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NAWC WARMINSTER
5090.3a

Brown & Root Environmental

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C-49-10-6-001

October 1, 1996

Project Number 1412

Mr. Lonnie Monaco, Code 1823
U.S. Department of the Navy
Naval Facilities Engineering Company
Northern Division, Mail Stop 82
10 Industrial Highway
Lester, Pennsylvania 19113-2090

SUBJECT: Technical Memorandum
Site 4 Removal Action
Trench 1 Verification Sampling Results

Dear Mr. Monaco:

The following summarizes the results of the verification sampling performed to date for Trench 1 during the Site 4 Removal Action. The entire trench has not been excavated/sampled, due to the present usage of the western portion of the trench area for equipment operations associated with the Site 4 removal action. A total of 18 samples (including 1 duplicate, TR01-23) have been taken from the trench to date, as shown in the attached sketch map (samples TR01-01 thru TR01-17). No potential hot spot areas were identified, however 4 of the samples taken (plus the duplicate) were analyzed for the full suite of analytical parameters (TCL volatiles and semivolatiles, TAL metals, and pesticides/PCB's) as part of the overall sampling strategy of analyzing 20% of the samples for full TCL/TAL parameters. The remaining samples were analyzed for the indicator parameters, including purgeable halocarbons, PAH's, PCB's, and thallium. Raw analytical data from the lab is attached to this memo.

For the volatile organics analyses (purgeable halocarbons and TCL volatiles), there were no positive detections of any VOC's, thus no actions are required based on the VOC results.

No PAH's above target concentrations were detected in any of the samples, including both target PAH's and PAH's not originally included as target compounds, thus no actions are required due to PAH's.

There was one detection of a pesticide, 4,4'-DDT at 4.5 ug/kg in sample TR01-16. Target cleanup levels were developed for this compound and are as follows:

- PADEP cleanup level - 10 mg/kg
- Risk-based soil ingestion level - 37 mg/kg
- Groundwater protection level - 21 mg/kg

Based on the calculated target levels presented above, the 4,4'-DDT detection is well below any applicable cleanup level, thus no actions are required due to this detection.

C-49-10-6-001

No PCB's were detected at levels approaching the target concentration, thus no actions are needed due to PCB levels.

Thallium detections ranged up to to 3.9 mg/kg. The only detection above the revised target concentration for thallium (2.9 mg/kg, Table 1) was the 3.9 mg/kg detection in sample TR01-23. This sample is a duplicate of sample TR01-17, which had a thallium concentration of 1.4 mg/kg. The average thallium concentration for these two samples is 2.65 mg/kg, which is below the target concentration of 2.9 mg/kg.

For the remaining metals results, the positive detections were screened against NAWC background concentrations, given in Table 2. The metals concentrations that exceeded background (calcium, copper, selenium, and sodium) were compared against the calculated target concentrations (Table 1). Copper in sample TR01-04 (134 mg/kg) exceeded both the background level of 30.6 mg/kg, the PADEP screening level of 100 mg/kg, and the groundwater protection level of 120 mg/kg. There were no other exceedances of target concentrations for metals.

Based on the analytical results, exceedances of target concentrations were limited to copper at sample location TR01-04. Based on the absence of any other indicators of contamination in this sample (which was analyzed for the full TCL/TAL parameters), this minor exceedance is likely to be a background variation that falls outside of the previous background data set rather than an indicator of residual contamination.

If you have any questions regarding the above information or would like to discuss it further, please call me at (412) 921-8778.

Sincerely yours,

Jeffrey P. Orient, P.G.
Project Manager

JPO/sic

Attachments

c: T. Ames
J. Dale
S. Lehman
D. Kennedy
D. Ostrauskas
G. Glenn
N. Teamerson
File 1412

TABLES

TABLE 1

TARGET CLEAN UP CONCENTRATIONS

		PADEP (1)	RISK-BASED (2)(4)	GROUNDWATER PROTECTION (3)(4)	MINIMUM (4)
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Benzo(a)anthracene		6	17	1 5	1 5
Benzo(b)fluoranthene		6	17	4.5	4 5
Benzo(k)fluoranthene		NA	170	45	45
Benzo(ghi)perylene		500	NA	96000	500
Benzo(a)pyrene		0 6	1.7	82	0 6
Acenaphthene		30	76000	630	30
Acenaphthylene		NA	NA	160	160
Anthracene		70	380000	13000	70
Chrysene		500	1700	150	150
Dibenzo(a,h)anthracene		0.8	1.7	1.4	0 6
Fluoranthene		400	50400	6400	400
Fluorene		40	50400	830	40
Indeno(1,2,3, cd)pyrene		6	17	13	6
2 Methylnaphthalene		NA	NA	140	140
Naphthalene		8	50400	140	8
Phenanthrene		80	NA	850	80
Pyrene		300	38000	4600	300
Acetone		0.03	130000	340	0 03
Chlorobenzene		10	26000	3 8	3 6
Methylene chloride		0 3	1700	0 46	0 3
Aluminum		NA	1300000	3400	3400
Antimony		30	504	5.4	5 4
Arsenic		3	8.4	29	3
Barium		5000	88000	1700	1700
Beryllium		1	2.9	83	1
Cadmium		20	630	7 5	7.5
Calcium		NA	NA	NA	NA
Chromium		10	6300	38	10
Cobalt		NA	78000	202	202
Copper		100	50400	120	100
Iron		NA	380000	1010	1010
Lead		200	NA	1.4	1 4
Magnesium		NA	NA	NA	NA
Manganese		400	29000	77	77
Mercury		20	380	2 1	2 1
Nickel		200	25000	130	130
Potassium		NA	NA	NA	NA
Selenium		50	6300	5.2	5 2
Silver		400	6300	31	31
Sodium		NA	NA	NA	NA
Thallium		6	101	2.9	2 9
Vanadium		NA	8800	5200	5200
Zinc		1000	380000	14000	1000

FOOTNOTES

(1) Values presented are from the "Technical Manual , Pennsylvania's Land Recycling, Revison 1 to Appendix 82 (Statewide Human Health Standards for Soils)," 4/26/96.

(2) USEPA Region III Risk-Based Concentration Table, January-June 1996

(3) Three references "Soil Screening Guidance: User's Guide", April 1996, "Aquatic Fate Process Data for Organic Priority Pollutants" , USEPA, 1982 and the " Drinking Water Regulations and Health Advisories", February 1996 were used to obtain groundwater protection values.

(4) Values were presented with two significant figures

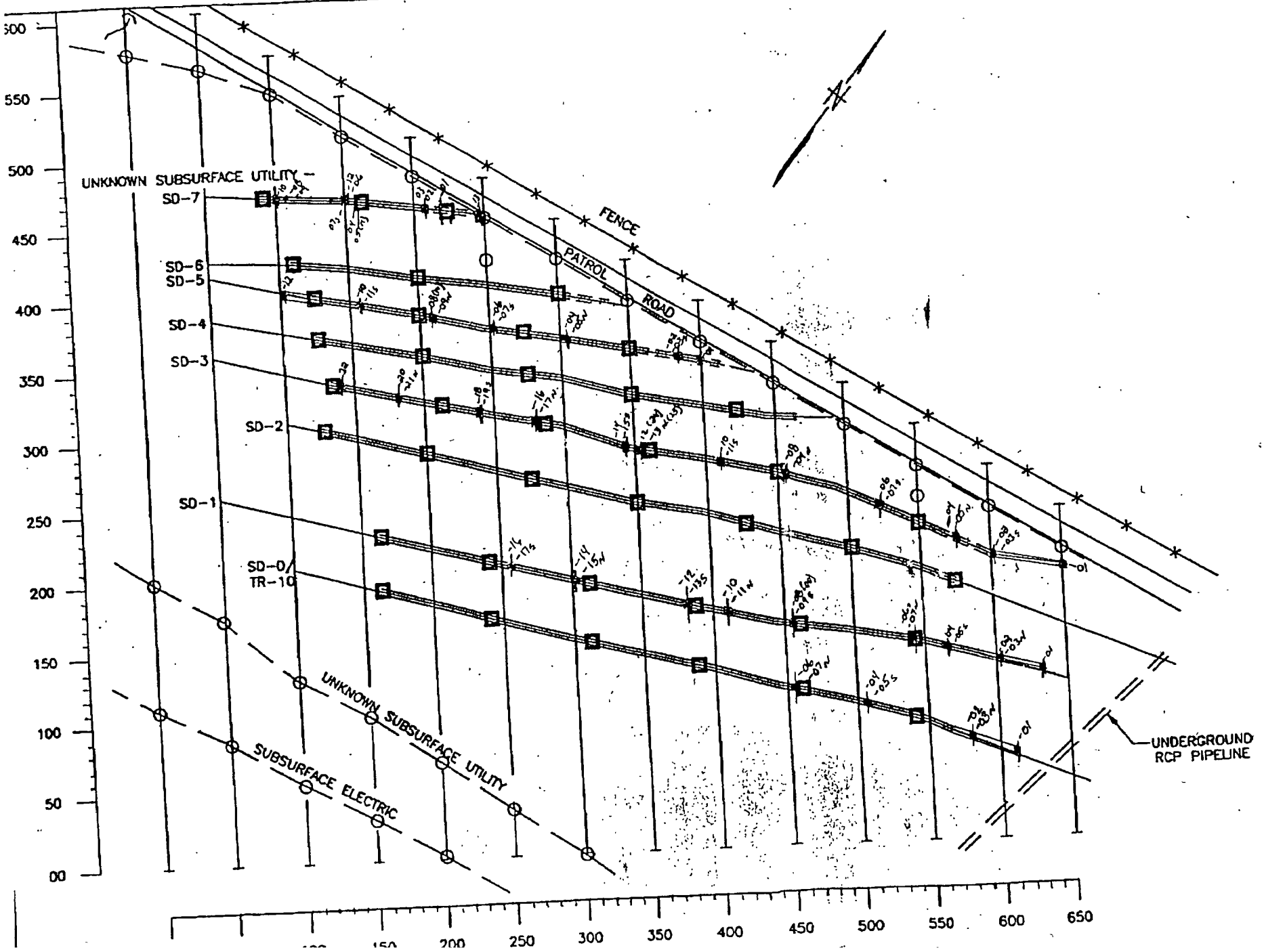
TABLE 2
BACKGROUND SOIL SAMPLING RESULTS

ANALYTE	AREA B/SITE 4 RANGE	ENERAL BACKGROUN RANGE	COMBINED RANGES
ALUMINUM	4780 - 17500	11200 - 18100	4780 - 18100
ANTIMONY	13.6 - 13.6	NA	13.6
ARSENIC	0.28 - 6.1	3.7 - 12.1	0.28 - 12.1
BARIUM	34.6 - 225	34.1 - 115	34.1 - 225
BERYLLIUM	0.31 - 1.7	0.64 - 1.1	0.31 - 1.7
CADMIUM	NOT DETECTED	NOT DETECTED	NA
CALCIUM	240 - 1910	520 - 1100	240 - 1910
CHROMIUM	7.9 - 25	12 - 35.3	7.9 - 35.3
COBALT	1.6 - 21.1	6.2 - 14.4	1.6 - 21.1
COPPER	3.6 - 30.6	6.5 - 22.7	3.6 - 30.6
IRON	6980 - 28900	14400 - 39900	6980 - 39900
LEAD	1.6 - 23.5	6.7 - 96.5	1.6 - 96.5
MAGNESIUM	518 - 4960	1810 - 3080	518 - 4960
MANGANESE	30.9 - 2010	124 - 718	30.9 - 2010
MERCURY	0.25 - 0.25	NOT DETECTED	0.25 - 0.25
NICKEL	4.1 - 19.1	8.1 - 17.5	4.1 - 19.1
POTASSIUM	89.1 - 3050	465 - 1240	89.1 - 3050
SELENIUM	NOT DETECTED	NOT DETECTED	NA
SILVER	NOT DETECTED	NA	NA
SODIUM	55.2 - 86.7	NOT DETECTED	55.2 - 86.7
THALLIUM	0.42 - 0.42	NA	0.42 - 0.42
VANADIUM	15.7 - 37.9	18.1 - 45	15.7 - 45
ZINC	9.0 - 48.6	19.6 - 60	9.0 - 60
CYANIDE	NOT DETECTED	NA	NA

SAMPLE LOCATION MAP

■ = Sidewall sample

9-12-96



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LEGE

SD-1

Φ ?

TRENC

TRENCH

SD-7
SD-6
SD-5
SD-4
SD-3
SD-2
SD-1

SD-0/TR-

EXCEP

TRENCH
NEITHER
DEMOLITIC

P.2/4

CALCULATION WORKSHEET Order No. 19116 (01-91)

PAGE _____ OF _____

CLIENT		JOB NUMBER	
SUBJECT	TR01 - Sample locations		
BASED ON		DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE

	Profile	Station
TR01-01 western	635	120
TR01-02	602	128
TR01-03 nor.	602	133
TR01-04	566	140
TR01-06 sou.	542	142
TR01-07 nor.	542	155
TR01-08 (ou)	457	160
TR01-09 sou.	457	155
TR01-05 sou.	566	135
TR01-10	410	170
TR01-11 nor.	410	175
TR01-12	383	178
TR01-13 sou.	383	173
TR01-14	303	195
TR01-15 nor.	303	200
TR01-16	258	205
TR01-17 sou.	258	200
TR01-23 ← (Dup of TR01-17)	258	200

ANALYTICAL RESULTS

Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - TCL VOLATILE ORGANICS						
1,2-Dichloroethane-D4	80-120	NA	NA	NA	NA	90

Analyte (UG/KG)	RL	Result		Result		Result		Result		Result
METHOD 8260 - PURGEABLE HALOCARBONS										
Bromodichloromethane	5	5	U	5	U	5	U	5	U	NA
Bromoform	5	5	U	5	U	5	U	5	U	NA
Bromomethane	10	10	U	10	U	10	U	10	U	NA
Carbon Tetrachloride	5	5	U	5	U	5	U	5	U	NA
Chlorobenzene	5	5	U	5	U	5	U	5	U	NA
Chloroethane	10	10	U	10	U	10	U	10	U	NA
2-Chloroethylvinyl ether	10	10	U	10	U	10	U	10	U	NA
Chloroform	5	2	BJ	2	BJ	2	BJ	2	BJ	NA
Chloromethane	10	10	U	10	U	10	U	10	U	NA
Dibromochloromethane	5	5	U	5	U	5	U	5	U	NA
1,2-Dichlorobenzene	5	5	U	5	U	5	U	5	U	NA
1,3-Dichlorobenzene	5	5	U	5	U	5	U	5	U	NA
1,4-Dichlorobenzene	5	5	U	5	U	5	U	5	U	NA
1,1-Dichloroethane	5	5	U	5	U	5	U	5	U	NA
1,2-Dichloroethane	5	5	U	5	U	5	U	5	U	NA
1,1-Dichloroethene	5	5	U	5	U	5	U	5	U	NA
cis-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	NA
trans-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	NA
1,2-Dichloropropane	5	5	U	5	U	5	U	5	U	NA
cis-1,3-Dichloropropene	5	5	U	5	U	5	U	5	U	NA
trans-1,3-Dichloropropene	5	5	U	5	U	5	U	5	U	NA
Methylene chloride	5	5	U	5	U	5	U	5	U	NA
1,1,2,2-Tetrachloroethane	5	5	U	5	U	5	U	5	U	NA
Tetrachloroethene	5	5	U	5	U	5	U	5	U	NA
1,1,1-Trichloroethane	5	5	U	5	U	5	U	5	U	NA
1,1,2-Trichloroethane	5	5	U	5	U	5	U	5	U	NA
Trichloroethene	5	5	U	5	U	5	U	5	U	NA
Trichlorofluoromethane	5	5	U	5	U	5	U	5	U	NA
Vinyl chloride	10	10	U	10	U	10	U	10	U	NA
INTERNAL STANDARDS										
Bromochloromethane	50-200	74		77		100		95		NA
1,4-Difluorobenzene	50-200	72		71		96		87		NA
Chlorobenzene-D5	50-200	65		69		88		85		NA
SURROGATES										
Toluene-D8	81-117	97		96		102		95		NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:00 ☐ 004/015

Date: 09/04/96
Time: 16:51:27

ANALYTICAL RESULTS

Rept: AN0353
Page: 1

Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - TCL VOLATILE ORGANICS						
Acetone	10	NA	NA	NA	NA	10 U
Benzene	5	NA	NA	NA	NA	5 U
Bromodichloromethane	5	NA	NA	NA	NA	5 U
Bromoform	5	NA	NA	NA	NA	5 U
Bromomethane	10	NA	NA	NA	NA	10 U
2-Butanone	10	NA	NA	NA	NA	10 U
Carbon Disulfide	5	NA	NA	NA	NA	5 U
Carbon Tetrachloride	5	NA	NA	NA	NA	5 U
Chlorobenzene	5	NA	NA	NA	NA	5 U
Chloroethane	10	NA	NA	NA	NA	10 U
Chloroform	5	NA	NA	NA	NA	2 BJ
Chloromethane	10	NA	NA	NA	NA	10 U
Dibromochloromethane	5	NA	NA	NA	NA	5 U
1,1-Dichloroethane	5	NA	NA	NA	NA	5 U
1,2-Dichloroethane	5	NA	NA	NA	NA	5 U
1,1-Dichloroethene	5	NA	NA	NA	NA	5 U
cis-1,2-Dichloroethene	5	NA	NA	NA	NA	5 U
trans-1,2-Dichloroethene	5	NA	NA	NA	NA	5 U
1,2-Dichloropropane	5	NA	NA	NA	NA	5 U
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	5 U
trans-1,3-Dichloropropene	5	NA	NA	NA	NA	5 U
Ethylbenzene	5	NA	NA	NA	NA	5 U
2-Hexanone	10	NA	NA	NA	NA	10 U
Methylene chloride	5	NA	NA	NA	NA	5 U
4-Methyl-2-pentanone	10	NA	NA	NA	NA	10 U
Styrene	5	NA	NA	NA	NA	5 U
1,1,2,2-Tetrachloroethane	5	NA	NA	NA	NA	5 U
Tetrachloroethene	5	NA	NA	NA	NA	5 U
Toluene	5	NA	NA	NA	NA	5 U
1,1,1-Trichloroethane	5	NA	NA	NA	NA	5 U
1,1,2-Trichloroethane	5	NA	NA	NA	NA	5 U
Trichloroethene	5	NA	NA	NA	NA	5 U
Vinyl acetate	10	NA	NA	NA	NA	10 U
Vinyl chloride	10	NA	NA	NA	NA	10 U
Total Xylenes	15	NA	NA	NA	NA	15 U
INTERNAL STANDARDS						
Bromochloromethane	50-200	NA	NA	NA	NA	87
1,4-Difluorobenzene	50-200	NA	NA	NA	NA	83
Chlorobenzene-D5	50-200	NA	NA	NA	NA	80
SURROGATES						
Toluene-D8	81-117	NA	NA	NA	NA	99
p-Bromofluorobenzene	74-121	NA	NA	NA	NA	91

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - PURGEABLE HALOCARBONS						
p-Bromofluorobenzene	74-121	89	88	91	86	NA
1,2-Dichloroethane-D4	80-120	89	86	91	88	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/01/96 17:01 ☑003/013

Client Sample ID:		W-TR01-05		W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709		A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96		08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result		Result	Result	Result	Result
METHOD 8260 - TCL VOLATILE ORGANICS							
Acetone	10	10	U	NA	NA	NA	NA
Benzene	5	5	U	NA	NA	NA	NA
Bromodichloromethane	5	5	U	NA	NA	NA	NA
Bromoform	5	5	U	NA	NA	NA	NA
Bromomethane	10	10	U	NA	NA	NA	NA
2-Butanone	10	10	U	NA	NA	NA	NA
Carbon Disulfide	5	5	U	NA	NA	NA	NA
Carbon Tetrachloride	5	5	U	NA	NA	NA	NA
Chlorobenzene	5	5	U	NA	NA	NA	NA
Chloroethane	10	10	U	NA	NA	NA	NA
Chloroform	5	2	BJ	NA	NA	NA	NA
Chloromethane	10	10	U	NA	NA	NA	NA
Dibromochloromethane	5	5	U	NA	NA	NA	NA
1,1-Dichloroethane	5	5	U	NA	NA	NA	NA
1,2-Dichloroethane	5	5	U	NA	NA	NA	NA
1,1-Dichloroethene	5	5	U	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	5	U	NA	NA	NA	NA
trans-1,2-Dichloroethene	5	5	U	NA	NA	NA	NA
1,2-Dichloropropane	5	5	U	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	5	U	NA	NA	NA	NA
trans-1,3-Dichloropropene	5	5	U	NA	NA	NA	NA
Ethylbenzene	5	5	U	NA	NA	NA	NA
2-Hexanone	10	10	U	NA	NA	NA	NA
Methylene chloride	5	5	U	NA	NA	NA	NA
4-Methyl-2-pentanone	10	10	U	NA	NA	NA	NA
Styrene	5	5	U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	5	U	NA	NA	NA	NA
Tetrachloroethene	5	5	U	NA	NA	NA	NA
Toluene	5	5	U	NA	NA	NA	NA
1,1,1-Trichloroethane	5	5	U	NA	NA	NA	NA
1,1,2-Trichloroethane	5	5	U	NA	NA	NA	NA
Trichloroethene	5	5	U	NA	NA	NA	NA
Vinyl acetate	10	10	U	NA	NA	NA	NA
Vinyl chloride	10	10	U	NA	NA	NA	NA
Total Xylenes	15	15	U	NA	NA	NA	NA
INTERNAL STANDARDS							
Bromochloromethane	50-200	82		NA	NA	NA	NA
1,4-Difluorobenzene	50-200	76		NA	NA	NA	NA
Chlorobenzene-D5	50-200	74		NA	NA	NA	NA
SURROGATES							
Toluene-D8	81-117	95		NA	NA	NA	NA
p-Bromofluorobenzene	74-121	89		NA	NA	NA	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:01 ☎ 006/010

Client Sample ID: / Job Number & Lab Sample ID: / Sample Date:		W-TR01-05 A96-4207 A6420709 08/29/96	W-TR01-06 A96-4207 A6420705 08/29/96	W-TR01-07 A96-4207 A6420706 08/29/96	W-TR01-08 A96-4207 A6420707 08/29/96	W-TR01-09 A96-4207 A6420708 08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - TCL VOLATILE ORGANICS						
1,2-Dichloroethane-D4	80-120	92	NA	NA	NA	NA

Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - PURGEABLE HALOCARBONS						
Bromodichloromethane	5	NA	5 U	5 U	5 U	5 U
Bromoform	5	NA	5 U	5 U	5 U	5 U
Bromomethane	10	NA	10 U	10 U	10 U	10 U
Carbon Tetrachloride	5	NA	5 U	5 U	5 U	5 U
Chlorobenzene	5	NA	5 U	5 U	5 U	5 U
Chloroethane	10	NA	10 U	10 U	10 U	10 U
2-Chloroethylvinyl ether	10	NA	10 U	10 U	10 U	10 U
Chloroform	5	NA	2 BJ	2 BJ	2 BJ	2 BJ
Chloromethane	10	NA	10 U	10 U	10 U	10 U
Dibromochloromethane	5	NA	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	5	NA	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	5	NA	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	5	NA	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5	NA	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5	NA	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5	NA	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5	NA	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5	NA	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5	NA	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5	NA	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5	NA	5 U	5 U	5 U	5 U
Methylene chloride	5	NA	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	NA	5 U	5 U	5 U	5 U
Tetrachloroethene	5	NA	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	5	NA	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5	NA	5 U	5 U	5 U	5 U
Trichloroethene	5	NA	5 U	5 U	5 U	5 U
Trichlorofluoromethane	5	NA	5 U	5 U	5 U	5 U
Vinyl chloride	10	NA	10 U	10 U	10 U	10 U
INTERNAL STANDARDS						
Bromochloromethane	50-200	NA	95	93	92	100
1,4-Difluorobenzene	50-200	NA	96	88	85	93
Chlorobenzene-D5	50-200	NA	92	83	77	95
SURROGATES						
Toluene-D8	81-117	NA	100	97	96	97

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:02 007/018

ANALYTICAL RESULTS

Client Sample ID:		W-TR01-05	W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709	A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8260 - PURGEABLE HALOCARBONS						
p-Bromofluorobenzene	74-121	NA	88	90	88	87
1,2-Dichloroethane-D4	80-120	NA	89	89	90	93

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:03

ANALYTICAL RESULTS

Client Sample ID:		W-TR01-10		W-TR01-11		W-TR01-12		W-TR01-13		W-TR01-14	
Job Number & Lab Sample ID:		A96-4339 A6433901		A96-4339 A6433902		A96-4339 A6433903		A96-4339 A6433904		A96-4339 A6433905	
Sample Date:		09/05/96		09/05/96		09/05/96		09/05/96		09/05/96	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8260 - PURGEABLE HALOCARBONS											
Bromodichloromethane	5	5	U	5	U	5	U	5	U	5	U
Bromoform	5	5	U	5	U	5	U	5	U	5	U
Bromomethane	10	10	U	10	U	10	U	10	U	10	U
Carbon Tetrachloride	5	5	U	5	U	5	U	5	U	5	U
Chlorobenzene	5	5	U	5	U	5	U	5	U	5	U
Chloroethane	10	10	U	10	U	10	U	10	U	10	U
2-Chloroethylvinyl ether	10	10	U	10	U	10	U	10	U	10	U
Chloroform	5	5	U	5	U	5	U	5	U	5	U
Chloromethane	10	10	U	10	U	10	U	10	U	10	U
Dibromochloromethane	5	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	5	5	U	5	U	5	U	5	U	5	U
1,3-Dichlorobenzene	5	5	U	5	U	5	U	5	U	5	U
1,4-Dichlorobenzene	5	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethane	5	5	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane	5	5	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene	5	5	U	5	U	5	U	5	U	5	U
cis-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	5	U
trans-1,2-Dichloroethene	5	5	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane	5	5	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene	5	5	U	5	U	5	U	5	U	5	U
trans-1,3-Dichloropropene	5	5	U	5	U	5	U	5	U	5	U
Methylene chloride	5	4	BJ	4	BJ	4	BJ	4	BJ	3	BJ
1,1,2,2-Tetrachloroethane	5	5	U	5	U	5	U	5	U	5	U
Tetrachloroethene	5	5	U	5	U	5	U	5	U	5	U
1,1,1-Trichloroethane	5	5	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane	5	5	U	5	U	5	U	5	U	5	U
Trichloroethene	5	5	U	5	U	5	U	5	U	5	U
Trichlorofluoromethane	5	5	U	5	U	5	U	5	U	5	U
Vinyl chloride	10	10	U	10	U	10	U	10	U	10	U
INTERNAL STANDARDS											
Bromochloromethane	50-200	103		105		101		106		106	
1,4-Difluorobenzene	50-200	102		104		100		104		102	
Chlorobenzene-D5	50-200	94		103		99		102		98	
SURROGATES											
Toluene-D8	81-117	100		98		98		100		99	
p-Bromofluorobenzene	74-121	91		95		94		95		91	
1,2-Dichloroethane-D4	80-120	98		97		96		95		96	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:19 ☎ 005/009

Client Sample ID:	W-TR01-15
Job Number & Lab Sample ID:	A96-4339 A6433906
Sample Date:	09/05/96

Analyte (UG/KG)	RL	Result	
METHOD 8260 - PURGEABLE HALOCARBONS			
Bromodichloromethane	5	5	U
Bromoform	5	5	U
Bromomethane	10	10	U
Carbon Tetrachloride	5	5	U
Chlorobenzene	5	5	U
Chloroethane	10	10	U
2-Chloroethylvinyl ether	10	10	U
Chloroform	5	5	U
Chloromethane	10	10	U
Dibromochloromethane	5	5	U
1,2-Dichlorobenzene	5	5	U
1,3-Dichlorobenzene	5	5	U
1,4-Dichlorobenzene	5	5	U
1,1-Dichloroethane	5	5	U
1,2-Dichloroethane	5	5	U
1,1-Dichloroethene	5	5	U
cis-1,2-Dichloroethene	5	5	U
trans-1,2-Dichloroethene	5	5	U
1,2-Dichloropropane	5	5	U
cis-1,3-Dichloropropene	5	5	U
trans-1,3-Dichloropropene	5	5	U
Methylene chloride	5	3	BJ
1,1,2,2-Tetrachloroethane	5	5	U
Tetrachloroethene	5	5	U
1,1,1-Trichloroethane	5	5	U
1,1,2-Trichloroethane	5	5	U
Trichloroethene	5	5	U
Trichlorofluoromethane	5	5	U
Vinyl chloride	10	10	U
INTERNAL STANDARDS			
Bromochloromethane	50-200	105	
1,4-Difluorobenzene	50-200	100	
Chlorobenzene-D5	50-200	99	
SURROGATES			
Toluene-D8	81-117	99	
p-Bromofluorobenzene	74-121	95	
1,2-Dichloroethane-D4	80-120	98	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:20 P.02
09/09/96

Client Sample ID: / Job Number & Lab Sample ID: / Sample Date:		Matrix Spike Blank A96-4339 A6433909	W-RB-090596 A96-4339 A6433907 09/05/96	VBLK27 A96-4339 A6433908	VBLK27 A96-4339 A6433910	
Analyte (UG/L)	RL	Result	Result	Result	Result	
METHOD 8260 - PURGEABLE HALOCARBONS						
Bromodichloromethane	5.0	NA	5.0 U	5.0 U	NA	
Bromoform	5.0	NA	5.0 U	5.0 U	NA	
Bromomethane	10	NA	10 U	10 U	NA	
Carbon Tetrachloride	5.0	NA	5.0 U	5.0 U	NA	
Chlorobenzene	5.0	NA	5.0 U	5.0 U	NA	
Chloroethane	10	NA	10 U	10 U	NA	
2-Chloroethylvinyl ether	10	NA	10 U	10 U	NA	
Chloroform	5.0	NA	5.0 U	5.0 U	NA	
Chloromethane	10	NA	10 U	10 U	NA	
Dibromochloromethane	5.0	NA	5.0 U	5.0 U	NA	
1,2-Dichlorobenzene	5.0	NA	5.0 U	5.0 U	NA	
1,3-Dichlorobenzene	5.0	NA	5.0 U	5.0 U	NA	
1,4-Dichlorobenzene	5.0	NA	5.0 U	5.0 U	NA	
1,1-Dichloroethane	5.0	NA	5.0 U	5.0 U	NA	
1,2-Dichloroethane	5.0	NA	5.0 U	5.0 U	NA	
1,1-Dichloroethene	5.0	NA	5.0 U	5.0 U	NA	
trans-1,2-Dichloroethene	5.0	NA	5.0 U	5.0 U	NA	
cis-1,2-Dichloroethene	5.0	NA	5.0 U	5.0 U	NA	
1,2-Dichloropropane	5.0	NA	5.0 U	5.0 U	NA	
cis-1,3-Dichloropropene	5.0	NA	5.0 U	5.0 U	NA	
trans-1,3-Dichloropropene	5.0	NA	5.0 U	5.0 U	NA	
Methylene chloride	5.0	NA	1.5 BJ	1.8 J	NA	
1,1,2,2-Tetrachloroethane	5.0	NA	5.0 U	5.0 U	NA	
Tetrachloroethene	5.0	NA	5.0 U	5.0 U	NA	
1,1,1-Trichloroethane	5.0	NA	5.0 U	5.0 U	NA	
1,1,2-Trichloroethane	5.0	NA	5.0 U	5.0 U	NA	
Trichloroethene	5.0	NA	5.0 U	5.0 U	NA	
Trichlorofluoromethane	5.0	NA	5.0 U	5.0 U	NA	
Vinyl chloride	10	NA	10 U	10 U	NA	
INTERNAL STANDARDS						
Bromochloromethane	50-200	NA	53	56	NA	
1,4-Difluorobenzene	50-200	NA	54	57	NA	
Chlorobenzene-D5	50-200	NA	52	56	NA	
SURROGATES						
Toluene-D8	88-110	NA	98	98	NA	
p-Bromofluorobenzene	86-115	NA	93	93	NA	
1,2-Dichloroethane-D4	80-120	NA	98	97	NA	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:21 008/008

Client Sample ID:		W-TR00-06		W-TR00-07		W-TR01-16		W-TR01-17		W-TR01-23	
Job Number & Lab Sample ID:		A96-4499 A6449906		A96-4499 A6449907		A96-4499 A6449908		A96-4499 A6449909		A96-4499 A6449910	
Sample Date:		09/12/96		09/12/96		09/12/96		09/12/96		09/12/96	
TCLP Date/HT Met:						-	-	-	-	-	-
Extraction Date/HT Met:						-	-	-	-	-	-
Analysis Date/Ht Met:						09/13/96 23:58	YES	09/14/96 01:07	YES	09/14/96 00:32	YES
Dilution Factor:						1.0		1.0		1.0	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8260 - TCL VOLATILE ORGANICS											
Acetone	10	NA		NA		10	U	10	U	10	U
Benzene	5	NA		NA		5	U	5	U	5	U
Bromodichloromethane	5	NA		NA		5	U	5	U	5	U
Bromoform	5	NA		NA		5	U	5	U	5	U
Bromomethane	10	NA		NA		10	U	10	U	10	U
2-Butanone	10	NA		NA		10	U	10	U	10	U
Carbon Disulfide	5	NA		NA		5	U	5	U	5	U
Carbon Tetrachloride	5	NA		NA		5	U	5	U	5	U
Chlorobenzene	5	NA		NA		5	U	5	U	5	U
Chloroethane	10	NA		NA		10	U	10	U	10	U
Chloroform	5	NA		NA		5	U	5	U	5	U
Chloromethane	10	NA		NA		10	U	10	U	10	U
Dibromochloromethane	5	NA		NA		5	U	5	U	5	U
1,1-Dichloroethane	5	NA		NA		5	U	5	U	5	U
1,2-Dichloroethane	5	NA		NA		5	U	5	U	5	U
1,1-Dichloroethene	5	NA		NA		5	U	5	U	5	U
cis-1,2-Dichloroethene	5	NA		NA		5	U	5	U	5	U
trans-1,2-Dichloroethene	5	NA		NA		5	U	5	U	5	U
1,2-Dichloropropane	5	NA		NA		5	U	5	U	5	U
cis-1,3-Dichloropropene	5	NA		NA		5	U	5	U	5	U
trans-1,3-Dichloropropene	5	NA		NA		5	U	5	U	5	U
Ethylbenzene	5	NA		NA		5	U	5	U	5	U
2-Hexanone	10	NA		NA		10	U	10	U	10	U
Methylene chloride	5	NA		NA		4	BJ	4	BJ	4	BJ
4-Methyl-2-pentanone	10	NA		NA		10	U	10	U	10	U
Styrene	5	NA		NA		5	U	5	U	5	U
1,1,2,2-Tetrachloroethane	5	NA		NA		5	U	5	U	5	U
Tetrachloroethene	5	NA		NA		5	U	5	U	5	U
Toluene	5	NA		NA		5	U	5	U	5	U
1,1,1-Trichloroethane	5	NA		NA		5	U	5	U	5	U
1,1,2-Trichloroethane	5	NA		NA		5	U	5	U	5	U
Trichloroethene	5	NA		NA		5	U	5	U	5	U
Vinyl acetate	10	NA		NA		10	U	10	U	10	U
Vinyl chloride	10	NA		NA		10	U	10	U	10	U
Total Xylenes	15	NA		NA		15	U	15	U	15	U
INTERNAL STANDARDS											
Bromochloromethane	50-200	NA		NA		113		97		114	
1,4-Difluorobenzene	50-200	NA		NA		103		95		116	
Chlorobenzene-D5	50-200	NA		NA		96		94		112	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/18/96 15:30 ☎ 005/025

Client Sample ID:		W-TR01-00		W-TR01-01		W-TR01-02		W-TR01-03		W-TR01-04	
Job Number & Lab Sample ID:		A96-4207 A6420710		A96-4207 A6420701		A96-4207 A6420702		A96-4207 A6420703		A96-4207 A6420704	
Sample Date:		08/29/96		08/29/96		08/29/96		08/29/96		08/29/96	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS											
Acenaphthene	330	330	U	330	U	330	U	330	U	NA	
Acenaphthylene	330	330	U	330	U	330	U	330	U	NA	
Anthracene	330	330	U	330	U	330	U	330	U	NA	
Benzo(a)anthracene	330	330	U	330	U	330	U	330	U	NA	
Benzo(b)fluoranthene	330	330	U	330	U	330	U	330	U	NA	
Benzo(k)fluoranthene	330	330	U	330	U	330	U	330	U	NA	
Benzo(ghi)perylene	330	330	U	330	U	330	U	330	U	NA	
Benzo(a)pyrene	330	330	U	330	U	330	U	330	U	NA	
Chrysene	330	330	U	330	U	330	U	330	U	NA	
Dibenzo(a,h)anthracene	330	330	U	330	U	330	U	330	U	NA	
Fluoranthene	330	330	U	330	U	330	U	330	U	NA	
Fluorene	330	330	U	330	U	330	U	330	U	NA	
Indeno(1,2,3-cd)pyrene	330	330	U	330	U	330	U	330	U	NA	
2-Methylnaphthalene	330	330	U	330	U	330	U	330	U	NA	
Naphthalene	330	330	U	330	U	330	U	330	U	NA	
Phenanthrene	330	330	U	330	U	330	U	330	U	NA	
Pyrene	330	330	U	330	U	330	U	330	U	NA	
INTERNAL STANDARDS											
1,4-Dichlorobenzene-D4	50-200	105		107		106		110		NA	
Naphthalene-D8	50-200	110		111		108		114		NA	
Acenaphthene-D10	50-200	105		110		106		109		NA	
Phenanthrene-D10	50-200	109		112		108		112		NA	
Chrysene-D12	50-200	114		106		101		110		NA	
Perylene-D12	50-200	120		112		109		117		NA	
SURROGATES											
Nitrobenzene-D5	23-120	71		41		37		54		NA	
2-Fluorobiphenyl	30-115	83		44		42		63		NA	
Terphenyl-D14	18-137	90		85		93		94		NA	
Phenol-D5	24-113	71		42		37		57		NA	
2-Fluorophenol	25-121	66		38		34		54		NA	
2,4,6-Tribromophenol	19-122	101		54		60		87		NA	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/05/96 10:29 009/015

Date: 09/05/96
Time: 09:22:36

AHALYTICAL RESULTS

Rept: AN0353
Page: 1

Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS						
Acenaphthene	330	NA	NA	NA	NA	330 U
Acenaphthylene	330	NA	NA	NA	NA	330 U
Anthracene	330	NA	NA	NA	NA	330 U
Benzo(a)anthracene	330	NA	NA	NA	NA	330 U
Benzo(b)fluoranthene	330	NA	NA	NA	NA	330 U
Benzo(k)fluoranthene	330	NA	NA	NA	NA	330 U
Benzo(ghi)perylene	330	NA	NA	NA	NA	330 U
Benzo(a)pyrene	330	NA	NA	NA	NA	330 U
Benzoic acid	1600	NA	NA	NA	NA	1600 U
Benzyl alcohol	330	NA	NA	NA	NA	330 U
Bis(2-chloroethoxy) methane	330	NA	NA	NA	NA	330 U
Bis(2-chloroethyl) ether	330	NA	NA	NA	NA	330 U
Bis(2-chloroisopropyl) ether	330	NA	NA	NA	NA	330 U
Bis(2-ethylhexyl) phthalate	330	NA	NA	NA	NA	330 U
4-Bromophenyl phenyl ether	330	NA	NA	NA	NA	330 U
Butyl benzyl phthalate	330	NA	NA	NA	NA	330 U
4-Chloroaniline	330	NA	NA	NA	NA	330 U
4-Chloro-3-methylphenol	330	NA	NA	NA	NA	330 U
2-Chloronaphthalene	330	NA	NA	NA	NA	330 U
2-Chlorophenol	330	NA	NA	NA	NA	330 U
4-Chlorodiphenylether	330	NA	NA	NA	NA	330 U
Chrysene	330	NA	NA	NA	NA	330 U
Dibenzo(a,h)anthracene	330	NA	NA	NA	NA	330 U
Dibenzofuran	330	NA	NA	NA	NA	330 U
Di-n-butyl phthalate	330	NA	NA	NA	NA	330 U
1,2-Dichlorobenzene	330	NA	NA	NA	NA	330 U
1,3-Dichlorobenzene	330	NA	NA	NA	NA	330 U
1,4-Dichlorobenzene	330	NA	NA	NA	NA	330 U
3,3'-Dichlorobenzidine	660	NA	NA	NA	NA	660 U
2,4-Dichlorophenol	330	NA	NA	NA	NA	330 U
Diethyl phthalate	330	NA	NA	NA	NA	330 U
2,4-Dimethylphenol	330	NA	NA	NA	NA	330 U
Dimethyl phthalate	330	NA	NA	NA	NA	330 U
4,6-Dinitro-2-methylphenol	1600	NA	NA	NA	NA	1600 U
2,4-Dinitrophenol	1600	NA	NA	NA	NA	1600 U
2,4-Dinitrotoluene	330	NA	NA	NA	NA	330 U
2,6-Dinitrotoluene	330	NA	NA	NA	NA	330 U
Di-n-octyl phthalate	330	NA	NA	NA	NA	330 U
Fluoranthene	330	NA	NA	NA	NA	330 U
Fluorene	330	NA	NA	NA	NA	330 U
Hexachlorobenzene	330	NA	NA	NA	NA	330 U
Hexachlorobutadiene	330	NA	NA	NA	NA	330 U

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS						
Hexachlorocyclopentadiene	330	NA	NA	NA	NA	330 U
Hexachloroethane	330	NA	NA	NA	NA	330 U
Indeno(1,2,3-cd)pyrene	330	NA	NA	NA	NA	330 U
Isophorone	330	NA	NA	NA	NA	330 U
2-Methylnaphthalene	330	NA	NA	NA	NA	330 U
2-Methylphenol	330	NA	NA	NA	NA	330 U
4-Methylphenol	330	NA	NA	NA	NA	330 U
Naphthalene	330	NA	NA	NA	NA	330 U
2-Nitroaniline	1600	NA	NA	NA	NA	1600 U
3-Nitroaniline	1600	NA	NA	NA	NA	1600 U
4-Nitroaniline	1600	NA	NA	NA	NA	1600 U
Nitrobenzene	330	NA	NA	NA	NA	330 U
2-Nitrophenol	330	NA	NA	NA	NA	330 U
4-Nitrophenol	1600	NA	NA	NA	NA	1600 U
N-nitrosodiphenylamine	330	NA	NA	NA	NA	330 U
N-Nitroso-Di-n-propylamine	330	NA	NA	NA	NA	330 U
Pentachlorophenol	1600	NA	NA	NA	NA	1600 U
Phenanthrene	330	NA	NA	NA	NA	330 U
Phenol	330	NA	NA	NA	NA	330 U
Pyrene	330	NA	NA	NA	NA	330 U
1,2,4-Trichlorobenzene	330	NA	NA	NA	NA	330 U
2,4,5-Trichlorophenol	800	NA	NA	NA	NA	800 U
2,4,6-Trichlorophenol	330	NA	NA	NA	NA	330 U
INTERNAL STANDARDS						
1,4-Dichlorobenzene-D4	50-200	NA	NA	NA	NA	114
Naphthalene-D8	50-200	NA	NA	NA	NA	116
Acenaphthene-D10	50-200	NA	NA	NA	NA	113
Phenanthrene-D10	50-200	NA	NA	NA	NA	115
Chrysene-D12	50-200	NA	NA	NA	NA	108
Perylene-D12	50-200	NA	NA	NA	NA	117
SURROGATES						
Nitrobenzene-D5	23-120	NA	NA	NA	NA	36
2-Fluorobiphenyl	30-115	NA	NA	NA	NA	39
Terphenyl-D14	18-137	NA	NA	NA	NA	87
Phenol-D5	24-113	NA	NA	NA	NA	38
2-Fluorophenol	25-121	NA	NA	NA	NA	33
2,4,6-Tribromophenol	19-122	NA	NA	NA	NA	62

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/05/96 10:28 ☐ 009/010

Client Sample ID:		W-TR01-05	W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709	A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS						
Acenaphthene	330	330 U	NA	NA	NA	NA
Acenaphthylene	330	330 U	NA	NA	NA	NA
Anthracene	330	330 U	NA	NA	NA	NA
Benzo(a)anthracene	330	330 U	NA	NA	NA	NA
Benzo(b)fluoranthene	330	330 U	NA	NA	NA	NA
Benzo(k)fluoranthene	330	330 U	NA	NA	NA	NA
Benzo(ghi)perylene	330	330 U	NA	NA	NA	NA
Benzo(a)pyrene	330	330 U	NA	NA	NA	NA
Benzoic acid	1600	1600 U	NA	NA	NA	NA
Benzyl alcohol	330	330 U	NA	NA	NA	NA
Bis(2-chloroethoxy) methane	330	330 U	NA	NA	NA	NA
Bis(2-chloroethyl) ether	330	330 U	NA	NA	NA	NA
Bis(2-chloroisopropyl) ether	330	330 U	NA	NA	NA	NA
Bis(2-ethylhexyl) phthalate	330	330 U	NA	NA	NA	NA
4-Bromophenyl phenyl ether	330	330 U	NA	NA	NA	NA
Butyl benzyl phthalate	330	330 U	NA	NA	NA	NA
4-Chloroaniline	330	330 U	NA	NA	NA	NA
4-Chloro-3-methylphenol	330	330 U	NA	NA	NA	NA
2-Chloronaphthalene	330	330 U	NA	NA	NA	NA
2-Chlorophenol	330	330 U	NA	NA	NA	NA
4-Chlorodiphenylether	330	330 U	NA	NA	NA	NA
Chrysene	330	330 U	NA	NA	NA	NA
Dibenzo(a,h)anthracene	330	330 U	NA	NA	NA	NA
Dibenzofuran	330	330 U	NA	NA	NA	NA
Di-n-butyl phthalate	330	330 U	NA	NA	NA	NA
1,2-Dichlorobenzene	330	330 U	NA	NA	NA	NA
1,3-Dichlorobenzene	330	330 U	NA	NA	NA	NA
1,4-Dichlorobenzene	330	330 U	NA	NA	NA	NA
3,3'-Dichlorobenzidine	660	660 U	NA	NA	NA	NA
2,4-Dichlorophenol	330	330 U	NA	NA	NA	NA
Diethyl phthalate	330	330 U	NA	NA	NA	NA
2,4-Dimethylphenol	330	330 U	NA	NA	NA	NA
Dimethyl phthalate	330	330 U	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	1600	1600 U	NA	NA	NA	NA
2,4-Dinitrophenol	1600	1600 U	NA	NA	NA	NA
2,4-Dinitrotoluene	330	330 U	NA	NA	NA	NA
2,6-Dinitrotoluene	330	330 U	NA	NA	NA	NA
Di-n-octyl phthalate	330	330 U	NA	NA	NA	NA
Fluoranthene	330	330 U	NA	NA	NA	NA
Fluorene	330	330 U	NA	NA	NA	NA
Hexachlorobenzene	330	330 U	NA	NA	NA	NA
Hexachlorobutadiene	330	330 U	NA	NA	NA	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/05/96 10:30 010/013

Client Sample ID:		W-TR01-05	W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709	A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS						
Hexachlorocyclopentadiene	330	330 U	NA	NA	NA	NA
Hexachloroethane	330	330 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	330	330 U	NA	NA	NA	NA
Isophorone	330	330 U	NA	NA	NA	NA
2-Methylnaphthalene	330	330 U	NA	NA	NA	NA
2-Methylphenol	330	330 U	NA	NA	NA	NA
4-Methylphenol	330	330 U	NA	NA	NA	NA
Naphthalene	330	330 U	NA	NA	NA	NA
2-Nitroaniline	1600	1600 U	NA	NA	NA	NA
3-Nitroaniline	1600	1600 U	NA	NA	NA	NA
4-Nitroaniline	1600	1600 U	NA	NA	NA	NA
Nitrobenzene	330	330 U	NA	NA	NA	NA
2-Nitrophenol	330	330 U	NA	NA	NA	NA
4-Nitrophenol	1600	1600 U	NA	NA	NA	NA
N-nitrosodiphenylamine	330	330 U	NA	NA	NA	NA
N-Nitroso-Di-n-propylamine	330	330 U	NA	NA	NA	NA
Pentachlorophenol	1600	1600 U	NA	NA	NA	NA
Phenanthrene	330	330 U	NA	NA	NA	NA
Phenol	330	330 U	NA	NA	NA	NA
Pyrene	330	330 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	330	330 U	NA	NA	NA	NA
2,4,5-Trichlorophenol	800	800 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	330	330 U	NA	NA	NA	NA
INTERNAL STANDARDS						
1,4-Dichlorobenzene-D4	50-200	116	NA	NA	NA	NA
Naphthalene-D8	50-200	119	NA	NA	NA	NA
Acenaphthene-D10	50-200	115	NA	NA	NA	NA
Phenanthrene-D10	50-200	116	NA	NA	NA	NA
Chrysene-D12	50-200	119	NA	NA	NA	NA
Perylene-D12	50-200	125	NA	NA	NA	NA
SURROGATES						
Nitrobenzene-D5	23-120	50	NA	NA	NA	NA
2-Fluorobiphenyl	30-115	59	NA	NA	NA	NA
Terphenyl-D14	18-137	87	NA	NA	NA	NA
Phenol-D5	24-113	52	NA	NA	NA	NA
2-Fluorophenol	25-121	48	NA	NA	NA	NA
2,4,6-Tribromophenol	19-122	86	NA	NA	NA	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/05/96 10:31 ☑ 009/011

Client Sample ID:		W-TR01-05	W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709	A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS						
Acenaphthene	330	NA	330 U	330 U	330 U	330 U
Acenaphthylene	330	NA	330 U	330 U	330 U	330 U
Anthracene	330	NA	330 U	330 U	330 U	330 U
Benzo(a)anthracene	330	NA	330 U	330 U	330 U	330 U
Benzo(b)fluoranthene	330	NA	330 U	330 U	330 U	330 U
Benzo(k)fluoranthene	330	NA	330 U	330 U	330 U	330 U
Benzo(ghi)perylene	330	NA	330 U	330 U	330 U	330 U
Benzo(a)pyrene	330	NA	330 U	330 U	330 U	330 U
Chrysene	330	NA	330 U	330 U	330 U	330 U
Dibenzo(a,h)anthracene	330	NA	330 U	330 U	330 U	330 U
Fluoranthene	330	NA	330 U	330 U	330 U	330 U
Fluorene	330	NA	330 U	330 U	330 U	330 U
Indeno(1,2,3-cd)pyrene	330	NA	330 U	330 U	330 U	330 U
2-Methylnaphthalene	330	NA	330 U	330 U	330 U	330 U
Naphthalene	330	NA	330 U	330 U	330 U	330 U
Phenanthrene	330	NA	330 U	330 U	330 U	330 U
Pyrene	330	NA	330 U	330 U	330 U	330 U
INTERNAL STANDARDS						
1,4-Dichlorobenzene-D4	50-200	NA	98	106	104	104
Naphthalene-D8	50-200	NA	102	109	107	107
Acenaphthene-D10	50-200	NA	97	103	103	100
Phenanthrene-D10	50-200	NA	100	109	108	104
Chrysene-D12	50-200	NA	96	102	111	102
Perylene-D12	50-200	NA	98	108	120	109
SURROGATES						
Nitrobenzene-D5	23-120	NA	69	63	56	70
2-Fluorobiphenyl	30-115	NA	79	73	72	78
Terphenyl-D14	18-137	NA	103	102	94	98
Phenol-D5	24-113	NA	66	63	62	66
2-Fluorophenol	25-121	NA	65	60	57	65
2,4,6-Tribromophenol	19-122	NA	99	101	105	99

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/05/96 10:31 ☑ 017/025

Date: 09/10/96
Time: 11:18:50

ANALYTICAL RESULTS

Rept: AN0353
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Client Sample ID:		W-TR01-10		W-TR01-11		W-TR01-12		W-TR01-13		W-TR01-14	
Job Number & Lab Sample ID:		A96-4339 A6433901		A96-4339 A6433902		A96-4339 A6433903		A96-4339 A6433904		A96-4339 A6433905	
Sample Date:		09/05/96		09/05/96		09/05/96		09/05/96		09/05/96	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS											
Acenaphthene	330	330	U	330	U	330	U	330	U	330	U
Acenaphthylene	330	330	U	330	U	330	U	330	U	330	U
Anthracene	330	330	U	330	U	330	U	330	U	330	U
Benzo(a)anthracene	330	330	U	330	U	330	U	330	U	330	U
Benzo(b)fluoranthene	330	330	U	330	U	330	U	330	U	330	U
Benzo(k)fluoranthene	330	330	U	330	U	330	U	330	U	330	U
Benzo(ghi)perylene	330	330	U	330	U	330	U	330	U	330	U
Benzo(a)pyrene	330	330	U	330	U	330	U	330	U	330	U
Chrysene	330	330	U	330	U	330	U	330	U	330	U
Dibenzo(a,h)anthracene	330	330	U	330	U	330	U	330	U	330	U
Fluoranthene	330	330	U	330	U	330	U	330	U	330	U
Fluorene	330	330	U	330	U	330	U	330	U	330	U
Indeno(1,2,3-cd)pyrene	330	330	U	330	U	330	U	330	U	330	U
2-Methylnaphthalene	330	330	U	330	U	330	U	330	U	330	U
Naphthalene	330	330	U	330	U	330	U	330	U	330	U
Phenanthrene	330	330	U	330	U	330	U	330	U	330	U
Pyrene	330	330	U	330	U	330	U	330	U	330	U
INTERNAL STANDARDS											
1,4-Dichlorobenzene-D4	50-200	129		130		111		130		130	
Naphthalene-D8	50-200	136		133		117		138		134	
Acenaphthene-D10	50-200	139		137		123		137		137	
Phenanthrene-D10	50-200	141		132		120		140		133	
Chrysene-D12	50-200	125		122		106		130		122	
Perylene-D12	50-200	146		135		128		152		139	
SURROGATES											
Nitrobenzene-D5	23-120	44		63		60		58		60	
2-Fluorobiphenyl	30-115	52		64		69		67		66	
Terphenyl-D14	18-137	106		114		113		106		111	
Phenol-D5	24-113	48		64		66		62		62	
2-Fluorophenol	25-121	48		64		64		63		59	
2,4,6-Tribromophenol	19-122	74		82		82		91		78	

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:	W-TR01-15					
Job Number & Lab Sample ID:	A96-4339 A6433906					
Sample Date:	09/05/96 —					
Analyte (UG/KG)	RL	Result				
METHOD 8270-HSL POLYNUCLEAR AROMATIC HYDROCARBONS						
Acenaphthene	330	330	U			
Acenaphthylene	330	330	U			
Anthracene	330	330	U			
Benzo(a)anthracene	330	330	U			
Benzo(b)fluoranthene	330	330	U			
Benzo(k)fluoranthene	330	330	U			
Benzo(ghi)perylene	330	330	U			
Benzo(a)pyrene	330	330	U			
Chrysene	330	330	U			
Dibenzo(a,h)anthracene	330	330	U			
Fluoranthene	330	330	U			
Fluorene	330	330	U			
Indeno(1,2,3-cd)pyrene	330	330	U			
2-Methylnaphthalene	330	330	U			
Naphthalene	330	330	U			
Phenanthrene	330	330	U			
Pyrene	330	330	U			
INTERNAL STANDARDS						
1,4-Dichlorobenzene-D4	50-200	132				
Naphthalene-D8	50-200	140				
Acenaphthene-D10	50-200	146				
Phenanthrene-D10	50-200	143				
Chrysene-D12	50-200	132				
Perylene-D12	50-200	149				
SURROGATES						
Nitrobenzene-D5	23-120	56				
2-Fluorobiphenyl	30-115	60				
Terphenyl-D14	18-137	109				
Phenol-D5	24-113	61				
2-Fluorophenol	25-121	58				
2,4,6-Tribromophenol	19-122	79				

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/10/96 11:40 ☎ 004/004

Client Sample ID:	W-TR00-06	W-TR00-07	W-TR01-16	W-TR01-17	W-TR01-23
Job Number & Lab Sample ID:	A96-4499 A6449906	A96-4499 A6449907	A96-4499 A6449908	A96-4499 A6449909	A96-4499 A6449910
Sample Date:	09/12/96	09/12/96	09/12/96	09/12/96	09/12/96
TCLP Date/HT Met:			- -	- -	- -
Extraction Date/HT Met:			09/14/96 00:00 YES	09/14/96 00:00 YES	09/14/96 00:00 YES
Analysis Date/Ht Met:			09/15/96 13:21 YES	09/15/96 14:08 YES	09/15/96 16:27 YES
Dilution Factor:			1.0	1.0	1.0

Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS						
Acenaphthene	330	NA	NA	330 U	330 U	330 U
Acenaphthylene	330	NA	NA	330 U	330 U	330 U
Anthracene	330	NA	NA	330 U	330 U	330 U
Benzo(a)anthracene	330	NA	NA	330 U	330 U	330 U
Benzo(b)fluoranthene	330	NA	NA	330 U	330 U	330 U
Benzo(k)fluoranthene	330	NA	NA	330 U	330 U	330 U
Benzo(ghi)perylene	330	NA	NA	330 U	330 U	330 U
Benzo(a)pyrene	330	NA	NA	330 U	330 U	330 U
Benzoic acid	1600	NA	NA	1600 U	1600 U	1600 U
Benzyl alcohol	330	NA	NA	330 U	330 U	330 U
Bis(2-chloroethoxy) methane	330	NA	NA	330 U	330 U	330 U
Bis(2-chloroethyl) ether	330	NA	NA	330 U	330 U	330 U
Bis(2-chloroisopropyl) ether	330	NA	NA	330 U	330 U	330 U
Bis(2-ethylhexyl) phthalate	330	NA	NA	330 U	330 U	330 U
4-Bromophenyl phenyl ether	330	NA	NA	330 U	330 U	330 U
Butyl benzyl phthalate	330	NA	NA	330 U	330 U	330 U
4-Chloroaniline	330	NA	NA	330 U	330 U	330 U
4-Chloro-3-methylphenol	330	NA	NA	330 U	330 U	330 U
2-Chloronaphthalene	330	NA	NA	330 U	330 U	330 U
2-Chlorophenol	330	NA	NA	330 U	330 U	330 U
4-Chlorodiphenylether	330	NA	NA	330 U	330 U	330 U
Chrysene	330	NA	NA	330 U	330 U	330 U
Dibenzo(a,h)anthracene	330	NA	NA	330 U	330 U	330 U
Dibenzofuran	330	NA	NA	330 U	330 U	330 U
Di-n-butyl phthalate	330	NA	NA	330 U	330 U	330 U
1,2-Dichlorobenzene	330	NA	NA	330 U	330 U	330 U
1,3-Dichlorobenzene	330	NA	NA	330 U	330 U	330 U
1,4-Dichlorobenzene	330	NA	NA	330 U	330 U	330 U
3,3'-Dichlorobenzidine	660	NA	NA	660 U	660 U	660 U
2,4-Dichlorophenol	330	NA	NA	330 U	330 U	330 U
Diethyl phthalate	330	NA	NA	330 U	330 U	330 U
2,4-Dimethylphenol	330	NA	NA	330 U	330 U	330 U
Dimethyl phthalate	330	NA	NA	330 U	330 U	330 U
4,6-Dinitro-2-methylphenol	1600	NA	NA	1600 U	1600 U	1600 U
2,4-Dinitrophenol	1600	NA	NA	1600 U	1600 U	1600 U
2,4-Dinitrotoluene	330	NA	NA	330 U	330 U	330 U
2,6-Dinitrotoluene	330	NA	NA	330 U	330 U	330 U
Di-n-octyl phthalate	330	NA	NA	330 U	330 U	330 U
Fluoranthene	330	NA	NA	330 U	330 U	330 U

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/18/96 15:35 ☎ 012/023

Client Sample ID:		W-TR00-06		W-TR00-07		W-TR01-16		W-TR01-17		W-TR01-23	
Job Number & Lab Sample ID:		A96-4499 A6449906		A96-4499 A6449907		A96-4499 A6449908		A96-4499 A6449909		A96-4499 A6449910	
Sample Date:		09/12/96		09/12/96		09/12/96		09/12/96		09/12/96	
TCLP Date/HT Met:						-	-	-	-	-	-
Extraction Date/HT Met:						09/14/96 00:00	YES	09/14/96 00:00	YES	09/14/96 00:00	YES
Analysis Date/Ht Met:						09/15/96 13:21	YES	09/15/96 14:08	YES	09/15/96 16:27	YES
Dilution Factor:						1.0		1.0		1.0	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS											
Fluorene	330	NA		NA		330	U	330	U	330	U
Hexachlorobenzene	330	NA		NA		330	U	330	U	330	U
Hexachlorobutadiene	330	NA		NA		330	U	330	U	330	U
Hexachlorocyclopentadiene	330	NA		NA		330	U	330	U	330	U
Hexachloroethane	330	NA		NA		330	U	330	U	330	U
Indeno(1,2,3-cd)pyrene	330	NA		NA		330	U	330	U	330	U
Isophorone	330	NA		NA		330	U	330	U	330	U
2-Methylnaphthalene	330	NA		NA		330	U	330	U	330	U
2-Methylphenol	330	NA		NA		330	U	330	U	330	U
4-Methylphenol	330	NA		NA		330	U	330	U	330	U
Naphthalene	330	NA		NA		330	U	330	U	330	U
2-Nitroaniline	1600	NA		NA		1600	U	1600	U	1600	U
3-Nitroaniline	1600	NA		NA		1600	U	1600	U	1600	U
4-Nitroaniline	1600	NA		NA		1600	U	1600	U	1600	U
Nitrobenzene	330	NA		NA		330	U	330	U	330	U
2-Nitrophenol	330	NA		NA		330	U	330	U	330	U
4-Nitrophenol	1600	NA		NA		1600	U	1600	U	1600	U
N-nitrosodiphenylamine	330	NA		NA		330	U	330	U	330	U
N-Nitroso-Di-n-propylamine	330	NA		NA		330	U	330	U	330	U
Pentachlorophenol	1600	NA		NA		1600	U	1600	U	1600	U
Phenanthrene	330	NA		NA		330	U	330	U	330	U
Phenol	330	NA		NA		330	U	330	U	330	U
Pyrene	330	NA		NA		330	U	330	U	330	U
1,2,4-Trichlorobenzene	330	NA		NA		330	U	330	U	330	U
2,4,5-Trichlorophenol	800	NA		NA		800	U	800	U	800	U
2,4,6-Trichlorophenol	330	NA		NA		330	U	330	U	330	U
INTERNAL STANDARDS											
1,4-Dichlorobenzene-D4	50-200	NA		NA		123		122		134	
Naphthalene-D8	50-200	NA		NA		127		130		138	
Acenaphthene-D10	50-200	NA		NA		132		131		141	
Phenanthrene-D10	50-200	NA		NA		131		134		143	
Chrysene-D12	50-200	NA		NA		98		96		105	
Perylene-D12	50-200	NA		NA		107		110		123	
SURROGATES											
Nitrobenzene-D5	23-120	NA		NA		72		65		66	
2-Fluorobiphenyl	30-115	NA		NA		81		72		71	
Terphenyl-D14	18-137	NA		NA		94		99		94	
Phenol-D5	24-113	NA		NA		81		78		78	
2-Fluorophenol	25-121	NA		NA		70		68		67	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/18/96 15:36 ☑ 013/023

Date: 09/04/96
Time: 16:49:26

ANALYTICAL RESULTS

Rept: AN0353
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Client Sample ID:	W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:	A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:	08/29/96	08/29/96	08/29/96	08/29/96	08/29/96

Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	40	40 U	40 U	40 U	40 U	NA
Aroclor 1221	80	80 U	80 U	80 U	80 U	NA
Aroclor 1232	40	40 U	40 U	40 U	40 U	NA
Aroclor 1242	40	40 U	40 U	40 U	40 U	NA
Aroclor 1248	40	40 U	40 U	40 U	40 U	NA
Aroclor 1254	40	40 U	40 U	40 U	40 U	NA
Aroclor 1260	40	40 U	40 U	40 U	40 U	NA
SURROGATES						
Tetrachloro-m-xylene	27-132	66	61	54	71	NA
Decachlorobiphenyl	58-150	68	65	55 *	74	NA

Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - TCL PESTICIDES/PCBS						
Aldrin	8.0	NA	NA	NA	NA	8.0 U
alpha-BHC	8.0	NA	NA	NA	NA	8.0 U
beta-BHC	8.0	NA	NA	NA	NA	8.0 U
gamma-BHC (Lindane)	8.0	NA	NA	NA	NA	8.0 U
delta-BHC	8.0	NA	NA	NA	NA	8.0 U
Chlordane	80	NA	NA	NA	NA	80 U
4,4'-DDD	16	NA	NA	NA	NA	16 U
4,4'-DDE	16	NA	NA	NA	NA	16 U
4,4'-DDT	16	NA	NA	NA	NA	16 U
Dieldrin	16	NA	NA	NA	NA	16 U
Endosulfan I	16	NA	NA	NA	NA	16 U
Endosulfan II	16	NA	NA	NA	NA	16 U
Endosulfan Sulfate	16	NA	NA	NA	NA	16 U
Endrin	16	NA	NA	NA	NA	16 U
Endrin aldehyde	32	NA	NA	NA	NA	32 U
Heptachlor	8.0	NA	NA	NA	NA	8.0 U
Heptachlor epoxide	8.0	NA	NA	NA	NA	8.0 U
Methoxychlor	80	NA	NA	NA	NA	80 U
Toxaphene	160	NA	NA	NA	NA	160 U
Aroclor 1016	40	NA	NA	NA	NA	40 U
Aroclor 1221	80	NA	NA	NA	NA	80 U
Aroclor 1232	40	NA	NA	NA	NA	40 U
Aroclor 1242	40	NA	NA	NA	NA	40 U
Aroclor 1248	40	NA	NA	NA	NA	40 U
Aroclor 1254	40	NA	NA	NA	NA	40 U
Aroclor 1260	40	NA	NA	NA	NA	40 U

* Indicates Result is Outside QC Limits
NA = Not Applicable

Date: 09/04/96
Time: 16:49:35

ANALYTICAL RESULTS

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Client Sample ID:		W-TR01-00	W-TR01-01	W-TR01-02	W-TR01-03	W-TR01-04
Job Number & Lab Sample ID:		A96-4207 A6420710	A96-4207 A6420701	A96-4207 A6420702	A96-4207 A6420703	A96-4207 A6420704
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - TCL PESTICIDES/PCBS						
SURROGATES						
Tetrachloro-m-xylene	27-132	NA	NA	NA	NA	82
Decachlorobiphenyl	58-150	NA	NA	NA	NA	94

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:		W-TR01-05		W-TR01-06		W-TR01-07		W-TR01-08		W-TR01-09	
Job Number & Lab Sample ID:		A96-4207 A6420709		A96-4207 A6420705		A96-4207 A6420706		A96-4207 A6420707		A96-4207 A6420708	
Sample Date:		08/29/96		08/29/96		08/29/96		08/29/96		08/29/96	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8080 - POLYCHLORINATED BIPHENYLS											
Aroclor 1016	40	NA		40	U	40	U	40	U	40	U
Aroclor 1221	80	NA		80	U	80	U	80	U	80	U
Aroclor 1232	40	NA		40	U	40	U	40	U	40	U
Aroclor 1242	40	NA		40	U	40	U	40	U	40	U
Aroclor 1248	40	NA		40	U	40	U	40	U	40	U
Aroclor 1254	40	NA		40	U	40	U	40	U	40	U
Aroclor 1260	40	NA		40	U	40	U	40	U	40	U
SURROGATES											
Tetrachloro-m-xylene	27-132	NA		76		76		47		50	
Decachlorobiphenyl	58-150	NA		79		82		46	*	54	*

Analyte (UG/KG)	RL	Result		Result	Result	Result	Result
METHOD 8080 - TCL PESTICIDES/PCBS							
Aldrin	8.0	8.0	U	NA	NA	NA	NA
alpha-BHC	8.0	8.0	U	NA	NA	NA	NA
beta-BHC	8.0	8.0	U	NA	NA	NA	NA
gamma-BHC (Lindane)	8.0	8.0	U	NA	NA	NA	NA
delta-BHC	8.0	8.0	U	NA	NA	NA	NA
Chlordane	80	80	U	NA	NA	NA	NA
4,4'-DDD	16	16	U	NA	NA	NA	NA
4,4'-DDE	16	16	U	NA	NA	NA	NA
4,4'-DDT	16	16	U	NA	NA	NA	NA
Dieldrin	16	16	U	NA	NA	NA	NA
Endosulfan I	16	16	U	NA	NA	NA	NA
Endosulfan II	16	16	U	NA	NA	NA	NA
Endosulfan Sulfate	16	16	U	NA	NA	NA	NA
Endrin	16	16	U	NA	NA	NA	NA
Endrin aldehyde	32	32	U	NA	NA	NA	NA
Heptachlor	8.0	8.0	U	NA	NA	NA	NA
Heptachlor epoxide	8.0	8.0	U	NA	NA	NA	NA
Methoxychlor	80	80	U	NA	NA	NA	NA
Toxaphene	160	160	U	NA	NA	NA	NA
Aroclor 1016	40	40	U	NA	NA	NA	NA
Aroclor 1221	80	80	U	NA	NA	NA	NA
Aroclor 1232	40	40	U	NA	NA	NA	NA
Aroclor 1242	40	40	U	NA	NA	NA	NA
Aroclor 1248	40	40	U	NA	NA	NA	NA
Aroclor 1254	40	40	U	NA	NA	NA	NA
Aroclor 1260	40	40	U	NA	NA	NA	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:06 013/018

Client Sample ID:		W-TR01-05	W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09
Job Number & Lab Sample ID:		A96-4207 A6420709	A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708
Sample Date:		08/29/96	08/29/96	08/29/96	08/29/96	08/29/96
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - TCL PESTICIDES/PCBS						
SURROGATES						
Tetrachloro-m-xylene	27-132	96	NA	NA	NA	NA
Decachlorobiphenyl	58-150	105	NA	NA	NA	NA

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/04/96 17:06 P.04/05

Date: 09/11/96
Time: 09:02:56

ANALYTICAL RESULTS

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Client Sample ID:		W-TR01-10		W-TR01-11		W-TR01-12		W-TR01-13		W-TR01-14	
Job Number & Lab Sample ID:		A96-4339 A6433901		A96-4339 A6433902		A96-4339 A6433903		A96-4339 A6433904		A96-4339 A6433905	
Sample Date:		09/05/96		09/05/96		09/05/96		09/05/96		09/05/96	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8080 - POLYCHLORINATED BIPHENYLS											
Aroclor 1016	40	40	U	40	U	40	U	40	U	40	U
Aroclor 1221	80	80	U	80	U	80	U	80	U	80	U
Aroclor 1232	40	40	U	40	U	40	U	40	U	40	U
Aroclor 1242	40	40	U	40	U	40	U	40	U	40	U
Aroclor 1248	40	40	U	40	U	40	U	40	U	40	U
Aroclor 1254	40	40	U	40	U	40	U	40	U	3.3	J
Aroclor 1260	40	40	U	40	U	40	U	40	U	40	U
SURROGATES											
Tetrachloro-m-xylene	27-132	72		82		84		80		85	
Decachlorobiphenyl	58-150	76		86		87		82		94	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/11/96 09:00 ☑002/003

ANALYTICAL RESULTS

Client Sample ID:	W-TR01-15
Job Number & Lab Sample ID:	A96-4339 A6433906
Sample Date:	09/05/96

Analyte (UG/KG)	RL	Result	
METHOD 8080 - POLYCHLORINATED BIPHENYLS			
Aroclor 1016	40	40	U
Aroclor 1221	80	80	U
Aroclor 1232	40	40	U
Aroclor 1242	40	40	U
Aroclor 1248	40	40	U
Aroclor 1254	40	40	U
Aroclor 1260	40	40	U
SURROGATES			
Tetrachloro-m-xylene	27-132	85	
Decachlorobiphenyl	58-150	94	

* Indicates Result is Outside QC Limits
NA = Not Applicable

Client Sample ID:		W-TR00-06	W-TR00-07	W-TR01-16	W-TR01-17	W-TR01-23
Job Number & Lab Sample ID:		A96-4499 A6449906	A96-4499 A6449907	A96-4499 A6449908	A96-4499 A6449909	A96-4499 A6449910
Sample Date:		09/12/96	09/12/96	09/12/96	09/12/96	09/12/96
TCLP Date/HT Met:		- -	- -			
Extraction Date/HT Met:		09/14/96 00:00 YES	09/14/96 00:00 YES			
Analysis Date/Ht Met:		09/16/96 04:55 YES	09/16/96 05:09 YES			
Dilution Factor:		1.0	1.0			
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - POLYCHLORINATED BIPHENYLS						
Aroclor 1016	40	40 U	40 U	NA	NA	NA
Aroclor 1221	80	80 U	80 U	NA	NA	NA
Aroclor 1232	40	40 U	40 U	NA	NA	NA
Aroclor 1242	40	40 U	40 U	NA	NA	NA
Aroclor 1248	40	40 U	40 U	NA	NA	NA
Aroclor 1254	40	40 U	40 U	NA	NA	NA
Aroclor 1260	40	40 U	40 U	NA	NA	NA
SURROGATES						
Tetrachloro-m-xylene	27-132	76	76	NA	NA	NA
Decachlorobiphenyl	58-150	85	84	NA	NA	NA

TCLP Date/HT Met:				- -	- -	- -
Extraction Date/HT Met:				09/14/96 00:00 YES	09/14/96 00:00 YES	09/14/96 00:00 YES
Analysis Date/Ht Met:				09/16/96 21:33 YES	09/16/96 22:05 YES	09/16/96 23:40 YES
Dilution Factor:				1.0	1.0	1.0
Analyte (UG/KG)	RL	Result	Result	Result	Result	Result
METHOD 8080 - TCL PESTICIDES/PCBS						
Aldrin	8.0	NA	NA	8.0 U	8.0 U	8.0 U
alpha-BHC	8.0	NA	NA	8.0 U	8.0 U	8.0 U
beta-BHC	8.0	NA	NA	8.0 U	8.0 U	8.0 U
gamma-BHC (Lindane)	8.0	NA	NA	8.0 U	8.0 U	8.0 U
delta-BHC	8.0	NA	NA	8.0 U	8.0 U	8.0 U
Chlordane	80	NA	NA	80 U	80 U	80 U
4,4'-DDD	16	NA	NA	16 U	16 U	16 U
4,4'-DDE	16	NA	NA	16 U	16 U	16 U
4,4'-DDT	16	NA	NA	4.5 J	16 U	16 U
Dieldrin	16	NA	NA	16 U	16 U	16 U
Endosulfan I	16	NA	NA	16 U	16 U	16 U
Endosulfan II	16	NA	NA	16 U	16 U	16 U
Endosulfan Sulfate	16	NA	NA	16 U	16 U	16 U
Endrin	16	NA	NA	16 U	16 U	16 U
Endrin aldehyde	32	NA	NA	32 U	32 U	32 U
Heptachlor	8.0	NA	NA	8.0 U	8.0 U	8.0 U
Heptachlor epoxide	8.0	NA	NA	8.0 U	8.0 U	8.0 U
Methoxychlor	80	NA	NA	80 U	80 U	80 U
Toxaphene	160	NA	NA	160 U	160 U	160 U

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/18/96 15:40 09/18/96

Client Sample ID:		W-TR00-06		W-TR00-07		W-TR01-16		W-TR01-17		W-TR01-23	
Job Number & Lab Sample ID:		A96-4499 A6449906		A96-4499 A6449907		A96-4499 A6449908		A96-4499 A6449909		A96-4499 A6449910	
Sample Date:		09/12/96		09/12/96		09/12/96		09/12/96		09/12/96	
TCLP Date/HT Met:						- -		- -		- -	
Extraction Date/HT Met:						09/14/96 00:00 YES		09/14/96 00:00 YES		09/14/96 00:00 YES	
Analysis Date/Ht Met:						09/16/96 21:33 YES		09/16/96 22:05 YES		09/16/96 23:40 YES	
Dilution Factor:						1.0		1.0		1.0	
Analyte (UG/KG)	RL	Result		Result		Result		Result		Result	
METHOD 8080 - TCL PESTICIDES/PCBS											
Aroclor 1016	40	NA		NA		40	U	40	U	40	U
Aroclor 1221	80	NA		NA		80	U	80	U	80	U
Aroclor 1232	40	NA		NA		40	U	40	U	40	U
Aroclor 1242	40	NA		NA		40	U	40	U	40	U
Aroclor 1248	40	NA		NA		40	U	40	U	40	U
Aroclor 1254	40	NA		NA		40	U	40	U	40	U
Aroclor 1260	40	NA		NA		40	U	40	U	40	U
SURROGATES											
Tetrachloro-m-xylene	27-132	NA		NA		96		92		87	
Decachlorobiphenyl	58-150	NA		NA		110		106		102	

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/18/96 15:40 019/023

ANALYTICAL RESULTS

Analyte	UNITS OF MEASURE	RL	W-TR01-00 A96-4207 A6420710 08/29/96 Result	W-TR01-01 A96-4207 A6420701 08/29/96 Result	W-TR01-02 A96-4207 A6420702 08/29/96 Result	W-TR01-03 A96-4207 A6420703 08/29/96 Result	W-TR01-04 A96-4207 A6420704 08/29/96 Result
TOTAL METALS							
Thallium - Total	MG/KG	0.36	0.93	0.44 U	1.2	1.2	NA
Manganese - Total	MG/KG	0.036	NA	NA	NA	NA	404
TOTAL HSL METALS							
Aluminum - Total	MG/KG	0.77	NA	NA	NA	NA	6600
Antimony - Total	MG/KG	0.57	NA	NA	NA	NA	0.94
Arsenic - Total	MG/KG	0.28	NA	NA	NA	NA	1.0
Barium - Total	MG/KG	0.024	NA	NA	NA	NA	112
Beryllium - Total	MG/KG	0.010	NA	NA	NA	NA	0.78
Cadmium - Total	MG/KG	0.021	NA	NA	NA	NA	0.025 U
Calcium - Total	MG/KG	0.54	NA	NA	NA	NA	2100
Chromium - Total	MG/KG	0.26	NA	NA	NA	NA	16.0
Cobalt - Total	MG/KG	0.12	NA	NA	NA	NA	11.3
Copper - Total	MG/KG	0.087	NA	NA	NA	NA	134
Iron - Total	MG/KG	2.4	NA	NA	NA	NA	15800
Lead - Total	MG/KG	0.13	NA	NA	NA	NA	4.6
Magnesium - Total	MG/KG	0.87	NA	NA	NA	NA	2120
Mercury - Total	MG/KG	0.033	NA	NA	NA	NA	0.041 U
Nickel - Total	MG/KG	0.25	NA	NA	NA	NA	17.4
Potassium - Total	MG/KG	9.3	NA	NA	NA	NA	255
Selenium - Total	MG/KG	0.28	NA	NA	NA	NA	1.3
Sodium - Total	MG/KG	56.8	NA	NA	NA	NA	192
Thallium - Total	MG/KG	0.36	NA	NA	NA	NA	1.0
Vanadium - Total	MG/KG	0.087	NA	NA	NA	NA	24.8
Zinc - Total	MG/KG	0.024	NA	NA	NA	NA	20.0

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:18 ☑ 003/003

ANALYTICAL RESULTS

Analyte	UNITS OF MEASURE	RL	Result					
Client Sample ID:			W-TR01-05					
Job Number & Lab Sample ID:			A96-4207 A6420709					
Sample Date:			08/29/96					
TOTAL HSL METALS								
Aluminum - Total	MG/KG	0.77	5730					
Antimony - Total	MG/KG	0.57	0.66	U				
Arsenic - Total	MG/KG	0.28	2.3					
Barium - Total	MG/KG	0.024	49.9					
Beryllium - Total	MG/KG	0.010	0.85					
Cadmium - Total	MG/KG	0.021	0.024	U				
Calcium - Total	MG/KG	0.54	1150					
Chromium - Total	MG/KG	0.26	11.9					
Cobalt - Total	MG/KG	0.12	7.3					
Copper - Total	MG/KG	0.087	20.6					
Iron - Total	MG/KG	2.4	15700					
Lead - Total	MG/KG	0.13	7.9					
Magnesium - Total	MG/KG	0.87	2100					
Manganese - Total	MG/KG	0.036	258					
Mercury - Total	MG/KG	0.033	0.038	U				
Nickel - Total	MG/KG	0.25	10.2					
Potassium - Total	MG/KG	9.3	856					
Selenium - Total	MG/KG	0.28	1.8					
Silver - Total	MG/KG	0.25	0.29	U				
Sodium - Total	MG/KG	56.8	166					
Thallium - Total	MG/KG	0.36	1.7					
Vanadium - Total	MG/KG	0.087	20.1					
Zinc - Total	MG/KG	0.024	26.3					

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/10/96 11:39 ☎ 002/004

Date: 09/09/96
Time: 16:00:24

ANALYTICAL RESULTS

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Client Sample ID:			W-TR01-06	W-TR01-07	W-TR01-08	W-TR01-09	W-TR03-01
Job Number & Lab Sample ID:			A96-4207 A6420705	A96-4207 A6420706	A96-4207 A6420707	A96-4207 A6420708	A96-4207 A6420715
Sample Date:			08/29/96	08/29/96	08/29/96	08/29/96	08/28/96
Analyte	UNITS OF MEASURE	RL	Result	Result	Result	Result	Result
TOTAL METALS							
Thallium - Total	MG/KG	0.36	1.3	1.0	1.3	1.3	0.83

* Indicates Result is Outside QC Limits
NA = Not Applicable

ANALYTICAL RESULTS

		Client Sample ID:	W-TR01-10	W-TR01-11	W-TR01-12	W-TR01-13	W-TR01-14
		Job Number & Lab Sample ID:	A96-4339 A6433901	A96-4339 A6433902	A96-4339 A6433903	A96-4339 A6433904	A96-4339 A6433905
		Sample Date:	09/05/96	09/05/96	09/05/96	09/05/96	09/05/96
Analyte	UNITS OF MEASURE	RL	Result	Result	Result	Result	Result
TOTAL METALS							
Thallium - Total	MG/KG	0.36	1.8	1.2	1.2	1.0	1.1

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:22 P3 009/009

ANALYTICAL RESULTS

Client Sample ID:			W-TR01-15				
Job Number & Lab Sample ID:			A96-4339 A6433906				
Sample Date:			09/05/96				
Analyte	UNITS OF MEASURE	RL	Result				
TOTAL METALS							
Thallium - Total	MG/KG	0.36	1.4				

* Indicates Result is Outside QC Limits
NA = Not Applicable

09/09/96 16:22 009/009

Client Sample ID:			W-TR00-06	W-TR00-07	W-TR01-16	W-TR01-17	W-TR01-23
Job Number & Lab Sample ID:			A96-4499 A6449906	A96-4499 A6449907	A96-4499 A6449908	A96-4499 A6449909	A96-4499 A6449910
Sample Date:			09/12/96	09/12/96	09/12/96	09/12/96	09/12/96
Analyte	UNITS OF MEASURE	RL	Result	Result	Result	Result	Result
TOTAL METALS							
Thallium - Total	MG/KG	0.36	1.1	0.98	NA	NA	NA
TOTAL HSL METALS							
Aluminum - Total	MG/KG	0.77	NA	NA	15400	16600	15100
Antimony - Total	MG/KG	0.57	NA	NA	0.72	1.2	1.3
Arsenic - Total	MG/KG	0.28	NA	NA	2.8	2.2	4.3
Barium - Total	MG/KG	0.024	NA	NA	64.0	32.8	34.4
Beryllium - Total	MG/KG	0.010	NA	NA	0.78	0.68	0.67
Cadmium - Total	MG/KG	0.021	NA	NA	0.026 U	0.025 U	0.024 U
Calcium - Total	MG/KG	0.54	NA	NA	1160	596	474
Chromium - Total	MG/KG	0.26	NA	NA	22.3	21.3	20.6
Cobalt - Total	MG/KG	0.12	NA	NA	9.6	9.8	8.2
Copper - Total	MG/KG	0.087	NA	NA	32.0	42.7	40.4
Iron - Total	MG/KG	2.4	NA	NA	20600	19800	17800
Lead - Total	MG/KG	0.13	NA	NA	13.6	7.7	6.9
Magnesium - Total	MG/KG	0.87	NA	NA	2490	2410	2120
Manganese - Total	MG/KG	0.036	NA	NA	404	405	282
Mercury - Total	MG/KG	0.033	NA	NA	0.040 U	0.039 U	0.040 U
Nickel - Total	MG/KG	0.25	NA	NA	12.2	12.7	11.9
Potassium - Total	MG/KG	9.3	NA	NA	1240	883	684
Selenium - Total	MG/KG	0.28	NA	NA	1.4	1.5	3.3
Silver - Total	MG/KG	0.25	NA	NA	0.30 U	0.30 U	0.29 U
Sodium - Total	MG/KG	56.8	NA	NA	189	223	174
Thallium - Total	MG/KG	0.36	NA	NA	1.4	1.4	3.9
Vanadium - Total	MG/KG	0.087	NA	NA	35.0	33.5	32.2
Zinc - Total	MG/KG	0.024	NA	NA	44.4	42.5	28.0

* Indicates Result is Outside QC Limits
NA = Not Applicable

08/18/96 13:42 021/023