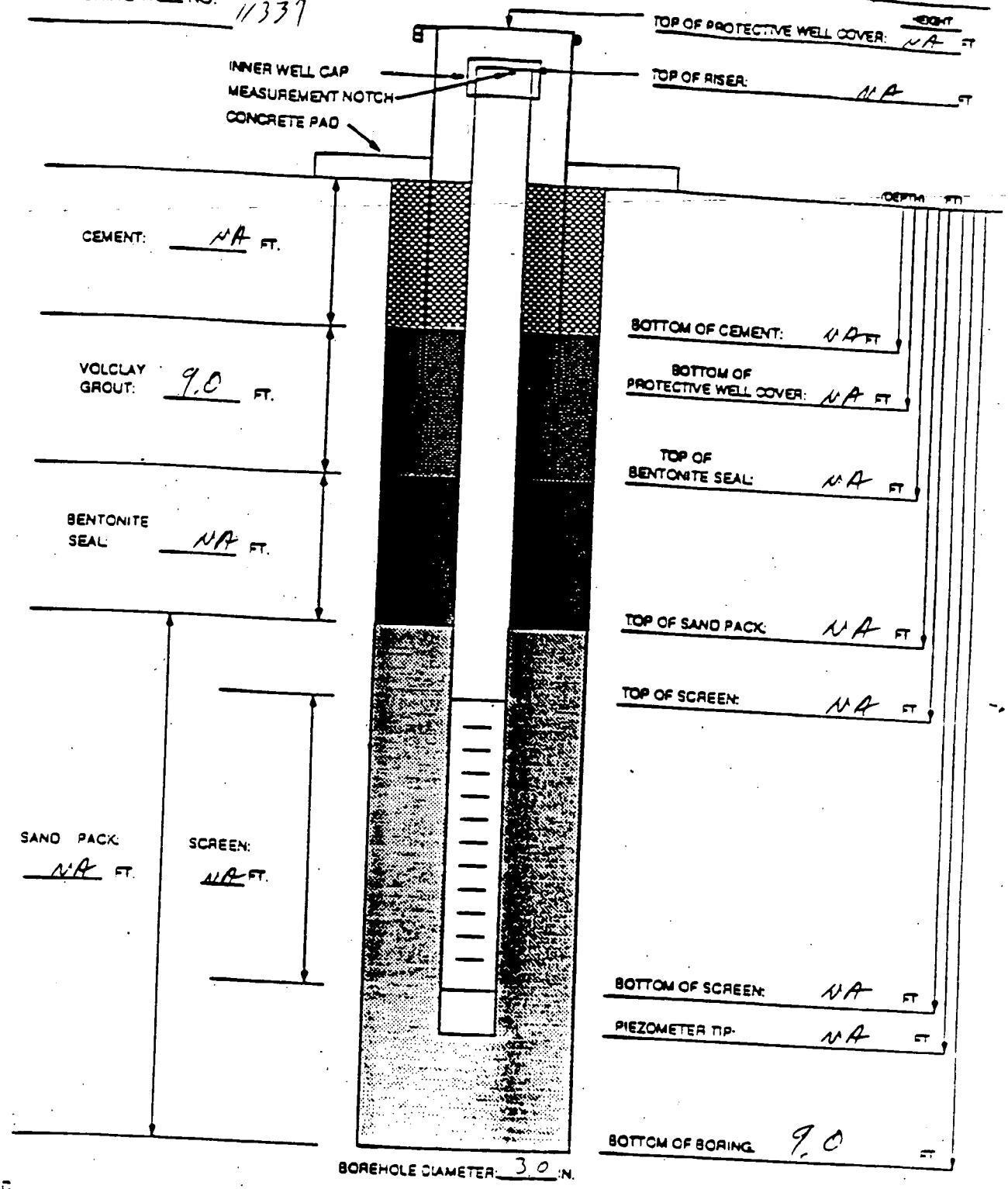
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11337

INSTALLATION DATE: 6/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

FEMP LITHOLOGIC LOG

Page 1 of 3

CONTROL NUMBER:	
PROJECT NAME:	USID Infiltration Study
PROJECT NUMBER:	MIRT(TP)1 [illegible]
BORING NUMBER:	11338
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/3/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/3/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Brownish Yellow (10YR, 6/6) Silty Clay w/Roots Low Plasticity, Slightly Damp.	OL	NA	PID=0 By=NAB Corrected Depth NA
1	NA	NA	12	SAA	OL	NA	PID=0 By=NAB Corrected Depth NA
2	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay Low to med Plasticity, Slightly Damp.	CL	NA	PID=0 By=NAB Corrected Depth NA
3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
4	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
5	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
6	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
7	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

000100

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USTU Infiltration Study

PROJECT NUMBER: MRT(TA): 94-002

BORING NUMBER: 11338

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	Olive Brown (2.5Y, 4/4) silty Sandy Clay w/ Fe Stains, Low to Med Plasticity, Slightly Damp	CL	NA	PID=0 B/G=NAB Connected Depth NA
8	NA	NA	12	Dark Grayish Brown (2.5Y, 4/2) silty Clay, Low to med Plasticity, Slightly Damp	CL	NA	PID=0 B/G=NAB Connected Depth NA
9	NA	NA		Bottom of Boring		NA	PID=0 B/G=NAB Connected Depth
	NA	NA				NA	PID=0 B/G=NAB Connected Depth
	NA	NA				NA	PID=0 B/G=NAB Connected Depth
	NA	NA				NA	PID=0 B/G=NAB Connected Depth
	NA	NA				NA	PID=0 B/G=NAB Connected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

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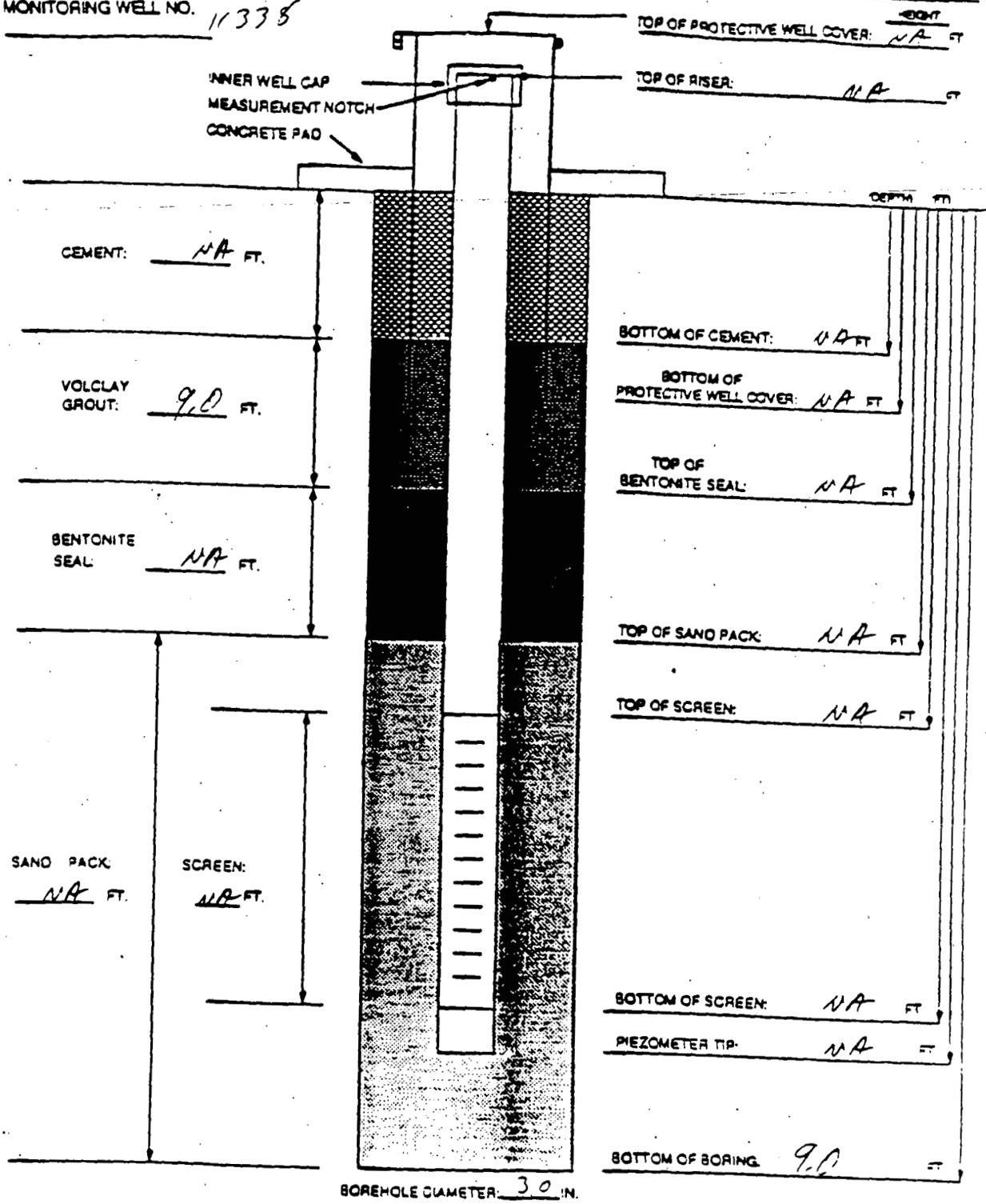
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11338

INSTALLATION DATE: 6/3/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES.

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA):94-0042

BORING NUMBER: 11339

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/3/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/3/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) silty Clay w/ Roots, Low Plasticity Very slightly Damp	OL	NA	PID=0 By=NAB Connected Depth NA
1	NA	NA	12	SAA Lt olive Brown (2.5Y, 5/4) silty Clay Low to med Plasticity slightly Damp	OL CL	NA	PID=0 By=NAB Connected Depth NA
2	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
3	NA	NA	12	Light Olive Brown (2.5Y, 5/4) silty Clay w/ Fe Stains Low to med Plasticity, Damp	CL	NA	PID=0 By=NAB Connected Depth NA
4	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Connected Depth NA
5	NA	NA	12	~~Lt~~ SAA Fe Stains Lt yellowish Brown ~~Gray~~ (2.5Y, 6/4) Coarse Sand clayey w/ Gravel Poorly Sorted, Wet 26 JUL 94	CL SC	NA	PID=0 By=NAB Connected Depth NA
6	NA	NA	12	Lt olive Brown (2.5Y, 5/4) silty Clay Low to med Plasticity Damp	CL	NA	PID=0 By=NAB Connected Depth NA
7							

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

FEMP
LITHOLOGIC LOG

Page 2 of 2

CONTROL NUMBER:	
PROJECT NAME:	USID Infiltration Study
PROJECT NUMBER:	M.RT(TP): 94-0092
BORING NUMBER:	11339
COORDINATES:	
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE STARTED:	6/3/94
GEOLOGIST:	Cliff Lee
GROUNDWATER LEVEL:	NA
DATE:	NA
TIME:	NA
DATE COMPLETED:	6/3/94
WATER USED DURING DRILLING:	NA
DRILLING CONTRACTOR:	NA
DRILLING EQUIPMENT:	Hand Auger
DRILLER/HELPER:	NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
8	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth NA
9	NA	NA	12	Grayish Brown (2.5Y, 5/2) Silty Clay Low to Med. Plasticity Damp	CL	NA	PID=0 By=NAB Corrected Depth NA
10				Bottom of Boring 9.5 ft			
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

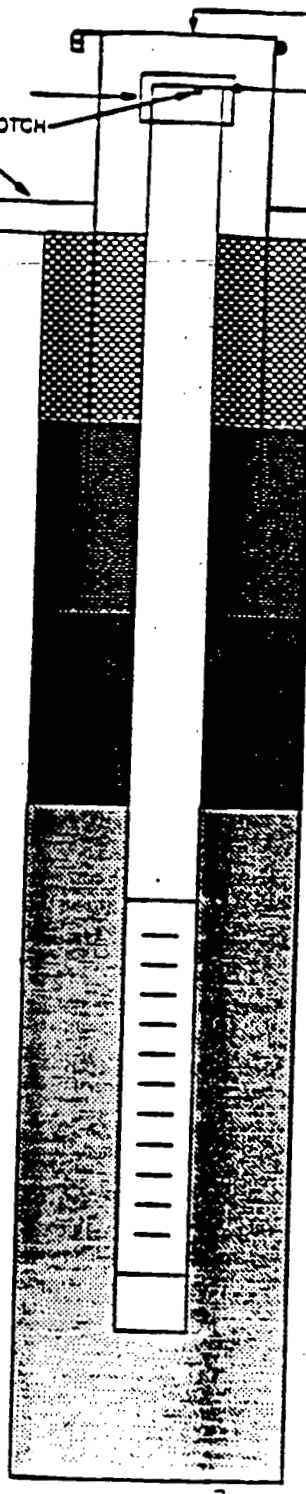
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11339

pg 2 of 3

INSTALLATION DATE: 4/3/94

TOP OF PROTECTIVE WELL COVER: HEIGHT NA FT

TOP OF RISER: NA FT



(DEPTH FT)

CEMENT: NA FT.

BOTTOM OF CEMENT: NA FT

VOLCLAY GROUT: 9.5 FT.

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

BENTONITE SEAL: NA FT.

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

SAND PACK: NA FT.

SCREEN: NA FT.

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 9.5 FT

BOREHOLE DIAMETER: 30 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

CONTROL NUMBER:

FEMP LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MIRT(TP)1 94-0092

BORING NUMBER: 11340

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/6) Silty Clay w/ Roots Low Plasticity Very Slightly Damp	OL	NA	PID=0 By=NAB Corrected Depth Drilled At 45° Angle .71ft
1	NA	NA	12	SAA	OL	NA	PID=0 By=NAB Corrected Depth 1.41ft
2	NA	NA	12	Lt olive Brown (2.5Y, 5/4) Silty Clay Low to med Plasticity, Slightly Damp.	OL/CL	NA	PID=0 By=NAB Corrected Depth 2.12ft
3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 2.53ft
4	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 3.54ft
5	NA	NA	12	Lt. olive Brown (2.5Y, 5/6) Silty Clay Low to med Plasticity, Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 4.24
6	NA	NA	12	Lt. yellowish Brown (2.5Y, 6/4) Silty Clay w/ Fe Stains Low to med Plasticity, Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 4.95
7							

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of ~~2~~ 3

PROJECT NAME: USID Infiltration Study				PROJECT NUMBER: M RT(TP)1 94-0092
BORING NUMBER: 11340	COORDINATES:	RELATED FAL NUMBERS:		
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/5/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/5/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA	

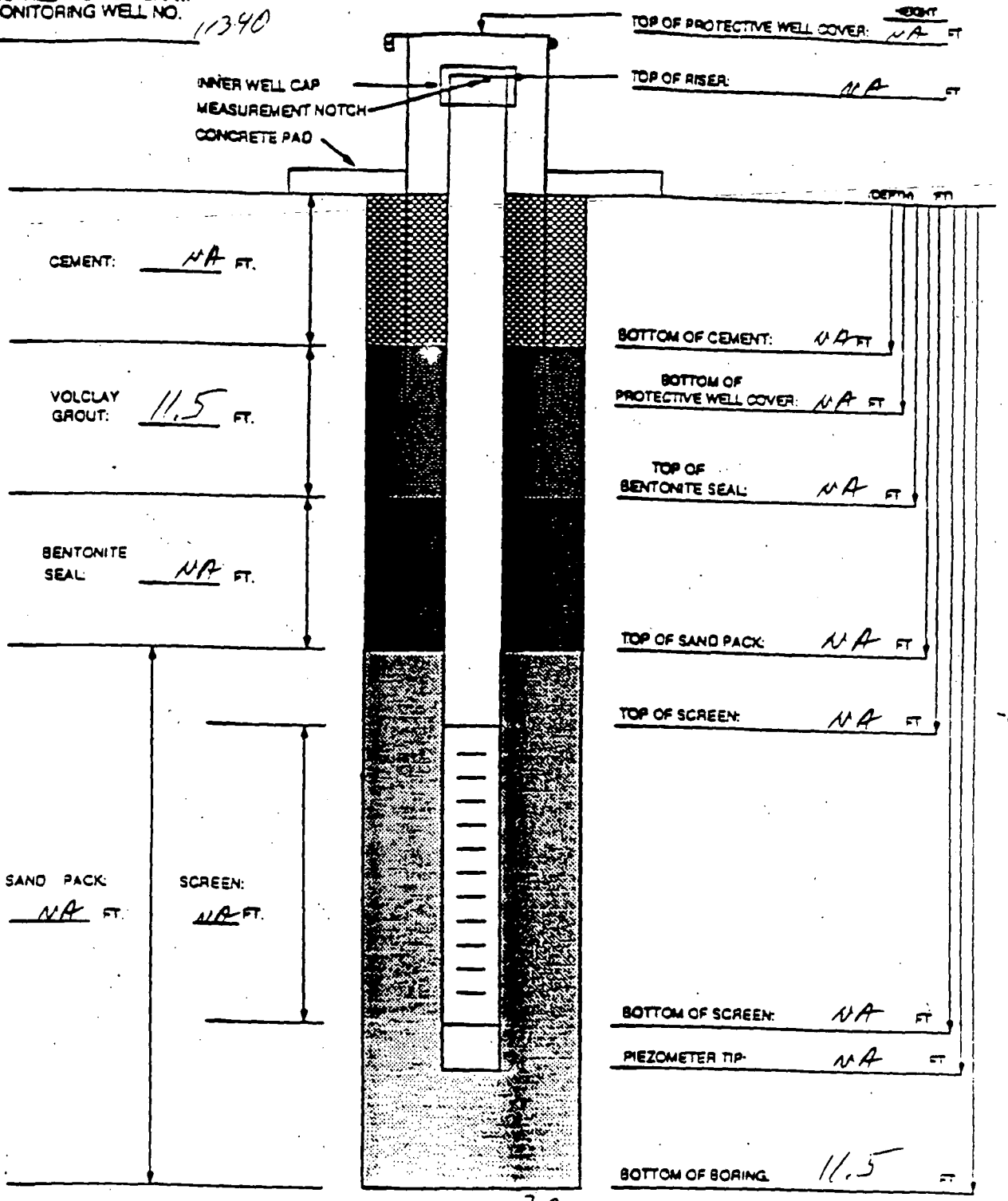
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7–8	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 5.66
8–9	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Clay, Low to med Plasticity, Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 6.36
9–10	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 7.07
10–11	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Clay w/ Fe Stains, Low to med Plasticity Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 7.79
11–11.5	NA	NA	6	SAA Bottom of Boring 11.5 ft	CL	NA	PID=0 By=NAB Corrected Depth 9.13
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11340

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 30 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MIRT(TP)194-0042

BORING NUMBER: 11341

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

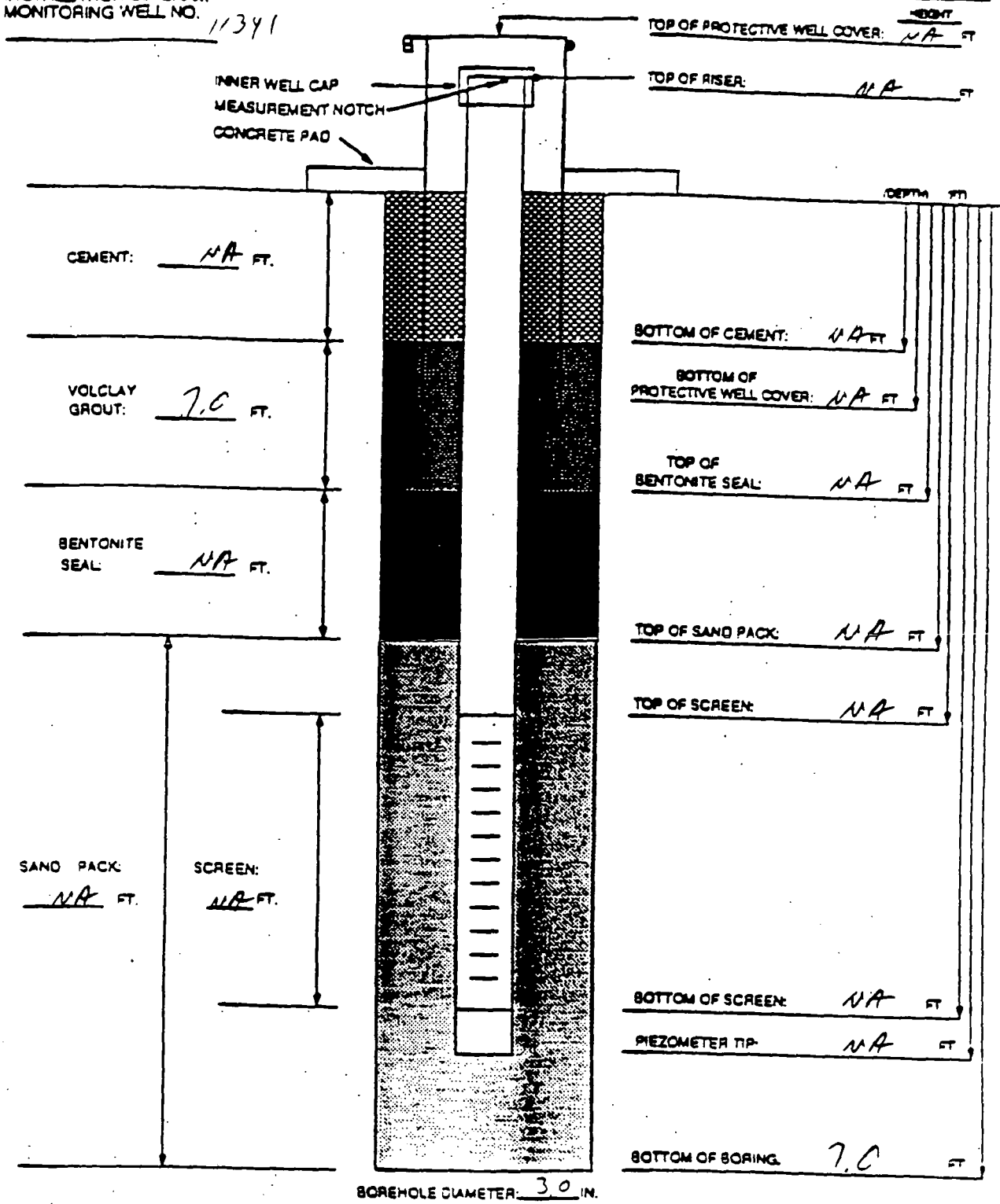
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/6) Silty Clay with Roots Low Plasticity Very Slightly Damp.	OL	NA	PID=0 Bz=NAB Corrected Depth 0-.7ft Drilled At 45° Angle
1	NA	NA	12	Yellowish Brown (10YR, 5/6) Silty Clay w/ Roots Low Plasticity, Very Slightly Damp.	OL	NA	PID=0 Bz=NAB Corrected Depth 0.9-1.4ft
2	NA	NA	12	Yellowish Brown (10YR 5/6) Silty Clay w/ Roots Low Plasticity, Very Slightly Damp.	OL	NA	PID=0 Bz=NAB Corrected Depth 1.4-2.1ft
3	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay with Fe Stains Low Plasticity Slightly Damp.	CL	NA	PID=0 Bz=NAB Corrected Depth 2.1-2.8ft
4	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 2.8-3.5ft
5	NA	NA	12	Light Olive Brown (2.5Y, 5/4) with pale yellow Mottling (2.5Y 8/2) Silty Clay Slightly Damp, Low To Med Plasticity	CL	NA	PID=0 Bz=NAB Corrected Depth 3.5-4.2ft
6	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 4.2-4.9ft
7				Bottom of Boring			

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	50 cm		

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11341

INSTALLATION DATE: 6/7/94



BOREHOLE DIAMETER: 30 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0 NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA):94-0042

BORING NUMBER: 11342

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1	NA	NA	12	Yellowish Brown (10YR 5/4) Silty Clay w/ Roots, Low Plasticity Slightly Damp	OL	NA	PID=0 Br=NAB Drilled At 25' Angle Corrected Depth 0-.4ft
2	NA	NA	12	SAA	OL	NA	PID=0 Br=NAB Corrected Depth .4-1.8ft
3	NA	NA	12	Yellowish Brown (10YR 5/6) Silty Clay w/ Fe Stains, Low to Med Plasticity Slightly Damp	CL	NA	PID=0 Br=NAB Corrected Depth 1.8-2.7ft
4	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Clay w/ Fe Stains Low to Med Plasticity Slightly Damp.	CL	NA	PID=0 Br=NAB Corrected Depth 2.7-3.6ft
5	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) Silty Clay w/ Fe Stains Low to Med. Plasticity Slightly Damp	CL	NA	PID=0 Br=NAB Corrected Depth 3.6-4.5ft
6	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) Silty Clay w/ Fe Stains Low to Med Plasticity Very Slightly Damp	CL	NA	PID=0 Br=NAB Corrected Depth 4.5-5.4ft
7	NA	NA	12	Lt Olive Brown (2.5Y, 5/4) w/ Pale Yellow Mottling (2.5Y, 8/2) Silty Clay w/ Fe Stains Very Slightly Damp w Low to Med Plasticity	CL	NA	PID=0 Br=NAB Corrected Depth 5.4-6.3ft

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA	[illegible]		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA):94-0042

BORING NUMBER: 11342

COORDINATES:

RELATED SAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

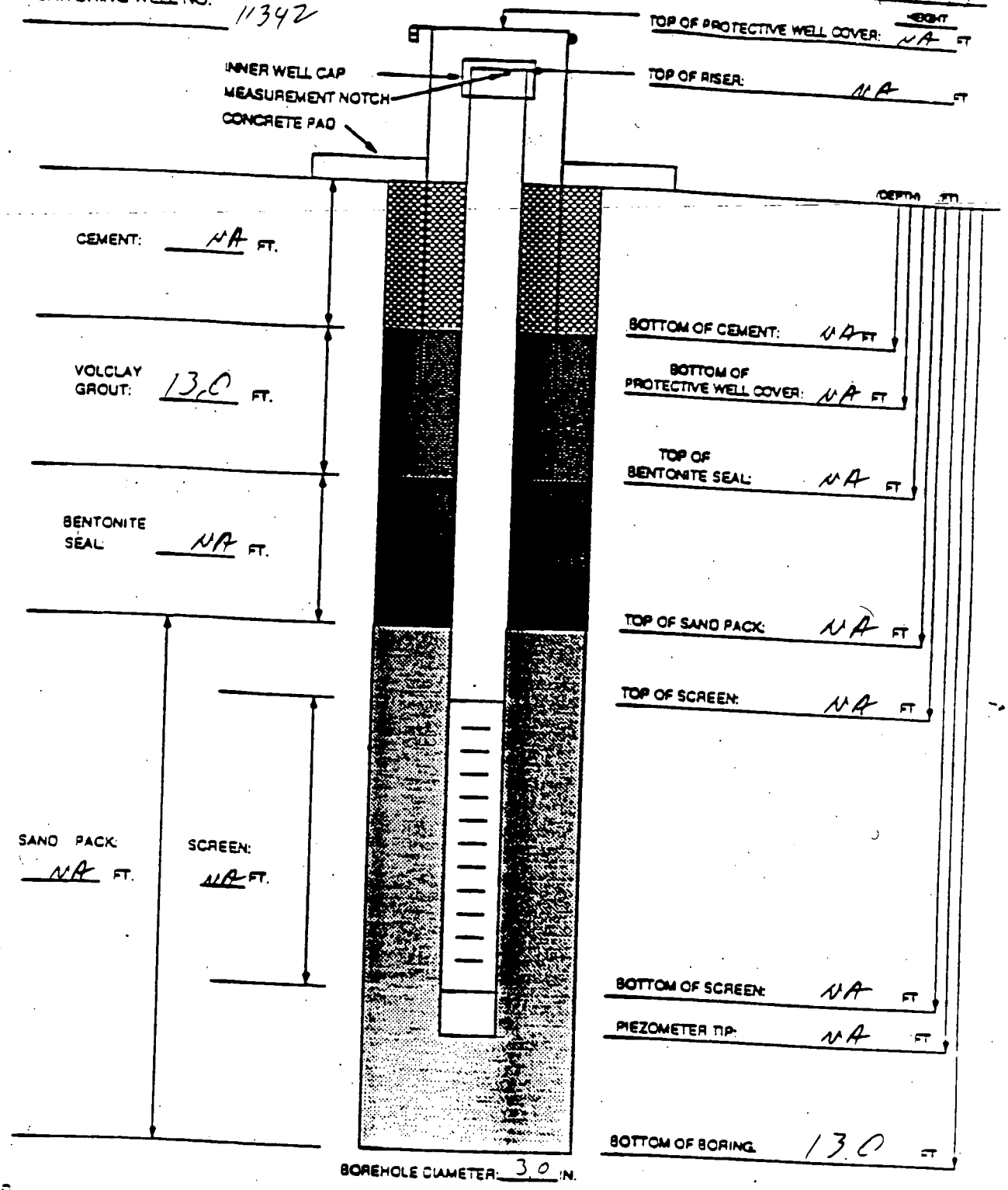
DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (tsf)	REMARKS
7	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 5.4-6.3 ft
8	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 6.3-7.3 ft
9	NA	NA	12	Light Olive Brown (2.5Y, 5/4) Silty Clay low to med plasticity very slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 7.3-8.2 ft
10	NA	NA	12	SAA with Fe stains, slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 8.2-9.1 ft
11	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 9.1-10.0 ft
12	NA	NA	12	Dark Grayish Brown (2.5Y, 4/2) Silty Clay, very slightly Damp medium plasticity	CL	NA	PID=0 By=NAB Corrected Depth 10.0-10.9 ft
13				Bottom of Boring			

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11342

INSTALLATION DATE: 6/4/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0.NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: C. Ft. Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USEO Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0092

BORING NUMBER: 1343

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR 5/4) Silty Clay, with Roots Low Plasticity, Very Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 0-0.9 ft
1–2	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay with Fe Stains Low-Med Plasticity, Very Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 0.9-1.7 ft
2–3	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 1.7-2.6 ft
3–4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay w/ Fe Stains, Low to med Plasticity Slightly Damp	CL	NA	PID=0 By=NAB Corrected Depth 2.6-3.5 ft
4–5	NA	NA	12	Light Olive Brown (2.5Y, 5/4) SAA	CL	NA	PID=0 By=NAB Corrected Depth 3.5 ft-4.3 ft
5–6	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 4.3-5.2 ft
6–7	NA	NA	12	SAA	CL	NA	PID=0 By=NAB Corrected Depth 5.2-6.1 ft

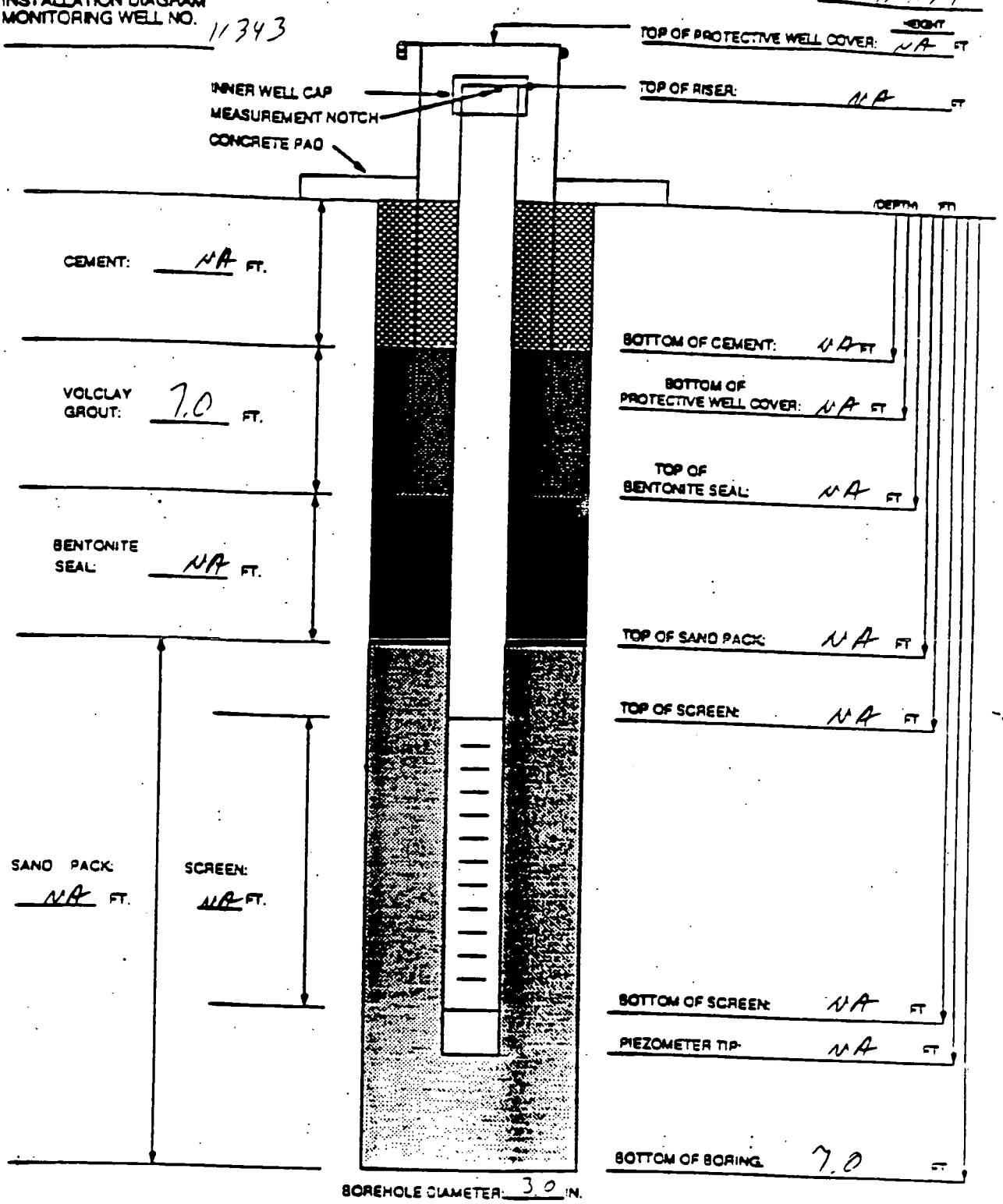
Bottom of Boring

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11343

INSTALLATION DATE: 4/4/94



MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER Cliff Lee

FEMP LITHOLOGIC LOG

CONTROL NUMBER:

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MIRT(TP)1 94-0092

BORING NUMBER: 11344

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay w/ Roots Low Plasticity, Very Slightly Damp	OL	NA	PID=0 Bz=NAB Corrected Depth 0-.8ft
1	NA	NA	12	SAA	OL	NA	PID=0 Bz=NAB Corrected Depth .8-1.6ft
2	NA	NA	12	Light Olive Brown (2.5Y/5/6) Silty Clay w/ Fe Stains Low to Med Plasticity Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 1.6-2.5ft
3	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 2.5-3.3ft
4	NA	NA	12	Light Olive Brown (2.5Y, 6/4) w/ pale yellow (2.5Y, 8/2) Mottling Silty Clay Low to med Plasticity, Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 3.3-4.1ft
5	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 4.1-4.9ft
6	NA	NA	12	Light Olive Brown (2.5Y, 5/6) with pale yellow Mottling (2.5Y, 8/2) Silty Clay w/ Fe Stains Low - med. Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 4.9ft-5.7ft
7							

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

000116

FEMP
LITHOLOGIC LOG

CONTROL NUMBER:				
PROJECT NAME: USED Infiltration Study				PROJECT NUMBER: M.RT(TP)1 44-0002
BORING NUMBER: 11344	COORDINATES:		RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/4/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/4/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger		DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) w/ pale yellow (2.5Y, 8/2) mottling silty Clay Low to med. Plasticity, slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 5.7-6.6ft
8	NA	NA	12	Olive yellow (2.5Y, 6/6) w/ pale yellow (2.5Y, 8/2) mottling silty Clay w/ Fe stains Low to med plasticity slightly Damp.	CL	NA	PID=0 Bz=NAB Corrected Depth 6.6-7.4ft
9	NA	NA	12	SAA Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 7.4-8.2ft
10	NA	NA	12	Light yellowish Brown (2.5Y 6/4) silty Clay w/ Fe stains, Low to med plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 8.2-9.0ft
11	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Clay Low to med. Plasticity, moist	CL	NA	PID=0 Bz=NAB Corrected Depth 9.0-9.8ft
12	NA	NA	12	SAA Bottom of Boring	CL	NA	PID=0 Bz=NAB Corrected Depth
13	NA	NA				NA	PID=0 Bz=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):24-0002

BORING NUMBER: 11345

COORDINATES: N/A

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-A6

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	NA	Loamy soil, rooted, light olive brown (2.5Y 5/6), silty non-plastic, very slightly damp	OL	NA	PID=0 By=NAB Corrected Depth 0.8
2'	NA	NA	NA	Clay, blocky, slightly plastic, light olive brown (2.5Y 5/6) fractured, rooted, very slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 1.6'
3'	NA	NA	NA	Clay, blocky, rooted with iron specks, light olive brown (2.5Y 5/6) plastic, very slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 2.5'
4'	NA	NA	NA	Clay, blocky, crumbly, non-plastic, med. light olive brown (2.5Y 5/4), with Iron specks, slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 3.3'
5'	NA	NA	NA	CLAY, olive brown, plastic, (2.5Y 4/4), fractured, with iron partings along fractures	CL	NA	PID=0 By=NAB Corrected Depth 4.1'
6'	NA	NA	NA	CLAY, BLOCKY, PLASTIC MOTTLED (PALE yellow 2.5Y 8/2), CLAY LIGHT OLIVE BROWN (2.5Y 5/4) WITH IRON PARTINGS	CL	NA	PID=0 By=NAB Corrected Depth 4.9
7' TD (UNCORRECTED)	NA	NA	NA	CLAY LIGHT OLIVE BROWN (2.5Y 5/4) BLOCKY, FRACTURED, CRUMBLY, NON-PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth TD 5.1'

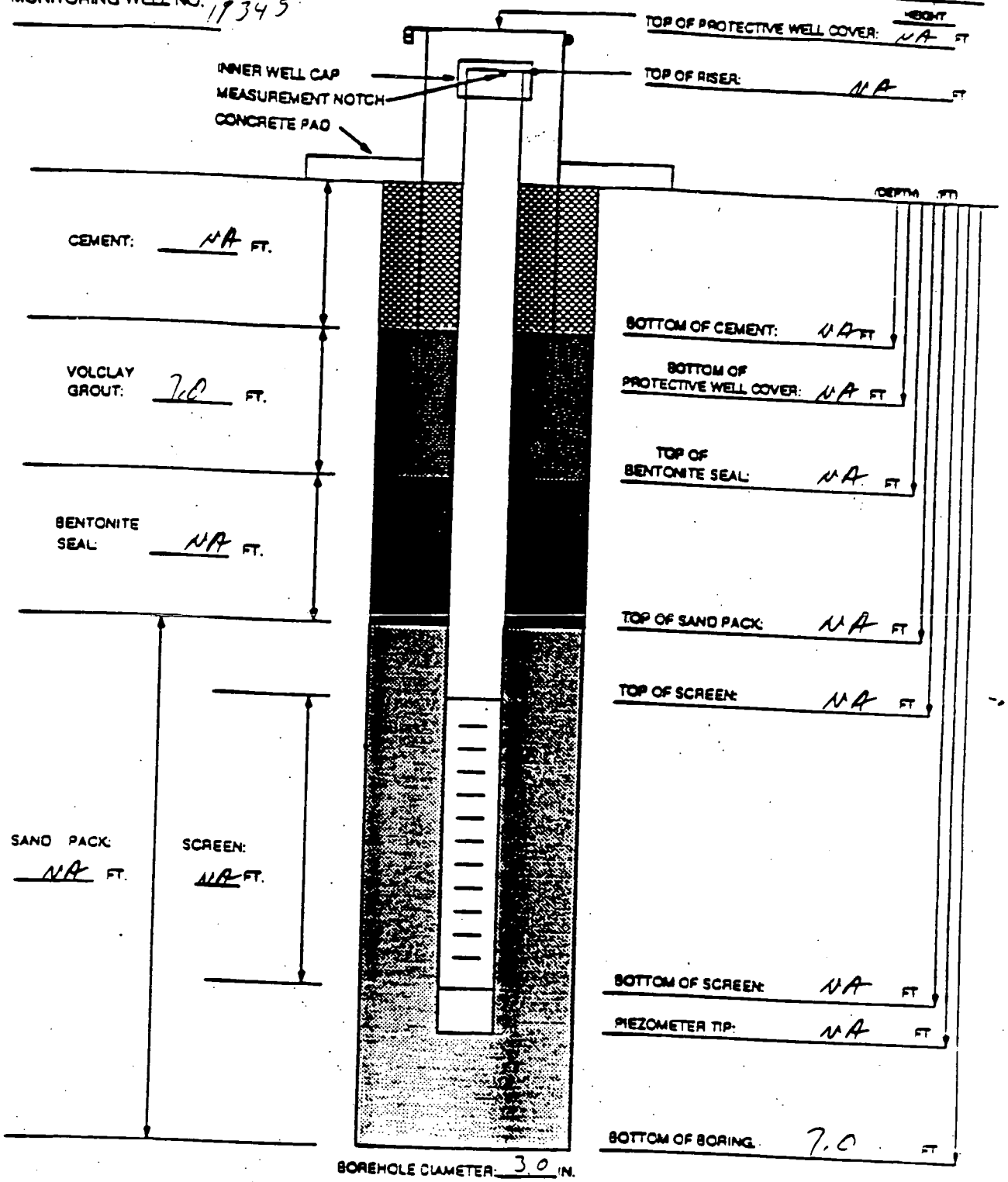
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

pg 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 19345

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

000119

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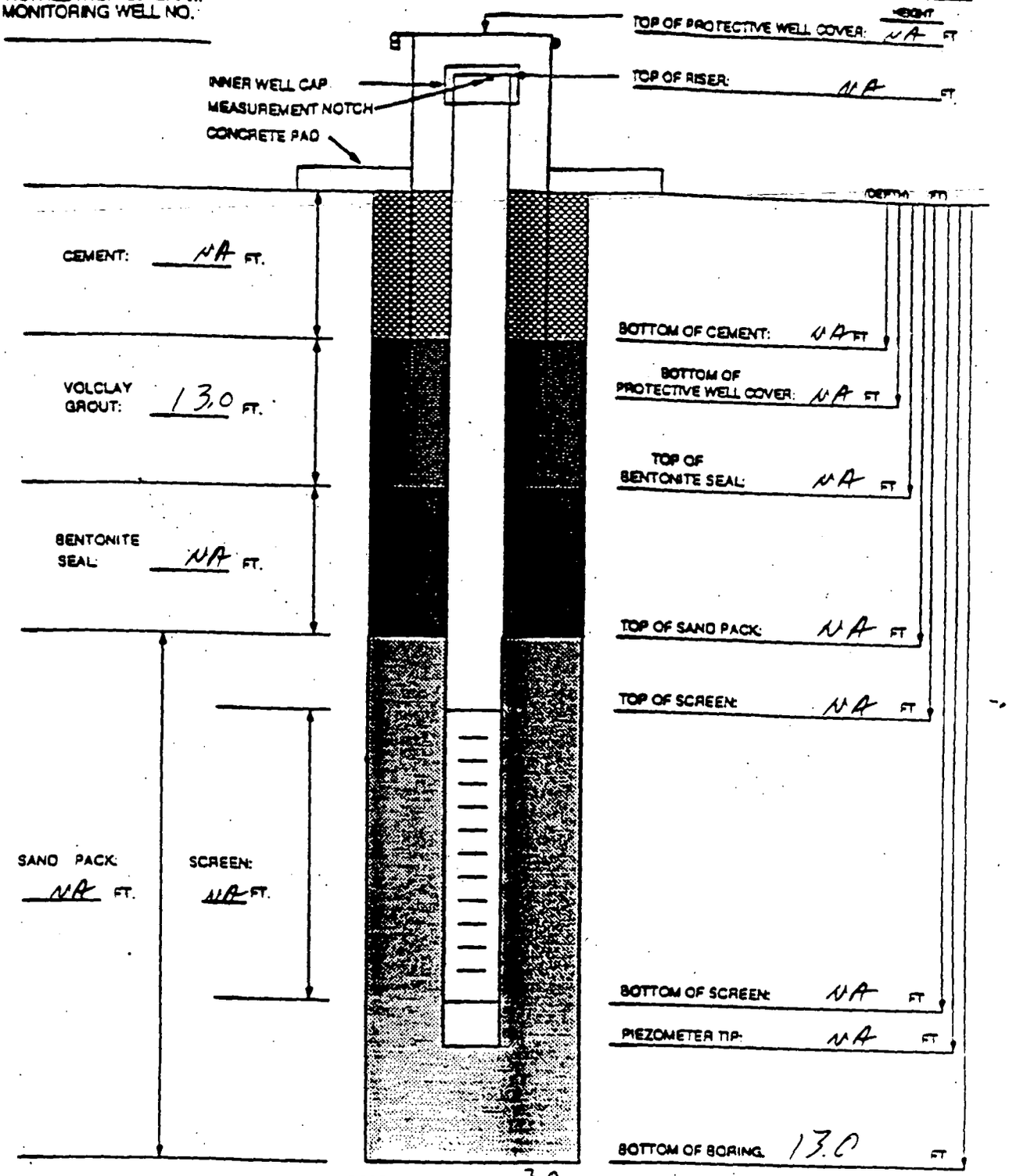
FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO.

INSTALLATION DATE: 6/14/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: MIRT(TA)1 24-0002

BORING NUMBER: 11346

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA DATE: NA TIME: NA DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA DATE: NA TIME: NA DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-A7

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	LIGHT OLIVE BROWN LOAMY SOIL (2.5Y 5/4), SILTY, ROOTED NON-PLASTIC, very slightly damp	OL	NA	PID=0 Bz=NAB Connected Depth 0.8'
2'	NA	NA	12"	LIGHT OLIVE BROWN LOAMY SOIL (2.5Y 5/4), SILTY, ROOTED NON-PLASTIC VERY slightly damp	OL	NA	PID=0 Bz=NAB Connected Depth 1.7'
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, mottled, WITH IRON PARTINGS, SLIGHTY PLASTIC, VERY SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Connected Depth 2.6
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, CRUMBLY, NON-PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Connected Depth 3.5'
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), CRUMBLY, NON-PLASTIC, WITH IRON SPECKS, MOTTLED (2.5Y 8/2) PALE YELLOW SPECKS, SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Connected Depth 4.5'
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), BLOCKY, CRUMBLY, WITH IRON SPECKS, PALE YELLOW (2.5Y 8/2) MOTTLING, SLIGHTLY DAMP NON-PLASTIC	CL	NA	PID=0 Bz=NAB Connected Depth 5.2'
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, CRUMBLY NON-PLASTIC PALE TO LIGHT GRAY (2.5Y 7/2) MOTTLING, DAMP	CL	NA	PID=0 Bz=NAB Connected Depth 6.1'

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11346

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) BLOCKY, WITH IRON PARTINGS/SPECKS SOFT, MOD. PLASTIC, SLIGHTLY MOIST.	CL	NA	PID=0 By=NAB Corrected Depth 6.9'
9'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON PARTINGS, LIGHT GRAY MOTTLING (2.5Y 7/2), ~PLASTIC, SLIGHTY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 7.8'
10'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON PARTINGS. SLIGHTLY PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 8.7'
11'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS. SOFT, VERY PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth 9.5'
12' TD UNCORRECTED	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), SOFT, VERY PLASTIC, DAMP		NA	PID=0 By=NAB Corrected Depth TD. 10.4'
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0	000122	
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USID Infiltration Study

PROJECT NUMBER: M:RT(TP):94-0092

BORING NUMBER: 11347

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	LIGHT YELLOWISH BROWN LOAMY SOIL (2.5Y 6/4), ROOTED, SILTY DRY, NON-PLASTIC	OL	NA	PID=0 Bz=NAB Corrected Depth 0.7'
2'	NA	NA	12"	~~LIGHT OLIVE~~ YELLOWISH BROWN CLAY (10YR 5/6) AND LOAMY SOIL, IRON PARTINGS, SOFT, MOD. PLASTIC, VERY SLIGHTLY DAMP	OL/CL	NA	PID=0 Bz=NAB Corrected Depth 1.4'
3'	NA	NA	12"	YELLOWISH BROWN CLAY (10YR 5/6), BLOCKY, FRACTURED, WITH IRON SPECKS, SL. PLASTIC, VERY SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth 2.1'
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, WITH IRON SPECKS, SOFT, PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth 2.8'
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SOFT, PLASTIC, WITH PALE YELLOW (2.5Y 8/4) MOTTLING, SLIGHTLY DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth 3.5'
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, FRACTURED, WITH IRON SPECKS, SL. PLASTIC, SLIGHTY DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth 4.2'
7' UNCORRECTED T.D.	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON SPECKS, HAVING PALE YELLOW (2.5Y 8/2) MOTTLING V.SL. PLASTIC, V.SL. DAMP	CL	NA	PID=0 Bz=NAB Corrected Depth TD 4.9'

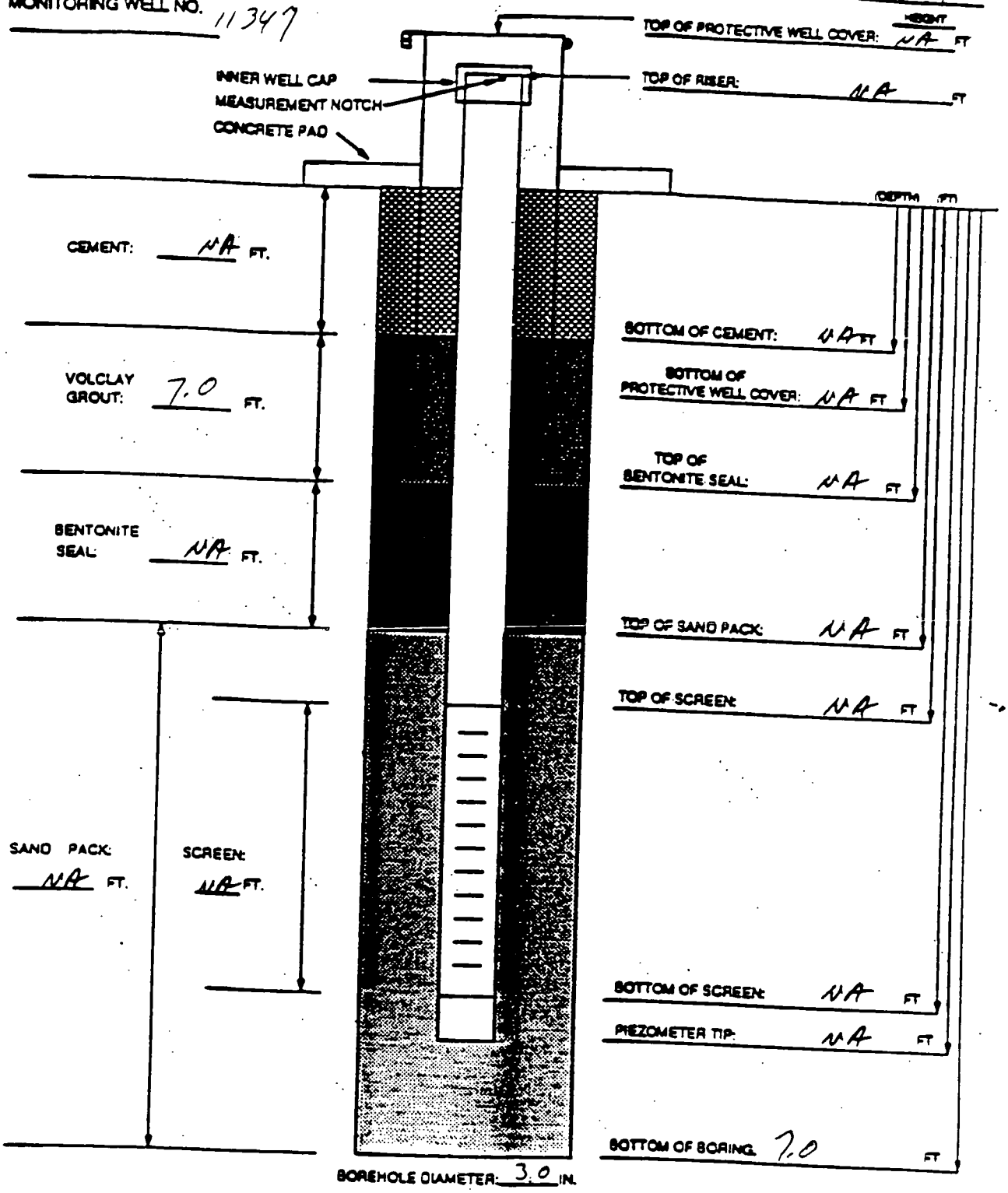
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

pg 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11347

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE. FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

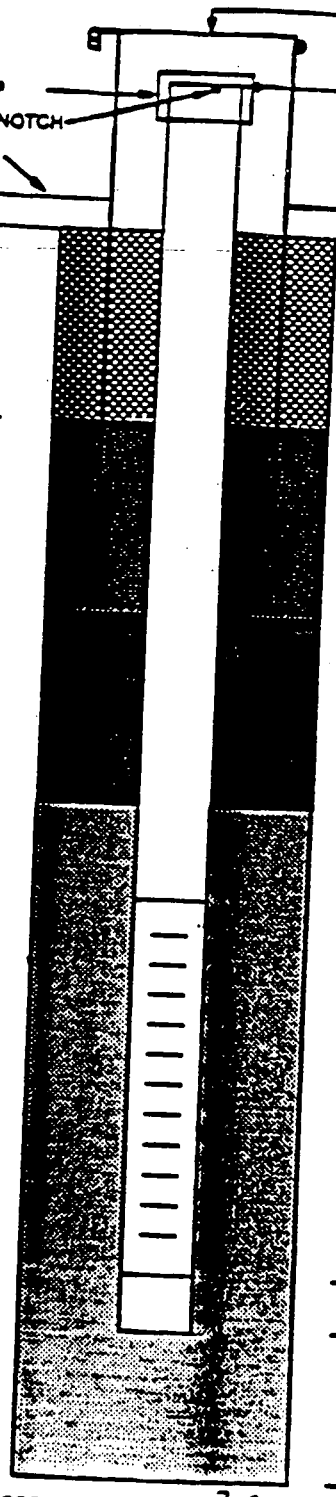
p93 of 3

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11346

INSTALLATION DATE: 6/5/94

TOP OF PROTECTIVE WELL COVER: HEIGHT NA FT

TOP OF RISER: NA FT



DEPTH (FT)

CEMENT: NA FT.

VOLCLAY GROUT: 12.0 FT.

BENTONITE SEAL: NA FT.

SAND PACK: NA FT.

SCREEN: NA FT.

BOTTOM OF CEMENT: NA FT

BOTTOM OF PROTECTIVE WELL COVER: NA FT

TOP OF BENTONITE SEAL: NA FT

TOP OF SAND PACK: NA FT

TOP OF SCREEN: NA FT

BOTTOM OF SCREEN: NA FT

PIEZOMETER TIP: NA FT

BOTTOM OF BORING: 120 FT

BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA

BENTONITE PELLETS (5-GALLON BUCKETS): NA

BAGS OF VOLCLAY GROUT: NA

AMOUNT OF CEMENT: NA

AMOUNT OF WATER USED: NA

OTHER: NA

TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.

2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.

3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP

4) WATER DEPTH AND DATE NA: NA

5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP

6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL

7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

1993 RCRA ANNUAL REPORT

The 1993 RCRA Annual Report must be modified to incorporate information developed during ongoing characterization efforts. Attached is the revised 1993 Facility Annual Hazardous Waste Report section. There were seven inventory revisions this quarter to report for waste streams generated prior to 1994. Two of these revisions were for typographical errors. There were nineteen waste streams generated prior to 1994 added to the report.

The following is a list of corrections and additions to this section:

- Page 10, Line 44, corrected typographical error, amount is 4,420 lbs.
- Page 11, Line 45, corrected typographical error, amount is 13,258 lbs.
- Page 12, Line 53, corrected the amount to 820 lbs.
- Page 16, Line 91, corrected the amount to 7,433 lbs.
- Page 27, Line 182, corrected the amount to 22,818 lbs.
- Page 32, Line 237, corrected the amount to 4,495 lbs.
- Pages 41, 42, added Line 319 - 337

In addition to the above corrections, the Hazardous Waste Minimization Report has been revised to correct a calculation error. On Page 2, the amount listed in Section II F and Section III C has been corrected to 76,887 lbs.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME U. S. DOE FERNALD
ENVIRONMENTAL MANAGEMENT PROJECT

EPA ID NO. 0 H 6 | 8 9 0 | 0 0 8 | 9 7 6

OhioEPA

State of Ohio Environmental Protection Agency

1993 Hazardous Waste Minimization Report
Hazardous Waste Minimization

Form WM

INSTRUCTIONS: Read the detailed instructions in the 1993 Hazardous Waste Minimization Annual Report booklet before completing this form.

Sec. I

A. Waste description Instruction Page 6: LEAD ACID BATTERIES FOR RECYCLE

B. EPA hazardous waste code Page 6: D 0 0 2 | D 0 0 8

C. State hazardous waste code (NOT APPLICABLE) Page 7

D. SIC code Page 7: 4 9 5 3

E. Origin code Page 7: 1 — System type: M

F. Source Code Page 7: A 5 5

G. Point of measurement Page 7: 1

H. Form Code Page 7: B 3 0 9

I. RCRA-radioactive mixed Page 7: 2

Sec. II

A. Quantity generated in 1992 Instruction Page 8: N A

B. Quantity Generated in 1993 Page 8: N A

C. Unit of Measure - Page 8: UOM ___ Density ___ ☐ lbs/gal ☐ sg

D. Was this waste recycled in 1993? Page 8: ☒ Yes (CONTINUE TO BOX E) ☐ No (SKIP TO SEC. III)

E. On-site recycling Page 9: Quantity recycled on-site in 1993: 1 0 . 0

F. Off-site recycling Page 9: Quantity recycled off-site in 1993: 7 6 8 8 7 . 0

Sec. III

A. Activity Code Page 9: W 0 2 | W N A | W N A | W N A

B. Other effects Page 9: ☐ Yes ☒ No

C. Quantity recycled in 1993 due to new activities Page 9: 7 6 8 8 7 . 0

D. Activity/production index Page 9: 1 . 0

E. Source reduction quantity Page 10: N A

Comments:

OHIO ENVIRONMENTAL PROTECTION AGENCY

1993 FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31,1993

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Administ Code.

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIO I. THROUGH VII. MUST BE COMPLETED.

Place Preprinted Label Here

I. FACILITY'S EPA I.D. NUMBER

OH6890008976

II. NAME OF FACILITY

US DOE FERNALD ENV MGMT PROJECT

III. FACILITY MAILING ADDRESS

PO BOX 39870 5

Street or P.O. Box

CINCINNATI | OH | 45239-8706

City or Town | State | Zip Code

IV. LOCATION OF FACILITY

7400 WILLEY ROAD | 31

Street | County Code

FERNALD | OH | 45030 | 4953

City or Town | State | Zip Code | Primary SIC Code

V. FACILITY CONTACT

RASTDAVID M | 513-648-3138

Name (last and first) | Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure

$ NA , , .00

B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

$ NA , , .00

VII. CERTIFICATION

"I by under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately sonsible for obtaining the information, I believe that the submitted information a true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the ssibility of fine and imprisonment."

J. PHIL HAMRIC, MANAGER, DOE-FN | 2/28/94

Print/Type Name | Title | Signature of Authorized Representative | Date Signed

EPA 9020

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. SCD987588084

X. Generator name Clemson Technical Center

XI. Generator's Address

Street	100 Technology Drive
City	Anderson
State:	South Carolina
Zip Code	29625

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	LAB WASTE, TCLP EXTRACT	S01	D018 D035 D039 F001 F005	D021 D038 D040 F002	1,841	P
2	CONTACT WASTE FROM CTC LAB	S01	D007 D009 F001 F005	D008 D039 F002	150	P
3	LAB GENERATED WASTE, METHYLENE CHLORIDE	S01	F002		614	P
4	CTC CORROSIVE WASTE	S01	D002 F002	F001 F005	2,066	P
5						P
6						P

XIII. Comments:

Page 1, Section VI – Cost Estimates – Federal Agencies are exemted from the requirements of OAC 3745-66-40 through 3745-66-48 by OAC 3745-66-40.

Page 2, Lines 1-4, This waste was generated as a result of characterization or treatabiliy studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. MOD981709272

X. Generator name IT Analytical

XI. Generator's Address

Street	13715 Rider Trail North
City	Earth City
State:	Missouri
Zip Code	63045

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	TCLP EXTRACTS, LAB GENERATED WASTE	S01	D002		620	P
2	LAB GENERATED WASTE, OIL FROM TCLP	S01	D001 D006 D010	D004 D008	135	P
3	TCLP LEACHATE	S01	D009 F002	F001	460	P
4						P
5						P
6						P
7						P
8						P
9						P

XIII. Comments:

Lines 1 – 3, This waste was generated as a result of characterization or treatability studies on Fernald Envirnmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. TND982116493

X. Generator name IT Corp. Oak Ridge Laboratory

XI. Generator's Address

Street 1550 Bear Creek Road

City Kingston

State: Tennessee

Zip Code 37763

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	SOLIDIFIED LAB WASTES	S01	F001 F003	F002	103,881	P
2						P
3						P
4						P
5						P
6						P
7						P
8						P
9						P
10						P
11						P

XIII. Comments:

Line 1, This waste was generated as a result of characterization or treatability studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facilty for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. MOD985768191

X. Generator name TCT – St. Louis

XI. Generator's Address

Street	1908 Innerbelt Business Center
City	St. Louis
State:	Missouri
Zip Code	63114

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	LAB GENERATED WASTE ORGANIC LIQUID	S01	D010	F002	6,136	P
2	METAL EXTRACTS AND DIGESTS	S01	D002 D009 F001 F005	D008 D010 F002	7,633	P
3	OIL FROM TCLP EXTRACTS	S01	D040 F002	F001 F005	180	P
4	VOLITILE SOLID WASTE	S01	D010		170	P
5	LAB GENERATED CONTACT WASTE	S01	D004 D010	D008	3,750	P
6						P
7						P
8						P

XIII. Comments:

Lines 1–5, This waste was generated as a result of characterization or treatability studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	ACETONITRILE IN WATER	S01	D001		1	P
2	CLEAR DISPERSANT, TYPE H BLACK, CYAN, ETC.	S01	D001		77	P
3	CLEAR DISPERSANT, TYPE H CONCENTRATE	S01	D001		60	P
4	CONTAMINATED NON-BURNABLE	S01	D001		3,183	P
5	CURING COMPOUND	S01	D001		383	P
6	DISCARD PROCESS RESIDUE	S01	D001		395	P
7	DISCARD PROCESS RESIDUE	S01	D001		8,095	P
8	FLAMMABLE PAINTS AND RELATED PRODUCTS	S01	D001		1,092	P
9	FLOOR COATING BASE	S01	D001		783	P
10	FURNACE SALT NON-CHLORIDE	S01	D001		169	P
11	GREASE AND WATER	S01	D001		249	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
12	HYDROGEN PEROXIDE SOLN.	S01	D001		2,002	P
13	EROSENE	S01	D001		202	P
14	NON-CHLORIDE CONTAMINATED WATER	S01	D001		1,914	P
15	NON-OILY SLUDGE FOR ROASTING	S01	D001		30,815	P
16	NONRECOVERABLE TRASH	S01	D001		212	P
17	OILY SLUDGE FOR OXIDATION	S01	D001		643	P
18	OILY SLUDGES, HIGH FREE METAL	S01	D001		931	P
19	SUMP CAKE - COPPER CONTAMINATED	S01	D001		81,128	P
20	UNFIRED REDUCTION CHARGES PLUS CaF2	S01	D001		2	P
21	UNSPECIFIED IGNITABLE LIQUID	S01	D001		373	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
22	VARNISH – UNUSED	S01	D001		197	P
23	LAB GERATED WASTE, FLAMMABLE ORGANICS	S01	D001	D002	3,530	P
24	LABORATORY ACIDS (NITRIC AND CYCLOHEXANE)	S01	D001	D002	1,211	P
25	CONTAMINATED MAGNESIUM	S01	D001	D003	29,400	P
26	CONTAMINATED MAGNESIUM	S01	D001	D003	2,125	P
27	NON–METALLIC MIS–CELLANEOUS SAMPLES	S01	D001	D003	16	P
28	LAB GENERATED WASTE OIL FROM TCLP EXTRACTS	S01	D001 D006 D010	D004 D008	113	P
29	FURNACE SALT, NON–CHLORIDE	S01	D001 D008	D004	1,838	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
30	CONTAMINATED SOLVENT, PAINT SHOP	S01	D001 D007 D009 D011 F002 F005	D005 D008 D010 D019 F003	479	P
31	PAINT, GRAY EPOXY	S01	D001	D006	287	P
32	USED OIL	S01	D001 D008 D039 F002	D006 D009 F001	437	P
33	CONTAMINATED ORGANIC CHEMICAL OR SOLVENT	S01	D001 D008 F002	D006 F001	413	P
34	1,1,1-TRICHLOROETHANE	S01	D001 F001	D006 F002	23	P
35	SOLVENT SLUDGE	S01	D001	D007	428	P
36	IMPURE THORIUM NITRATE (SOLID)	S01	D001 D008	D007	1,845	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
37	IMPURE THORIUM NITRATE (SOLID)	S01	D001 D008	D007	4,405	P
38	FLAMMABLE AEROSOLS	S01	D001 D008 D019 D039	D007 D018 D035	25	P
39	PAINT WASTE FROM PAINTING BOOTH	S01	D001 D008 F003	D007 F002 F005	1,260	P
40	NONRECOVERABLE TRASH	S01	D001 F003	D007	337	P
41	OIL AND FUEL FROM GARAGE	S01	D001	D008	784	P
42	USED PAINT THINNER	S01	D001 D009 F003	D008 D035 F005	960	P
43	GASOLINE	S01	D001 D018	D008	2,388	P
44	WATER/GAS MIXTURE (TANK 8)	S01	D001 D018	D008	4,420	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
45	CONTAMINATED SUMP WATER	S01	D001 D018 D039 F002	D008 D019 D040 F003	13,258	P
46	CONTAMINATED SUMP WATER AND HYDRAULIC OIL	S01	D001 D019 D040 F003	D008 D039 F002 F005	1,478	P
47	SOLVENT SLUDGES (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D001 D035	D008 F005	292	P
48	USED OIL, MAINTENANCE	S01	D001 F001	D008	231	P
49	USED AGITENE	S01	D001 F001	D008 F002	814	P
50	CONTAMINATED WATER NON-CHLORIDE	S01	D001 F003	D008 F005	124	P
51	OILY SLUDGE FOR OXIDATION	S01	D001	D010	194	P
52	OILY SLUDGE FOR OXIDATION	S01	D001	D010	336	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
53	SPENT FUELS	S01	D001	D018	820	P
54	WATER AND GAS MIXTURE, TANK #9	S01	D001	D018	8,680	P
55	PAINT BITUMASTIC 300M A & B COLD TAR COATING	S01	D001 D026	D018	73	P
56	BENZENE (LABPACKED)	S01	D001 U019	D018	6	P
57	DEGREASING SOLVENT	S01	D001 D022 D029 D039 F001 F005	D019 D028 D035 D040 F003	125,181	P
58	CONTAMINATED TBP-EROSENE	S01	D001 D022 F002	D019 D039 F003	32	P
59	OILY SLUDGES	S01	D001 D039 F001 F005	D019 D040 F003	34,232	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
60	EPOXY PRIME COAT	S01	D001	D035	163	P
61	UNUSED PAINT THINNER	S01	D001	D035	484	P
62	CONTAMINATED METHYL ETHYL KETONE	S01	D001 F005	D035	249	P
63	OILY OXIDATION SLUDGES WITH HIGH FREE METAL	S01	D001 F001	D039	5,705	P
64	U CONTAMINATED SOLVENT – (1,1,1–TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D001 F003	D039 F005	5,603	P
65	1,1,1–TRICHLOROETHANE STILL BOTTOMS	S01	D001	F001	17,142	P
66	DRUM CONTAINING 1,1,1–TRICHLOROETHANE	S01	D001	F001	245	P
67	OILY SLUDGE FOR OXIDATION	S01	D001	F001	198	P
68	OILY SLUDGE FOR OXIDATION HIGH FREE METAL	S01	D001 F002	F001	6,538	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
69	PAINT	S01	D001 F002	F001	450	P
70	PAINT THINNERS AND PAINT RESIDUES	S01	D001 F003	F002 F005	316	P
71	WET CAKE, NON-OILY/HALIDE	S01	D001 F003	F002 F005	124	P
72	CONTAMINATED SOLVENTS (METHANOL)	S01	D001	F003	181	P
73	CONTAMINATED WATER	S01	D001	F003	24	P
74	METHANOL	S01	D001	F003	319	P
75	METHANOL & CYCLOHEXANE	S01	D001	F003	248	P
76	METHANOL & CYCLOHEXANE MIXTURE	S01	D001	F003	6,151	P
77	SPENT ACETONE	S01	D001	F003	1,817	P
78	XYLENE	S01	D001	F003	729	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
79	NON-RECOVERABLE TRASH	S01	D001 F005	F003	132	P
80	CONTAMINATED WATER, PIT 2	S01	D002		876	P
81	DISCARD PROCESS RESIDUES	S01	D002		851	P
82	LAB GENERATED WASTE, TCLP EXTRACTS	S01	D002		341	P
83	U CONTAMINATED SOIL, ROCKS, ETC.	S01	D002 D007 D011	D004 D008	503	P
84	URANYL NITRATE SOLUTION IN TANKS	S02	D002 D007	D005	2,286,349	P
85	THORIUM TRAILER CAKES WASTE SLURRIES	S01	D002 D009	D005	402	P
86	NITRIC ACID	T34	D002	D007	319	P
87	WET SUMP OR FILTER CAKE OIL CONTAMINATED	S01	D002	D007	596	P

XIII. Comments:

Line 86: T34 is for dilution and recovery for use in chemical cleaning.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
88	THORIUM NITRATE SOLUTION	S01	D002 D008	D007	5,022	P
89	LAB GENERATED WASTE ACID DIGESTATES	S01	D002 D008 D028 F001	D007 D019 D039 F002	2,878	P
90	NESSLER REAGENT, COD SOLUTION, ROCHELLE SALT	S01	D002 D009	D007 D011	10	P
91	LEAD ACID BATTERIES (BROKEN)	S01	D002	D008	7,433	P
92	METALS EXTRACTS AND DIGESTS	S01	D002 D009 F001 F005	D008 D010 F002	4,443	P
93	CAUSTIC SOLUTION FROM PLANT 8 PROCESSING	S01	D002	D019	643	P
94	CTC CORROSIVE WASTE	S01	D002 F002	F001 F005	437	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
95	HYDROFLUORIC ACID	S02	D002	U134	36,736	P
96	MAGNESIUM FLAKE AND OILY RAGS	S01	D003		165	P
97	URANIUM HEXAFLUORIDE AND URANIUM TETRAFLUORIDE	S01	D003		16	P
98	CONTAMINATED INSOLUBLE OIL	S01	D003 D009 D040 F002 F005	D008 D039 F001 F003	375	P
99	SCRAP U3O8 HIGH F	S01	D004		242,466	P
100	SOLIDIFIED FURNACE SALTS, NON-CHLORIDE	S01	D004		246,357	P
101	U3O8 FOR REOXIDATION	S01	D004		7,841	P
102	BORING # 1511	S01	D004 D006	D005 D007	670	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
103	BORING # 1514	S01	D004 D006 D008	D005 D007	670	P
104	BORING #1515, FROM THE FIRE TRAINING GROUNDS	S01	D004 D006 D008	D005 D007	570	P
105	LIQUID AND SOLID WASTE SAMPLES	S01	D004 D006 D008 D018	D005 D007 D010 F002	25	P
106	BORING # 1512	S01	D004 D006 D008	D005 D007 D011	728	P
107	SOLIDS CONTAMINATED BY LAB SAMPLES AND MATERIALS	S01	D004 D006 D008 F002	D005 D007 D022 F003	901	P
108	CONTAMINATED SOIL, ROCKS, BRICKS AND CERAMICS	S01	D004 D007 D010	D005 D008 D011	6,314	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
109	BORING # 1509	S01	D004 D007	D006 D008	1,522	P
110	SCRAP SALTS, HIGH FLUORIDE	S01	D004 D008	D007 D010	4,153	P
111	DUST COLLECTOR RESIDUES, PYROPHORIC	S01	D004	D008	138	P
112	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D004	D008	588	P
113	ROASTED MgF2, OTHER MATERIAL	S01	D004	D008	5,174	P
114	SCRAP SALTS AND FLOOR SWEEPINGS, LOW FLUORIDE	S01	D004	D008	507	P
115	CONTACT WASTE (LAB)	S01	D004 D010	D008	1,137	P
116	CONTAMINATED BRICKS, SOIL, ROCKS, SAND, ETC.	S01	D004 D011	D008	1,026	P
117	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D004	D011	539	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
118	FURNACE SALT, CHLORIDE	S01	D004	D011	6,486	P
119	SALT SLUDGE FOR PLANT 8	S01	D004 D039	D019 F002	1,325	P
120	BARIUM CARBONATE	S01	D005		4,121	P
121	CONTAMINATED BURNABLES	S01	D005		113	P
122	CONTAMINATED SOIL AND ROCKS	S01	D005		76,387	P
123	SALT SLUDGE, CHLORIDE	S01	D005		713	P
124	SAMPLES, NON-METALLIC	S01	D005		185	P
125	SCRAP ThO2 – HIGH F	S01	D005		128	P
126	WET SUMP OR FILTER CAKE NON-OILY, NON-HALIDE	S01	D005		542	P
127	BORING # 1513	S01	D005 D007	D006 D008	1,254	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
128	CONTAMINATED SOIL AND ROCKS	S01	D005 D007 D009	D006 D008	1,854	P
129	USED OIL FROM GEAR BOXES LATHES AND MOTORS	S01	D005 D008	D006 F001	322	P
130	SUMP CAKE	S01	D005	D007	14,423	P
131	SCRAP SALTS	S01	D005	D008	16,494	P
132	SOLIDIFIED FURNACE SALT	S01	D005	D008	2,651	P
133	OILY SEMI-SOLID	S01	D005 F001	D008 F002	1,033	P
134	CONTAMINATED RAGS, PAPER	S01	D005	F001	294	P
135	CADMIUM SPRINGS	S01	D006		58	P
136	NI-CD BATTERIES	S01	D006		309	P
137	NONRECOVERABLE TRASH	S01	D006	D007	656	P
138	BORING # 1508	S01	D006 D008	D007	652	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

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VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
139	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	D006 D008 D040 F005	D007 D018 F002	172	P
140	CONTAMINATED INSOLUBLE OIL	S01	D006 D008 D029 F001	D007 D019 D040	3,056	P
141	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D006	D008	6	P
142	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D006	D008	1,213	P
143	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	D006	D008	118	P
144	MERCURY THERMOMETER SPILL CLEANUP	S01	D006 D009	D008	721	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
145	CONTAMINATED INSOLUBLE OIL	S01	D006 D018 D028 D039 F002	D008 D019 D029 D040 F005	634	P
146	CONTAMINATED INSOLUBLE OIL	S01	D007		370	P
147	DUST COLLECTOR BAGS	S01	D007		418	P
148	DUST COLLECTOR BAGS	S01	D007		26	P
149	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D007		1,231	P
150	NON-METALLIC MISCEL-LANEOUS SAMPLES	S01	D007		78	P
151	NON-OILY SLUDGE FOR ROASTIING	S01	D007		445	P
152	ROASTED OFF-SITE SUMP CAKE	S01	D007		32,917	P
153	SALT SLUDGE, CHLORIDE	S01	D007		10,570	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

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Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
154	SALT SLUDGE, CHLORIDE	S01	D007		20,041	P
155	SCRAP SALTS AND FLOOR SWEEPINGS, LOW FLUORIDE	S01	D007		6,305	P
156	SLUDGES FOR BLENDING	S01	D007		457	P
157	OIL DRY CONTAMINATED WITH OIL FROM BALER	S01	D007	D008	1,950	P
158	SCRAP SALTS AND FLOOR SWEEPINGS, HIGH FLUORIDE	S01	D007	D008	2,233	P
159	LAB CONTACT WASTE	S01	D007 D009 F001 F005	D008 D039 F002	68	P
160	OIL UNKNOWN GENERATION	S01	D007 D009	D008 F002	3,335	P
161	FURNACE SALT, NON-CHLORIDE	S01	D007 D010	D008	24,102	P
162	LIQUID SOLVENT WASTE	S01	D007 D010	D008 F005	373	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
163	LINERS, GLOVES AND OILY RAGS	S01	D007	D010	170	P
164	SOLVENT SLUDGE, (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D007	D011	79	P
165	CONTAMINATED SOLVENT (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D007 D019 D029 D040	D018 D021 D039 F001	7,663	P
166	SOLVENT WASTE	S01	D007 D040 F002	D039 F001	1,118	P
167	OILY SLUDGES	S01	D007	F001	947	P
168	U3O8, LOW FLUORIDE	S01	D007 F002	F001	1,411	P
169	CONTAMINATED BURNABLE	S01	D007	F002	1,169	P
170	GROUNDWATER FROM WELL #2649	S01	D007	F002	1,657	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
171	CONTAMINATED NON-BURNABLES	S01	D008		601	P
172	CONTAMINATED NON-BURNABLES	S01	D008		15,081	P
173	CONTAMINATED SOIL, ROCKS BRICKS AND CERAMICS	S01	D008		5,265	P
174	CONTAMINATED SOIL, ROCKS BRICKS AND CERAMICS	S01	D008		78,584	P
175	DUST COLLECTOR BAGS	S01	D008		110	P
176	DUST COLLECTOR RESIDUES HIGH FLUORIDE	S01	D008		192	P
177	GRIT BLAST	S01	D008		626,904	P
178	LEAD	S01	D008		168	P
179	LEAD AND WOOD SHAVINGS,	S01	D008		19	P
180	LEAD BRICKS	S01	D008		741	P
181	LEAD SOLDER JOINTS	S01	D008		15,196	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
182	LEAD/LEAD SEALS	S01	D008		22,818	P
183	LUBRICATING OIL	S01	D008		697	P
184	MISCELLANEOUS LEAD TOOLS, PIPING	S01	D008		974	P
185	NON-RECOVERABLE TRASH	S01	D008		428	P
186	OILY RAGS, PADS, GLOVES	S01	D008		266	P
187	PAINT CHIPS FROM SAND FILTERS AT WATER PLANT	S01	D008		928	P
188	DISCARD PROCESS RESIDUES	S01	D008		845	P
189	SCRAP SALTS AND FLOOR SWEEPINGS, HIGH FLUORIDE	S01	D008		16,878	P
190	THORIUM OXIDE POWDER REFINERY FEED	S01	D008		68	P
191	OILY RAGS	S01	D008 D010	D009	55	P

XIII. Comments:

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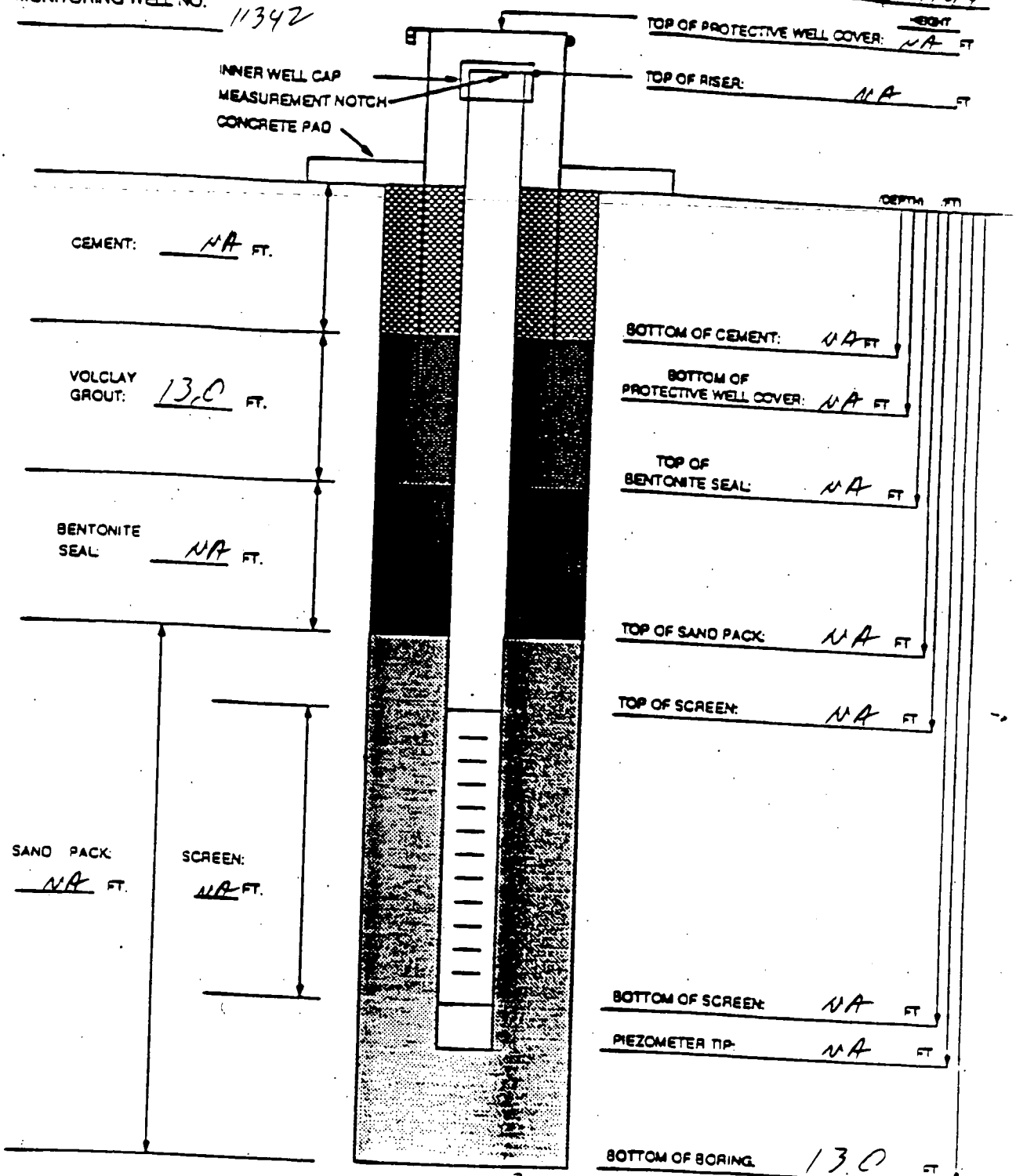
FERNALD RI/FS

INSTALLATION DIAGRAM
MONITORING WELL NO. 11342

INSTALLATION DATE: 6/4/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M: RT(TD): 94-0092

BORING NUMBER: 11343

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/4/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/4/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR 5/4) Silty Clay, with Roots Low Plasticity, Very Slightly Damp	CL	NA	PID=0 B>=NAB Corrected Depth 0-0.9ft
1–2	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay with Fe Stains Low-Med Plasticity, Very Slightly Damp	CL	NA	PID=0 B>=NAB Corrected Depth 0.9-1.7ft
2–3	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Corrected Depth 1.7-2.6ft
3–4	NA	NA	12	Light Olive Brown (2.5Y, 5/6) Silty Clay w/ Fe Stains, Low to med Plasticity Slightly Damp	CL	NA	PID=0 B>=NAB Corrected Depth 2.6-3.5ft
4–5	NA	NA	12	Light Olive Brown (2.5Y, 5/4) SAA	CL	NA	PID=0 B>=NAB Corrected Depth 3.5ft-4.3ft
5–6	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Corrected Depth 4.3-5.2ft
6–7	NA	NA	12	SAA	CL	NA	PID=0 B>=NAB Corrected Depth 5.2-6.1ft

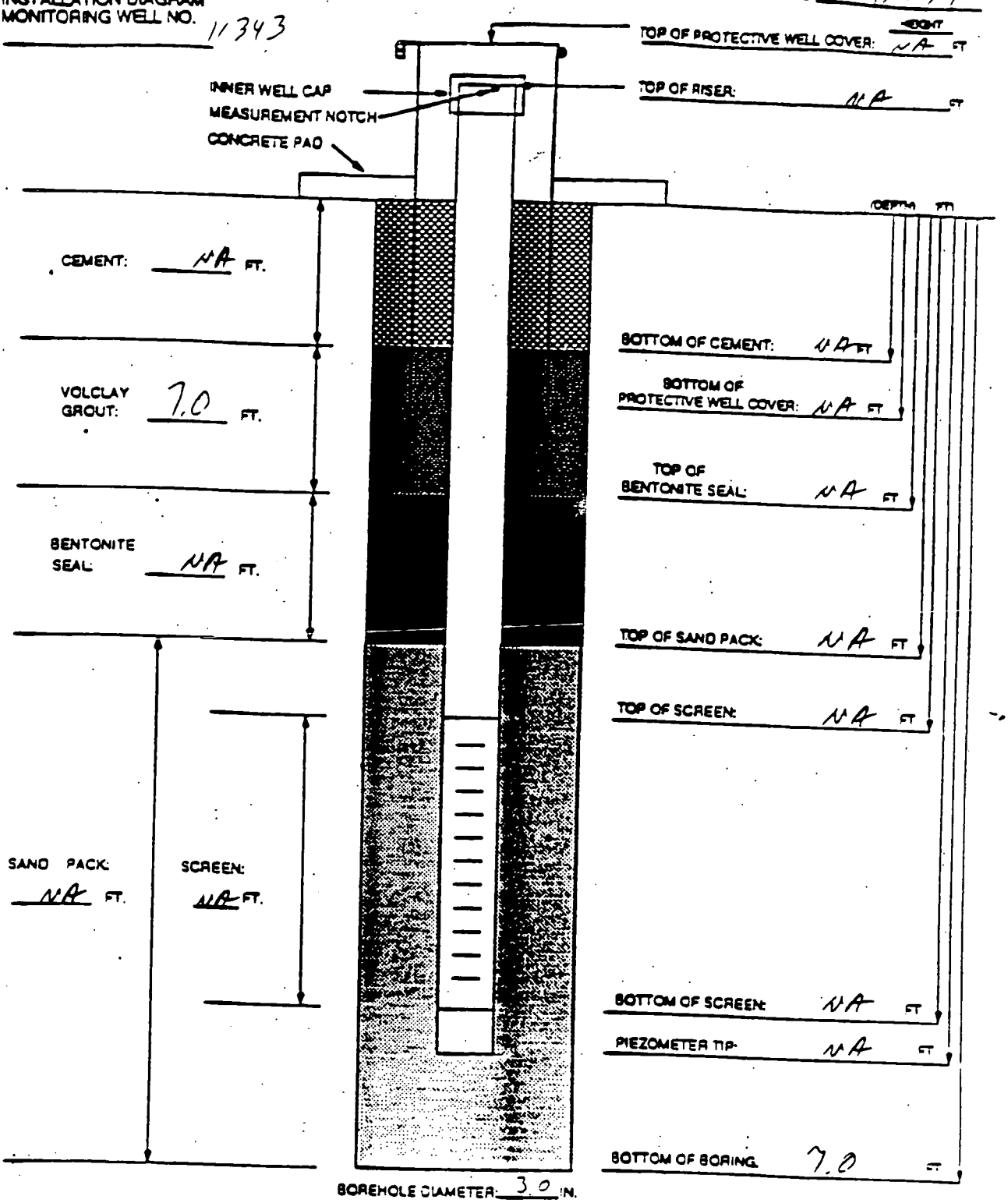
Bottom of Boring

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11343

INSTALLATION DATE: 4/4/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP.
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP.
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL.
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK.

GEOLOGIST ENGINEER: Cliff Lee

000157

FEMP LITHOLOGIC LOG

Page 1 of 2

CONTROL NUMBER:	
PROJECT NAME: USED Infiltration Study	PROJECT NUMBER: MIRT(TP)1 94-0092
BORING NUMBER: 11344	COORDINATES:
RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE STARTED: 6/4/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA; DATE: NA; TIME: NA; DATE COMPLETED: 6/4/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA; DRILLING EQUIPMENT: Hand Auger; DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
0–1	NA	NA	12	Yellowish Brown (10YR, 5/4) Silty Clay w/ Roots Low Plasticity, Very Slightly Damp	OL	NA	PID=0 Bz=NAB Corrected Depth 0-.8ft
1–2	NA	NA	12	SAA	OL	NA	PID=0 Bz=NAB Corrected Depth .8-1.6ft
2–3	NA	NA	12	Light Olive Brown (2.5Y/5/6) Silty Clay w/ Fe Stains Low to Med Plasticity Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 1.6-2.5ft
3–4	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 2.5-3.3ft
4–5	NA	NA	12	Light Olive Brown (2.5Y, 6/4) w/ pale yellow (2.5Y, 8/2) Mottling Silty Clay Low to med plasticity, Slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 3.3-4.1ft
5–6	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 4.1-4.9ft
6–7	NA	NA	12	Light Olive Brown (2.5Y, 5/6) with pale yellow Mottling (2.5Y, 8/2) Silty Clay w/ Fe Stains Low - med. Plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 4.9ft-5.7ft

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:	FEMP LITHOLOGIC LOG	Page 2 of 2

PROJECT NAME: USED Infiltration Study			PROJECT NUMBER: M.RT(TP)[illegible]
BORING NUMBER: 11344	COORDINATES:	RELATED FAL NUMBERS:	
SURFACE ELEVATION:	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE STARTED: 6/4/94
GEOLOGIST: Cliff Lee	GROUNDWATER LEVEL: NA	DATE: NA	TIME: NA	DATE COMPLETED: 6/4/94
WATER USED DURING DRILLING: NA	DRILLING CONTRACTOR: NA	DRILLING EQUIPMENT: Hand Auger	DRILLER/HELPER: NA	

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
7	NA	NA	12	Lt Olive Brown (2.5Y, 5/6) w/ pale yellow (2.5Y, 8/2) mottling silty Clay Low to med. Plasticity, slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 5.7-6.6 ft
8	NA	NA	12	Olive yellow (2.5Y, 6/6) w/ pale yellow (2.5Y, 8/2) mottling silty Clay w/ Fe stains Low to med plasticity slightly Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 6.6-7.4 ft
9	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth 7.4-8.2 ft
10	NA	NA	12	Light yellowish Brown (2.5Y 6/4) silty Clay w/ Fe stains, Low to med plasticity, Damp	CL	NA	PID=0 Bz=NAB Corrected Depth 8.2-9.0 ft
11	NA	NA	12	Olive Brown (2.5Y, 4/4) Silty Clay Low to med. Plasticity, moist	CL	NA	PID=0 Bz=NAB Corrected Depth 9.0-9.8 ft
12	NA	NA	12	SAA	CL	NA	PID=0 Bz=NAB Corrected Depth
13	NA	NA		Bottom of Boring		NA	PID=0 Bz=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES:
NA = Not Applicable
NAB = Not Above Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0042

BORING NUMBER: 11345

COORDINATES: N/A

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-A6

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	NA	Loamy soil, rooted, light olive brown (2.5Y 5/6), silty non-plastic, very slightly damp	OL	NA	PID=0 By=NAB Corrected Depth 0.8
2'	NA	NA	NA	Clay, blocky, slightly plastic, light olive brown (2.5Y 5/6) fractured, rooted, very slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 1.6'
3'	NA	NA	NA	Clay, blocky, rooted with iron specks, light olive brown (2.5Y 5/6) plastic, very slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 2.5'
4'	NA	NA	NA	Clay, blocky, crumbly, non-plastic, med. light olive brown (2.5Y 5/4), with Iron specks, Slightly damp	CL	NA	PID=0 By=NAB Corrected Depth 3.3'
5'	NA	NA	NA	CLAY, OLIVE brown, plastic, (2.5Y 4/4), fractured, WITH IRON Partings along fractures	CL	NA	PID=0 By=NAB Corrected Depth 4.1'
6'	NA	NA	NA	CLAY, BLOCKY, PLASTIC MOTTLED (PALE yellow 2.5Y 8/2), CLAY LIGHT OLIVE BROWN (2.5Y 5/4) WITH IRON PARTINGS	CL	NA	PID=0 By=NAB Corrected Depth 4.9
7' TD (UNCORRECTED)	NA	NA	NA	CLAY LIGHT OLIVE BROWN (2.5Y 5/4) BLOCKY, FRACTURED, CRUMBLY, NON-PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth TD 5.1'

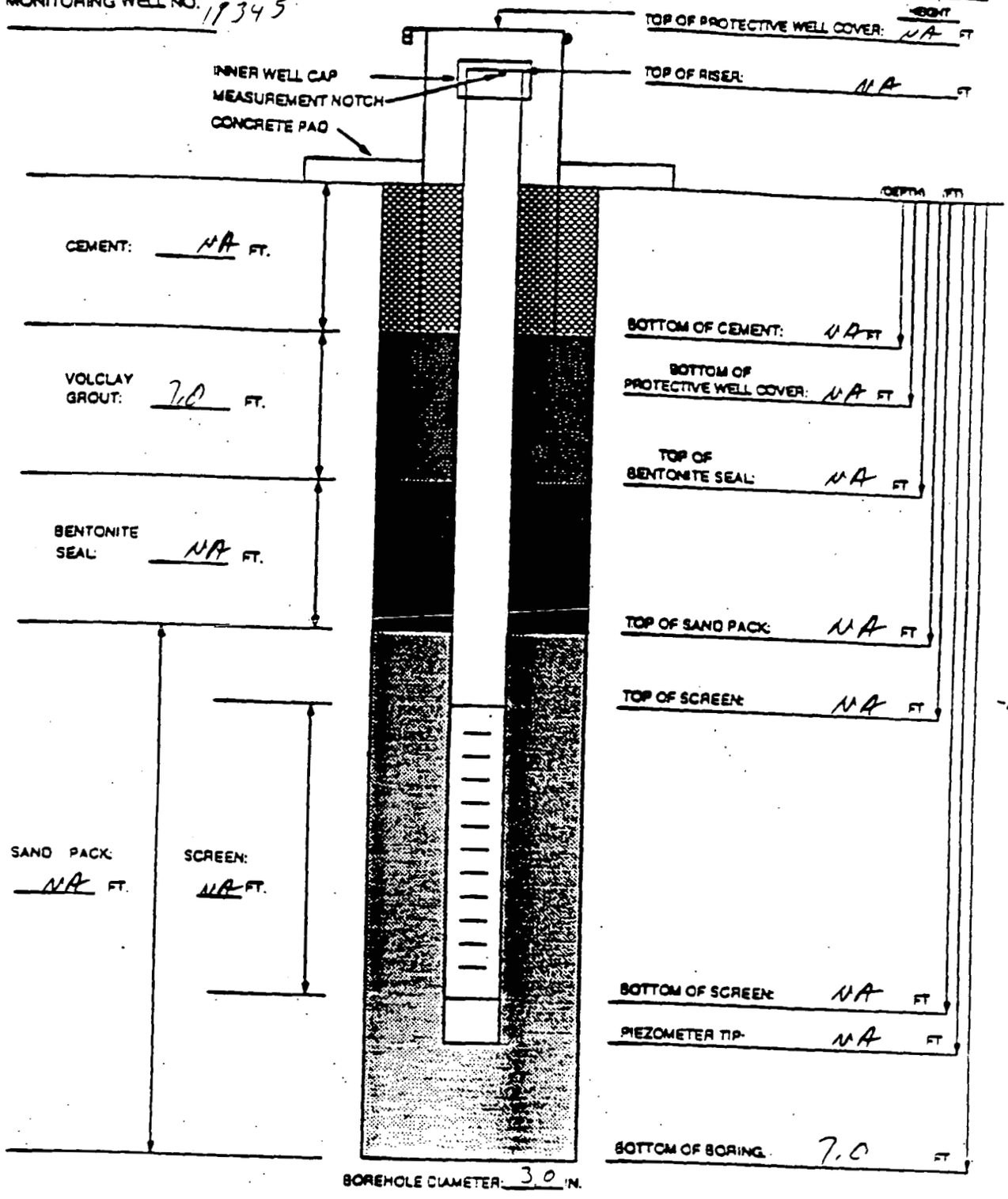
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

pg 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11345

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

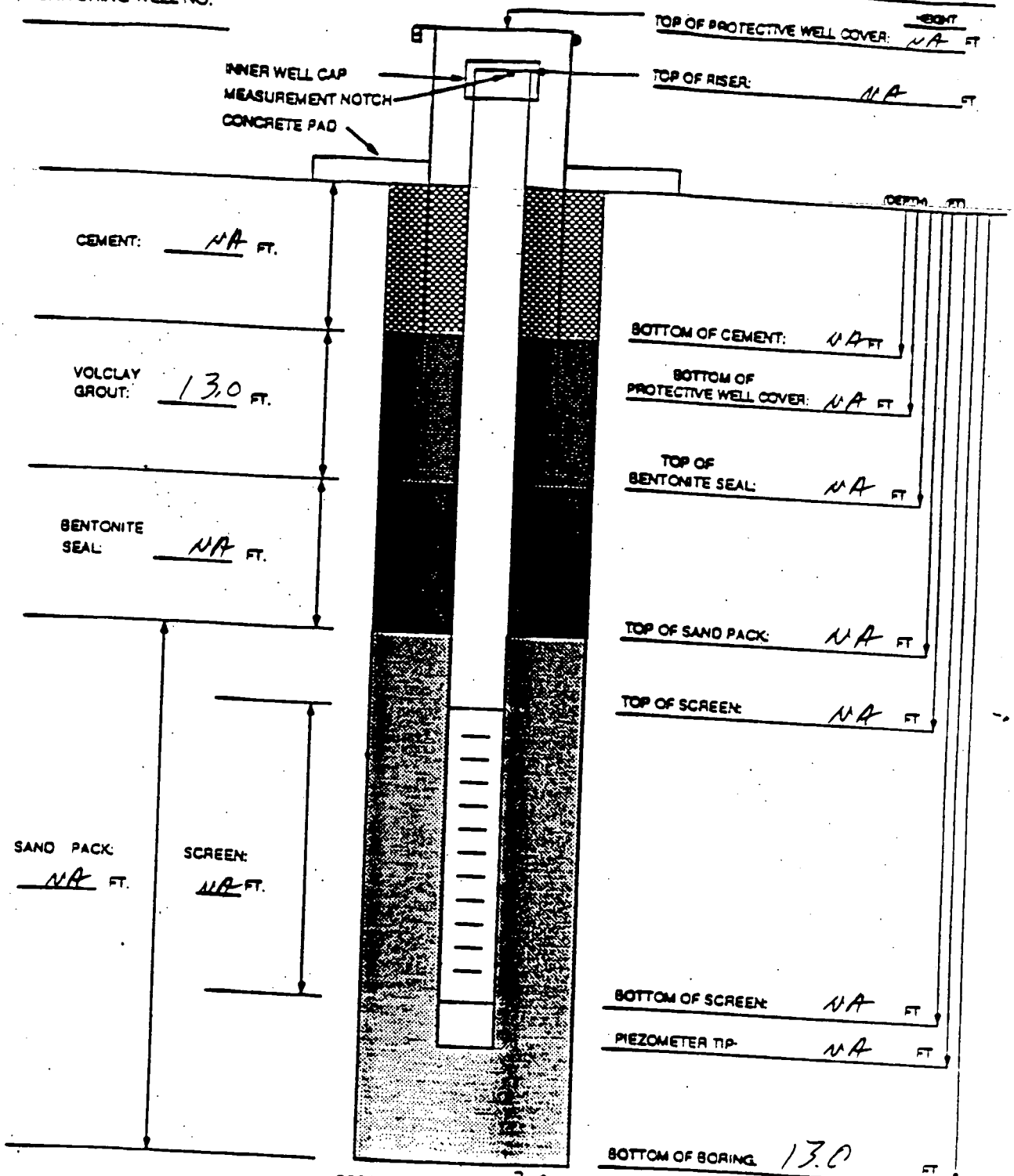
1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

pg 3 of 3

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO.

INSTALLATION DATE: 6/4/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST ENGINEER: Cliff Lee

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TA):24-2002

BORING NUMBER: 11346

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA DATE: NA TIME: NA

DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA DATE: NA TIME: NA

DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

IS-2-A7

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	LIGHT OLIVE BROWN LOAMY SOIL (2.5Y 5/4). SILTY, ROOTED NON-PLASTIC. Very slightly damp	OL	NA	PID=0 By=NAB Corrected Depth 0.2'
2'	NA	NA	12"	LIGHT OLIVE BROWN LOAMY SOIL (2.5Y 5/4), SILTY, ROOTED NON-PLASTIC VERY SLIGHTLY damp	OL	NA	PID=0 By=NAB Corrected Depth 1.7'
3'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), FRACTURED, MOTTLED WITH IRON PARTINGS, SLIGHTY PLASTIC, VERY SLIGHTLY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 3.6
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6), BLOCKY, CRUMBLY, NON-PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 3.5'
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), CRUMBLY, NON-PLASTIC, WITH IRON SPECKS, MOTTLED (2.5Y 8/2) PALE YELLOW SPECKS, SLIGHTLY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 4.5'
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4), BLOCKY, CRUMBLY, WITH IRON SPECKS, PALE YELLOW (2.5Y 8/2) MOTTLING, SLIGHTLY DAMP NON-PLASTIC	CL	NA	PID=0 By=NAB Corrected Depth 5.2'
7'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, CRUMBLY NON-PLASTIC PALE TO LIGHT GRAY (2.5Y 7/2) MOTTLING, DAMP	CL	NA	PID=0 By=NAB Corrected Depth 6.1'

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0002

BORING NUMBER: 11346

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/5/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
8'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) BLOCKY, WITH IRON PARTINGS/SPECKS SOFT, MOD. PLASTIC, SLIGHTLY MOIST.	CL	NA	PID=0 By=NAB Corrected Depth 6.9'
9'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON PARTINGS, LIGHT GRAY MOTTLING (2.5Y 7/2), ~PLASTIC, SLIGHTY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 7.8'
10'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON PARTINGS. SLIGHTLY PLASTIC, SLIGHTLY DAMP	CL	NA	PID=0 By=NAB Corrected Depth 8.7'
11'	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), WITH IRON PARTINGS. SOFT, VERY PLASTIC, DAMP	CL	NA	PID=0 By=NAB Corrected Depth 9.5'
12 TD UNCORRECTED	NA	NA	12"	OLIVE BROWN CLAY (2.5Y 4/4), SOFT, VERY PLASTIC, DAMP		NA	PID=0 By=NAB Corrected Depth TD. 10.4'
	NA	NA				NA	PID=0 By=NAB Corrected Depth
	NA	NA				NA	PID=0 By=NAB Corrected Depth

INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		

NOTES: NA = Not Applicable
NAB = Not About Background

CONTROL NUMBER:

FEMP
LITHOLOGIC LOG

Page 1 of 2

PROJECT NAME: USED Infiltration Study

PROJECT NUMBER: M:RT(TD):94-0092

BORING NUMBER: 11347

COORDINATES:

RELATED FAL NUMBERS:

SURFACE ELEVATION:

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE STARTED: 6/5/94

GEOLOGIST: Cliff Lee

GROUNDWATER LEVEL: NA | DATE: NA | TIME: NA | DATE COMPLETED: 6/6/94

WATER USED DURING DRILLING: NA

DRILLING CONTRACTOR: NA

DRILLING EQUIPMENT: Hand Auger

DRILLER/HELPER: NA

DEPTH (FEET)	SAMPLE TIME, DATE, AND NUMBER	BLOWS (per 6 inch)	RECOVERY (inches)	DESCRIPTION (Colors identified per Munsell Color Chart)	USCS SYMBOL	MEASURED CONSISTENCY (TSF)	REMARKS
1'	NA	NA	12"	LIGHT YELLOWISH BROWN LOAMY SOIL (2.5Y 6/4), ROOTED, SILTY DRY, NON-PLASTIC	OL	NA	PID=0 B/=NAB Corrected Depth 0.7'
2'	NA	NA	12"	~~LIGHT OLIVE~~ YELLOWISH BROWN CLAY (10YR 5/6) AND LOAMY SOIL, IRON PARTINGS, SOFT, MOD. PLASTIC, VERY SLIGHTLY DAMP	OL/CL	NA	PID=0 B/=NAB Corrected Depth 1.4'
3'	NA	NA	12"	YELLOWISH BROWN CLAY (10YR 5/6), BLOCKY, FRACTURED, WITH IRON SPECKS, SL. PLASTIC, VERY SLIGHTLY DAMP	CL	NA	PID=0 B/=NAB Corrected Depth 2.1'
4'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, WITH IRON SPECKS, SOFT, PLASTIC, SLIGHTLY DAMP	CL	NA	PID>0 B/=NAB Corrected Depth 2.8'
5'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, SOFT, PLASTIC, WITH PALE YELLOW (2.5Y 8/4) MOTTLING, SLIGHTLY DAMP	CL	NA	PID=0 B/=NAB Corrected Depth 3.5'
6'	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/6) BLOCKY, FRACTURED, WITH IRON SPECKS, SL. PLASTIC, SLIGHTY DAMP	CL	NA	PID=0 B/=NAB Corrected Depth 4.2'
7' UNCORRECTED T.D.	NA	NA	12"	LIGHT OLIVE BROWN CLAY (2.5Y 5/4) FRACTURED, WITH IRON SPECKS, HAVING PALE YELLOW (2.5Y 8/2) MOTTLING V.SL. PLASTIC, V.SL. DAMP	CL	NA	PID=0 B/=NAB Corrected Depth TD 4.9'

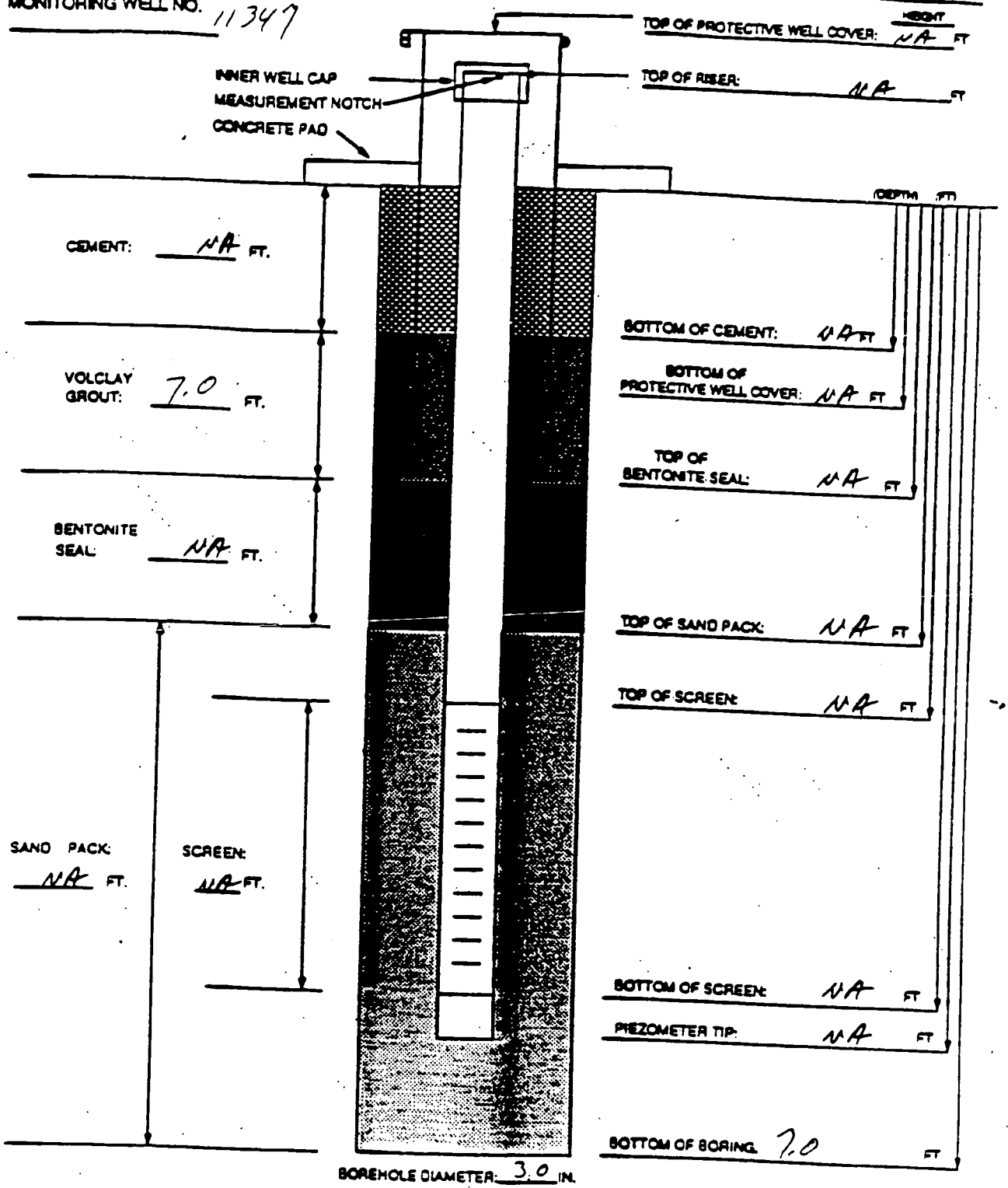
INSTRUMENT	BACKGROUND	DATE	TIME
PID	0.0		
ALPHA	NA		
BETA/GAMMA			

NOTES:
NA = Not Applicable
NAB = Not Above Background

pg 2 of 2

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11347

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT NA
AMOUNT OF CEMENT NA
AMOUNT OF WATER USED: NA
OTHER NA
TASK NA

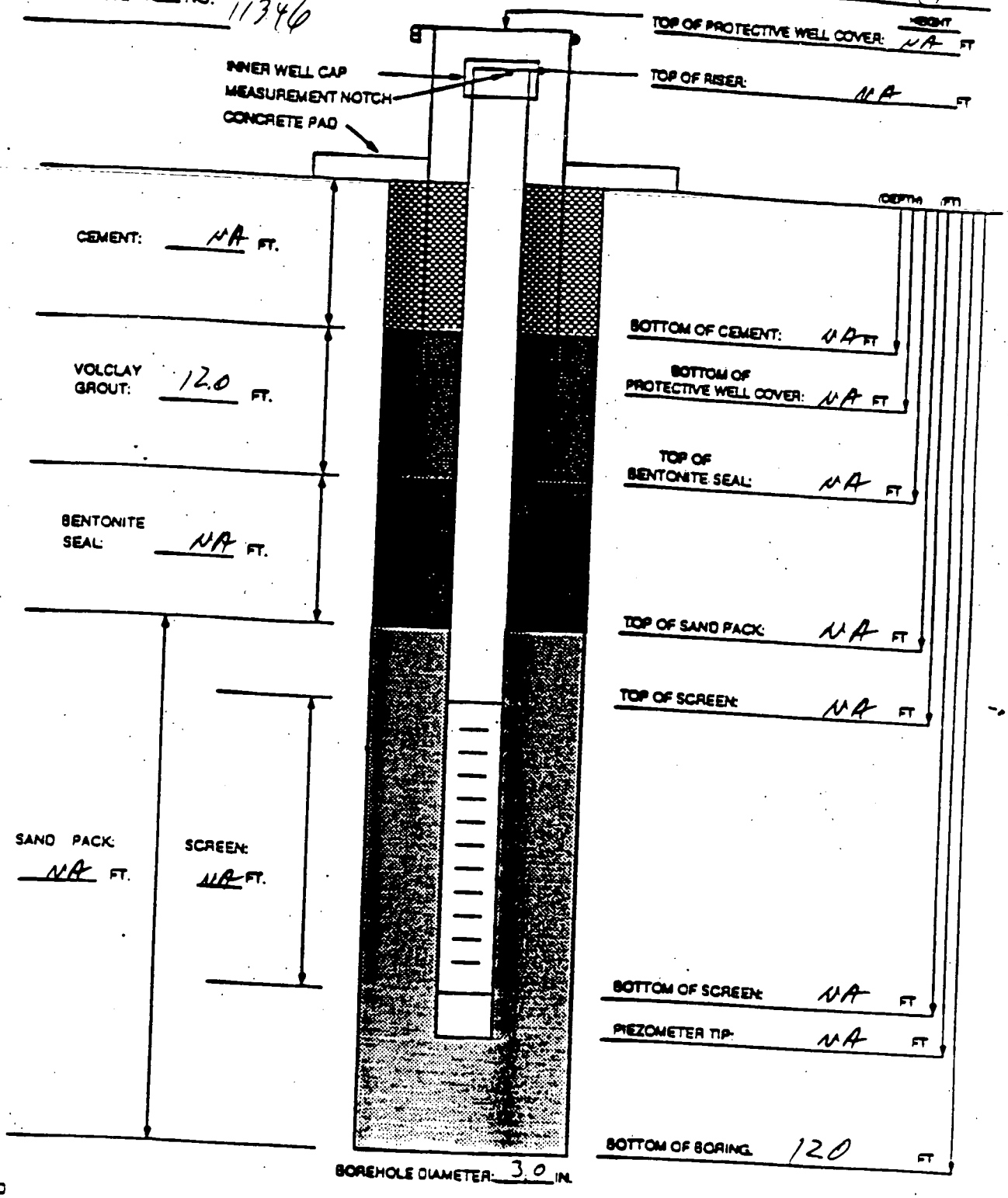
NOTES:

1) RISER PIPE IS NA IN. I.D. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. I.D. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

FERNALD RI/FS
INSTALLATION DIAGRAM
MONITORING WELL NO. 11346

INSTALLATION DATE: 6/5/94



BOREHOLE DIAMETER: 3.0 IN.

MATERIALS USED

SAND TYPE AND QUANTITY: NA
BENTONITE PELLETS (5-GALLON BUCKETS): NA
BAGS OF VOLCLAY GROUT: NA
AMOUNT OF CEMENT: NA
AMOUNT OF WATER USED: NA
OTHER: NA
TASK: NA

NOTES:

1) RISER PIPE IS NA IN. ID. 316 STAINLESS STEEL PIPE, FLUSH-THREADED JOINTS.
2) SCREEN IS NA IN. ID. 316 STAINLESS STEEL PIPE WITH 0. NA IN. SLOTS.
3) LOWER END OF SCREEN IS CAPPED WITH AN END CAP OR THREADED SUMP
4) WATER DEPTH AND DATE NA FT. NA
5) TOP OF CASING IS SECURED WITH A STAINLESS STEEL CAP
6) PARENTHESIS INDICATE DEPTH BELOW GROUND LEVEL
7) WELL CASING HAS A PROTECTIVE COVER WITH PADLOCK

GEOLOGIST/ENGINEER: Cliff Lee

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR'S FINDINGS AND ORDERS AND SECTION IV CONSENT DECREE
QUARTERLY TECHNICAL PROGRESS REPORT

April 1, 1994 - June 30, 1994

1993 RCRA ANNUAL REPORT

The 1993 RCRA Annual Report must be modified to incorporate information developed during ongoing characterization efforts. Attached is the revised 1993 Facility Annual Hazardous Waste Report section. There were seven inventory revisions this quarter to report for waste streams generated prior to 1994. Two of these revisions were for typographical errors. There were nineteen waste streams generated prior to 1994 added to the report.

The following is a list of corrections and additions to this section:

- Page 10, Line 44, corrected typographical error, amount is 4,420 lbs.
- Page 11, Line 45, corrected typographical error, amount is 13,258 lbs.
- Page 12, Line 53, corrected the amount to 820 lbs.
- Page 16, Line 91, corrected the amount to 7,433 lbs.
- Page 27, Line 182, corrected the amount to 22,818 lbs.
- Page 32, Line 237, corrected the amount to 4,495 lbs.
- Pages 41, 42, added Line 319 - 337

In addition to the above corrections, the Hazardous Waste Minimization Report has been revised to correct a calculation error. On Page 2, the amount listed in Section II F and Section III C has been corrected to 76,887 lbs.

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME U. S. DOE FERNALD
ENVIRONMENTAL MANAGEMENT PROJECT

EPA ID NO. 0H6 890 008 976

OhioEPA

State of Ohio Environmental Protection Agency

1993 Hazardous Waste Minimization Report
Hazardous Waste Minimization

Form WM

INSTRUCTIONS: Read the detailed instructions in the 1993 Hazardous Waste Minimization Annual Report booklet before completing this form.

Sec. I

A. Waste description Instruction Page 6: LEAD ACID BATTERIES FOR RECYCLE

B. EPA hazardous waste code Page 6: D002 D008

C. State hazardous waste code (NOT APPLICABLE) Page 7:

D. SIC code Page 7	E. Origin code Page 7	F. Source Code Page 7	G. Point of measurement Page 7	H. Form Code Page 7	I. RCRA-radioactive mixed Page 7
4953	1 System type M	A55	1	B309	2

Sec. II

A. Quantity generated in 1992 Instruction Page 8	B. Quantity Generated in 1993 Page 8	C. Unit of Measure - Page 8	D. Was this waste recycled in 1993? Page 8
NA.	NA.	UOM: ; Density: . ☐ lbs/gal ☐ sg	☒ Yes (CONTINUE TO BOX E) ☐ No (SKIP TO SEC. III)

E. On-site recycling Page 9: Quantity recycled on-site in 1993: 0.0

F. Off-site recycling Page 9: Quantity recycled off-site in 1993: 76887.0

Sec. III

A. Activity Code Page 9	B. Other effects Page 9	C. Quantity recycled in 1993 due to new activities Page 9	D. Activity/production index Page 9	E. Source reduction quantity Page 10
W02 WNA WNA WNA	☐ Yes ☒ No	76887.0	1.0	N.A

Comments:

OHIO ENVIRONMENTAL PROTECTION AGENCY

1993 FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Adminis Code.

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIC I. THROUGH VII. MUST BE COMPLETED.

Place Preprinted Label Here

I. FACILITY'S EPA I.D. NUMBER

OH6890008976

II. NAME OF FACILITY

US DOE FERNALD ENV MGMT PROJECT

III. FACILITY MAILING ADDRESS

PO BOX 398705

Street or P.O. Box

CINCINNATI — City or Town

OH — State

45239-8706 — Zip Code

IV. LOCATION OF FACILITY

7400 WILLEY ROAD — Street

31 — County Code

FERNALD — City or Town

OH — State

45030 — Zip Code

4953 — Primary SIC Code

V. FACILITY CONTACT

RAST DAVID M — Name (last and first)

513-648-3138 — Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure

$ NA , , .00

B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

$ NA , , .00

VII. CERTIFICATION

"I hereby under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

J. PHIL HAMRIC, MANAGER, DOE-FN — Print/Type Name

Title

000170

Signature of Authorized Representative

2/28/94 — Date Signed

EPA 9020

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. SCD987588084

X. Generator name Clemson Technical Center

XI. Generator's Address

Street	100 Technology Drive
City	Anderson
State:	South Carolina
Zip Code	29625

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	LAB WASTE, TCLP EXTRACT	S01	D018 D035 D039 F001 F005	D021 D038 D040 F002	1,841	P
2	CONTACT WASTE FROM CTC LAB	S01	D007 D009 F001 F005	D008 D039 F002	150	P
3	LAB GENERATED WASTE, METHYLENE CHLORIDE	S01	F002		614	P
4	CTC CORROSIVE WASTE	S01	D002 F002	F001 F005	2,066	P
5						P
6						P

XIII. Comments:

Page 1, Section VI – Cost Estimates – Federal Agencies are exemted from the requirements of OAC 3745–66–40 through 3745–66–48 by OAC 3745–66–40.

Page 2, Lines 1–4, This waste was generated as a result of characterization or treatabiliy studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. MOD981709272

X. Generator name IT Analytical

XI. Generator's Address

Street	13715 Rider Trail North
City	Earth City
State:	Missouri
Zip Code	63045

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	TCLP EXTRACTS, LAB GENERATED WASTE	S01	D002		620	P
2	LAB GENERATED WASTE, OIL FROM TCLP	S01	D001 D006 D010	D004 D008	135	P
3	TCLP LEACHATE	S01	D009 F002	F001	460	P
4						P
5						P
6						P
7						P
8						P
9						P

XIII. Comments:

Lines 1 – 3, This waste was generated as a result of characterization or treatability studies on Fernald Envirnmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

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Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. TND982116493

X. Generator name IT Corp. Oak Ridge Laboratory

XI. Generator's Address

Street 1550 Bear Creek Road

City Kingston

State: Tennessee

Zip Code 37763

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	SOLIDIFIED LAB WASTES	S01	F001 F003	F002	103,881	P
2						P
3						P
4						P
5						P
6						P
7						P
8						P
9						P
10						P
11						P

XIII. Comments:

Line 1, This waste was generated as a result of characterization or treatability studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facilty for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. MOD985768191

X. Generator name TCT – St. Louis

XI. Generator's Address

Street	1908 Innerbelt Business Center
City	St. Louis
State:	Missouri
Zip Code	63114

XII. Waste Identification

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	LAB GENERATED WASTE ORGANIC LIQUID	S01	D010	F002	6,136	P
2	METAL EXTRACTS AND DIGESTS	S01	D002 D009 F001 F005	D008 D010 F002	7,633	P
3	OIL FROM TCLP EXTRACTS	S01	D040 F002	F001 F005	180	P
4	VOLITILE SOLID WASTE	S01	D010		170	P
5	LAB GENERATED CONTACT WASTE	S01	D004 D010	D008	3,750	P
6						P
7						P
8						P

XIII. Comments:

Lines 1–5, This waste was generated as a result of characterization or treatability studies on Fernald Environmental Management Project waste samples. In accordance with DOE Order 5820.2A it cannot be sent to a commercial facility for disposal. It must instead be returned to the Fernald site.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
1	ACETONITRILE IN WATER	S01	D001		1	P
2	CLEAR DISPERSANT, TYPE H BLACK, CYAN, ETC.	S01	D001		77	P
3	CLEAR DISPERSANT, TYPE H CONCENTRATE	S01	D001		60	P
4	CONTAMINATED NON-BURNABLE	S01	D001		3,183	P
5	CURING COMPOUND	S01	D001		383	P
6	DISCARD PROCESS RESIDUE	S01	D001		395	P
7	DISCARD PROCESS RESIDUE	S01	D001		8,095	P
8	FLAMMABLE PAINTS AND RELATED PRODUCTS	S01	D001		1,092	P
9	FLOOR COATING BASE	S01	D001		783	P
10	FURNACE SALT NON-CHLORIDE	S01	D001		169	P
11	GREASE AND WATER	S01	D001		249	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
12	HYDROGEN PEROXIDE SOLN.	S01	D001		2,002	P
13	EROSENE	S01	D001		202	P
14	NON-CHLORIDE CONTAMINATED WATER	S01	D001		1,914	P
15	NON-OILY SLUDGE FOR ROASTING	S01	D001		30,815	P
16	NONRECOVERABLE TRASH	S01	D001		212	P
17	OILY SLUDGE FOR OXIDATION	S01	D001		643	P
18	OILY SLUDGES, HIGH FREE METAL	S01	D001		931	P
19	SUMP CAKE - COPPER CONTAMINATED	S01	D001		81,128	P
20	UNFIRED REDUCTION CHARGES PLUS CaF2	S01	D001		2	P
21	UNSPECIFIED IGNITABLE LIQUID	S01	D001		373	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
22	VARNISH – UNUSED	S01	D001		197	P
23	LAB GERATED WASTE, FLAMMABLE ORGANICS	S01	D001	D002	3,530	P
24	LABORATORY ACIDS (NITRIC AND CYCLOHEXANE)	S01	D001	D002	1,211	P
25	CONTAMINATED MAGNESIUM	S01	D001	D003	29,400	P
26	CONTAMINATED MAGNESIUM	S01	D001	D003	2,125	P
27	NON–METALLIC MIS–CELLANEOUS SAMPLES	S01	D001	D003	16	P
28	LAB GENERATED WASTE OIL FROM TCLP EXTRACTS	S01	D001 D006 D010	D004 D008	113	P
29	FURNACE SALT, NON–CHLORIDE	S01	D001 D008	D004	1,838	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
30	CONTAMINATED SOLVENT, PAINT SHOP	S01	D001 D007 D009 D011 F002 F005	D005 D008 D010 D019 F003	479	P
31	PAINT, GRAY EPOXY	S01	D001	D006	287	P
32	USED OIL	S01	D001 D008 D039 F002	D006 D009 F001	437	P
33	CONTAMINATED ORGANIC CHEMICAL OR SOLVENT	S01	D001 D008 F002	D006 F001	413	P
34	1,1,1-TRICHLOROETHANE	S01	D001 F001	D006 F002	23	P
35	SOLVENT SLUDGE	S01	D001	D007	428	P
36	IMPURE THORIUM NITRATE (SOLID)	S01	D001 D008	D007	1,845	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
37	IMPURE THORIUM NITRATE (SOLID)	S01	D001 D008	D007	4,405	P
38	FLAMMABLE AEROSOLS	S01	D001 D008 D019 D039	D007 D018 D035	25	P
39	PAINT WASTE FROM PAINTING BOOTH	S01	D001 D008 F003	D007 F002 F005	1,260	P
40	NONRECOVERABLE TRASH	S01	D001 F003	D007	337	P
41	OIL AND FUEL FROM GARAGE	S01	D001	D008	784	P
42	USED PAINT THINNER	S01	D001 D009 F003	D008 D035 F005	960	P
43	GASOLINE	S01	D001 D018	D008	2,388	P
44	WATER/GAS MIXTURE (TANK 8)	S01	D001 D018	D008	4,420	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
45	CONTAMINATED SUMP WATER	S01	D001 D018 D039 F002	D008 D019 D040 F003	13,258	P
46	CONTAMINATED SUMP WATER AND HYDRAULIC OIL	S01	D001 D019 D040 F003	D008 D039 F002 F005	1,478	P
47	SOLVENT SLUDGES (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D001 D035	D008 F005	292	P
48	USED OIL, MAINTENANCE	S01	D001 F001	D008	231	P
49	USED AGITENE	S01	D001 F001	D008 F002	814	P
50	CONTAMINATED WATER NON-CHLORIDE	S01	D001 F003	D008 F005	124	P
51	OILY SLUDGE FOR OXIDATION	S01	D001	D010	194	P
52	OILY SLUDGE FOR OXIDATION	S01	D001	D010	336	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
53	SPENT FUELS	S01	D001	D018	820	P
54	WATER AND GAS MIXTURE, TANK #9	S01	D001	D018	8,680	P
55	PAINT BITUMASTIC 300M A & B COLD TAR COATING	S01	D001 D026	D018	73	P
56	BENZENE (LABPACKED)	S01	D001 U019	D018	6	P
57	DEGREASING SOLVENT	S01	D001 D022 D029 D039 F001 F005	D019 D028 D035 D040 F003	125,181	P
58	CONTAMINATED TBP-EROSENE	S01	D001 D022 F002	D019 D039 F003	32	P
59	OILY SLUDGES	S01	D001 D039 F001 F005	D019 D040 F003	34,232	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
60	EPOXY PRIME COAT	S01	D001	D035	163	P
61	UNUSED PAINT THINNER	S01	D001	D035	484	P
62	CONTAMINATED METHYL ETHYL KETONE	S01	D001 F005	D035	249	P
63	OILY OXIDATION SLUDGES WITH HIGH FREE METAL	S01	D001 F001	D039	5,705	P
64	U CONTAMINATED SOLVENT – (1,1,1–TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D001 F003	D039 F005	5,603	P
65	1,1,1–TRICHLOROETHANE STILL BOTTOMS	S01	D001	F001	17,142	P
66	DRUM CONTAINING 1,1,1–TRICHLOROETHANE	S01	D001	F001	245	P
67	OILY SLUDGE FOR OXIDATION	S01	D001	F001	198	P
68	OILY SLUDGE FOR OXIDATION HIGH FREE METAL	S01	D001 F002	F001	6,538	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
69	PAINT	S01	D001 F002	F001	450	P
70	PAINT THINNERS AND PAINT RESIDUES	S01	D001 F003	F002 F005	316	P
71	WET CAKE, NON-OILY/HALIDE	S01	D001 F003	F002 F005	124	P
72	CONTAMINATED SOLVENTS (METHANOL)	S01	D001	F003	181	P
73	CONTAMINATED WATER	S01	D001	F003	24	P
74	METHANOL	S01	D001	F003	319	P
75	METHANOL & CYCLOHEXANE	S01	D001	F003	248	P
76	METHANOL & CYCLOHEXANE MIXTURE	S01	D001	F003	6,151	P
77	SPENT ACETONE	S01	D001	F003	1,817	P
78	XYLENE	S01	D001	F003	729	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
79	NON-RECOVERABLE TRASH	S01	D001 F005	F003	132	P
80	CONTAMINATED WATER, PIT 2	S01	D002		876	P
81	DISCARD PROCESS RESIDUES	S01	D002		851	P
82	LAB GENERATED WASTE, TCLP EXTRACTS	S01	D002		341	P
83	U CONTAMINATED SOIL, ROCKS, ETC.	S01	D002 D007 D011	D004 D008	503	P
84	URANYL NITRATE SOLUTION IN TANKS	S02	D002 D007	D005	2,286,349	P
85	THORIUM TRAILER CAKES WASTE SLURRIES	S01	D002 D009	D005	402	P
86	NITRIC ACID	T34	D002	D007	319	P
87	WET SUMP OR FILTER CAKE OIL CONTAMINATED	S01	D002	D007	596	P

XIII. Comments:

Line 86: T34 is for dilution and recovery for use in chemical cleaning.

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
88	THORIUM NITRATE SOLUTION	S01	D002 D008	D007	5,022	P
89	LAB GENERATED WASTE ACID DIGESTATES	S01	D002 D008 D028 F001	D007 D019 D039 F002	2,878	P
90	NESSLER REAGENT, COD SOLUTION, ROCHELLE SALT	S01	D002 D009	D007 D011	10	P
91	LEAD ACID BATTERIES (BROKEN)	S01	D002	D008	7,433	P
92	METALS EXTRACTS AND DIGESTS	S01	D002 D009 F001 F005	D008 D010 F002	4,443	P
93	CAUSTIC SOLUTION FROM PLANT 8 PROCESSING	S01	D002	D019	643	P
94	CTC CORROSIVE WASTE	S01	D002 F002	F001 F005	437	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
95	HYDROFLUORIC ACID	S02	D002	U134	36,736	P
96	MAGNESIUM FLAKE AND OILY RAGS	S01	D003		165	P
97	URANIUM HEXAFLUORIDE AND URANIUM TETRAFLUORIDE	S01	D003		16	P
98	CONTAMINATED INSOLUBLE OIL	S01	D003 D009 D040 F002 F005	D008 D039 F001 F003	375	P
99	SCRAP U3O8 HIGH F	S01	D004		242,466	P
100	SOLIDIFIED FURNACE SALTS, NON-CHLORIDE	S01	D004		246,357	P
101	U3O8 FOR REOXIDATION	S01	D004		7,841	P
102	BORING # 1511	S01	D004 D006	D005 D007	670	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
103	BORING # 1514	S01	D004 D006 D008	D005 D007	670	P
104	BORING #1515, FROM THE FIRE TRAINING GROUNDS	S01	D004 D006 D008	D005 D007	570	P
105	LIQUID AND SOLID WASTE SAMPLES	S01	D004 D006 D008 D018	D005 D007 D010 F002	25	P
106	BORING # 1512	S01	D004 D006 D008	D005 D007 D011	728	P
107	SOLIDS CONTAMINATED BY LAB SAMPLES AND MATERIALS	S01	D004 D006 D008 F002	D005 D007 D022 F003	901	P
108	CONTAMINATED SOIL, ROCKS, BRICKS AND CERAMICS	S01	D004 D007 D010	D005 D008 D011	6,314	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
109	BORING # 1509	S01	D004 D007	D006 D008	1,522	P
110	SCRAP SALTS, HIGH FLUORIDE	S01	D004 D008	D007 D010	4,153	P
111	DUST COLLECTOR RESIDUES, PYROPHORIC	S01	D004	D008	138	P
112	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D004	D008	588	P
113	ROASTED MgF2, OTHER MATERIAL	S01	D004	D008	5,174	P
114	SCRAP SALTS AND FLOOR SWEEPINGS, LOW FLUORIDE	S01	D004	D008	507	P
115	CONTACT WASTE (LAB)	S01	D004 D010	D008	1,137	P
116	CONTAMINATED BRICKS, SOIL, ROCKS, SAND, ETC.	S01	D004 D011	D008	1,026	P
117	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D004	D011	539	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
118	FURNACE SALT, CHLORIDE	S01	D004	D011	6,486	P
119	SALT SLUDGE FOR PLANT 8	S01	D004 D039	D019 F002	1,325	P
120	BARIUM CARBONATE	S01	D005		4,121	P
121	CONTAMINATED BURNABLES	S01	D005		113	P
122	CONTAMINATED SOIL AND ROCKS	S01	D005		76,387	P
123	SALT SLUDGE, CHLORIDE	S01	D005		713	P
124	SAMPLES, NON-METALLIC	S01	D005		185	P
125	SCRAP ThO2 - HIGH F	S01	D005		128	P
126	WET SUMP OR FILTER CAKE NON-OILY, NON-HALIDE	S01	D005		542	P
127	BORING # 1513	S01	D005 D007	D006 D008	1,254	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
128	CONTAMINATED SOIL AND ROCKS	S01	D005 D007 D009	D006 D008	1,854	P
129	USED OIL FROM GEAR BOXES LATHES AND MOTORS	S01	D005 D008	D006 F001	322	P
130	SUMP CAKE	S01	D005	D007	14,423	P
131	SCRAP SALTS	S01	D005	D008	16,494	P
132	SOLIDIFIED FURNACE SALT	S01	D005	D008	2,651	P
133	OILY SEMI-SOLID	S01	D005 F001	D008 F002	1,033	P
134	CONTAMINATED RAGS, PAPER	S01	D005	F001	294	P
135	CADMIUM SPRINGS	S01	D006		58	P
136	NI-CD BATTERIES	S01	D006		309	P
137	NONRECOVERABLE TRASH	S01	D006	D007	656	P
138	BORING # 1508	S01	D006 D008	D007	652	P

XIII. Comments:

Ohio Environmental Protection Agency

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FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
139	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	D006 D008 D040 F005	D007 D018 F002	172	P
140	CONTAMINATED INSOLUBLE OIL	S01	D006 D008 D029 F001	D007 D019 D040	3,056	P
141	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D006	D008	6	P
142	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D006	D008	1,213	P
143	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	D006	D008	118	P
144	MERCURY THERMOMETER SPILL CLEANUP	S01	D006 D009	D008	721	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
145	CONTAMINATED INSOLUBLE OIL	S01	D006 D018 D028 D039 F002	D008 D019 D029 D040 F005	634	P
146	CONTAMINATED INSOLUBLE OIL	S01	D007		370	P
147	DUST COLLECTOR BAGS	S01	D007		418	P
148	DUST COLLECTOR BAGS	S01	D007		26	P
149	DUST COLLECTOR RESIDUES, HIGH FLUORIDE	S01	D007		1,231	P
150	NON-METALLIC MISCEL-LANEOUS SAMPLES	S01	D007		78	P
151	NON-OILY SLUDGE FOR ROASTIING	S01	D007		445	P
152	ROASTED OFF-SITE SUMP CAKE	S01	D007		32,917	P
153	SALT SLUDGE, CHLORIDE	S01	D007		10,570	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
154	SALT SLUDGE, CHLORIDE	S01	D007		20,041	P
155	SCRAP SALTS AND FLOOR SWEEPINGS, LOW FLUORIDE	S01	D007		6,305	P
156	SLUDGES FOR BLENDING	S01	D007		457	P
157	OIL DRY CONTAMINATED WITH OIL FROM BALER	S01	D007	D008	1,950	P
158	SCRAP SALTS AND FLOOR SWEEPINGS, HIGH FLUORIDE	S01	D007	D008	2,233	P
159	LAB CONTACT WASTE	S01	D007 D009 F001 F005	D008 D039 F002	68	P
160	OIL UNKNOWN GENERATION	S01	D007 D009	D008 F002	3,335	P
161	FURNACE SALT, NON-CHLORIDE	S01	D007 D010	D008	24,102	P
162	LIQUID SOLVENT WASTE	S01	D007 D010	D008 F005	373	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
163	LINERS, GLOVES AND OILY RAGS	S01	D007	D010	170	P
164	SOLVENT SLUDGE, (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D007	D011	79	P
165	CONTAMINATED SOLVENT (1,1,1-TRICHLOROETHANE, PERCHLOROETHYLENE)	S01	D007 D019 D029 D040	D018 D021 D039 F001	7,663	P
166	SOLVENT WASTE	S01	D007 D040 F002	D039 F001	1,118	P
167	OILY SLUDGES	S01	D007	F001	947	P
168	U3O8, LOW FLUORIDE	S01	D007 F002	F001	1,411	P
169	CONTAMINATED BURNABLE	S01	D007	F002	1,169	P
170	GROUNDWATER FROM WELL #2649	S01	D007	F002	1,657	P

XIII. Comments:

Ohio Environmental Protection Agency

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FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
171	CONTAMINATED NON-BURNABLES	S01	D008		601	P
172	CONTAMINATED NON-BURNABLES	S01	D008		15,081	P
173	CONTAMINATED SOIL, ROCKS BRICKS AND CERAMICS	S01	D008		5,265	P
174	CONTAMINATED SOIL, ROCKS BRICKS AND CERAMICS	S01	D008		78,584	P
175	DUST COLLECTOR BAGS	S01	D008		110	P
176	DUST COLLECTOR RESIDUES HIGH FLUORIDE	S01	D008		192	P
177	GRIT BLAST	S01	D008		626,904	P
178	LEAD	S01	D008		168	P
179	LEAD AND WOOD SHAVINGS,	S01	D008		19	P
180	LEAD BRICKS	S01	D008		741	P
181	LEAD SOLDER JOINTS	S01	D008		15,196	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
182	LEAD/LEAD SEALS	S01	D008		22,818	P
183	LUBRICATING OIL	S01	D008		697	P
184	MISCELLANEOUS LEAD TOOLS, PIPING	S01	D008		974	P
185	NON-RECOVERABLE TRASH	S01	D008		428	P
186	OILY RAGS, PADS, GLOVES	S01	D008		266	P
187	PAINT CHIPS FROM SAND FILTERS AT WATER PLANT	S01	D008		928	P
188	DISCARD PROCESS RESIDUES	S01	D008		845	P
189	SCRAP SALTS AND FLOOR SWEEPINGS, HIGH FLUORIDE	S01	D008		16,878	P
190	THORIUM OXIDE POWDER REFINERY FEED	S01	D008		68	P
191	OILY RAGS	S01	D008 D010	D009	55	P

XIII. Comments:

Ohio Environmental Protection Agency

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FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
192	CONTAMINATED INSOLUBLE OIL	S01	D008 D039	D009 F001	269	P
193	NON-RECOVERABLE TRASH ABSORBANT PADS	S01	D008 F001	D009	42	P
194	CONTAMINATED METALLIC FILTER ELEMENTS	S01	D008	D010	2,848	P
195	FURNACE SALT, NON-CHLORIDE	S01	D008	D010	4,486	P
196	TRASH, PADS, RAGS, WATER	S01	D008	D010	768	P
197	CONTAMINATED BURNABLES, RAGS, FILTER, CLOTH	S01	D008 F001	D011	869	P
198	WATER/GAS MIXTURE TANK NO. 10	S01	D008	D018	2,015	P
199	CONTAMINATED INSOLUBLE OIL, GEAR OIL	S01	D008 D019 D029 D040	D018 D028 D039 F002	2,781	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
200	SPENT 1,1,1-TRICHLORO-ETHANE	S01	D008 F001	D018 F002	169	P
201	USED OIL	S01	D008 F001	D018 F002	889	P
202	OILY RAGS	S01	D008 F002	D018	129	P
203	OILY RAGS AND ABSORBANTS, WD-40 AND VARIOUS OILS	S01	D008 F002	D018	79	P
204	SLUDGES, OILY	S01	D008 D040	D039 F001	685	P
205	OILY RAGS, PADS AND TRASH	S01	D008 F001	D039	108	P
206	CONTAMINATED INSOLUBLE OIL	S01	D008	F001	1,124	P
207	CONTAMINATED INSOLUBLE OIL	S01	D008	F001	4,148	P
208	NON-RECOVERABLE TRASH	S01	D008	F001	6,703	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
209	SLUDGES, OILY	S01	D008	F001	3,252	P
210	NON-OILY SLUDGE FOR ROASTING	S01	D008 F002	F001	732	P
211	ELEMENTAL MERCURY	S01	D009		45	P
212	MERCURY BATTERY	S01	D009		1,470	P
213	MERCURY CONTAMINATED FLOOR TILE AND INSULATION	S01	D009		2,444	P
214	MERCURY BATTARIES AND MERCURY SPILL CLEANUP	S01	D009		62	P
215	MERCURY SPILL CLEAN-UP, SPENT MERCURY BATTERIES	S01	D009		236	P
216	NONRECOVERABLE TRASH	S01	D009		605	P
217	SCRAP SALT, HIGH FLUORIDE	S01	D009		12	P
218	USED MERCURY FROM EQUIPMENT	S01	D009		404	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
219	TCLP LEACHATE	S01	D009 F002	F001	420	P
220	SCRAP SALTS AND FLOOR SWEEPINGS, HIGH FLUORIDE	S01	D010		251	P
221	STEEL SHOT	S01	D010		2,122	P
222	VOLITILE SOLID WASTE	S01	D010		167	P
223	OIL SOAKED RAGS	S01	D010 F002	D018	591	P
224	USED OIL	S01	D010 F002	D018	11,703	P
225	OILY SLUDGE	S01	D010 F001	D035	2,977	P
226	LAB GENERATED WASTE, ORGANIC LIQUID	S01	D010	F002	3,847	P
227	CONCENTRATE FIXER	S01	D011		216	P
228	CONTAMINATED ROCKS, SOIL, WITH NO FREE LIQUIDS	S01	D011		989	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

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Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
229	OIL CONTAMINATED WET SUMP OR FILTER CAKE	S01	D011		69,866	P
230	SPENT FIXER	S01	D011		1,347	P
231	X-RAY FIXER & DEVELOPER	S01	D011		271	P
232	CONTAMINATED BURNABLES, RAGS, PAPER, POLYETHYLENE	S01	D011 F005	F001	631	P
233	CODED AS OIL	S01	D018		89	P
234	CRANKCASE OIL	S01	D018		2,106	P
235	HYDRAULIC OIL FROM BALER IN DRUM RECONDITIONING	S01	D018		1,089	P
236	EROSENE, SLUDGE, WATER FROM UST	S01	D018		2,457	P
237	LUBRICATING OILS	S01	D018		4,495	P
238	SPILL CLEANUPS OF OIL AND GAS	S01	D018		5,120	P
239	USED OIL	S01	D018		313	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
240	LAB WASTE, TCLP EXTRACT	S01	D018 D035 D039 F002	D021 D038 D040 F005	4,483	P
241	BIODENITRIFICATION SURGE LAGOON SLUDGE	S01	D018	D039	852,680	P
242	OIL CONTAMINATED WITH SOLVENTS (TANK5)	S01	D018	F001	27,458	P
243	TRASH CONTAMINATED WITH SOLVENT	S01	D018	F001	219	P
244	1,1,1-TRICHLOROETHANE (CLEANING SOLVENT)	S01	D018 F002	F001	227	P
245	SPENT SOLVENTS	S01	D018 F002	F001	238	P
246	USED OIL	S01	D018	F002	2,583	P
247	CONTAMINATED SOLVENT, 1,1,1-TRICHLOROETHANE PERCLHOROETHYLENE	S01	D019 D028 D039 F005	D022 D029 F001	376	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
248	CONTAMINATED TBP AND/OR EROSENE MIXTURES	S01	D019 D039	D022 F002	111	P
249	CONTAMINATED INSLOUBLE OIL	S01	D019 D039 F001	D029 D040	5,808	P
250	FLOOR SUMP CLEANOUT SLUDGE	S01	D019 F001	D039 F002	1,393	P
251	NON-OILY CLEANOUT SLUDGES FOR ROASTING	S01	D019	F001	4,105	P
252	NON-RECOVERABLE TRASH	S01	D019	F002	1,002	P
253	CARBON TETRACHLORIDE (LABPACKED)	S01	D019	U211	43	P
254	PROCESS RESIDUES	S01	D029		798	P
255	CONTAMINATED BURNABLES	S01	D029 D040	D039 F001	5,873	P
256	OILY SLUDGES	S01	D029 D040	D039 F001	171,073	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
257	FLOOR SUMP CLEANOUT SLUDGE	S01	D029 F001	D039	1,308	P
258	CONTAMINATED INSOLUBLE OIL	S01	D029 F002	D039	413	P
259	U3O8, LOW FLUORIDE	S01	D039		990	P
260	U-CONTAMINATED WATER	S01	D039		5,817	P
261	CONTAMINATED INSOLUBLE OIL	S01	D039 F001	D040	2,743	P
262	CONTAMINATED INSOLUBLE OIL	S01	D039 F001	D040	5,511	P
263	WET SUMP OR FILTER CAKE, OIL CONTAMINATED	S01	D039 F002	D040	23,372	P
264	NON-OILY CLEANOUT SLUDGES FOR ROASTING	S01	D039	F002	8,741	P
265	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	D039	F002	1,001	P
266	SOLVENT SEMISOLD	S01	D039	F002	88	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

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XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
267	WET SUMP OR FILTER CAKE NON-OILY, NON-HALIDE	S01	D039	F002	7,116	P
268	WET SUMP OR FILTER CAKE NON-OILY, NON-HALIDE	S01	D039	F002	1,305	P
269	OIL FROM TCLP EXTRACTS	S01	D040 F002	F001 F005	71	P
270	SPILL CLEANOUT MATERIAL	S01	F001		13	P
271	BORING #1594	S01	F001		475	P
272	BORING #1251	S01	F001		911	P
273	BORING #1261	S01	F001		550	P
274	BORING # 1674	S01	F001		340	P
275	PUMP OIL AND RAGS	S01	F001		39	P
276	CONTAMINATED BURNABLES	S01	F001		406	P
277	CONTAMINATED INSOLUBLE OIL	S01	F001		610	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
278	COPPER CONTAMINATED SUMP CAKE, LOW U	S01	F001		1,155	P
279	INCINERATOR CINDERS	S01	F001		146,124	P
280	ROASTED CALCIUM PRECIPITATED SUMP CAKE	S01	F001		3,275	P
281	ROASTED CALCIUM PRECIPITATED SUMP CAKE	S01	F001		46,403	P
282	SCRAP SALTS AND FLOOR SWEEPINGS, LOW FLUORIDE	S01	F001		853	P
283	SCRAP SALTS, LOW FLUORIDE	S01	F001		476	P
284	SCRAP U3O8, LOW FLUORIDE	S01	F001		13,549	P
285	SPILL CLEAN-UP MATERIALS	S01	F001		144	P
286	U3O8 ROTEXED PLANT 8 FURNACE PRODUCT	S01	F001		166,372	P
287	CONTAMINATED GRAPHITE	S01	F001	F002	910	P

XIII. Comments:

Ohio Environmental Protection Agency

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For the calendar year ending December 31, 1993

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
288	FILTER MATERIAL, SAND, GRAVEL, FLYASH	S01	F001	F002	410,382	P
289	GRASS ON THE SOIL	S01	F001	F002	42	P
290	SPILL CLEANUP FROM RCRA STORAGE PAD	S01	F001	F002	189	P
291	OILY RAGS	S01	F001	F002	285	P
292	RAINWATER AND RINSATES FROM DECONTAMINATION	S01	F001	F002	66,248	P
293	SOIL	S01	F001	F002	3,330	P
294	U3O8 FROM BOX FURNACE	S01	F001	F002	89,675	P
295	CONTAMINATED PROTECTIVE CLOTHING	S01	F001 F005	F002	154	P
296	LAB GENEREATED WASTE, CONTACT SOLID WASTE	S01	F001 F005	F002	1,367	P
297	BORING #1412	S01	F002		517	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
298	CONTAMINATED NON-BURNABLES	S01	F002		2,508	P
299	CONTAMINATED NON-BURNABLES	S01	F002		31	P
300	GROUNDWATER FROM WELL # 1031	S01	F002		505	P
301	INCINERATOR CINDERS	S01	F002		6,096	P
302	LAB GENERATED WASTE, METHYLENE CHLORIDE	S01	F002		542	P
303	MOP HEADS AND PADS	S01	F002		91	P
304	NON RECOVERABLE TRASH	S01	F002		495	P
305	MERCO DRY AND OILY MERCO DRY	S01	F002		3,430	P
306	OIL CONTAMINATED WET SUMP OR FILTER CAKE	S01	F002		36,117	P
307	OILY RAGS	S01	F002		100	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
308	OILY SLUDGE FOR OXIDATION HIGH FREE METAL	S01	F002		3,527	P
309	SALT SLUDGE,CHLORIDE	S01	F002		1,101	P
310	SCRAP U3O8 – LOW F	S01	F002		123	P
311	SCRAP U3O8 OR THO2 HIGH FLUORIDE	S01	F002		30,058	P
312	SPENT METHYLENE CHLORIDE	S01	F002		55	P
313	SOLVENT RAGS	S01	F002		54	P
314	PAINT THINNER RAGS	S01	F002 F005	F003	169	P
315	NON–RECOVERABLE TRASH	S01	F002	F005	449	P
316	PROCESS RESIDUES, TRAILER CAKES, SLURRIES	S01	F005		19	P
317	HF TANK CLEANOUT MATERIAL	S01	U134		9,593	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
318	MERCURY SPILL CLEANUP RESIDUE	S01	U151		382	P
319	CONTAMINATED KEROSENE	S01	D001	D018	1,784	P
320	CONTAMINATED WATER	S01	D001		283	P
321	CONTAMINATED SOIL	S01	F001	F002	423	P
322	CONCRETE, CERAMICS, SOIL	S01	D004 D008 D011	D006 D010	2,200	P
323	CONTAMINAED OIL	S01	D001	D008	1,042	P
324	MIX PAINT	S01	D001 F002	D035 F003	529	P
325	BABBITT HAMMER, LEAD BRICKS & LEAD WINDOW SASHINGS	S01	D008		572	P
326	CONTAMINATED LIQUID	S01	D001	D009	749	P
327	MERCURY CONTAMINATED WATER	S01	D007 D009	D008	72	P

XIII. Comments:

Ohio Environmental Protection Agency

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XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
328	CONTAMINATED LIQUID	S01	D001	D008	429	P
329	OILY SLUDGES	S01	D005 D007 D009	D006 D008	1,224	P
330	DISCARDED PROCESS RESIDUES, SLURRIES, ECT.,	S01	D010		3,033	P
331	NON-OILY SLUDGES, FOR ROASTING	S01	D039		1,916	P
332	DRAW TEMP 275	S01	D001		203	P
333	TRASH GENERATED FROM SAMPLING IN BLDG. 79	S01	F001 F003	F002 F005	440	P
334	TRASH	S01	D009		259	P
335	NON RECOVERABLE TRASH	S01	D008		345	P
336	CONTAMINATED LIQUID	S01	D001 D008	D007 D010	426	P
337	NON-BURNABLE METAL WITH U CONTENT	S01	D004 D008	D006	5,539	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

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XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
319	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	737	P
320	BORING #1148	S01	U228		399	P
321	BORING # 1193	S01	U220		1,515	P
322	BORING # 1260	S01	F002		250	P
323	BORING # 1283	S01	F002		618	P
324	BORING # 1287	S01	F002		326	P
325	BORING # 1294	S01	F002		645	P
326	BORING # 1307	S01	F002		384	P

XIII. Comments:

As discussed with the Ohio EPA in the past, there are a number of waste streams onsite that are not fully characterized.The following wastes are part of that population. They are included in the Materials Control and Accounability Department Hazardous Waste Inventory, however, their characterization status is listed as pending by the Waste Characterization Department. The EPA waste codes should therefore be considered preliminary.

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

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XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
327	BORING # 1308	S01	U228		1,280	P
328	BORING # 1317	S01	U080		938	P
329	BORING # 1324	S01 S01	F002		1,309	P P
330	BORING # 1327	S01	U044		873	P
331	BORING # 1345	S01	U044		784	P
332	BORING # 1346	S01	U228		1,010	P
333	BORING # 1363	S01	F002		966	P
334	BORING # 1411	S01 S01	U228		903	P P
335	CONTAMINATED INSOLUBLE OIL	S01	D010 F005	F002	6,495	P
336	BORING # 1149	S01	F001		1,578	P
337	CONTAMINATED SOLVENTS	S01	F001		401	P
338	COBALT TRIFLUORIDE	S01	D001	D003	3	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
339	AEROSOL PAINT	S01	D001		132	P
340	HYDRAULIC OIL	S01	D018		242	P
341	OIL DRY CONTAMINATED WITH OIL	S01	D018		1,439	P
342	BARIUM	S01	D005		515	P
343	CONTAMINATED INSOLUBLE OIL	S01	D008	D018	2,487	P
344	OILY SLUDGE	S01	F001		1,205	P
345	NONRECOVERABLE TRASH	S01	D008 F002	D018	1,222	P
346	SOLIDIFIED LAB WASTE	S01	F001 F005	F002	102,598	P
347	CLEARWELL TREATABILITY STUDY WASTE	S01	F001	F002	53	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

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XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
348	PIT 5 TREATABILITY STUDY WASTE	S01	D004 F001	D005 F002	28	P
349	ENGINEERED WASTE MANAGE MENT FACILITY STUDY	S01	F001 F005	F002	1,769	P
350	PAPER, PLASTIC AND GLASS	S01	F001	F002	1,608	P
351	NONRECOVERABLE TRASH	S01	D008 F001	D018 F002	505	P
352	NONRECOVERABLE TRASH	S01	D005 F001 F003	D008 F002	1,400	P
353	NONRECOVERABLE TRASH	S01	D008	F002	128	P
354	NONRECOVERABLE TRASH	S01	D008 F002	D018	132	P
355	NONRECOVERABLE TRASH	S01	F001		176	P
356	NONRECOVERABLE TRASH	S01	F002		164	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
357	NONRECOVERABLE TRASH	S01	D002 D007 D018 U210	D005 D008 F002	18,578	P
358	NONRECOVERABLE TRASH	S01	D001		967	P
359	NONRECOVERABLE TRASH	S01	D002 D006 D008 F002	D005 D007 D022 F003	220	P
360	NONRECOVERABLE TRASH	S01	D005 F002	D008	140	P
361	NONRECOVERABLE TRASH	S01	D010 F001	D018 F002	1,265	P
362	NONRECOVERABLE TRASH	S01	D010 F002	F001 F005	1,441	P
363	NONRECOVERABLE TRASH	S01	D010 F002	F001 F005	4,722	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
364	NONRECOVERABLE TRASH	S01	D002 D008 F001 U159	D005 D018 F002	13,140	P
365	NONRECOVERABLE TRASH	S01	D001		836	P
366	NONRECOVERABLE TRASH	S01	D008	F002	636	P
367	NONRECOVERABLE TRASH	S01	D008	F002	1,001	P
368	NONRECOVERABLE TRASH	S01	D008	F002	535	P
369	CONTAMINATED OIL, SOLUBLE	S01	D001 F002	F001 F003	272	P
370	CONTAMINATED WATER	S01	D007		806	P
371	CONTAMINATED SOIL, ROCKS, ETC.	S01	F001		13,934	P
372	BARIUM CHLORIDE, CHROMIUM RESIDUES	S01	D007		30,325	P
373	CONTAMINATED WATER	S01	D010 F005	F002	979	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
374	GROUNDWATER FROM WELL # 1149	S01	F001		217	P
375	CONTAMINATED SOLVENT	S01	D001	F001	931	P
376	CONTAMINATED SOLVENT	S01	D001	F001	312	P
377	CONTAMINATED SOLVENT	S01	F002		545	P
378	CONTAMINATED SOLVENT	S01	D001	F001	264	P
379	CONTAMINATED SOLVENT	S01	D001	F001	438	P
380	CONTAMINATED SOLVENT	S01	F002		933	P
381	CONTAMINATED SOLVENT	S01	F001	F002	6,335	P
382	CONTAMINATED SOLVENT	S01	D001	F001	336	P
383	CONTAMINATED SOLVENT	S01	D001	F001	43	P
384	CONTAMINATED SOLVENT	S01	D001 D018 D035	D008 D028	5,230	P

XIII. Comments:

Ohio Environmental Protection Agency

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
385	CONTAMINATED SOLVENT	S01	D001 F002	F001 F003	10,144	P
386	ROOFING TAR, NO LIQUIDS	S01	D001 F003	F002 F005	24,288	P
387	CONTAMINATED SOLVENT	S01	D001	F002	3,910	P
388	CONTAMINATED SOLVENT	S01	D001	F001	419	P
389	CONTAMINATED SOLVENT	S01	D001		317	P
390	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	2,538	P
391	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	1,841	P
392	CONTAMINATED INSOLUBLE OIL	S01	F002		402	P
393	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	112	P
394	CONTAMINATED INSOLUBLE OIL	S01	F002		341	P

XIII. Comments:

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
395	CONTAMINATED INSOLUBLE OIL	S01	F002		16,238	P
396	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	1,283	P
397	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	214	P
398	CONTAMINATED INSOLUBLE OIL	S01	F002		894	P
399	CONTAMINATED INSOLUBLE OIL	S01	F002		812	P
400	CONTAMINATED INSOLUBLE OIL	S01	D010	F002	5	P
401	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	9,214	P
402	CONTAMINATED INSOLUBLE OIL	S01	D008 F002	D018	1,264	P
403	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	12,040	P

XIII. Comments:

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
404	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	17,148	P
405	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	326	P
406	CONTAMINATED INSOLUBLE OIL	S01	D008	F002	4,371	P
407	CONTAMINATED ALUMINA-SODA LIME	S01	D005		22,489	P
408	MERCO-DRI AND HILCO CAKE	S01	D001		447	P
409	OIL ABSORBANT	S01	D008	F002	1,504	P
410	MERCO-DRI AND HILCO CAKE	S01	D001	D018	10,804	P
411	MERCO-DRI AND HILCO CAKE	S01	D008 F003	F002	4,380	P
412	TRIBUTYL PHOSPHATE, KEROSENE	S01	D001 D007	D002 D008	2,771	P
413	TRIBUTYL PHOSPHATE, KEROSENE	S01	D001 D007	D002	3,445	P

XIII. Comments:

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
414	TRIBUTYL PHOSPHATE, KEROSENE	S01	D001 D007	D002	1,430	P
415	CONTAMINATED BURNABLES	S01	D001 F002	F001 F003	77	P
416	CONTAMINATED BURNABLES	S01	D005 F002	D008	327	P
417	CONTAMINATED BURNABLES	S01	U210		124	P
418	CONTAMINATED BURNABLES	S01	F002		155	P
419	CONTAMINATED BURNABLES	S01	F002		120	P
420	CONTAMINATED BURNABLES	S01	D008	F002	95	P
421	CONTAMINATED BURNABLES	S01	F002	F003	209	P
422	CONTAMINATED BURNABLES	S01	D008		4,870	P
423	CONTAMINATED NONBURNABLES	S01	D008		67	P
424	NONRECOVERABLE TRASH	S01	F002		374	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
425	OILY SEMISOLIDS	S01	F002		388	P
426	OILY SEMISOLIDS	S01	F002		80	P
427	OILY SEMISOLIDS	S01	F002		444	P
428	OILY SEMISOLIDS	S01	D010	F002	12	P
429	OILY SEMISOLIDS	S01	D010	F002	3,046	P
430	OILY SEMISOLIDS	S01	D008	F002	1,022	P
431	OILY SEMISOLIDS	S01	D008 F002	F001 F003	531	P
432	NONOILY SEMISOLIDS	S01	F002		3,146	P
433	SOLVENT SEMISOLID	S01	F001 F003	F002	724	P
434	SOLVENT SEMISOLID	S01	D001	F001	29	P
435	MERCURY CONTAMINATED MATERIAL	S01	D009		94	P

XIII. Comments:

Ohio Environmental Protection Agency

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1993

VIII. Facility's EPA I.D. No. OH6890008976

Generator Information

IX. Generator's EPA I.D. No. OH6890008976

X. Generator Name USDOE FERNALD ENV. MGT. PROJECT

XI. Generator Address

Street: 7400 Willey Road

City: Fernald

State: Ohio

Zip Code: 45030

XII. Waste Identification

LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
436	MERCURY CONTAMINATED MATERIAL	S01	D009		34	P
437	FURNACE SALT	S01	D005		664	P
438	FURNACE SALT	S01	D005		832	P
439	FURNACE SALT	S01	D004 D008	D006 D010	35,848	P
440	WET SUMP OR FILTER CAKE	S01	D008	F002	242	P
441	USED OIL	S01	D008		27,049	P
442	CONTAMINATED BURNABLES	S01	D005		3,820	P
443	OILY SEMISOLID	S01	D008		5,808	P
444	OILY SEMISOLID	S01	D005	D008	7,998	P
445	SALT SEMISOLID, CHLORIDE	S01	D005		5,126	P
446	SOLIDIFIED FURNACE SALT	S01	D005		92,311	P
447	WET SUMP OR FILTER CAKE, NONOILY, NONHALIDE	S01	D004 D008	D006	67,402	P

XIII. Comments:

Ohio Environmental Protection Agency
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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
448	MISCELLANEOUS MATERIAL	S01	D005		6,323	P
449	OILY SEMISOLID	S01	D029 D040	D039 F001	8,658	P
450	SOLVENT SEMISOLID	S01	D018 F002	F001	1,055	P
451	BURNABLE TRASH	S01	D029 D040	D039 F001	159	P
452	CONTAMINATED BRICKS, ETC.	S01	D008		170	P
453	CONTAMINATED WATER	S01	D007	D039	3,464	P
454	NONRECOVERABLE TRASH	S01	D007	D010	272	P
455	USED OIL, CONTAMINATED WATER	S01	F001		4,682	P
456	OILY RAGS	S01	D018	F002	67	P
457	SCRAP METAL, METAL SHAVINGS, DICALITE	S01	D008	F002	489	P

XIII. Comments:

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LINE	A. DESCRIPTION	B. HANDLING METHOD	C. EPA HAZARDOUS WASTE CODE		D. AMOUNT OF WASTE	E. UNITS
458	OILY RAGS, GLOVES	S01	D008 F002	D018	260	P
459	CONTAMINATED WATER	S01	F002 F005	F003	421	P
460	TETRACHLOROETHYLENE	S01	F001	F002	848	P
461	MAGNUSPRAY, SURPLUS CHEMICALS	S01	D002		550	P
462	PAINT THINNER	S01	D001	F002	1,272	P
463	SOLVENT	S01	D001 D003 U056	D002 F001	227	P
464	METHANOL ACETATE	S01	D001	D002	32	P
465	ETHYL ACETATE	S01	D001	D002	41	P
466	LAB PACKS	S01	D001 D008 D018	D007 D010 F002	1	P
467	ASBESTOS	S01	D008	F002	73	P

XIII. Comments: