

M00146.AR.005792
MCAS CHERRY POINT
5090.3a

SITE CLOSURE REQUEST INDUSTRIAL WASTEWATER TREATMENT PLANT
UNDERGROUND STORAGE TANK 1005-2 MCAS CHERRY POINT NC
10/15/1999
CATLIN ENGINEERS AND SCIENTISTS

SITE CLOSURE REQUEST
INDUSTRIAL WASTEWATER TREATMENT PLANT
UNDERGROUND STORAGE TANK 1005-2

MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

October 15, 1999

Contract No. N62470-95-D-6009
Delivery Order No. 0064
CATLIN Engineers and Scientists Project No. 99138



Prepared by:

CATLIN ENGINEERS AND SCIENTISTS
220 OLD DAIRY ROAD
WILMINGTON, NORTH CAROLINA 28405
(910) 452-5861

summarized in Table 2. The laboratory results are illustrated on Figure 3. Refer to Appendix B for the laboratory report.

MADEP VPH and EPH (Aliphatics/Aromatics) - Soil

(Refer to Tables 3A and 3B, Figures 4 and 5, and Appendix B)

Laboratory analysis of the soil samples for MADEP fractions revealed all samples (except UST02-4-5) tested BQL or compliant with Residential, Industrial/Commercial, and Soil-to-Groundwater MSCCs. Sample UST02-4-5 (4.5 to 5.0 feet BLS) tested above the Soil-to-Groundwater MSCC for C₉ - C₂₂ Aromatics (result 308 ppb; limit 34 ppb) fractions; however, the level is below the Residential and Industrial/Commercial MSCCs.

Results of the MADEP laboratory analyses have been summarized in Table 3A. A comparison of MADEP analytical results and the North Carolina Department of Environment and Natural Resources (NCDENR) MSCCs are listed in Table 3B. Soil sample identification, depth, and C₉-C₂₂ Aromatics fractions results are illustrated on Figure 4. C₁₁-C₁₂ Aromatics fractions results are illustrated on Figure 5.

SURFICIAL GROUND WATER QUALITY

(Refer to Figure 6)

Surficial ground water samples were not obtained as part of this investigation. However, on April 27, 1995, R.E. Wright Environmental, Inc. (REWEI) performed a Direct Push Technology Site Assessment Vehicle (DPTSAV™) site check. As part of this site check, representative ground water samples were obtained at three locations (GW-1, GW-2, and GW-3) for analysis of dissolved purgeable aromatics per EPA Method 602 plus methyl-tert butyl ether (MTBE) and base/neutral and acid extractables (plus 10 largest non-target peaks) per EPA Method 625. Refer to Figure 6 for well locations.

EPA Method 602 (Purgeable Aromatics) - Ground Water

(Refer to Table 4)

EPA Method 602 analysis of site surficial ground water samples revealed only trace levels of dissolved benzene (9 ppb at GW-1; 2 ppb at GW-2; and 2 ppb at GW-3) and toluene (1 ppb at GW-1 and 3 ppb at GW-3) concentrations. None of the three ground water samples exhibited EPA Method 602 compounds in excess of current Gross Contaminant Level (GCLs). EPA analysis results have been summarized on Table 4.

EPA Method 625 (Base/Neutral and Acid Extractables) - Ground Water

(Refer to Table 5 and Appendix C)

All three ground water samples tested below detectable levels for all listed EPA Method 625 analytes.

Results of the "tentatively identified" non-target compounds reveal trace levels of a,a,a-trifluorotoluene (purgeable aromatic) and several base/neutral and acid extractable compounds.

EPA Method 625 laboratory report findings have been summarized in Table 5. A copy of Wright Laboratory Services, Inc.'s May 24, 1995 laboratory report is provided in Appendix C.

RISK CLASSIFICATION AND LAND USE FORM

(Refer to Appendix D)

To evaluate the possible risk classification for the subject site, a "Limited Site Assessment Risk Classification and Land Use Form" questionnaire was completed (see Appendix D). Review of the risk characterization information reveals the following:

- There are no potable water supply wells within 1,000 feet of the source area.
- There are no non-potable wells within 250 feet of the source area.
- There is no surface body of water within 500 feet of the source area.
- Although the site is located within the Coastal Plain physiographic province, impact to deeper aquifers is not anticipated. According to Eimers, et al (1987-1990), the Yorktown confining unit (40 to 60 feet BLS) and the Upper Castle Hayne confining unit (140 to 170 feet BLS) are present at non-potable Well #19 (ACT N1) located approximately 400 feet from the source area.
- The subject site is part of the Military Aircraft Maintenance and Administration zone at MCAS Cherry Point. It is unlikely the use of this site will change in the foreseeable future.

Based on the land use factors and the location of this site in the industrial area of the Air Station, the Industrial-Commercial MSCCs should be applicable considering the current and foreseeable land usage.

CONCLUSIONS

The findings of this site assessment addendum can be summarized as follows:

- Based on the land use factors and the location of this site in the industrial area of the Air Station, Industrial-Commercial MSCCs should apply to subsurface soil conditions.
- All site soil samples tested compliant for all currently listed EPA Methods 8260 and 8270 compound MSCCs.
- All site soil samples tested compliant for all currently listed MADEP fractions Industrial-Commercial MSCCs.
- Surficial ground water samples were not obtained and analyzed as part of this investigation. However, three representative surficial ground water samples obtained by REWEI on April 27, 1995 tested compliant for all currently listed EPA Methods 602 and 625 compound GCLs.

- Findings of this report should not alter the current monitoring or remediation plans concerning Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Operable Unit 1.

Recommendations are to submit a copy of this report to the North Carolina Division of Waste Management - UST Section, Washington Regional Office, along with correspondence officially requesting that this project be evaluated for "Site Closure."

REFERENCES

Eimers, J.L., Daniel, III C.C., Coble, R.W., Hydrogeology and Simulation of Ground-Water Flow at U.S. Marine Corps Air Station, Cherry Point, North Carolina, 1987-1990; U.S. Geological Survey, Water-Resources Investigation Report 94-4186, U.S. Geological Survey, Raleigh, North Carolina.

North Carolina Department of Environment and Natural Resources, January 2, 1998, *Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater, Volume II*, Raleigh, North Carolina.

R.E. Wright Environmental, Inc., *DPTSAV™ Site Check, Marine Corps Air Station, Cherry Point, North Carolina, UST 1005-2*, July 1995.

United States Geological Survey, 1949 (Photo Revised 1983), Cherry Point, N.C. 7.5 Minute Topographic Quadrangle, U.S. Government Printing Office, Washington, DC.

TABLES

TABLE 1
SUMMARY OF LABORATORY RESULTS - SOIL*
HALOGENATED AND AROMATIC VOLATILE ORGANICS - EPA METHOD 8260 AS OF JUNE 30, 1999
UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA

Sample I.D.	Depth BLS (feet)	4-Isopropyl toluene	MTBE	Naphthalene	Toluene	Sec-butyl benzene	Tert-butyl benzene	1,2-Dichloro-benzene	1,4-Dichloro-benzene	Remaining 8260 Compounds
UST01-1-2	1.0 - 1.5	BQL	BQL	BQL	17	BQL	BQL	BQL	BQL	BQL
UST01-4-5	4.5 - 5.0	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
UST02-1-2	0.5 - 1.0	BQL	8.5	13	BQL	BQL	BQL	BQL	BQL	BQL
UST02-4-5	4.5 - 5.0	60	BQL	31	BQL	110	29	26	15	BQL
UST03-1-2	1.0 - 2.0	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL
CAS Number	--	--	1634-04-4	91-20-3	103-88-3	135-98-3	104-51-8	95-50-1	106-46-7	Varies
MSCC Residential	--	NE	156,000	63,000	3,200,000	156,000	156,000	1,400,000	27,000	Varies
MSCC Industrial/ Commercial	--	NE	4,088,000	1,635,000	82,000,000	4,088,000	4,088,000	36,000,000	240,000	Varies
MSCC Soil-to-Groundwater	--	NE	920	580	7,000	3,000	3,000	7,000	1,000	Varies

* All results in ppb (parts per billion)

BLS Below Land Surface

BQL Below Quantitation Limit

NE None Established

MSCC Maximum Soil Contaminant Concentration (per May 1998 Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater)

Notes: All samples were analyzed by Paradigm Analytical Laboratories, Inc.

For data comparison, the MSCCs have been converted from ppm to ppb.

TABLE 2

**SUMMARY OF LABORATORY RESULTS - SOIL*
BASE/NEUTRAL AND ACID EXTRACTABLES - EPA METHOD 8270 AS OF JUNE 30, 1999**

**UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA**

Sample I.D.	Depth BLS (feet)	Anthracene	Chrysene	Fluorene	Naphthalene	Pyrene	Remaining 8270 Constituents
UST01-1-2	1.0 - 1.5	BQL	BQL	BQL	BQL	BQL	BQL
UST01-4-5	4.5 - 5.0	BQL	BQL	BQL	BQL	BQL	BQL
UST02-1-2	0.5 - 1.0	BQL	BQL	BQL	BQL	BQL	BQL
UST02-4-5	4.5 - 5.0	BQL	BQL	BQL	BQL	BQL	BQL
UST03-1-2	1.0 - 2.0	BQL	BQL	BQL	BQL	BQL	BQL
CAS Number	--	120-12-7	218-01-9	86-73-7	91-20-3	129-00-0	--
MSCC Residential	--	4,600,000	88,000	620,000	63,000	469,000	Varies
MSCC Industrial/ Commercial	--	122,000,000	780,000	16,400,000	1,635,000	12,264,000	Varies
MSCC Soil-to- Groundwater	--	995,000	38,000	44,000	580	286,000	Varies

* All results in ppb (parts per billion)

BLS Below Land Surface

BQL Below Quantitation Limit

MSCC Maximum Soil Contaminant Concentration (per May 1998 Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater)

Note: All samples were analyzed by Paradigm Analytical Laboratories, Inc.

For data comparison, the MSCCs have been converted from ppm to ppb.

TABLE 3A**SUMMARY OF LABORATORY RESULTS - SOIL
MADEP EPH/VPH AS OF JUNE 30, 1999****UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA**

Sample I.D.	UST01-1-2		UST01-4-5		UST02-1-2		UST02-4-5		UST03-1-2	
	VPH	EPH								
C ₅ - C ₈ Aliphatics	<0.5	NA	<0.5	NA	<0.5	NA	0.75	NA	<0.5	NA
C ₉ - C ₁₂ Aliphatics	<0.5	NA	<0.5	NA	<0.5	NA	130	NA	<0.5	NA
C ₉ - C ₁₈ Aliphatics	NA	72	NA	<10	NA	49	NA	200	NA	<10
C ₁₉ - C ₃₆ Aliphatics	NA	49	NA	<10	NA	140	NA	60	NA	<10
C ₉ - C ₁₀ Aromatics	<0.5	NA	<0.5	NA	<0.5	NA	78	NA	<0.5	NA
C ₁₁ - C ₂₂ Aromatics	NA	30	NA	<10	NA	40	NA	230	NA	<10

Notes: All data present in parts per million (ppm)
 All samples were analyzed by Paradigm Analytical Laboratories, Inc.
 NA = Not Analyzed
 MADEP = Massachusetts Department of Environmental Protection
 EPH = Extractable Petroleum Hydrocarbons
 VPH = Volatile Petroleum Hydrocarbons

TABLE 3B

**SUMMARY OF LABORATORY RESULTS - SOIL - COMPARED TO NCDENR MSCC
MADEP EPH/VPH AS OF JUNE 30, 1999**

**UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA**

Sample I.D.	Toxicologically Defined Hydrocarbon Fractions	Residential/Industrial-Commercial/Soil-to-Groundwater MSCC	UST01-1-2	UST01-4-5	UST02-1-2	UST02-4-5	UST03-1-2
Analytical Fractions							
C ₅ - C ₈ Aliphatics	C ₅ - C ₈ Aliphatics	939 / 24,528 / 72	<0.5	<0.5	<0.5	0.75	<0.5
C ₉ - C ₁₂ Aliphatics C ₉ - C ₁₈ Aliphatics	C ₉ - C ₁₈ Aliphatics	9,386 / 245,280 / 3,255	72	<10	49	330	<10
C ₁₉ - C ₃₆ Aliphatics	C ₁₉ - C ₃₆ Aliphatics	93,860/Health-Based Level >100%/ Considered Immobile	49	<10	140	60	<10
C ₁₁ - C ₂₂ Aromatics C ₉ - C ₁₀ Aromatics	C ₉ - C ₂₂ Aromatics	469 / 12,264 / 34	30	<10	40	308	<10

Notes: All data present in parts per million (ppm)
 All samples were analyzed by Paradigm Analytical Laboratories, Inc.
 NA = Not Analyzed
 MADEP = Massachusetts Department of Environmental Protection
 EPH = Extractable Petroleum Hydrocarbons
 VPH = Volatile Petroleum Hydrocarbons

TABLE 4

**SUMMARY OF LABORATORY RESULTS - GROUND WATER*
PURGEABLE AROMATICS - EPA METHOD 602 + MTBE**

**UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA**

Sample I.D.	Date Sampled	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE
GS-1	4/27/95	9	<1	<1	<40	<10
GS-2	4/27/95	2	<1	<1	<5	<10
GS-3	4/27/95	2	<1	<3	<25	<10
Gross Contaminant Levels for Groundwater		5,000	29,000	257,500	87,500	200,000

* All results in parts per billion (ppb)
All samples were analyzed by Wright Laboratories Services, Inc.

TABLE 5

**SUMMARY OF LABORATORY RESULTS - GROUND WATER*
BASE/NEUTRAL AND ACID EXTRACTABLES - EPA METHOD 625
PLUS 10 LARGEST NON-TARGET PEAKS**

**UST 1005-2
MCAS CHERRY POINT, NORTH CAROLINA**

Sample I.D.	CAS Number	Gross Contaminant Levels for Groundwater	GS-1 (ppb)	GS-2 (ppb)	GS-3 (ppb)
Date Sampled			4/27/95	4/27/95	4/27/95
ANALYTE					
2,4-Dimethylphenol	--	140,000	<5	BQL	BQL
Naphthalene	91-20-3	15,500	<5	140	BQL
Phenol	108-95-2	300,000	<10	42	BQL
Remaining 625 Parameters	Varies	Varies	ND	ND	ND
10 Largest Non-Target Peaks (% Recovery Surrogate)*					
Purgeable Aromatics					
a,a,a-Trifluorotoluene	--	--	84	87	91
Base/Neutral and Acid Extractables					
Fluorobiphenyl	--	--	78	81	81
Fluorophenol	--	--	66	68	64
Trobenzene-d5	--	--	65	66	83
enol-d5	--	--	70	74	72
rphenyl-d14	--	--	69	75	56
4,6-tribromophenol	--	--	89	99	89

* These compounds are tentatively identified by computer software.

ppb parts per billion

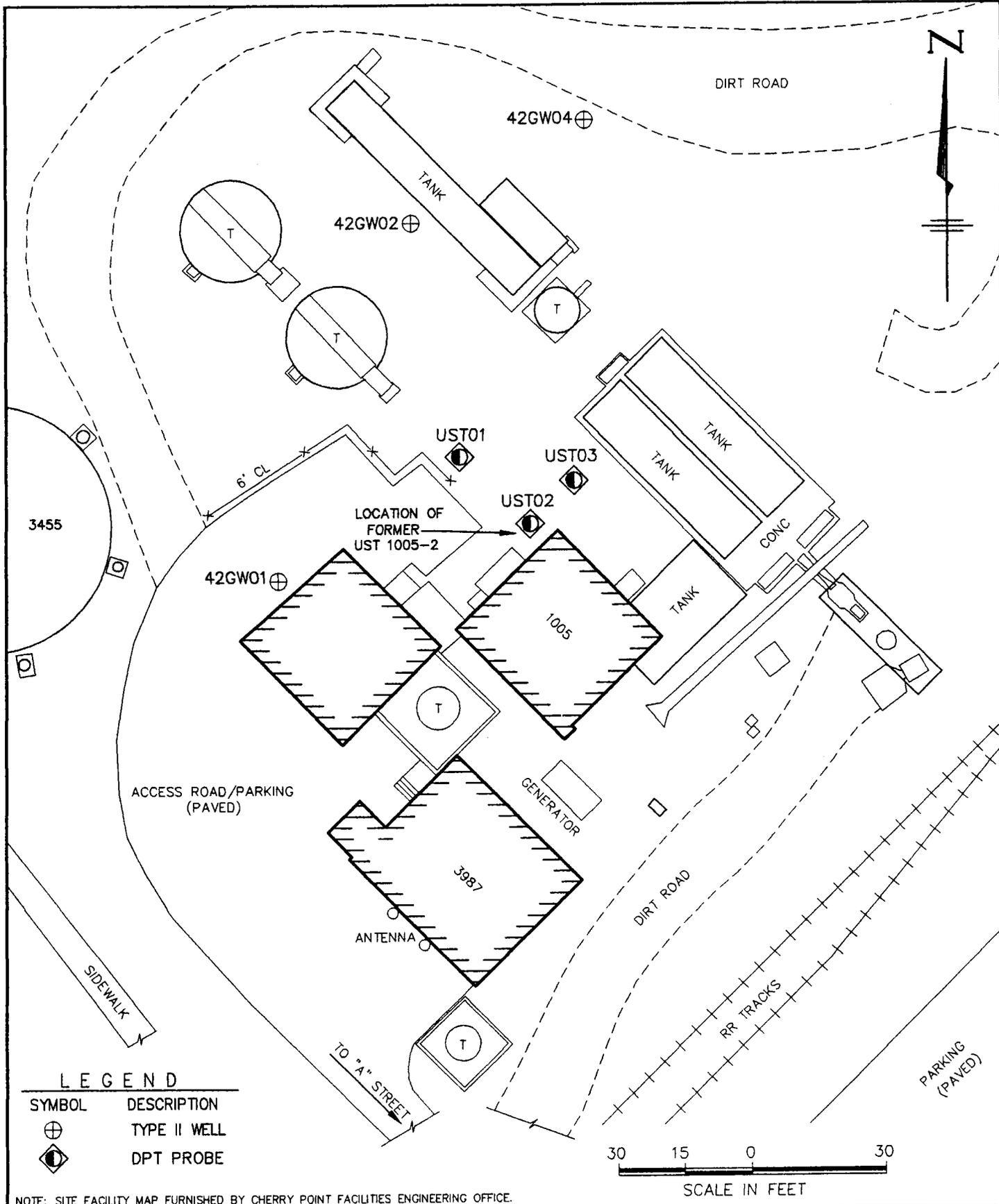
-- Not Available

BQL Below Quantitation Limit

ND Not Detected

All samples were analyzed by Wright Laboratories Services, Inc.

FIGURES

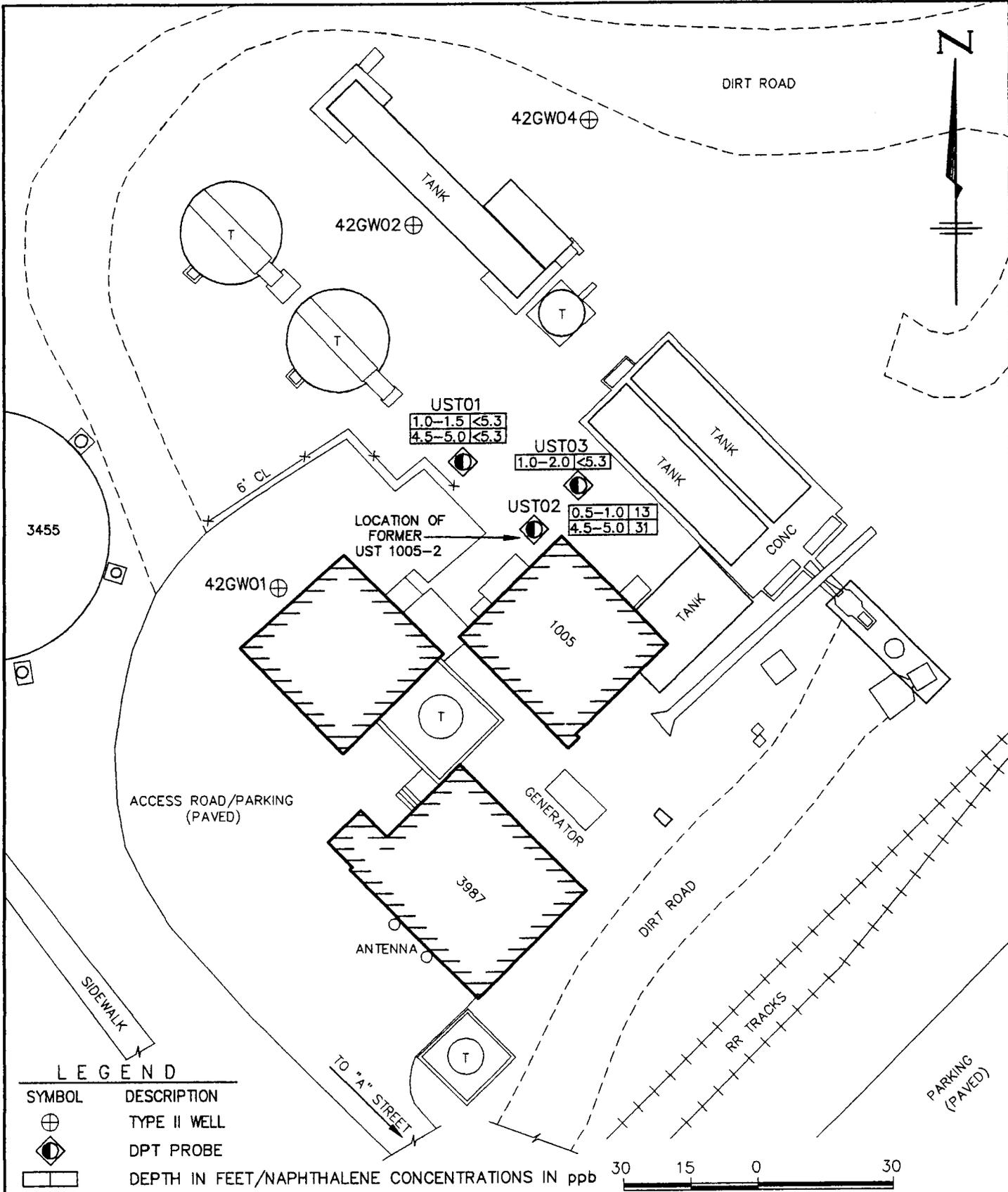


LEGEND

SYMBOL	DESCRIPTION
⊕	TYPE II WELL
◊	DPT PROBE

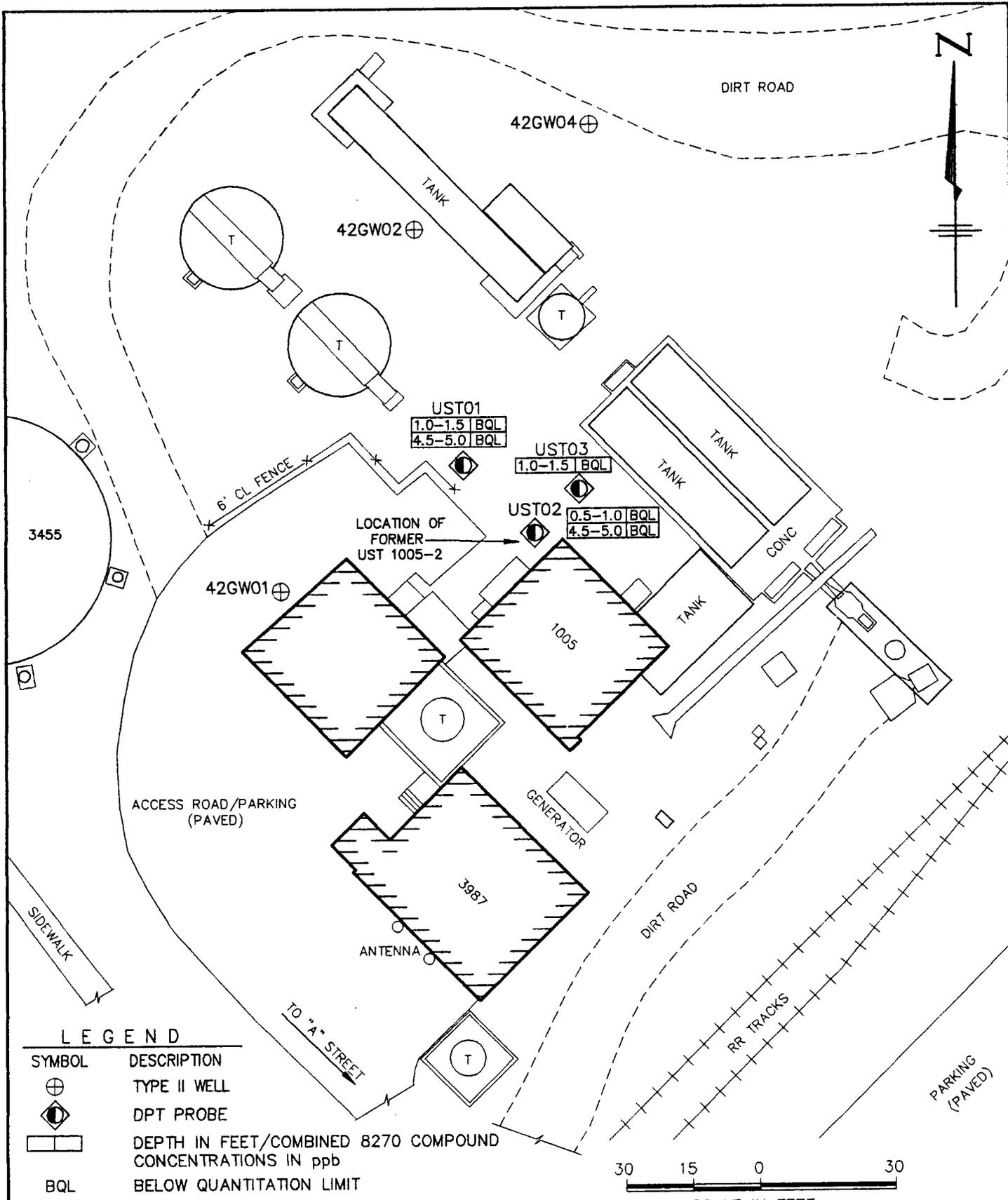
NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>WILMINGTON, NORTH CAROLINA</p>	<p>PROJECT</p> <p>MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.</p>	<p>TITLE</p> <p>FORMER UST 1005-2 SITE PLAN</p>	<p>FIGURE</p> <p>1</p>
	<p>JOB NO: 9913BAD</p> <p>DATE: AUG 1999</p>	<p>SCALE: 1"=30'</p>	<p>DRAWN BY: WHW</p> <p>CHECKED BY: ST</p>



NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>CALIN ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA</p>	<p>PROJECT MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.</p>	<p>TITLE SOIL-NAPHTHALENE CONCENTRATIONS (8260) AS OF 6/30/99</p>	<p>FIGURE 2</p>
	<p>JOB NO: 99138AD DATE: AUG 1999</p>	<p>SCALE: 1"=30'</p>	<p>DRAWN BY: WHW CHECKED BY: ST</p>

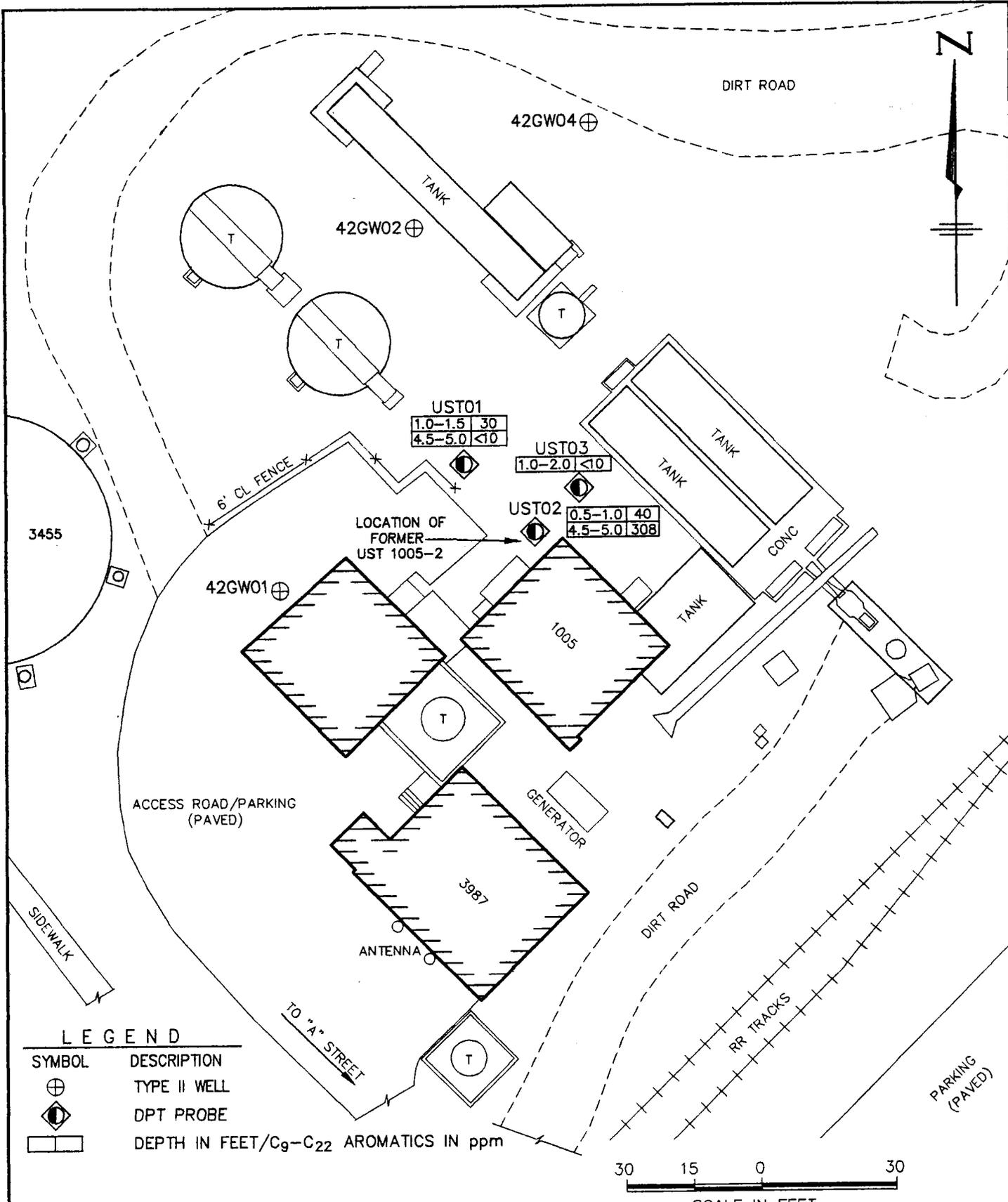


LEGEND

SYMBOL	DESCRIPTION
⊕	TYPE II WELL
⬢	DPT PROBE
▭	DEPTH IN FEET/COMBINED 8270 COMPOUND CONCENTRATIONS IN ppb
BQL	BELOW QUANTITATION LIMIT

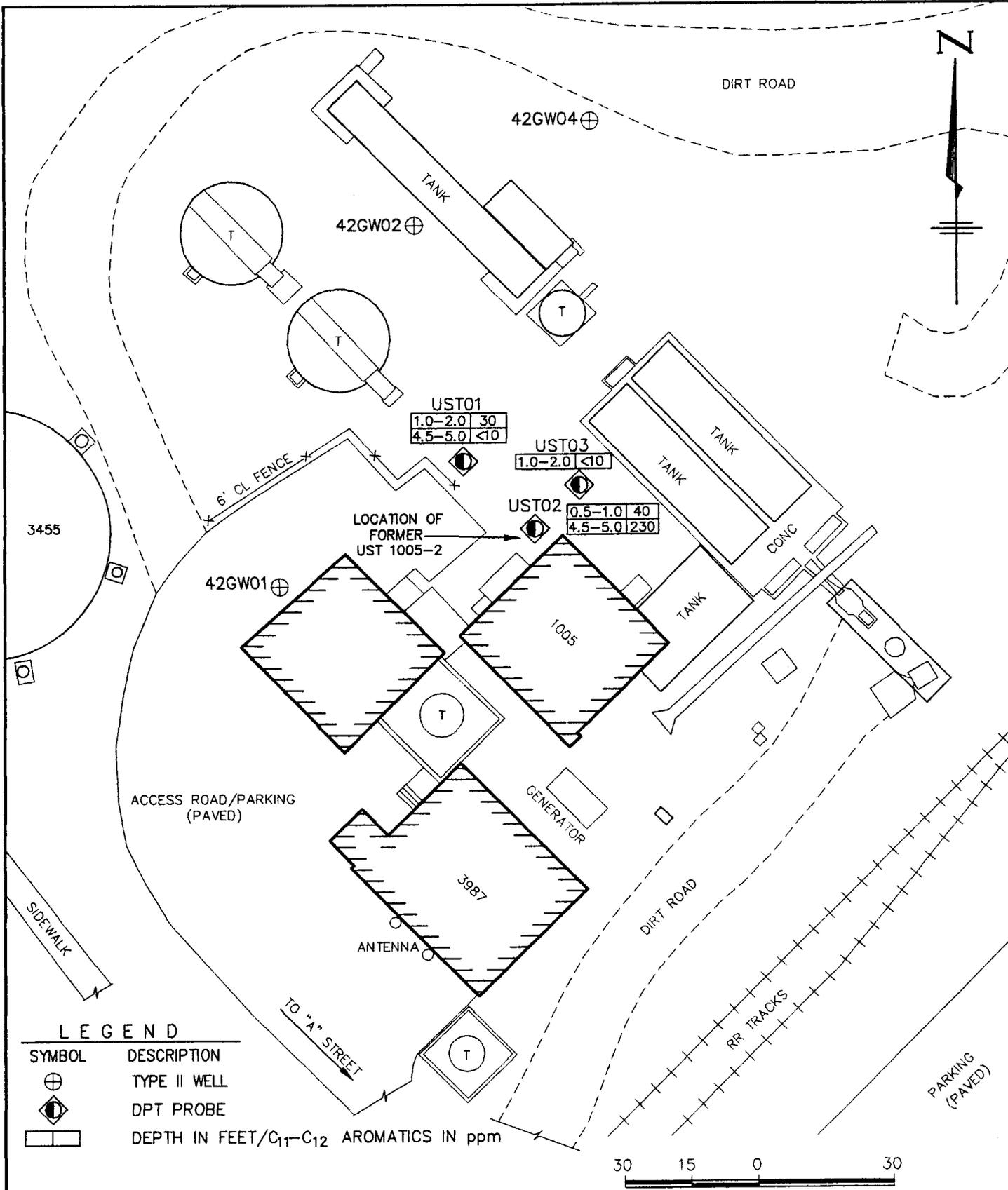
NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>WILMINGTON, NORTH CAROLINA</p>	<p>PROJECT MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.</p>	<p>TITLE SOIL-EPA METHOD (8270) CONCENTRATIONS AS OF 6/30/99</p>	<p>FIGURE 3</p>
	<p>JOB NO: 99138AD DATE: AUG 1999</p>	<p>SCALE: 1"=30'</p>	<p>DRAWN BY: WHW CHECKED BY: ST</p>



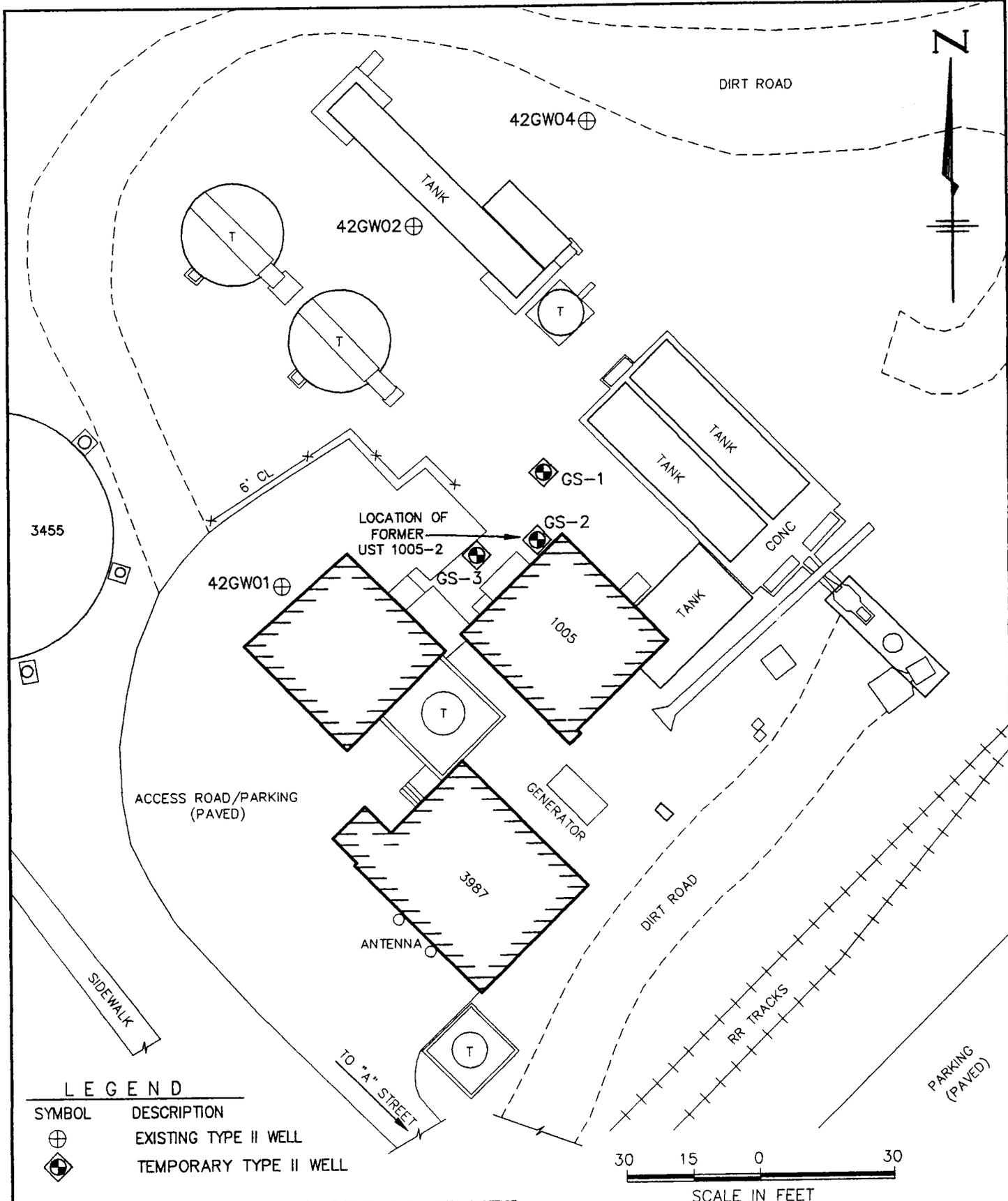
NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.	TITLE SOIL C ₉ -C ₂₂ AROMATICS CONCENTRATIONS AS OF 6/30/99	FIGURE 4
	JOB NO: 99138AD DATE: AUG 1999	SCALE: 1"=30'	DRAWN BY: WHW CHECKED BY: ST



NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.	TITLE SOIL-C ₁₁ -C ₁₂ AROMATICS CONCENTRATIONS AS OF 6/30/99	FIGURE 5
	JOB NO.: 99138AD DATE: AUG 1999	SCALE: 1"=30'	DRAWN BY: WHW CHECKED BY: ST



LEGEND

SYMBOL	DESCRIPTION
⊕	EXISTING TYPE II WELL
⬠	TEMPORARY TYPE II WELL

NOTE: SITE FACILITY MAP FURNISHED BY CHERRY POINT FACILITIES ENGINEERING OFFICE.

<p>WILMINGTON, NORTH CAROLINA</p>	<p>PROJECT: MCAS PETROLEUM INVESTIGATIONS FORMER UST 1005-2 CHERRY POINT, N.C.</p>	<p>TITLE: LOCATION OF R.E. WRIGHT ENVIRONMENTAL TEMPORARY WELLS</p>	<p>FIGURE: 6</p>
	<p>JOB NO: 99138AD DATE: AUG 1999</p>	<p>SCALE: 1"=30'</p>	<p>DRAWN BY: WHW CHECKED BY: ST</p>

APPENDICES

APPENDIX A
BORING LOGS

APPENDIX B

**PARADIGM ANALYTICAL LABORATORIES, INC.
LABORATORY ANALYTICAL REPORT**

RECEIVED
BY KA DATE 7/23/99

PARADIGM ANALYTICAL LABORATORIES, INC.
2627 Northchase Parkway S.E.
Wilmington, North Carolina 28405
(910) 350-1903
Fax (910) 350-1557

Mr. Gary McSmith
Richard Catlin & Assoc. Inc.
P.O. BOX 10279
Wilmington, NC 28405

Date 07-20-99

Report Number: G128-472

Project ID: 99138-F

Dear Mr. McSmith:

Enclosed are the results of the analytical services performed under the referenced project. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call for assistance. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical service projects. We look forward to working with you again on any additional needs which you may have.

Sincerely,

Paradigm Analytical Laboratories



Laboratory Director
Mark Randall

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST01-1-2
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67260
 Lab Project ID: G128-472
 Matrix: Soil

%Solids: 94.4

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	53	BQL
Acrolein	110	BQL
Acrylonitrile	110	BQL
Benzene	5.3	BQL
Bromobenzene	5.3	BQL
Bromochloromethane	5.3	BQL
Bromodichloromethane	5.3	BQL
Bromoform	5.3	BQL
Bromomethane	5.3	BQL
2-Butanone	26	BQL
n-Butylbenzene	5.3	BQL
sec-Butylbenzene	5.3	BQL
tert-Butylbenzene	5.3	BQL
Carbon disulfide	5.3	BQL
Carbon tetrachloride	5.3	BQL
Chlorobenzene	5.3	BQL
Chloroethane	5.3	BQL
2-Chloroethyl vinyl ether	5.3	BQL
Chloroform	5.3	BQL
Chloromethane	5.3	BQL
2-Chlorotoluene	5.3	BQL
4-Chlorotoluene	5.3	BQL
Dibromochloromethane	5.3	BQL
1,2-Dibromo-3-chloropropane	5.3	BQL
Dibromomethane	5.3	BQL
1,2-Dibromoethane (EDB)	5.3	BQL
1,2-Dichlorobenzene	5.3	BQL
1,3-Dichlorobenzene	5.3	BQL
1,4-Dichlorobenzene	5.3	BQL
trans-1,4-Dichloro-2-butene	5.3	BQL
1,1-Dichloroethane	5.3	BQL
1,1-Dichloroethene	5.3	BQL
1,2-Dichloroethane	5.3	BQL
cis-1,2-Dichloroethene	5.3	BQL
trans-1,2-dichloroethene	5.3	BQL
1,2-Dichloropropane	5.3	BQL
1,3-Dichloropropane	5.3	BQL
2,2-Dichloropropane	5.3	BQL
1,1-Dichloropropene	5.3	BQL
cis-1,3-Dichloropropene	5.3	BQL
trans-1,3-Dichloropropene	5.3	BQL
Dichlorodifluoromethane	5.3	BQL
Diisopropyl ether (DIPE)	5.3	BQL
Ethylbenzene	5.3	BQL
Hexachlorobutadiene	5.3	BQL
2-Hexanone	5.3	BQL
Iodomethane	5.3	BQL
Isopropylbenzene	5.3	BQL

Flags: BQL = Below Quantitation Limit

Reviewed by: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST01-1-2
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67260
 Lab Project ID: G128-472
 Matrix: Scil

%Solids: 94.4

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
4-Isopropyltoluene	5.3	BQL
Methylene chloride	21	BQL
4-Methyl-2-pentanone	5.3	BQL
Methyl-tert-butyl ether (MTBE)	5.3	BQL
Naphthalene	5.3	BQL
n-Propyl benzene	5.3	BQL
Styrene	5.3	BQL
1,1,1,2-Tetrachloroethane	5.3	BQL
1,1,2,2-Tetrachloroethane	5.3	BQL
Tetrachloroethene	5.3	BQL
Toluene	5.3	17
1,2,3-Trichlorobenzene	5.3	BQL
1,2,4-Trichlorobenzene	5.3	BQL
Trichloroethene	5.3	BQL
1,1,1-Trichloroethane	5.3	BQL
1,1,2-Trichloroethane	5.3	BQL
Trichlorofluoromethane	5.3	BQL
1,2,3-Trichloropropane	5.3	BQL
1,2,4-Trimethylbenzene	5.3	BQL
1,3,5-Trimethylbenzene	5.3	BQL
Vinyl chloride	5.3	BQL
m-,p-Xylene	11	BQL
o-Xylene	5.3	BQL

Surrogate Spike Recoveries			
Compound	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Bromofluorobenzene	50	49.2	98
1,2-Dichloroethane-d4	50	54.9	110
Toluene-d8	50	51.5	103

Comments:

All results are corrected for dilution.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST01-4-5
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67261
 Lab Project ID: G128-472
 Matrix: Soil

%Solids: 81.3

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	62	BQL
Acrolein	120	BQL
Acrylonitrile	120	BQL
Benzene	6.2	BQL
Bromobenzene	6.2	BQL
Bromochloromethane	6.2	BQL
Bromodichloromethane	6.2	BQL
Bromoform	6.2	BQL
Bromomethane	6.2	BQL
2-Butanone	31	BQL
n-Butylbenzene	6.2	BQL
sec-Butylbenzene	6.2	BQL
tert-Butylbenzene	6.2	BQL
Carbon disulfide	6.2	BQL
Carbon tetrachloride	6.2	BQL
Chlorobenzene	6.2	BQL
Chloroethane	6.2	BQL
2-Chloroethyl vinyl ether	6.2	BQL
Chloroform	6.2	BQL
Chloromethane	6.2	BQL
2-Chlorotoluene	6.2	BQL
4-Chlorotoluene	6.2	BQL
Dibromochloromethane	6.2	BQL
1,2-Dibromo-3-chloropropane	6.2	BQL
Dibromomethane	6.2	BQL
1,2-Dibromoethane (EDB)	6.2	BQL
1,2-Dichlorobenzene	6.2	BQL
1,3-Dichlorobenzene	6.2	BQL
1,4-Dichlorobenzene	6.2	BQL
trans-1,4-Dichloro-2-butene	6.2	BQL
1,1-Dichloroethane	6.2	BQL
1,1-Dichloroethene	6.2	BQL
1,2-Dichloroethane	6.2	BQL
cis-1,2-Dichloroethene	6.2	BQL
trans-1,2-dichloroethene	6.2	BQL
1,2-Dichloropropane	6.2	BQL
1,3-Dichloropropane	6.2	BQL
2,2-Dichloropropane	6.2	BQL
1,1-Dichloropropene	6.2	BQL
cis-1,3-Dichloropropene	6.2	BQL
trans-1,3-Dichloropropene	6.2	BQL
Dichlorodifluoromethane	6.2	BQL
Diisopropyl ether (DIPE)	6.2	BQL
Ethylbenzene	6.2	BQL
Hexachlorobutadiene	6.2	BQL
2-Hexanone	6.2	BQL
Iodomethane	6.2	BQL
Isopropylbenzene	6.2	BQL

Flags: BQL = Below Quantitation Limit

Reviewed by: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST01-4-5
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67261
 Lab Project ID: G128-472
 Matrix: Soil

%Solids: 81.3

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
4-Isopropyltoluene	6.2	BQL
Methylene chloride	25	BQL
4-Methyl-2-pentanone	6.2	BQL
Methyl-tert-butyl ether (MTBE)	6.2	BQL
Naphthalene	6.2	BQL
n-Propyl benzene	6.2	BQL
Styrene	6.2	BQL
1,1,1,2-Tetrachloroethane	6.2	BQL
1,1,2,2-Tetrachloroethane	6.2	BQL
Tetrachloroethene	6.2	BQL
Toluene	6.2	BQL
1,2,3-Trichlorobenzene	6.2	BQL
1,2,4-Trichlorobenzene	6.2	BQL
Trichloroethene	6.2	BQL
1,1,1-Trichloroethane	6.2	BQL
1,1,2-Trichloroethane	6.2	BQL
Trichlorofluoromethane	6.2	BQL
1,2,3-Trichloropropane	6.2	BQL
1,2,4-Trimethylbenzene	6.2	BQL
1,3,5-Trimethylbenzene	6.2	BQL
Vinyl chloride	6.2	BQL
m-,p-Xylene	12	BQL
o-Xylene	6.2	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	49.1	98
1,2-Dichloroethane-d4	50	52.6	105
Toluene-d8	50	51.6	103

Comments:

All results are corrected for dilution.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST02-1-2
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67262
 Lab Project ID: G128-472
 Matrix: Soil

%Solids: 93.8

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	53	BQL
Acrolein	110	BQL
Acrylonitrile	110	BQL
Benzene	5.3	BQL
Bromobenzene	5.3	BQL
Bromochloromethane	5.3	BQL
Bromodichloromethane	5.3	BQL
Bromoform	5.3	BQL
Bromomethane	5.3	BQL
2-Butanone	27	BQL
n-Butylbenzene	5.3	BQL
sec-Butylbenzene	5.3	BQL
tert-Butylbenzene	5.3	BQL
Carbon disulfide	5.3	BQL
Carbon tetrachloride	5.3	BQL
Chlorobenzene	5.3	BQL
Chloroethane	5.3	BQL
2-Chloroethyl vinyl ether	5.3	BQL
Chloroform	5.3	BQL
Chloromethane	5.3	BQL
2-Chlorotoluene	5.3	BQL
4-Chlorotoluene	5.3	BQL
Dibromochloromethane	5.3	BQL
1,2-Dibromo-3-chloropropane	5.3	BQL
Dibromomethane	5.3	BQL
1,2-Dibromoethane (EDB)	5.3	BQL
1,2-Dichlorobenzene	5.3	BQL
1,3-Dichlorobenzene	5.3	BQL
1,4-Dichlorobenzene	5.3	BQL
trans-1,4-Dichloro-2-butene	5.3	BQL
1,1-Dichloroethane	5.3	BQL
1,1-Dichloroethene	5.3	BQL
1,2-Dichloroethane	5.3	BQL
cis-1,2-Dichloroethene	5.3	BQL
trans-1,2-dichloroethene	5.3	BQL
1,2-Dichloropropane	5.3	BQL
1,3-Dichloropropane	5.3	BQL
2,2-Dichloropropane	5.3	BQL
1,1-Dichloropropene	5.3	BQL
cis-1,3-Dichloropropene	5.3	BQL
trans-1,3-Dichloropropene	5.3	BQL
Dichlorodifluoromethane	5.3	BQL
Diisopropyl ether (DIPE)	5.3	BQL
Ethylbenzene	5.3	BQL
Hexachlorobutadiene	5.3	BQL
2-Hexanone	5.3	BQL
Iodomethane	5.3	BQL
Isopropylbenzene	5.3	BQL

Flags: BQL = Below Quantitation Limit

Reviewed by: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: UST02-1-2
 Client Project ID: MCAS UST 1005
 Lab Sample ID: 67262
 Lab Project ID: G128-472
 Matrix: Soil

%Solids: 93.8

Date Analyzed: 7/7/99
 Analyzed By: RNP
 Date Collected: 6/30/99
 Date Received: 7/1/99
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
4-Isopropyltoluene	5.3	BQL
Methylene chloride	21	BQL
4-Methyl-2-pentanone	5.3	BQL
Methyl-tert-butyl ether (MTBE)	5.3	8.5
Naphthalene	5.3	13
n-Propyl benzene	5.3	BQL
Styrene	5.3	BQL
1,1,1,2-Tetrachloroethane	5.3	BQL
1,1,2,2-Tetrachloroethane	5.3	BQL
Tetrachloroethene	5.3	BQL
Toluene	5.3	BQL
1,2,3-Trichlorobenzene	5.3	BQL
1,2,4-Trichlorobenzene	5.3	BQL
Trichloroethene	5.3	BQL
1,1,1-Trichloroethane	5.3	BQL
1,1,2-Trichloroethane	5.3	BQL
Trichlorofluoromethane	5.3	BQL
1,2,3-Trichloropropane	5.3	BQL
1,2,4-Trimethylbenzene	5.3	BQL
1,3,5-Trimethylbenzene	5.3	BQL
Vinyl chloride	5.3	BQL
m-,p-Xylene	11	BQL
o-Xylene	5.3	BQL

Surrogate Spike Recoveries

Compound	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Bromofluorobenzene	50	51.8	104
1,2-Dichloroethane-d4	50	49.9	100
Toluene-d8	50	50.5	101

Comments:

All results are corrected for dilution.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GCMS 8260B

Client Sample ID: UST02-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67263
Lab Project ID: G128-472
Matrix: Soil

%Solids: 83.4

Date Analyzed: 7/14/99
Analyzed By: RNP
Date Collected: 6/30/99
Date Received: 7/1/99
Dilution: 5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	150	BQL
Acrolein	300	BQL
Acrylonitrile	300	BQL
Benzene	15	BQL
Bromobenzene	15	BQL
Bromochloromethane	15	BQL
Bromodichloromethane	15	BQL
Bromoform	15	BQL
Bromomethane	15	BQL
2-Butanone	75	BQL
n-Butylbenzene	15	BQL
sec-Butylbenzene	15	110
tert-Butylbenzene	15	29
Carbon disulfide	15	BQL
Carbon tetrachloride	15	BQL
Chlorobenzene	15	BQL
Chloroethane	15	BQL
2-Chloroethyl vinyl ether	15	BQL
Chloroform	15	BQL
Chloromethane	15	BQL
2-Chlorotoluene	15	BQL
4-Chlorotoluene	15	BQL
Dibromochloromethane	15	BQL
1,2-Dibromo-3-chloropropane	15	BQL
Dibromomethane	15	BQL
1,2-Dibromoethane (EDB)	15	BQL
1,2-Dichlorobenzene	15	26
1,3-Dichlorobenzene	15	BQL
1,4-Dichlorobenzene	15	15
trans-1,4-Dichloro-2-butene	15	BQL
1,1-Dichloroethane	15	BQL
1,1-Dichloroethene	15	BQL
1,2-Dichloroethane	15	BQL
cis-1,2-Dichloroethene	15	BQL
trans-1,2-dichloroethene	15	BQL
1,2-Dichloropropane	15	BQL
1,3-Dichloropropane	15	BQL
2,2-Dichloropropane	15	BQL
1,1-Dichloropropene	15	BQL
cis-1,3-Dichloropropene	15	BQL
trans-1,3-Dichloropropene	15	BQL
Dichlorodifluoromethane	15	BQL
Diisopropyl ether (DIPE)	15	BQL
Ethylbenzene	15	BQL
Hexachlorobutadiene	15	BQL
2-Hexanone	15	BQL
Iodomethane	15	BQL
Isopropylbenzene	15	BQL

Flags: BQL = Below Quantitation Limit

Reviewed by: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GCMS 8260B

Client Sample ID: UST02-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67263
Lab Project ID: G128-472
Matrix: Soil

%Solids: 83.4

Date Analyzed: 7/14/99
Analyzed By: RNP
Date Collected: 6/30/99
Date Received: 7/1/99
Dilution: 5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
4-Isopropyltoluene	15	60
Methylene chloride	60	BQL
4-Methyl-2-pentanone	15	BQL
Methyl-tert-butyl ether (MTBE)	15	BQL
Naphthalene	15	31
n-Propyl benzene	15	BQL
Styrene	15	BQL
1,1,1,2-Tetrachloroethane	15	BQL
1,1,2,2-Tetrachloroethane	15	BQL
Tetrachloroethene	15	BQL
Toluene	15	BQL
1,2,3-Trichlorobenzene	15	BQL
1,2,4-Trichlorobenzene	15	BQL
Trichloroethene	15	BQL
1,1,1-Trichloroethane	15	BQL
1,1,2-Trichloroethane	15	BQL
Trichlorofluoromethane	15	BQL
1,2,3-Trichloropropane	15	BQL
1,2,4-Trimethylbenzene	15	BQL
1,3,5-Trimethylbenzene	15	BQL
Vinyl chloride	15	BQL
m-,p-Xylene	30	BQL
o-Xylene	15	BQL

Surrogate Spike Recoveries

Compound	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Bromofluorobenzene	50	51.9	104
1,2-Dichloroethane-d4	50	52.2	104
Toluene-d8	50	49.6	99

Comments:

All results are corrected for dilution.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GCMS 8260B

Client Sample ID: UST03-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67264
Lab Project ID: G128-472
Matrix: Soil

%Solids: 89.8

Date Analyzed: 7/13/99
Analyzed By: RNP
Date Collected: 6/30/99
Date Received: 7/1/99
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	56	BQL
Acrolein	110	BQL
Acrylonitrile	110	BQL
Benzene	5.6	BQL
Bromobenzene	5.6	BQL
Bromochloromethane	5.6	BQL
Bromodichloromethane	5.6	BQL
Bromoform	5.6	BQL
Bromomethane	5.6	BQL
2-Butanone	28	BQL
n-Butylbenzene	5.6	BQL
sec-Butylbenzene	5.6	BQL
tert-Butylbenzene	5.6	BQL
Carbon disulfide	5.6	BQL
Carbon tetrachloride	5.6	BQL
Chlorobenzene	5.6	BQL
Chloroethane	5.6	BQL
2-Chloroethyl vinyl ether	5.6	BQL
Chloroform	5.6	BQL
Chloromethane	5.6	BQL
2-Chlorotoluene	5.6	BQL
4-Chlorotoluene	5.6	BQL
Dibromochloromethane	5.6	BQL
1,2-Dibromo-3-chloropropane	5.6	BQL
Dibromomethane	5.6	BQL
1,2-Dibromoethane (EDB)	5.6	BQL
1,2-Dichlorobenzene	5.6	BQL
1,3-Dichlorobenzene	5.6	BQL
1,4-Dichlorobenzene	5.6	BQL
trans-1,4-Dichloro-2-butene	5.6	BQL
1,1-Dichloroethane	5.6	BQL
1,1-Dichloroethene	5.6	BQL
1,2-Dichloroethane	5.6	BQL
cis-1,2-Dichloroethene	5.6	BQL
trans-1,2-dichloroethene	5.6	BQL
1,2-Dichloropropane	5.6	BQL
1,3-Dichloropropane	5.6	BQL
2,2-Dichloropropane	5.6	BQL
1,1-Dichloropropene	5.6	BQL
cis-1,3-Dichloropropene	5.6	BQL
trans-1,3-Dichloropropene	5.6	BQL
Dichlorodifluoromethane	5.6	BQL
Diisopropyl ether (DIPE)	5.6	BQL
Ethylbenzene	5.6	BQL
Hexachlorobutadiene	5.6	BQL
2-Hexanone	5.6	BQL
Iodomethane	5.6	BQL
Isopropylbenzene	5.6	BQL

Flags: BQL = Below Quantitation Limit

Reviewed by: W

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles
by GCMS 8260B

Client Sample ID: UST03-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67264
Lab Project ID: G128-472
Matrix: Soil

%Solids: 89.8

Date Analyzed: 7/13/99
Analyzed By: RNP
Date Collected: 6/30/99
Date Received: 7/1/99
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
4-Isopropyltoluene	5.6	BQL
Methylene chloride	22	BQL
4-Methyl-2-pentanone	5.6	BQL
Methyl-tert-butyl ether (MTBE)	5.6	BQL
Naphthalene	5.6	BQL
n-Propyl benzene	5.6	BQL
Styrene	5.6	BQL
1,1,1,2-Tetrachloroethane	5.6	BQL
1,1,2,2-Tetrachloroethane	5.6	BQL
Tetrachloroethene	5.6	BQL
Toluene	5.6	BQL
1,2,3-Trichlorobenzene	5.6	BQL
1,2,4-Trichlorobenzene	5.6	BQL
Trichloroethene	5.6	BQL
1,1,1-Trichloroethane	5.6	BQL
1,1,2-Trichloroethane	5.6	BQL
Trichlorofluoromethane	5.6	BQL
1,2,3-Trichloropropane	5.6	BQL
1,2,4-Trimethylbenzene	5.6	BQL
1,3,5-Trimethylbenzene	5.6	BQL
Vinyl chloride	5.6	BQL
m-,p-Xylene	11	BQL
o-Xylene	5.6	BQL

Surrogate Spike Recoveries

Compound	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Bromofluorobenzene	50	48.4	97
1,2-Dichloroethane-d4	50	49.7	99
Toluene-d8	50	50.0	100

Comments:

All results are corrected for dilution.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST01-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67260
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 94.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	310	BQL
Acenaphthylene	310	BQL
Anthracene	310	BQL
Benzo[a]anthracene	310	BQL
Benzo[a]pyrene	310	BQL
Benzo[b]fluoranthene	310	BQL
Benzo[g,h,i]perylene	310	BQL
Benzo[k]fluoranthene	310	BQL
Benzoic Acid	620	BQL
Bis(2-chloroethoxy)methane	310	BQL
Bis(2-chloroethyl)ether	310	BQL
Bis(2-chloroisopropyl)ether	310	BQL
Bis(2-ethylhexyl)phthalate	310	BQL
4-bromophenyl phenyl ether	310	BQL
Butylbenzylphthalate	310	BQL
4-Chloroaniline	310	BQL
4-Chloro-3-methylphenol	310	BQL
2-Chloronaphthalene	310	BQL
2-Chlorophenol	310	BQL
4-Chlorophenyl phenyl ether	310	BQL
Chrysene	310	BQL
Di-n-Butylphthalate	310	BQL
Di-n-octylphthalate	310	BQL
Dibenzo[a,h]anthracene	310	BQL
Dibenzofuran	310	BQL
1,2-Dichlorobenzene	310	BQL
1,3-Dichlorobenzene	310	BQL
1,4-Dichlorobenzene	310	BQL
3,3'-Dichlorobenzidine	620	BQL
2,4-Dichlorophenol	310	BQL
Diethylphthalate	310	BQL
2,4-Dimethylphenol	310	BQL
Dimethylphthalate	310	BQL
4,6-Dinitro-2-methylphenol	1500	BQL
2,4-Dinitrophenol	1500	BQL
2,4-Dinitrotoluene	310	BQL
2,6-Dinitrotoluene	310	BQL
Fluoranthene	310	BQL
Fluorene	310	BQL
Hexachlorobenzene	310	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST01-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67260
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 94.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	310	BQL
Hexachlorocyclopentadiene	620	BQL
Hexachloroethane	310	BQL
Indeno(1,2,3-c,d)pyrene	310	BQL
Isophorone	310	BQL
2-Methylnaphthalene	310	BQL
2-Methylphenol	310	BQL
4-Methylphenol	310	BQL
N-Nitrosodi-n-propylamine	310	BQL
N-Nitrosodiphenylamine	310	BQL
Naphthalene	310	BQL
2-Nitroaniline	310	BQL
3-Nitroaniline	310	BQL
4-Nitroaniline	310	BQL
Nitrobenzene	310	BQL
2-Nitrophenol	310	BQL
4-Nitrophenol	1500	BQL
Pentachlorophenol	1500	BQL
Phenanthrene	310	BQL
Phenol	310	BQL
Pyrene	310	BQL
1,2,4-Trichlorobenzene	310	BQL
2,4,5-Trichlorophenol	310	BQL
2,4,6-Trichlorophenol	310	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2,4,6-Tribromophenol	10	8.3	83
2-Fluorobiphenyl	10	9.7	97
2-Fluorophenol	10	8.3	83
4-Terphenyl-d14	10	9.9	99
Nitrobenzene-d5	10	8.4	84
Phenol-d6	10	7.9	79

Comments:

Results are corrected for %solids and dilution where applicable.
Analyzed By: MRC

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST01-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67261
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/13/99
Dilution: 1

%Solids: 81.3

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	370	BQL
Acenaphthylene	370	BQL
Anthracene	370	BQL
Benzo[a]anthracene	370	BQL
Benzo[a]pyrene	370	BQL
Benzo[b]fluoranthene	370	BQL
Benzo[g,h,i]perylene	370	BQL
Benzo[k]fluoranthene	370	BQL
Benzoic Acid	730	BQL
Bis(2-chloroethoxy)methane	370	BQL
Bis(2-chloroethyl)ether	370	BQL
Bis(2-chloroisopropyl)ether	370	BQL
Bis(2-ethylhexyl)phthalate	370	BQL
4-bromophenyl phenyl ether	370	BQL
Butylbenzylphthalate	370	BQL
4-Chloroaniline	370	BQL
4-Chloro-3-methylphenol	370	BQL
2-Chloronaphthalene	370	BQL
2-Chlorophenol	370	BQL
4-Chlorophenyl phenyl ether	370	BQL
Chrysene	370	BQL
Di-n-Butylphthalate	370	BQL
Di-n-octylphthalate	370	BQL
Dibenzo[a,h]anthracene	370	BQL
Dibenzofuran	370	BQL
1,2-Dichlorobenzene	370	BQL
1,3-Dichlorobenzene	370	BQL
1,4-Dichlorobenzene	370	BQL
3,3'-Dichlorobenzidine	730	BQL
2,4-Dichlorophenol	370	BQL
Diethylphthalate	370	BQL
2,4-Dimethylphenol	370	BQL
Dimethylphthalate	370	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	370	BQL
2,6-Dinitrotoluene	370	BQL
Fluoranthene	370	BQL
Fluorene	370	BQL
Hexachlorobenzene	370	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST01-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67261
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/13/99
Dilution: 1

%Solids: 81.3

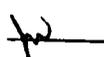
Compound	Quantitation Limit (ug/KG)	Result (ug/KG)	
Hexachlorobutadiene	370	BQL	
Hexachlorocyclopentadiene	730	BQL	
Hexachloroethane	370	BQL	
Indeno(1,2,3-c,d)pyrene	370	BQL	
Isophorone	370	BQL	
2-Methylnaphthalene	370	BQL	
2-Methylphenol	370	BQL	
4-Methylphenol	370	BQL	
N-Nitrosodi-n-propylamine	370	BQL	
N-Nitrosodiphenylamine	370	BQL	
Naphthalene	370	BQL	
2-Nitroaniline	370	BQL	
3-Nitroaniline	370	BQL	
4-Nitroaniline	370	BQL	
Nitrobenzene	370	BQL	
2-Nitrophenol	370	BQL	
4-Nitrophenol	1800	BQL	
Pentachlorophenol	1800	BQL	
Phenanthrene	370	BQL	
Phenol	370	BQL	
Pyrene	370	BQL	
1,2,4-Trichlorobenzene	370	BQL	
2,4,5-Trichlorophenol	370	BQL	
2,4,6-Trichlorophenol	370	BQL	
Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2,4,6-Tribromophenol	10	8.5	85
2-Fluorobiphenyl	10	10.1	101
2-Fluorophenol	10	9.7	97
4-Terphenyl-d14	10	10.9	109
Nitrobenzene-d5	10	8.4	84
Phenol-d6	10	8.5	85

Comments:

Results are corrected for %solids and dilution where applicable.
Analyzed By: MRC

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST02-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67262
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 93.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	330	BQL
Acenaphthylene	330	BQL
Anthracene	330	BQL
Benzo[a]anthracene	330	BQL
Benzo[a]pyrene	330	BQL
Benzo[b]fluoranthene	330	BQL
Benzo[g,h,i]perylene	330	BQL
Benzo[k]fluoranthene	330	BQL
Benzoic Acid	660	BQL
Bis(2-chloroethoxy)methane	330	BQL
Bis(2-chloroethyl)ether	330	BQL
Bis(2-chloroisopropyl)ether	330	BQL
Bis(2-ethylhexyl)phthalate	330	BQL
4-bromophenyl phenyl ether	330	BQL
Butylbenzylphthalate	330	BQL
4-Chloroaniline	330	BQL
4-Chloro-3-methylphenol	330	BQL
2-Chloronaphthalene	330	BQL
2-Chlorophenol	330	BQL
4-Chlorophenyl phenyl ether	330	BQL
Chrysene	330	BQL
Di-n-Butylphthalate	330	BQL
Di-n-octylphthalate	330	BQL
Dibenzo[a,h]anthracene	330	BQL
Dibenzofuran	330	BQL
1,2-Dichlorobenzene	330	BQL
1,3-Dichlorobenzene	330	BQL
1,4-Dichlorobenzene	330	BQL
3,3'-Dichlorobenzidine	660	BQL
2,4-Dichlorophenol	330	BQL
Diethylphthalate	330	BQL
2,4-Dimethylphenol	330	BQL
Dimethylphthalate	330	BQL
4,6-Dinitro-2-methylphenol	1600	BQL
2,4-Dinitrophenol	1600	BQL
2,4-Dinitrotoluene	330	BQL
2,6-Dinitrotoluene	330	BQL
Fluoranthene	330	BQL
Fluorene	330	BQL
Hexachlorobenzene	330	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST02-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67262
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 93.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	330	BQL
Hexachlorocyclopentadiene	660	BQL
Hexachloroethane	330	BQL
Indeno(1,2,3-c,d)pyrene	330	BQL
Isophorone	330	BQL
2-Methylnaphthalene	330	BQL
2-Methylphenol	330	BQL
4-Methylphenol	330	BQL
N-Nitrosodi-n-propylamine	330	BQL
N-Nitrosodiphenylamine	330	BQL
Naphthalene	330	BQL
2-Nitroaniline	330	BQL
3-Nitroaniline	330	BQL
4-Nitroaniline	330	BQL
Nitrobenzene	330	BQL
2-Nitrophenol	330	BQL
4-Nitrophenol	1600	BQL
Pentachlorophenol	1600	BQL
Phenanthrene	330	BQL
Phenol	330	BQL
Pyrene	330	BQL
1,2,4-Trichlorobenzene	330	BQL
2,4,5-Trichlorophenol	330	BQL
2,4,6-Trichlorophenol	330	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2,4,6-Tribromophenol	10	9.3	93
2-Fluorobiphenyl	10	9.1	91
2-Fluorophenol	10	7.8	78
4-Terphenyl-d14	10	9.1	91
Nitrobenzene-d5	10	8.1	81
Phenol-d6	10	7.6	76

Comments:

Results are corrected for %solids and dilution where applicable.

Analyzed By: MRC

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST02-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67263
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 83.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	360	BQL
Acenaphthylene	360	BQL
Anthracene	360	BQL
Benzo[a]anthracene	360	BQL
Benzo[a]pyrene	360	BQL
Benzo[b]fluoranthene	360	BQL
Benzo[g,h,i]perylene	360	BQL
Benzo[k]fluoranthene	360	BQL
Benzoic Acid	720	BQL
Bis(2-chloroethoxy)methane	360	BQL
Bis(2-chloroethyl)ether	360	BQL
Bis(2-chloroisopropyl)ether	360	BQL
Bis(2-ethylhexyl)phthalate	360	BQL
4-bromophenyl phenyl ether	360	BQL
Butylbenzylphthalate	360	BQL
4-Chloroaniline	360	BQL
4-Chloro-3-methylphenol	360	BQL
2-Chloronaphthalene	360	BQL
2-Chlorophenol	360	BQL
4-Chlorophenyl phenyl ether	360	BQL
Chrysene	360	BQL
Di-n-Butylphthalate	360	BQL
Di-n-octylphthalate	360	BQL
Dibenzo[a,h]anthracene	360	BQL
Dibenzofuran	360	BQL
1,2-Dichlorobenzene	360	BQL
1,3-Dichlorobenzene	360	BQL
1,4-Dichlorobenzene	360	BQL
3,3'-Dichlorobenzidine	720	BQL
2,4-Dichlorophenol	360	BQL
Diethylphthalate	360	BQL
2,4-Dimethylphenol	360	BQL
Dimethylphthalate	360	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	360	BQL
2,6-Dinitrotoluene	360	BQL
Fluoranthene	360	BQL
Fluorene	360	BQL
Hexachlorobenzene	360	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST02-4-5
Client Project ID: MCAS UST 1005
Lab Sample ID: 67263
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 83.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	360	BQL
Hexachlorocyclopentadiene	720	BQL
Hexachloroethane	360	BQL
Indeno(1,2,3-c,d)pyrene	360	BQL
Isophorone	360	BQL
2-Methylnaphthalene	360	BQL
2-Methylphenol	360	BQL
4-Methylphenol	360	BQL
N-Nitrosodi-n-propylamine	360	BQL
N-Nitrosodiphenylamine	360	BQL
Naphthalene	360	BQL
2-Nitroaniline	360	BQL
3-Nitroaniline	360	BQL
4-Nitroaniline	360	BQL
Nitrobenzene	360	BQL
2-Nitrophenol	360	BQL
4-Nitrophenol	1800	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	360	BQL
Phenol	360	BQL
Pyrene	360	BQL
1,2,4-Trichlorobenzene	360	BQL
2,4,5-Trichlorophenol	360	BQL
2,4,6-Trichlorophenol	360	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2,4,6-Tribromophenol	10	6.8	68
2-Fluorobiphenyl	10	6.4	64
2-Fluorophenol	10	6.4	64
4-Terphenyl-d14	10	8	80
Nitrobenzene-d5	10	2	20
Phenol-d6	10	6.2	62

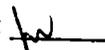
Comments:

Results are corrected for %solids and dilution where applicable.

Analyzed By: MRC

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST03-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67264
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 89.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	350	BQL
Acenaphthylene	350	BQL
Anthracene	350	BQL
Benzo[a]anthracene	350	BQL
Benzo[a]pyrene	350	BQL
Benzo[b]fluoranthene	350	BQL
Benzo[g,h,i]perylene	350	BQL
Benzo[k]fluoranthene	350	BQL
Benzoic Acid	690	BQL
Bis(2-chloroethoxy)methane	350	BQL
Bis(2-chloroethyl)ether	350	BQL
Bis(2-chloroisopropyl)ether	350	BQL
Bis(2-ethylhexyl)phthalate	350	BQL
4-bromophenyl phenyl ether	350	BQL
Butylbenzylphthalate	350	BQL
4-Chloroaniline	350	BQL
4-Chloro-3-methylphenol	350	BQL
2-Chloronaphthalene	350	BQL
2-Chlorophenol	350	BQL
4-Chlorophenyl phenyl ether	350	BQL
Chrysene	350	BQL
Di-n-Butylphthalate	350	BQL
Di-n-octylphthalate	350	BQL
Dibenzo[a,h]anthracene	350	BQL
Dibenzofuran	350	BQL
1,2-Dichlorobenzene	350	BQL
1,3-Dichlorobenzene	350	BQL
1,4-Dichlorobenzene	350	BQL
3,3'-Dichlorobenzidine	690	BQL
2,4-Dichlorophenol	350	BQL
Diethylphthalate	350	BQL
2,4-Dimethylphenol	350	BQL
Dimethylphthalate	350	BQL
4,6-Dinitro-2-methylphenol	1700	BQL
2,4-Dinitrophenol	1700	BQL
2,4-Dinitrotoluene	350	BQL
2,6-Dinitrotoluene	350	BQL
Fluoranthene	350	BQL
Fluorene	350	BQL
Hexachlorobenzene	350	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles
by GCMS 8270

Client Sample ID: UST03-1-2
Client Project ID: MCAS UST 1005
Lab Sample ID: 67264
Lab Project ID: G128-472
Matrix: Soil

Date Collected: 6/30/99
Date Received: 7/1/99
Date Analyzed: 7/12/99
Dilution: 1

%Solids: 89.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	350	BQL
Hexachlorocyclopentadiene	690	BQL
Hexachloroethane	350	BQL
Indeno(1,2,3-c,d)pyrene	350	BQL
Isophorone	350	BQL
2-Methylnaphthalene	350	BQL
2-Methylphenol	350	BQL
4-Methylphenol	350	BQL
N-Nitrosodi-n-propylamine	350	BQL
N-Nitrosodiphenylamine	350	BQL
Naphthalene	350	BQL
2-Nitroaniline	350	BQL
3-Nitroaniline	350	BQL
4-Nitroaniline	350	BQL
Nitrobenzene	350	BQL
2-Nitrophenol	350	BQL
4-Nitrophenol	1700	BQL
Pentachlorophenol	1700	BQL
Phenanthrene	350	BQL
Phenol	350	BQL
Pyrene	350	BQL
1,2,4-Trichlorobenzene	350	BQL
2,4,5-Trichlorophenol	350	BQL
2,4,6-Trichlorophenol	350	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2,4,6-Tribromophenol	10	8.9	89
2-Fluorobiphenyl	10	9	90
2-Fluorophenol	10	7.9	79
4-Terphenyl-d14	10	9.1	91
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	8.2	82

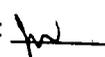
Comments:

Results are corrected for %solids and dilution where applicable.

Analyzed By: MRC

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST01-1-2
Sample Matrix	Soil
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/10/99
Date Analyzed	07/13/99
Dry Weight	94.4
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	72 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	49 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	30 (mg/Kg)
Aliphatic Surrogate % Recovery	130
Aromatic Surrogate % Recovery	46
Fractionation Surrogate 1 % Recovery	54

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-472-67260

Reviewed By: *lw*

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST01-4-5
Sample Matrix	Soil
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/10/99
Date Analyzed	07/10/99
Dry Weight	81.3
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	81
Aromatic Surrogate % Recovery	56

Comments:

* = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G128-472-67261

Reviewed By:

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST02-1-2
Sample Matrix	Soil
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/10/99
Date Analyzed	07/12/99
Dry Weight	93.8
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	49 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	140 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	40 (mg/Kg)
Aliphatic Surrogate % Recovery	130
Aromatic Surrogate % Recovery	80
Fractionation Surrogate 1 % Recovery	88

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-472-67262

Reviewed By: lw

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST02-4-5
Sample Matrix	Soil
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/10/99
Date Analyzed	07/12/99
Dry Weight	83.4
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	200 (mg/Kg)
C ₁₉ -C ₃₈ Aliphatics*	60 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	230 (mg/Kg)
Aliphatic Surrogate % Recovery	120
Aromatic Surrogate % Recovery	77
Fractionation Surrogate 1 % Recovery	82

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G128-472-67263

Reviewed By: W

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST03-1-2
Sample Matrix	Soil
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/10/99
Date Analyzed	07/10/99
Dry Weight	89.8
Dilution Factor	1
C ₉ -C ₁₈ Aliphatics*	< 10 (mg/Kg)
C ₁₉ -C ₃₆ Aliphatics*	< 10 (mg/Kg)
C ₁₁ -C ₂₂ Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	99
Aromatic Surrogate % Recovery	81

Comments:

* = Excludes any surrogates or internal standards.
 Sample did not require fractionation.

Lab info: G128-472-67264

Reviewed By: W

PARADIGM ANALYTICAL LABORATORIES, INC.

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 05/13/99

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)
C ₉ -C ₁₈ Aliphatics	0.1	2	0.3	6.5	1	10
C ₁₉ -C ₃₆ Aliphatics	0.1	1	0.3	3.1	1	10
C ₁₁ -C ₂₂ Aromatics	0.2	2.5	0.6	8	1	10

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/mL)	(mg/Kg)		
C ₉ -C ₁₈ Aliphatics	0.6	10	5.60	Calibration Factor
	1.5	25		
	3	50		
	6	100		
	12	200		
C ₁₉ -C ₃₆ Aliphatics	0.8	13.3	9.0	Calibration Factor
	2	33.3		
	4	66.7		
	8	133		
	16	267		
C ₁₁ -C ₂₂ Aromatics	1.2	20	10.5	Calibration Factor
	3	50		
	6	100		
	12	200		
	24	400		

Calibration Check Date: 07/10/99

Calibration Check

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C ₉ -C ₁₈ Aliphatics	6	100	-14.9
C ₁₉ -C ₃₆ Aliphatics	8	133	-2.4
C ₁₁ -C ₂₂ Aromatics	12	200	-18.1

MDL = Method Detection Limit
 ML = Minimum Limit
 RL = Reportable Limit

RPD = Relative Percent Difference
 %RSD = Percent Relative Standard Deviation
 CCC = Correlation Coefficient of Curve

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 05/13/99

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)
C ₉ -C ₁₈ Aliphatics	0.1	2	0.3	6.5	1	10
C ₁₉ -C ₃₈ Aliphatics	0.1	1	0.3	3.1	1	10
C ₁₁ -C ₂₂ Aromatics	0.2	2.5	0.6	8	1	10

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/mL)	(mg/Kg)		
C ₉ -C ₁₈ Aliphatics	0.6	10	5.60	Calibration Factor
	1.5	25		
	3	50		
	6	100		
	12	200		
C ₁₉ -C ₃₆ Aliphatics	0.8	13.3	9.0	Calibration Factor
	2	33.3		
	4	66.7		
	8	133		
	16	267		
C ₁₁ -C ₂₂ Aromatics	1.2	20	10.5	Calibration Factor
	3	50		
	6	100		
	12	200		
	24	400		

Calibration Check Date: 07/12/99

Calibration Check

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C ₉ -C ₁₈ Aliphatics	6	100	-12.4
C ₁₉ -C ₃₆ Aliphatics	8	133	5.5
C ₁₁ -C ₂₂ Aromatics	12	200	-14.6

MDL = Method Detection Limit
 ML = Minimum Limit
 RL = Reportable Limit

RPD = Relative Percent Difference
 %RSD = Percent Relative Standard Deviation
 CCC = Correlation Coefficient of Curve

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST01-1-2
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/14/99
Dry Weight	94
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	< 500 (µg/Kg)
Surrogate % Recovery - PID	79
Surrogate % Recovery - FID	91

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67260

Reviewed By: JD

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST01-4-5
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/14/99
Dry Weight	81
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	< 500 (µg/Kg)
Surrogate % Recovery - PID	79
Surrogate % Recovery - FID	91

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.
 ** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67261

Reviewed By: W

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST02-1-2
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/14/99
Dry Weight	94
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	< 500 (µg/Kg)
Surrogate % Recovery - PID	74
Surrogate % Recovery - FID	85

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.
 ** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67262

Reviewed By: W

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST02-4-5
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/15/99
Dry Weight	83
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	750 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	130000 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	78000 (µg/Kg)
Surrogate % Recovery - PID	84
Surrogate % Recovery - FID	84

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67263

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	UST03-1-2
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/15/99
Dry Weight	90
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	< 500 (µg/Kg)
Surrogate % Recovery - PID	79
Surrogate % Recovery - FID	88

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67264

Reviewed By:

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS UST 1005

Sample Information and Analytical Results	
Sample Identification	Trip Blank
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/99
Date Received	07/01/99
Date Extracted	07/14/99
Date Analyzed	07/14/99
Dry Weight	100
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₂ Aliphatics**	< 500 (µg/Kg)
C ₉ -C ₁₀ Aromatics**	< 500 (µg/Kg)
Surrogate % Recovery - PID	72
Surrogate % Recovery - FID	82

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.
 ** = Excludes any surrogates or internal standards.

Lab Info: G128-472-67265

Reviewed By: fw

PARADIGM ANALYTICAL LABORATORIES, INC.

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 06/23/99 PID Initial Calibration Date: 06/23/99

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(µg/Kg)	(µg/L)	(µg/Kg)	(µg/L)	(µg/Kg)
C ₅ -C ₈ Aliphatics	2.4	120	7.5	380	10	500
C ₉ -C ₁₂ Aliphatics	1.3	65	4.0	210	10	500
C ₉ -C ₁₀ Aromatics	0.5	25	1.6	80	10	500

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(µg/Kg)		
C ₅ -C ₈ Aliphatics	40	2000	12.4	Calibration Factor
	160	8000		
	400	20000		
	1600	80000		
	4000	200000		
C ₉ -C ₁₂ Aliphatics	30	1500	23.2	Calibration Factor
	120	6000		
	300	15000		
	1200	60000		
	3000	150000		
C ₉ -C ₁₀ Aromatics	65	3250	18.6	Calibration Factor
	260	13000		
	650	32500		
	2600	130000		
	6500	325000		

Calibration Check Date: 07/14/99

Calibration Check

Range	Levels		RPD
	(µg/L)	(µg/Kg)	
C ₅ -C ₈ Aliphatics	400	20000	-13.1
C ₉ -C ₁₂ Aliphatics	300	15000	4.2
C ₉ -C ₁₀ Aromatics	650	32500	0.9

MDL = Method Detection Limit
ML = Minimum Limit
RL = Reportable Limit

RPD = Relative Percent Difference
%RSD = Percent Relative Standard Deviation
CCC = Correlation Coefficient of Curve

Reviewed By: pd

APPENDIX C

**WRIGHT LABORATORY SERVICES, INC.
LABORATORY ANALYTICAL RESULTS**



Wright Laboratory
SERVICES INC.
ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-1

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 24, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	: 140072
Job Number	: 95231-001-001	Date Sampled	: 04/27/95 1
Location	: UST-1005-GS-1	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Discard Date	:

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	ME
GAS CHROMATOGRAPH ANALYSES				
GASOLINE 5030/8015	N.D.	ug/kg	500	80
Heavier product present				
GASOLINE 5030/8015	< 570	ug/kg	Dry Weight	
WATER QUALITY				
Total Solids	88	%	1	1
GAS CHROMATOGRAPH ANALYSES				
Diesel 3550/8015	47	mg/kg	5.3	8
Fuel Oil #6				
Diesel 3550/8015	53	mg/kg	Dry Weight	

N.D. - Not Detected

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted
WRIGHT LAB SERVICES

James J. Kissler
Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 326-1323



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-1

Mike Iannicelli
WRIGHT ENVIRONMENTAL
ROGER EXECUTIVE CENTER
E 109
DLK VA 235024015

May 24, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	: 140072
Number	: 95231-001-001	Date Sampled	: 04/27/95 10:00 AM
Location	: UST-1005-GS-1	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Grab	
		Discard Date	:

ANALYSIS

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>DATE</u>	<u>TIME</u>
LINE 5030/8015	Cool to 4 Deg. C	TEH	05/08/95	18:47
1 Solids	Cool to 4 Deg. C	CMD	05/02/95	06:30
el 3550/8015	Cool to 4 Deg. C	CWW	05/12/95	15:47
oleum Hydrocarbon Extractn		DRP	05/08/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Delphia • (610) 640-1323

Maryland • (410) 244-8889



ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-2

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 24, 1995

DATA PACKAGE FORM

Job Name	: UST-1005	Customer PO#	: 140072
Job Number	: 95231-001-001	Date Sampled	: 04/27/95 1
Location	: UST-1005-GS-2	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Grab	: Discard Date

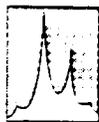
<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
GASOLINE 5030/8015	Cool to 4 Deg. C	TEH	05/08/95	19:2
Total Solids	Cool to 4 Deg. C	CMD	05/02/95	06:3
Diesel 3550/8015	Cool to 4 Deg. C	CWW	05/12/95	17:5
Petroleum Hydrocarbon Extractn		DRP	05/08/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 326-1323



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-2

Attn: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
COLK VA 235024015

May 24, 1995

LAB ANALYSIS REPORT

Name	: UST-1005	Customer PO#	: 140072
Number	: 95231-001-001	Date Sampled	: 04/27/95 11:00 AM
Location	: UST-1005-GS-2	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Discard Date	:
		Grab	

<u>TEST/PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>	<u>DETECTION LIMIT</u>	<u>METHOD</u>
CHROMATOGRAPH ANALYSES				
SOLINE 5030/8015	N.D.	ug/kg	500	8015M
Heavier product present				
SOLINE 5030/8015	< 610	ug/kg	Dry Weight	
R QUALITY				
Total Solids	82	%	1	160.3
CHROMATOGRAPH ANALYSES				
Gasel 3550/8015	360	mg/kg	5.3	8015M
JP-5				
Gasel 3550/8015	440	mg/kg	Dry Weight	

D. - Not Detected

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted,
WRIGHT LAB SERVICES

James R. Kessler
Laboratory Manager

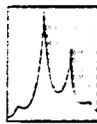


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-3

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 24, 1995

DATA PACKAGE FORM

Job Name	: UST-1005	Customer PO#	: 140072
Job Number	: 95231-001-001	Date Sampled	: 04/27/95 1
Location	: UST-1005-GS-3	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Grab	
		Discard Date	:

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
BASOLINE 5030/8015	Cool to 4 Deg. C	TEH	05/08/95	19:3
Total Solids	Cool to 4 Deg. C	CMD	05/02/95	06:3
Diesel 3550/8015	Cool to 4 Deg. C	CWW	05/12/95	16:5
Petroleum Hydrocarbon Extractn		DRP	05/08/95	

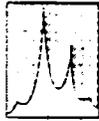


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (-



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-3

: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
OLK VA 235024015

May 24, 1995

LAB ANALYSIS REPORT

Name	: UST-1005	Customer PO#	: 140072
Number	: 95231-001-001	Date Sampled	: 04/27/95 12:00 PM
Location	: UST-1005-GS-3	Date Received	: 04/29/95
Sample State	: Soil	Date Approved	: 05/24/95
Collector	: ELE	Discard Date	:

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
CHROMATOGRAPH ANALYSES				
SOLINE 5030/8015	N.D.	ug/kg	500	8015M
SOLINE 5030/8015	< 640	ug/kg	Dry Weight	
GRAVIMETRY QUALITY				
Total Solids	78	%	1	160.3
CHROMATOGRAPH ANALYSES				
Residue 3550/8015	N.D.	mg/kg	5.3	8015M
Residue 3550/8015	< 6.8	mg/kg	Dry Weight	

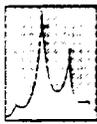
D. - Not Detected

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

Respectfully Submitted,
WRIGHT LAB SERVICES

James Z. Assler
Laboratory Manager





Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-4

May 24, 1995

QUALITY ASSURANCE REPORT

<u>Q/A PARAMETER</u>	<u>RESULT</u>		
WATER QUALITY Total Solids	81	%	Duplicate

Respectfully Submitted
WRIGHT LAB SERVICES

James J. Kisti
Laboratory Manager





Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-4

: Mike Iannicelli
WRIGHT ENVIRONMENTAL
ROGER EXECUTIVE CENTER
E 109
OLK VA 235024015

May 24, 1995

LAB ANALYSIS REPORT

Name	: UST-1005	Customer PO#	: 140072
Number	: 95231-001-001	Date Sampled	: 04/27/95 11:00 AM
Location	: UST-1005-Soil Dup	Date Received	: 04/29/95
Sample State	: Soil Grab	Date Approved	: 05/24/95
Detector	: ELE	Discard Date	:

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
CHROMATOGRAPH ANALYSES				
SOLINE 5030/8015	N.D.	ug/kg	500	8015M
Heavier product present				
SOLINE 5030/8015	< 620	ug/kg	Dry Weight	
R QUALITY				
Total Solids	81	%	1	160.3
CHROMATOGRAPH ANALYSES				
iesel 3550/8015	440	mg/kg	27	8015M
JP-5				
iesel 3550/8015	540	mg/kg	Dry Weight	

D. - Not Detected

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-5

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:	
Job Number	: 95231-001-001	Date Sampled	:	04/27/95 02
Location	: UST-1005-GSW-1	Date Received	:	04/29/95
Sample State	: Water	Grab	:	Date Approved : 05/17/95
Collector	: ELE	Discard Date	:	05/25/95

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	ME
GAAS CHROMATOGRAPH ANALYSES				
Methyl-t-Butyl Ether	N.D.	ug/l	10	60
PURGEABLE AROMATICS				
Benzene	9	ug/l	1	60
Ethylbenzene	N.D.	ug/l	1	60
m-Xylene	N.D.	ug/l	40	60
o-Xylene	N.D.	ug/l	1	60
p-Xylene	N.D.	ug/l	1	60
Toluene	1	ug/l	1	60

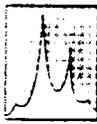
GAS CHROMATOGRAPH MASS SPEC.

BASE/NEUTRALS/ACID COMP + 10				
3,3'-Dichlorobenzidine	N.D.	ug/l	20	60
Acenaphthene	N.D.	ug/l	5	60
Acenaphthylene	N.D.	ug/l	5	60
Anthracene	N.D.	ug/l	5	60
Benzidine	N.D.	ug/l	20	60
Benzo(a)anthracene	N.D.	ug/l	5	60
Benzo(a)pyrene	N.D.	ug/l	5	60

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-4

To: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
SUITE 109
DOLK VA 235024015

May 24, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	: 140072
Number	: 95231-001-001	Date Sampled	: 04/27/95 11:00 AM
Description	: UST-1005-Soil Dup	Date Received	: 04/29/95
Sample State	: Soil Grab	Date Approved	: 05/24/95
Collector	: ELE	Discard Date	:

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
LINE 5030/8015	Cool to 4 Deg. C	TEH	05/08/95	16:24
1 Solids	Cool to 4 Deg. C	CMD	05/02/95	06:30
el 3550/8015	Cool to 4 Deg. C	CWW	05/17/95	11:43
oleum Hydrocarbon Extractn		DRP	05/08/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-5

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M
4-Chloro-3-Methylphenol	N.D.	ug/l	5	6
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	6
N-Nitrosodimethylamine	N.D.	ug/l	5	6
N-Nitrosodiphenylamine	N.D.	ug/l	5	6
Naphthalene	N.D.	ug/l	5	6
Nitrobenzene	N.D.	ug/l	5	6
2-Nitrophenol	N.D.	ug/l	5	6
4-Nitrophenol	N.D.	ug/l	20	6
Pentachlorophenol	N.D.	ug/l	10	6
Phenanthrene	N.D.	ug/l	5	6
Phenol	N.D.	ug/l	10	6
Pyrene	N.D.	ug/l	5	6
1,2,4-Trichlorobenzene	N.D.	ug/l	5	6
2,4,6-Trichlorophenol	N.D.	ug/l	10	6

N.D. - Not Detected

The detection limit of m-xylene for the BTEX analysis was raised due to an interference that eluted close to m-xylene.

An NBS library search was performed on the semi-volatile fraction of sample. See attached sheet for a list of Tentatively Identified Comp

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT
---------------	--------

**** Continued ****





Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-5

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION	
			LIMIT	METHOD
nzo(b) fluoranthene	N.D.	ug/l	5	625
nzo(g,h,i) perylene	N.D.	ug/l	10	625
nzo(k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
tylbenzyl Phthalate	N.D.	ug/l	5	625
deno(1,2,3-cd) pyrene	N.D.	ug/l	10	625
s(2-chloroethoxy) methane	N.D.	ug/l	5	625
s(2-chloroethyl) ether	N.D.	ug/l	5	625
s(2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
rysene	N.D.	ug/l	5	625
-n-Butylphthalate	N.D.	ug/l	5	625
-n-octylphthalate	N.D.	ug/l	10	625
benzo(a,h) anthracene	N.D.	ug/l	10	625
2-Dichlorobenzene	N.D.	ug/l	5	625
3-Dichlorobenzene	N.D.	ug/l	5	625
4-Dichlorobenzene	N.D.	ug/l	5	625
4-Dichlorophenol	N.D.	ug/l	5	625
ethylphthalate	N.D.	ug/l	10	625
4-Dimethylphenol	N.D.	ug/l	5	625
methylphthalate	N.D.	ug/l	10	625
Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrotoluene	N.D.	ug/l	10	625
6-Dinitrotoluene	N.D.	ug/l	10	625
2-Diphenylhydrazine	N.D.	ug/l	10	625
s(2-ethylhexyl) phthalate	N.D.	ug/l	10	625
uoranthene	N.D.	ug/l	5	625
uorene	N.D.	ug/l	5	625
xachlorobenzene	N.D.	ug/l	5	625
xachlorobutadiene	N.D.	ug/l	5	625
xachlorocyclopentadiene	N.D.	ug/l	50	625
xachloroethane	N.D.	ug/l	5	625
sophorone	N.D.	ug/l	5	625

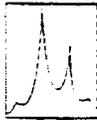
**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Delphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

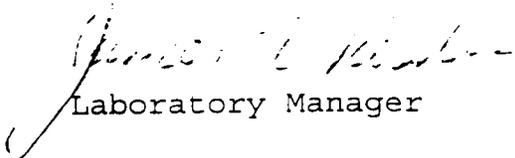
Page # 4
Sample # 72395-5

May 17, 1995

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
CHROMATOGRAPH ANALYSES			
RECOVERABLE AROMATICS			
m,p-Dichlorobenzene	84	% Recovery	Surrogate
CHROMATOGRAPH MASS SPEC.			
SE/NEUTRALS/ACID COMP + 10			
Fluorobiphenyl	78	% Recovery	Surrogate
Fluorophenol	66	% Recovery	Surrogate
m-Trobenzene-d5	65	% Recovery	Surrogate
Benol-d5	70	% Recovery	Surrogate
p-Trophenyl-d14	69	% Recovery	Surrogate
1,6-Tribromophenol	89	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES


Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005

Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL 09

Matrix: (soil/water) WATER Lab Sample ID: 72395-5

Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG309

Level: (low/med) LOW Date Received: 04/27/95

% Moisture: not dec. dec. Date Extracted: 05/04/95

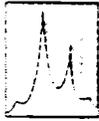
Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/95

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/l or ug/Kg) ug/L

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1.10544-50-0	Sulfur, mol. (S8)	18.42	7.00
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-5

: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
OLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:	
Number	: 95231-001-001	Date Sampled	:	04/27/95 02:00 PM
Location	: UST-1005-GSW-1	Date Received	:	04/29/95
Sample State	: Water	Date Approved	:	05/17/95
Collector	: ELE	Discard Date	:	05/25/95
		Grab		

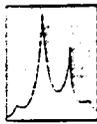
<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Di-n-Butyl Ether	Cool to 4 Deg. C	TEH	05/04/95	23:48
DETECTABLE AROMATICS	HCl to pH <2	TEH	05/04/95	23:48
/NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	07:07
Liq Ext for Semi-Volatiles		SLP	05/03/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-6

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:
Job Number	: 95231-001-001	Date Sampled	: 04/27/95
Location	: UST-1005-GSW-2	Date Received	: 04/29/95
Sample State	: Water	Date Approved	: 05/17/95
Collector	: ELE	Discard Date	: 05/25/95
		Grab	

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M.
GAS CHROMATOGRAPH ANALYSES				
Methyl-t-Butyl Ether	N.D.	ug/l	10	6
PURGEABLE AROMATICS				
Benzene	2	ug/l	1	6
Ethylbenzene	N.D.	ug/l	1	6
m-Xylene	N.D.	ug/l	5	6
o-Xylene	N.D.	ug/l	1	6
p-Xylene	N.D.	ug/l	1	6
Toluene	N.D.	ug/l	1	6

GAS CHROMATOGRAPH MASS SPEC.

BASE/NEUTRALS/ACID COMP + 10				
3,3'-Dichlorobenzidine	N.D.	ug/l	20	6
Acenaphthene	N.D.	ug/l	5	6
Acenaphthylene	N.D.	ug/l	5	6
Anthracene	N.D.	ug/l	5	6
Benzidine	N.D.	ug/l	20	6
Benzo(a)anthracene	N.D.	ug/l	5	6
Benzo(a)pyrene	N.D.	ug/l	5	6

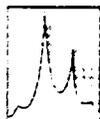
**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (301) 271-1323



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-6

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
benzo(b) fluoranthene	N.D.	ug/l	5	625
benzo(g,h,i) perylene	N.D.	ug/l	10	625
benzo(k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Diethylbenzyl Phthalate	N.D.	ug/l	5	625
benzo(a,b) pyrene	N.D.	ug/l	10	625
Diethyl (2-chloroethoxy) methane	N.D.	ug/l	5	625
Diethyl (2-chloroethyl) ether	N.D.	ug/l	5	625
Diethyl (2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
Dibutylsulfone	N.D.	ug/l	5	625
Di-n-Butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
benzo(a,h) anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
4-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
4-Dimethylphenol	N.D.	ug/l	5	625
Dimethylphthalate	N.D.	ug/l	10	625
Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrotoluene	N.D.	ug/l	10	625
6-Dinitrotoluene	N.D.	ug/l	10	625
2-Diphenylhydrazine	N.D.	ug/l	10	625
Diethyl (2-ethylhexyl) phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Fluorene	N.D.	ug/l	5	625
Hexachlorobenzene	N.D.	ug/l	5	625
Hexachlorobutadiene	N.D.	ug/l	5	625
Hexachlorocyclopentadiene	N.D.	ug/l	50	625
Hexachloroethane	N.D.	ug/l	5	625
Sophorone	N.D.	ug/l	5	625

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430



ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-6

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M
4-Chloro-3-Methylphenol	N.D.	ug/l	5	6
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	6
N-Nitrosodimethylamine	N.D.	ug/l	5	6
N-Nitrosodiphenylamine	N.D.	ug/l	5	6
Naphthalene	N.D.	ug/l	5	6
Nitrobenzene	N.D.	ug/l	5	6
2-Nitrophenol	N.D.	ug/l	5	6
4-Nitrophenol	N.D.	ug/l	20	6
Pentachlorophenol	N.D.	ug/l	10	6
Phenanthrene	N.D.	ug/l	5	6
Phenol	N.D.	ug/l	10	6
Pyrene	N.D.	ug/l	5	6
1,2,4-Trichlorobenzene	N.D.	ug/l	5	6
2,4,6-Trichlorophenol	N.D.	ug/l	10	6

N.D. - Not Detected

The detection limit of m-xylene for the BTEX analysis was raised due to an interference peak that eluted close to m-xylene.

An NBS library search was performed on the semi-volatile fraction of sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT
---------------	--------

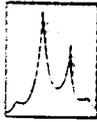
**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland •



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 4
Sample # 72395-6

May 17, 1995

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
CHROMATOGRAPH ANALYSES			
IRGEABLE AROMATICS			
a,a-Trifluorotoluene	87	% Recovery	Surrogate
CHROMATOGRAPH MASS SPEC.			
ASE/NEUTRALS/ACID COMP + 10			
luorobiphenyl	81	% Recovery	Surrogate
Fluorophenol	68	% Recovery	Surrogate
trobenzene-d5	66	% Recovery	Surrogate
enol-d5	74	% Recovery	Surrogate
rphenyl-d14	75	% Recovery	Surrogate
4,6-Tribromophenol	99	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

Janice E. Robin
Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889

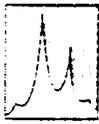
1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005
 Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL15
 Matrix: (soil/water) WATER Lab Sample ID: 72395-6
 Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG310
 Level: (low/med) LOW Date Received: 04/27/9
 % Moisture: not dec. dec. Date Extracted: 05/04/9
 Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/9
 GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/l or ug/Kg) ug/L

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1. 57-10-3	Hexadecanoic acid	17.47	4.00
2. 10544-50-0	Sulfur, mol. (S8)	18.42	9.00
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-6

: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
OLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:
Number	: 95231-001-001	Date Sampled	: 04/27/95 01:20 PM
Location	: UST-1005-GSW-2	Date Received	: 04/29/95
Sample State	: Water	Date Approved	: 05/17/95
Collector	: ELE	Discard Date	: 05/25/95
	Grab		

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
n-Butyl Ether	Cool to 4 Deg. C	TEH	05/05/95	00:29
DETECTABLE AROMATICS	HCl to pH <2	TEH	05/05/95	00:29
/NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	07:48
Liq Ext for Semi-Volatiles		SLP	05/03/95	

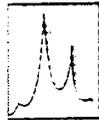


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-7

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:	
Job Number	: 95231-001-001	Date Sampled	:	04/27/95
Location	: UST-1005-GSW-3	Date Received	:	04/29/95
Sample State	: Water	Date Approved	:	05/17/95
Collector	: ELE	Discard Date	:	05/25/95

Grab

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT
GAS CHROMATOGRAPH ANALYSES			
Methyl-t-Butyl Ether	N.D.	ug/l	10
PURGEABLE AROMATICS			
Benzene	2	ug/l	1
Ethylbenzene	N.D.	ug/l	1
m-Xylene	N.D.	ug/l	25
o-Xylene	N.D.	ug/l	2
p-Xylene	N.D.	ug/l	1
Toluene	3	ug/l	1

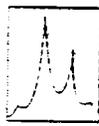
GAS CHROMATOGRAPH MASS SPEC.

BASE/NEUTRALS/ACID COMP + 10			
3,3'-Dichlorobenzidine	N.D.	ug/l	20
Acenaphthene	N.D.	ug/l	5
Acenaphthylene	N.D.	ug/l	5
Anthracene	N.D.	ug/l	5
Benzidine	N.D.	ug/l	20
Benzo (a) anthracene	N.D.	ug/l	5
Benzo (a) pyrene	N.D.	ug/l	5

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-7

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION	
			LIMIT	METHOD
nzo (b) fluoranthene	N.D.	ug/l	5	625
nzo (g, h, i) perylene	N.D.	ug/l	10	625
nzo (k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
tylbenzyl Phthalate	N.D.	ug/l	5	625
deno (1, 2, 3-cd) pyrene	N.D.	ug/l	10	625
s (2-chloroethoxy) methane	N.D.	ug/l	5	625
s (2-chloroethyl) ether	N.D.	ug/l	5	625
s (2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
rysene	N.D.	ug/l	5	625
-Butylphthalate	N.D.	ug/l	5	625
-n-octylphthalate	N.D.	ug/l	10	625
benzo (a, h) anthracene	N.D.	ug/l	10	625
2-Dichlorobenzene	N.D.	ug/l	5	625
3-Dichlorobenzene	N.D.	ug/l	5	625
4-Dichlorobenzene	N.D.	ug/l	5	625
4-Dichlorophenol	N.D.	ug/l	5	625
ethylphthalate	N.D.	ug/l	10	625
4-Dimethylphenol	N.D.	ug/l	5	625
methylphthalate	N.D.	ug/l	10	625
Methyl-4, 6-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrophenol	N.D.	ug/l	20	625
4-Dinitrotoluene	N.D.	ug/l	10	625
5-Dinitrotoluene	N.D.	ug/l	10	625
2-Diphenylhydrazine	N.D.	ug/l	10	625
s (2-ethylhexyl) phthalate	N.D.	ug/l	10	625
loranthene	N.D.	ug/l	5	625
lorene	N.D.	ug/l	5	625
kachlorobenzene	N.D.	ug/l	5	625
kachlorobutadiene	N.D.	ug/l	5	625
kachlorocyclopentadiene	N.D.	ug/l	50	625
kachloroethane	N.D.	ug/l	5	625
ophorone	N.D.	ug/l	5	625

**** Continued ****

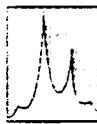


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

elphia • (610) 640-1323

Maryland • (410) 244-8889



ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-7

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT
4-Chloro-3-Methylphenol	N.D.	ug/l	5
N-Nitrosodi-n-propylamine	N.D.	ug/l	5
N-Nitrosodimethylamine	N.D.	ug/l	5
N-Nitrosodiphenylamine	N.D.	ug/l	5
Naphthalene	N.D.	ug/l	5
Nitrobenzene	N.D.	ug/l	5
2-Nitrophenol	N.D.	ug/l	5
4-Nitrophenol	N.D.	ug/l	20
Pentachlorophenol	N.D.	ug/l	10
Phenanthrene	N.D.	ug/l	5
Phenol	N.D.	ug/l	10
Pyrene	N.D.	ug/l	5
1,2,4-Trichlorobenzene	N.D.	ug/l	5
2,4,6-Trichlorophenol	N.D.	ug/l	10

N.D. - Not Detected

The detection limits of o-xylene and m-xylene for the BTEX analysis raised due to interference peaks that eluted close to o-xylene and m-xylene.

An NBS library search was performed on the semi-volatile fraction of sample. See attached sheet for a list of Tentatively Identified Compounds.

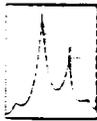
This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT
---------------	--------

**** Continued ****





Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 4
Sample # 72395-7

May 17, 1995

QUALITY ASSURANCE REPORT

<u>Q/A PARAMETER</u>	<u>RESULT</u>		
CHROMATOGRAPH ANALYSES			
EPIGEABLE AROMATICS			
1,1,1-Trifluorotoluene	91	% Recovery	Surrogate
CHROMATOGRAPH MASS SPEC.			
GC/MS/NEUTRALS/ACID COMP + 10			
1,1-Difluorobiphenyl	81	% Recovery	Surrogate
1-Fluorophenol	64	% Recovery	Surrogate
1,2-Dibromobenzene-d5	63	% Recovery	Surrogate
1,2-Dichlorobenzene-d5	72	% Recovery	Surrogate
1,2-Dibromobenzene-d14	56	% Recovery	Surrogate
1,2,4,6-Tetrabromophenol	89	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

James L. Kiser
Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889

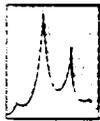
1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005
 Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL15
 Matrix: (soil/water) WATER Lab Sample ID: 72395-7
 Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG311
 Level: (low/med) LOW Date Received: 04/27/95
 % Moisture: not dec. dec. Date Extracted: 05/04/95
 Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/95
 GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/l or ug/Kg) ug/L

Number TICs found: 5

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1. 104-76-7	1-Hexanol, 2-ethyl-	7.44	16.00
2. 149-57-5	Hexanoic acid, 2-ethyl-	9.14	13.00
3.	Unknown Acid	11.13	21.0
4.	dichloro-Benzoic acid isomer	13.71	12.0
5. 123-79-5	Hexanedioic acid, dioctyl ester	20.69	5.00
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-7

To: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
RTE 109
FOLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:
Number	: 95231-001-001	Date Sampled	: 04/27/95 12:50 PM
Location	: UST-1005-GSW-3	Date Received	: 04/29/95
Sample State	: Water	Date Approved	: 05/17/95
Collector	: ELE	Grab	
		Discard Date	: 05/25/95

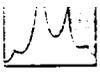
<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Di-n-Butyl Ether	Cool to 4 Deg. C	TEH	05/05/95	21:53
DETECTABLE AROMATICS	HCl to pH <2	TEH	05/05/95	21:53
SEMI-NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	08:28
Liq Ext for Semi-Volatiles		SLP	05/03/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Delphia • (610) 640-1323

Maryland • (410) 244-8889

 **ENVIRONMENTAL TESTING LABORATORIES**

Page # 1
Sample # 72395-8

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:	
Job Number	: 95231-001-001	Date Sampled	:	04/27/95
Location	: UST-1005-Water Dup	Date Received	:	04/29/95
Sample State	: Water Grab	Date Approved	:	05/17/95
Collector	: ELE	Discard Date	:	05/25/95

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT
GAS CHROMATOGRAPH ANALYSES			
Methyl-t-Butyl Ether	N.D.	ug/l	10
PURGEABLE AROMATICS			
Benzene	2	ug/l	1
Ethylbenzene	N.D.	ug/l	1
m-Xylene	N.D.	ug/l	5
o-Xylene	N.D.	ug/l	1
p-Xylene	N.D.	ug/l	1
Toluene	1	ug/l	1

GAS CHROMATOGRAPH MASS SPEC.

BASE/NEUTRALS/ACID COMP + 10			
3,3'-Dichlorobenzidine	N.D.	ug/l	20
Acenaphthene	N.D.	ug/l	5
Acenaphthylene	N.D.	ug/l	5
Anthracene	N.D.	ug/l	5
Benzidine	N.D.	ug/l	20
Benzo (a) anthracene	N.D.	ug/l	5
Benzo (a) pyrene	N.D.	ug/l	5

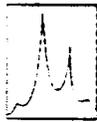
**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland •



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-8

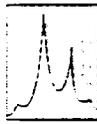
May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
azo(b) fluoranthene	N.D.	ug/l	5	625
azo(g,h,i) perylene	N.D.	ug/l	10	625
azo(k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Bis(2-ethylhexyl) Phthalate	N.D.	ug/l	5	625
Benzo(1,2,3-cd) pyrene	N.D.	ug/l	10	625
Bis(2-chloroethoxy) methane	N.D.	ug/l	5	625
Bis(2-chloroethyl) ether	N.D.	ug/l	5	625
Bis(2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
Chrysene	N.D.	ug/l	5	625
Di-n-Butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
Benzo(a,h) anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
1,4-Dimethylphenol	N.D.	ug/l	5	625
Dimethylphthalate	N.D.	ug/l	10	625
4-Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
1,4-Dinitrophenol	N.D.	ug/l	20	625
1,4-Dinitrotoluene	N.D.	ug/l	10	625
1,5-Dinitrotoluene	N.D.	ug/l	10	625
2,2-Diphenylhydrazine	N.D.	ug/l	10	625
Bis(2-ethylhexyl) phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Fluorene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobutadiene	N.D.	ug/l	5	625
1,4-Dichlorocyclopentadiene	N.D.	ug/l	50	625
1,4-Dichloroethane	N.D.	ug/l	5	625
Phosphorone	N.D.	ug/l	5	625

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-8

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M
4-Chloro-3-Methylphenol	N.D.	ug/l	5	6
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	6
N-Nitrosodimethylamine	N.D.	ug/l	5	6
N-Nitrosodiphenylamine	N.D.	ug/l	5	6
Naphthalene	N.D.	ug/l	5	6
Nitrobenzene	N.D.	ug/l	5	6
2-Nitrophenol	N.D.	ug/l	5	6
4-Nitrophenol	N.D.	ug/l	20	6
Pentachlorophenol	N.D.	ug/l	10	6
Phenanthrene	N.D.	ug/l	5	6
Phenol	N.D.	ug/l	10	6
Pyrene	N.D.	ug/l	5	6
1,2,4-Trichlorobenzene	N.D.	ug/l	5	6
2,4,6-Trichlorophenol	N.D.	ug/l	10	6

N.D. - Not Detected

The detection limit of m-xylene for the BTEX analysis was raised due to an interference peak that eluted close to m-xylene.

An NBS library search was performed on the semi-volatile fraction of the sample. See attached sheet for a list of Tentatively Identified Compounds.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT
---------------	--------

**** Continued ****

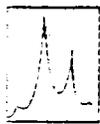


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 326-1323



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 4
Sample # 72395-8

May 17, 1995

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
CHROMATOGRAPH ANALYSES			
RECOVERABLE AROMATICS			
1,1,1-Trifluorotoluene	97	% Recovery	Surrogate
CHROMATOGRAPH MASS SPEC.			
SE/NEUTRALS/ACID COMP + 10			
Fluorobiphenyl	78	% Recovery	Surrogate
Fluorophenol	70	% Recovery	Surrogate
1,2,3,4-Tetrabromobenzene-d5	72	% Recovery	Surrogate
1,2,3,4-Tetrachlorobenzene-d5	75	% Recovery	Surrogate
1,2,3,4-Tetrachlorobenzene-d14	51	% Recovery	Surrogate
1,2,4,6-Tetrachlorobenzene-d14	85	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

James E. Kinne
Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889

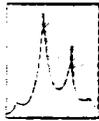
1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005
 Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL159
 Matrix: (soil/water) WATER Lab Sample ID: 72395-8
 Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG312
 Level: (low/med) LOW Date Received: 04/27/99
 % Moisture: not dec. dec. Date Extracted: 05/04/99
 Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/99
 GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/l or ug/Kg) ug/L

Number TICs found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1. 104-76-7	1-Hexanol, 2-ethyl-	7.44	8.00
2. 57-10-3	Hexadecanoic acid	17.47	5.00
3. 10544-50-0	Sulfur, mol. (S8)	18.43	18.00
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-8

Attn: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
COLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:
Number	: 95231-001-001	Date Sampled	: 04/27/95 01:30 PM
Location	: UST-1005-Water Dup	Date Received	: 04/29/95
Sample State	: Water Grab	Date Approved	: 05/17/95
Detector	: ELE	Discard Date	: 05/25/95

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Di-n-Butyl Ether	Cool to 4 Deg. C	TEH	05/05/95	22:35
DETECTABLE AROMATICS	HCl to pH <2	TEH	05/05/95	22:35
SEMI-NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	09:09
Liq Ext for Semi-Volatiles		SLP	05/03/95	



34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Pennsylvania • (610) 640-1323

Maryland • (410) 244-8889

ATTN: Mike Iannicelli
 R E WRIGHT ENVIRONMENTAL
 #18 KOGER EXECUTIVE CENTER
 SUITE 109
 NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:
Job Number	: 95231-001-001	Date Sampled	: 04/27/95 02
Location	: UST-1005-Field Blank	Date Received	: 04/29/95
Sample State	: Water Grab	Date Approved	: 05/17/95
Collector	: ELE	Discard Date	: 05/25/95

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	ME
GAS CHROMATOGRAPH ANALYSES				
Methyl-t-Butyl Ether	N.D.	ug/l	10	60
PURGEABLE AROMATICS				
Benzene	N.D.	ug/l	1	60
Ethylbenzene	N.D.	ug/l	1	60
m-Xylene	N.D.	ug/l	1	60
o-Xylene	N.D.	ug/l	1	60
p-Xylene	N.D.	ug/l	1	60
Toluene	N.D.	ug/l	1	60

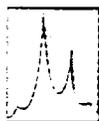
GAS CHROMATOGRAPH MASS SPEC.

BASE/NEUTRALS/ACID COMP + 10				
3,3'-Dichlorobenzidine	N.D.	ug/l	20	60
Acenaphthene	N.D.	ug/l	5	60
Acenaphthylene	N.D.	ug/l	5	60
Anthracene	N.D.	ug/l	5	60
Benzidine	N.D.	ug/l	20	60
Benzo(a)anthracene	N.D.	ug/l	5	60
Benzo(a)pyrene	N.D.	ug/l	5	60

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
 (717) 944-5541 • FAX (717) 944-1430



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 4
Sample # 72395-9

May 17, 1995

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
CHROMATOGRAPH MASS SPEC.			
SE/NEUTRALS/ACID COMP + 10			
Fluorobiphenyl	78	% Recovery	Surrogate
Fluorophenol	66	% Recovery	Surrogate
trobenzene-d5	67	% Recovery	Surrogate
enol-d5	70	% Recovery	Surrogate
rphenyl-d14	92	% Recovery	Surrogate
6-Tribromophenol	81	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

James E. Medina
Laboratory Manager



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Delphia • (610) 640-1323

Maryland • (410) 244-8889

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005
 Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL15
 Matrix: (soil/water) WATER Lab Sample ID: 72395-9
 Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG307
 Level: (low/med) LOW Date Received: 04/27/98
 % Moisture: not dec. dec. Date Extracted: 05/04/98
 Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/98
 GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
(ug/l or ug/Kg) ug/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-9

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION	
			LIMIT	METHOD
benzo (b) fluoranthene	N.D.	ug/l	5	625
benzo (g, h, i) perylene	N.D.	ug/l	10	625
benzo (k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Butylbenzyl Phthalate	N.D.	ug/l	5	625
Benzo (1, 2, 3-cd) pyrene	N.D.	ug/l	10	625
Bis (2-chloroethoxy) methane	N.D.	ug/l	5	625
Bis (2-chloroethyl) ether	N.D.	ug/l	5	625
Bis (2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
Crysene	N.D.	ug/l	5	625
Di-n-Butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
Benzo (a, h) anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
2,4-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
2,4-Dimethylphenol	N.D.	ug/l	5	625
Dimethylphthalate	N.D.	ug/l	10	625
Methyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrophenol	N.D.	ug/l	20	625
2,4-Dinitrotoluene	N.D.	ug/l	10	625
2,6-Dinitrotoluene	N.D.	ug/l	10	625
2-Diphenylhydrazine	N.D.	ug/l	10	625
Bis (2-ethylhexyl) phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Fluorene	N.D.	ug/l	5	625
Hexachlorobenzene	N.D.	ug/l	5	625
Hexachlorobutadiene	N.D.	ug/l	5	625
Hexachlorocyclopentadiene	N.D.	ug/l	50	625
Hexachloroethane	N.D.	ug/l	5	625
Sophorone	N.D.	ug/l	5	625

**** Continued ****

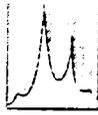


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-9

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M
4-Chloro-3-Methylphenol	N.D.	ug/l	5	6
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	6
N-Nitrosodimethylamine	N.D.	ug/l	5	6
N-Nitrosodiphenylamine	N.D.	ug/l	5	6
Naphthalene	N.D.	ug/l	5	6
Nitrobenzene	N.D.	ug/l	5	6
2-Nitrophenol	N.D.	ug/l	5	6
4-Nitrophenol	N.D.	ug/l	20	6
Pentachlorophenol	N.D.	ug/l	10	6
Phenanthrene	N.D.	ug/l	5	6
Phenol	N.D.	ug/l	10	6
Pyrene	N.D.	ug/l	5	6
1,2,4-Trichlorobenzene	N.D.	ug/l	5	6
2,4,6-Trichlorophenol	N.D.	ug/l	10	6

N.D. - Not Detected

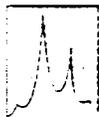
An NBS library search was performed on the semi-volatile fraction of this sample. No other peaks were observed.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
GAS CHROMATOGRAPH ANALYSES			
PURGEABLE AROMATICS			
a,a,a-Trifluorotoluene	85	% Recovery	Surrogate

**** Continued ****



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-9

: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
E 109
CLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:
Number	: 95231-001-001	Date Sampled	: 04/27/95 02:30 PM
Location	: UST-1005-Field Blank	Date Received	: 04/29/95
Sample State	: Water	Date Approved	: 05/17/95
Collector	: ELE	Grab	
		Discard Date	: 05/25/95

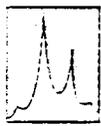
<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
1-t-Butyl Ether	Cool to 4 Deg. C	TEH	05/04/95	02:06
DETECTABLE AROMATICS	HCl to pH <2	TEH	05/04/95	02:06
/NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	05:45
Liq Ext for Semi-Volatiles		SLP	05/03/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-1

ATTN: Mike Iannicelli
R E WRIGHT ENVIRONMENTAL
#18 KOGER EXECUTIVE CENTER
SUITE 109
NORFOLK VA 235024015

May 17, 1995

LAB ANALYSIS REPORT

Job Name	: UST-1005	Customer PO#	:
Job Number	: 95231-001-001	Date Sampled	: 04/27/95
Location	: UST-1005-Trip Blank	Date Received	: 04/29/95
Sample State	: Water Grab	Date Approved	: 05/17/95
Collector	: ELE	Discard Date	: 05/25/95

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT
GAS CHROMATOGRAPH ANALYSES			
Methyl-t-Butyl Ether	N.D.	ug/l	10
PURGEABLE AROMATICS			
Benzene	N.D.	ug/l	1
Ethylbenzene	N.D.	ug/l	1
m-Xylene	N.D.	ug/l	1
o-Xylene	N.D.	ug/l	1
p-Xylene	N.D.	ug/l	1
Toluene	N.D.	ug/l	1
GAS CHROMATOGRAPH MASS SPEC.			
BASE/NEUTRALS/ACID COMP + 10			
3,3'-Dichlorobenzidine	N.D.	ug/l	20
Acenaphthene	N.D.	ug/l	5
Acenaphthylene	N.D.	ug/l	5
Anthracene	N.D.	ug/l	5
Benzidine	N.D.	ug/l	20
Benzo(a)anthracene	N.D.	ug/l	5
Benzo(a)pyrene	N.D.	ug/l	5

**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland •



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 2
Sample # 72395-10

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	METHOD
benzo(b) fluoranthene	N.D.	ug/l	5	625
benzo(g, h, i) perylene	N.D.	ug/l	10	625
benzo(k) fluoranthene	N.D.	ug/l	5	625
Bromophenyl Phenyl Ether	N.D.	ug/l	10	625
Bis(2-ethylhexyl) Phthalate	N.D.	ug/l	5	625
Benzo(a, b) fluoreno(1, 2, 3-cd) pyrene	N.D.	ug/l	10	625
Bis(2-chloroethoxy) methane	N.D.	ug/l	5	625
Bis(2-chloroethyl) ether	N.D.	ug/l	5	625
Bis(2-chloroisopropyl) ether	N.D.	ug/l	5	625
Chloronaphthalene	N.D.	ug/l	5	625
Chlorophenol	N.D.	ug/l	5	625
Chlorophenyl Phenyl Ether	N.D.	ug/l	5	625
Di-n-butyltin diarsene	N.D.	ug/l	5	625
Di-n-butylphthalate	N.D.	ug/l	5	625
Di-n-octylphthalate	N.D.	ug/l	10	625
Benzo(a, h) anthracene	N.D.	ug/l	10	625
1,2-Dichlorobenzene	N.D.	ug/l	5	625
1,3-Dichlorobenzene	N.D.	ug/l	5	625
1,4-Dichlorobenzene	N.D.	ug/l	5	625
1,2-Dichlorophenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
1,3-Dimethylphenol	N.D.	ug/l	5	625
Diethylphthalate	N.D.	ug/l	10	625
1,4-Dimethyl-4,6-Dinitrophenol	N.D.	ug/l	20	625
1,3-Dinitrophenol	N.D.	ug/l	20	625
1,4-Dinitrotoluene	N.D.	ug/l	10	625
1,5-Dinitrotoluene	N.D.	ug/l	10	625
1,2-Diphenylhydrazine	N.D.	ug/l	10	625
Bis(2-ethylhexyl) phthalate	N.D.	ug/l	10	625
Fluoranthene	N.D.	ug/l	5	625
Hexachlorobenzene	N.D.	ug/l	5	625
Hexachlorobutadiene	N.D.	ug/l	5	625
Hexachlorocyclopentadiene	N.D.	ug/l	50	625
Hexachloroethane	N.D.	ug/l	5	625
Hexachlorophorone	N.D.	ug/l	5	625

**** Continued ****

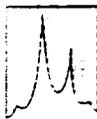


34 Dogwood Lane • Middletown, PA 17057

(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 3
Sample # 72395-10

May 17, 1995

TEST/PARAMETER	RESULT	UNITS	DETECTION LIMIT	M
4-Chloro-3-Methylphenol	N.D.	ug/l	5	6
N-Nitrosodi-n-propylamine	N.D.	ug/l	5	6
N-Nitrosodimethylamine	N.D.	ug/l	5	6
N-Nitrosodiphenylamine	N.D.	ug/l	5	6
Naphthalene	N.D.	ug/l	5	6
Nitrobenzene	N.D.	ug/l	5	6
2-Nitrophenol	N.D.	ug/l	5	6
4-Nitrophenol	N.D.	ug/l	20	6
Pentachlorophenol	N.D.	ug/l	10	6
Phenanthrene	N.D.	ug/l	5	6
Phenol	N.D.	ug/l	10	6
Pyrene	N.D.	ug/l	5	6
1,2,4-Trichlorobenzene	N.D.	ug/l	5	6
2,4,6-Trichlorophenol	N.D.	ug/l	10	6

N.D. - Not Detected

An NBS library search was performed on the semi-volatile fraction of this sample. No other peaks were observed.

This report relates only to the samples as received by the laboratory, and may only be reproduced in full.

QUALITY ASSURANCE REPORT

Q/A PARAMETER	RESULT		
GAS CHROMATOGRAPH ANALYSES			
PURGEABLE AROMATICS			
a,a,a-Trifluorotoluene	96	% Recovery	Surrogat

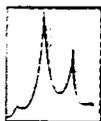
**** Continued ****



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland •



Wright Laboratory

SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 4
Sample # 72395-10

May 17, 1995

QUALITY ASSURANCE REPORT

<u>Q/A PARAMETER</u>	<u>RESULT</u>		
CHROMATOGRAPH MASS SPEC.			
SE/NEUTRALS/ACID COMP + 10			
Fluorobiphenyl	81	% Recovery	Surrogate
Fluorophenol	68	% Recovery	Surrogate
trobenzene-d5	68	% Recovery	Surrogate
enol-d5	73	% Recovery	Surrogate
rphenyl-d14	94	% Recovery	Surrogate
6-Tribromophenol	90	% Recovery	Surrogate

Respectfully Submitted,
WRIGHT LAB SERVICES

James J. Kistner
Laboratory Manager



1F
 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Wright Lab Services, Inc. Contract: UST-1005
 Lab Code: Case No.: N.A. SAS No.: N.A. SDG No.: WL15
 Matrix: (soil/water) WATER Lab Sample ID: 72395-1
 Sample wt/vol: 1000. (g/mL) ML Lab File ID: >HG308
 Level: (low/med) LOW Date Received: 04/27/9
 % Moisture: not dec. dec. Date Extracted: 05/04/9
 Extraction: (SepF,Cont,Sonc) CONT Date Analyzed: 05/10/9
 GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.00

CONCENTRATION UNITS:
 (ug/l or ug/Kg) ug/L

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			



Wright Laboratory SERVICES INC.

ENVIRONMENTAL TESTING LABORATORIES

Page # 1
Sample # 72395-10

To: Mike Iannicelli
WRIGHT ENVIRONMENTAL
KOGER EXECUTIVE CENTER
RTE 109
FOLK VA 235024015

May 17, 1995

DATA PACKAGE FORM

Name	: UST-1005	Customer PO#	:
Number	: 95231-001-001	Date Sampled	: 04/27/95
Location	: UST-1005-Trip Blank	Date Received	: 04/29/95
Sample State	: Water Grab	Date Approved	: 05/17/95
Detector	: ELE	Discard Date	: 05/25/95

<u>TEST/PARAMETER</u>	<u>PRESERVATIVE</u>	<u>TECH</u>	<u>ANALYSIS</u>	
			<u>DATE</u>	<u>TIME</u>
Di-t-Butyl Ether	Cool to 4 Deg. C	TEH	05/04/95	02:46
SEMI-VOLATILE AROMATICS	HCl to pH <2	TEH	05/04/95	02:46
SEMI-VOLATILE NEUTRALS/ACID COMP + 10	Cool to 4 Deg. C	CWW	05/10/95	06:26
Liq Ext for Semi-Volatiles		SLP	05/03/95	



34 Dogwood Lane • Middletown, PA 17057
(717) 944-5541 • FAX (717) 944-1430

Philadelphia • (610) 640-1323

Maryland • (410) 244-8889

APPENDIX D

**LIMITED SITE ASSESSMENT RISK CLASSIFICATION
AND LAND USE FORM QUESTIONNAIRE**

Limited Site Assessment Risk Classification and Land Use Form

List of Previous Environmental Reports

Title	Prepared By	Date
Site Check	R.E. Wright	7/10/95
Closure Report	Laidlaw Environmental	7/01/92

Part I - Groundwater/Surface Water/Vapor Impacts

High Risk

1. Has the discharge or release contaminated any water supply well including any used for non-drinking purposes? **YES/NO**
If yes, explain.

Results of the Site Check and Site Closure Reports indicates that no water supply wells have been impacted by contaminants from UST 1005-2.

2. Is a water supply well used for drinking water located within 1,000 feet of the source area the discharge or release? **YES/NO**

The nearest drinking water supply well is #15, located approximately 2,000 feet west-northwest of the subject site.

3. Is a water supply well used for any purpose (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release or discharge? **YES/NO**

The nearest non-potable water supply well is ACTN1, located approximately 400 feet northeast (upgradient) of the subject site.

4. Does groundwater within 500 feet of the source area of the discharge or release have the potential for future use in that there is no other source of water supply other than the groundwater? **YES/NO**
Explain.

Ground water potentially impacted by UST 1005-2 would be the site surficial aquifer. MCAS drinking water wells are typically screened in deeper aquifers which have better water quality in regard to natural occurring iron, hardness, and sulfide levels.

5. Do vapors from the discharge or release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any other serious threat to public health, public safety or the environment? **YES/NO**
If yes, explain.

A review of the previous environmental reports provides little evidence that the factors associated with UST 1005-2 would result in confined space vapors or pose any other serious threat to public health, public safety or the surrounding environment.

6. Are there any other factors that would cause the discharge or release to pose an imminent danger to public health, public safety, or the environment? **YES/NO**
If yes, explain.

A review of the previous environmental reports provides little evidence to suggest that other factors associated with the UST 1005-2 would pose imminent danger to public health, public safety, or the environment.

Intermediate Risk

7. Is a surface water body located within 500 feet of the source area of the discharge or release? **YES/NO**

A review of the Havelock Quadrangle, USGS Topographic Map reveals the nearest body of water is Sandy Branch Creek approximately 800 feet west of the subject site.

If yes, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B .0200 by a factor of 10? **YES/NO**

8. Is the source area of the discharge or release located within a designated wellhead protection area as defined in 42 USC 300h-7(e)? **YES/NO**
If yes, explain.

The EPA has yet to ratify the draft "Wellhead Protection Program" prepared by the NCDENR. In the current draft program provided by MCAS Cherry Point, the subject site is not located within a wellhead protection area.

9. Is the discharge or release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985? **YES/NO**

The site is within Coastal Plain physiographic region.

If yes, is the source area of the discharge or release located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer that is being used or may be used as a source of drinking water? **YES/NO**

If yes, explain.

Refer to Section 1, Answer 4.

10. Do the levels of groundwater contamination for any contaminant exceed the gross contamination levels established (See Table 7) by the Department. **YES/NO**

Ground water samples were not obtained as part of this investigation.

On April 27, 1997, R.E. Wright Environmental, Inc. (REWEI) performed a Direct Push Technology Site Assessment Vehicle (DPTSAV™) Site Check. As part of this site check, representative ground water samples were obtained at three locations (GW-1, GW-2, and GW-3) for analysis of dissolved purgeable aromatics per EPA Method 602 plus methyl-tert butyl ether (MTBE) and base/neutral and acid extractables (plus 10 largest non-target peaks) per EPA Method 625. A review of the DPTSAV™ Site Check reveals only dissolved benzene concentrations (9 ppb GS-1; 2 ppb GS-2; and 2 ppb GS-3) in excess of NCAC T15A 02L .0202 Groundwater Quality Standards. None of the three samples exhibited EPA Methods 602 and 625 compounds in excess of current GCLs for ground water. Ground water sample analysis per MADEP VPH aliphatics/aromatics and MADEP EPH aliphatics/aromatics was not applicable in the REWEI April 27, 1995 Site Check.

Part II - Land Use

Property Containing Source Area of Discharge or Release

The questions below pertain to the property containing the source area of the release.

1. Does the property contain one or more primary or secondary residences (permanent or temporary)? **YES/NO**
Explain.

The subject site is an Industrial Wastewater Treatment Plant (IWTP) within the Military Aircraft Maintenance and Administration zone of MCAS Cherry Point. The nearest residential area is over 3,000 feet northwest of the subject site.

2. Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly? **YES/NO**
Explain.

The military aircraft maintenance zone does not include any areas of public assembly.

3. Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped? YES/NO
Explain.

The subject site is an Industrial Wastewater Treatment Plant (IWTP).

4. Do children visit the property? YES/NO
Explain.

As an IWTP, children should not visit the site. Any children that happen to visit the site should be accompanied by a parent or guardian.

5. Is access to the property reliably restricted consistent with its use (e.g., fences, security personnel or both)? YES/NO
Explain.

Site restrictions and security are typical for an IWTP and MCAS facility.

6. Do pavement, buildings, or other structures cap the contaminated soil? YES/NO
Explain.

If yes, what mechanisms are in place or can be put into place to ensure that the contaminated soil will remain capped in the foreseeable future?

Low Risk - A low risk classification means that the risk posed by the discharge or release does not meet any of the high or intermediate risk criteria or that, based on site-specific information, the release is shown to pose no significant risk.

7. What is the zoning status of the property?

MCAS Cherry Point is not subject to local, city, or county zoning requirements. However, the site is located within the area developed for Military Aircraft Maintenance and Administration.

8. Is the use of the property likely to change in the next 20 years? YES/NO
Explain.

The current use of this facility is unlikely to change within the foreseeable future.