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Bristol Environmental Services Corporation
A Subsidiary of Bristol Bay Native Corporation

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FINAL REPORT
UST REMOVAL AND CLOSURE
CLINE'S TESORO
ANCHORAGE, ALASKA

Dept. of Environmental Conservation
Underground Storage Tanks — FAP

Prepared for:
The Dean Company
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Project No. 9001YJ-00

July 1998

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Project No. 9001YJ-00

July 24, 1998

Mr. Harvey Prickett
The Dean Company
405 East Fireweed Lane, Suite 203
Anchorage, Alaska 99503

Subject: Underground Storage Tank Removal and Closure Report
 Cline's Tesoro, 422 Gambell Street, Anchorage, Alaska
 Two 8000-Gallon Gasoline, One 4,000-Gallon Diesel, and One 500-
 Gallon Waste Oil USTs
 Facility Number 31, UST Numbers 1, 2, 3, and 4 respectively.

Dear Mr. Prickett:

This report documents the observations and procedures taken by Bristol Environmental Services Corporation (Bristol) during the removal and closure of four registered underground storage tanks (USTs) located at Cline's Tesoro at 422 Gambell Street in Anchorage, Alaska. The location of the service station is illustrated in Figure 1. The USTs were removed during the period of April 9 to 10, 1998. Bristol personnel monitored the removal and collected soil samples for field screening and laboratory analysis. Field samples were sent to Analytica Alaska Incorporated located in Anchorage, Alaska. The laboratory results are summarized in Table 1. Site photographs taken during the removal and closure are included in Appendix A. The laboratory data sheets and quality assurance/quality control measurements are included in Appendix B. Pre- and post-closure notices for the UST closures are included as Appendix C. Tank metal recycling, contaminated soil trip tickets, and certificate of thermal destruction are included in Appendix D.

SUMMARY OF FINDINGS

According to the Alaska Department of Environmental Conservation (ADEC) UST Database, all the USTs were installed on March 1, 1987. The facility ID number is 31 and the tanks are listed as numbers 1 through 4. Tanks one and two were the unleaded gasoline tanks and had capacities of 8,000-gallons each. Tank three was the 4,000-gallon diesel tank with tank four being the 500-gallon waste oil tank. Prior to removal, Chemron of Anchorage pumped the tanks of residual fluids.

Confirmation sampling in the UST, pipeline, and dispenser islands excavations detected levels below method detection limits to 2,300 mg/kg of Diesel Range Organics (DRO). Gasoline Range Organics (GRO) was detected from below method detection limits to 120

mg/kg. Benzene levels ranged from below laboratory method detection limits to 2.8 mg/kg. The levels of metals were within their natural range. Petroleum contaminated soil was left in place in several areas as excavation was limited due to existing foundations.

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A total of 716.90 tons of contaminated soil was removed from the site and directly hauled to Alaska Soil Recycling (ASR) at 1800 East First Street in Anchorage. The impacted stockpile had petroleum concentrations with results ranging from 1.72 to 3,031 mg/kg total BTEX, below method detection limits to 85 mg/kg for benzene, 8 to 12,000 mg/kg GRO, 34 to 4,600 mg/kg DRO, and 3.6 to 88 mg/kg lead. Groundwater was not encountered in the excavation; the depth to groundwater is approximately 25-feet based on monitoring wells located on the property.

Four pipeline joints and all five dispensers were sampled for BTEX, GRO, DRO and lead. Soils below petroleum impacted pipeline joints and the south dispenser were excavated and confirmation samples were collected at the bottom of the excavation. The east dispensers were excavated to a depth of about two-feet below grade and sampled. Further excavation was not pursued because of the danger of undermining the canopy foundation.

See the analytical results summary tables for the sample results.

WORK PERFORMED

Mr. Jay Brooks with Statewide Petroleum Services performed the UST removals and closure activities. Mr. Jeff Brownlee, an ADEC-qualified person, oversaw the site assessment activities summarized in this report. All of the work was performed in general accordance with ADEC UST regulations.

Four single-walled USTs, three pump islands containing six product dispensers, and approximately 150 lineal feet of distribution piping were removed from their locations at Cline's Tesoro in Anchorage, Alaska. Figures 2 through 6 show the UST, piping, and dispenser locations and laboratory sample locations.

The tanks were situated such that one excavation was made for all the UST removals. The excavation measured approximately 50-feet by 25-feet at the surface tapering to the bottom, which was about 11-feet below original grade. In situ photoionization detector (PID) readings were elevated in soils removed from the bottom west side of the excavation under the footprint of the two 8,000-gallon gasoline tanks and an area adjacent to the east dispenser island nearest the station. Further excavation was not pursued as the foundations of the station and the building directly to the west could have been potentially compromised.

Piping associated with the subject tanks extended from the tanks to the three dispenser islands (See figure 2 and 6). The piping was drained and removed. Threaded fitting were used at the ninety degree joints. The three types of fuel piping were run in a common trench as much as possible. It appeared from field screening and laboratory samples that

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the joints were leaking at sample locations C14 and C17. Both locations were over excavated to approximately 11-feet and resampled with results below cleanup levels (See table 1).

Slotted two-inch PVC horizontal piping was installed in the footprint area of the two 8,000 gallon gasoline tanks and around the east islands as a potential remediation system component (See Figure 7).

Field Screening

A Thermo Environmental PID, Model No. 580 B was used to field-screen soils during the removal. PID readings ranged from 0.1 ppm to over range (1000 ppm plus) units volatile organics during the removals.

Laboratory Results

Two soil samples were collected from below each UST, dispenser and four pipeline joints. Samples were collected from the backhoe bucket when the excavation extended below four feet in depth. Sample locations are shown on Figures 3 through 6.

The laboratory results are summarized as follows:

- **8,000-gallon unleaded gasoline USTs.** The levels of Gasoline Range Organics (GRO) at the bottom and sidewalls of the excavation (samples C2 through C8) ranged from 9.1 mg/kg to 120 mg/kg. Quantities of the volatile organic compounds Benzene, Toluene, Ethylbenzene and Xylene (BTEX) were found in concentrations from 1.979 mg/kg to 33.6 mg/kg. The levels of benzene ranged from below laboratory method detection limits to 2.8 mg/kg.
- **4,000-gallon diesel UST.** For samples C11 and C12, the levels of Diesel Range Organics (DRO) ranged from below laboratory method detection limits to 9.6 mg/kg. The levels of total BTEX ranged from 0.68 mg/kg to 0.78 mg/kg. The levels of benzene ranged from 0.2 mg/kg to 0.8 mg/kg.
- **500-gallon waste oil UST.** The levels of DRO ranged from 11 mg/kg to 2,300 mg/kg. GRO ranged from below laboratory method detection limits to 2.3 mg/kg and Residual Range Organics (RRO) ranged from 40 mg/kg to 7,700 mg/kg. The levels of total BTEX ranged from 0.176 mg/kg to 0.3 mg/kg with the levels of benzene ranging from 0.017 mg/kg to 0.072 mg/kg. Each sample had the solvent tetrachloroethene present with levels ranging from 3.1 ug/kg to 920 ug/kg. The levels of polychlorinated biphenyls (PCBs), arsenic, cadmium, and lead were all below laboratory method detection limits. Chromium ranged from 27 mg/kg to 33 mg/kg.
- **Dispensers/Pipelines.** Samples were taken under each dispenser. Samples C14 and C15 corresponded to the south pump island with samples C45 through C48 corresponding to the two east pump islands. For the south pump island, samples C14

and C15 resulted in high GRO and DRO levels. Additional excavation was performed with confirmation samples C24 and C25 having GRO levels below method detection limits and benzene levels ranging from below method detection limits to 0.020 mg/kg. For the east pump islands, excavation was not pursued in this area because the canopy foundation could have been undermined. For samples C45 through C48, the levels of DRO ranged from 11 mg/kg to 8,500 mg/kg. GRO ranged from 1.0 mg/kg to 11,000 mg/kg. Benzene was below method detection limits in all samples. For the pipeline samples, samples C13 and C16 had low levels of DRO and GRO. Sample C13 had a benzene level of 0.023 mg/kg. At sample C17, laboratory results showed high levels of DRO and GRO. Overexcavation was performed in the area. Confirmation sample C26 resulted in levels of DRO and GRO below method detection limits.

Material Handling

Chemron of Anchorage removed residual fluids from the three fuel tanks. A total of 290 gallons of fuel and 360 gallons of water were removed from all three tanks. Statewide Petroleum removed approximately 20 gallons of sludge from the waste oil tank.

At the time of the UST excavations, all four tanks appeared to be in excellent condition with no surface rust. The manufacture labels were still readable and intact and the paint was in good condition. None of the tanks had any apparent leaks or holes. The fill pipe on the northern 8,000-gallon UST fell over during excavation around the pipe (See photo 6). The fitting was completely broken near the tank body and appeared to be recent as there was no rust on the exposed metal. The other fill pipes and vent pipe fittings appeared to be intact with typical light surface rust. All the USTs were cut open at both ends by Statewide Petroleum. No sludge was present in the three fuel tanks. The waste oil tank was cleaned with absorbent material which was disposed of by Statewide Petroleum.

QUALITY ASSURANCE/QUALITY CONTROL

All samples were extracted and analyzed within holding times. Methylene chloride was detected in several samples in C19 through C23 at levels ranging from 6.9 ug/kg to 9.1 ug/kg. The laboratory attributes this to laboratory contamination. Three laboratory quality control sample matrix spike concentrations were outside of lab specifications for the metals chromium and lead (70-130%). These percent differences were attributed to the concentration of the lab spike being more than four times the concentration of the duplicate. See the individual quality assurance case narratives in Appendix B for details. All other quality assurance and quality control parameters were met.

DISCUSSION

Petroleum impacts were present in the UST excavations and east dispenser island area. Assuming ADEC Method Two cleanup levels apply to this site, laboratory results show that soil levels are above regulatory levels for several parameters. The east pump islands

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area showed analytical results over the regulatory limits for GRO and DRO. Benzene was over the Method Two level of 0.02 mg/kg in several areas. As a result of field observations and laboratory results, horizontal slotted PVC piping was installed during excavation in the event a remedial effort including vapor extraction or bioventing is deemed appropriate.

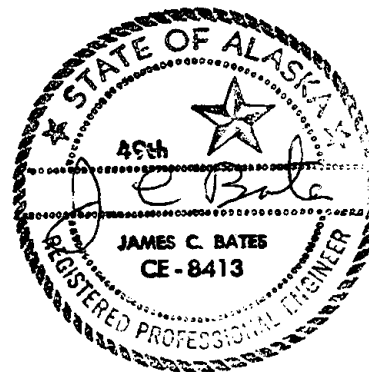
LIMITATIONS

Work for this project was performed, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same and similar localities at the time the work was completed. It is intended for the exclusive use of The Dean Company and Cline's Tesoro. This report is not meant to represent a legal opinion and no other warrantee, express or implied, is made.

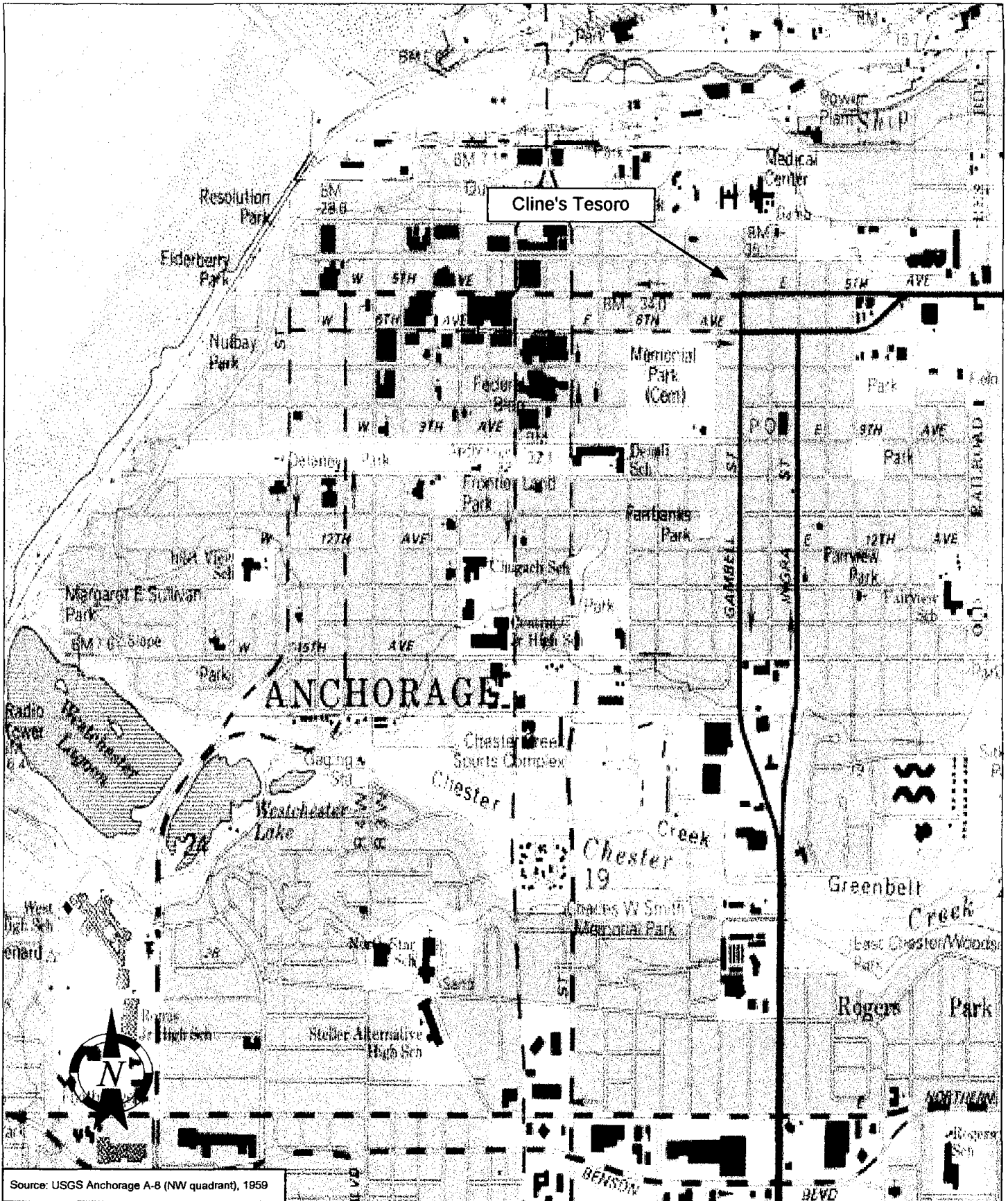
Sincerely,
Bristol Environmental Services Corporation



James C. Bates, P. E.
Senior Project Engineer

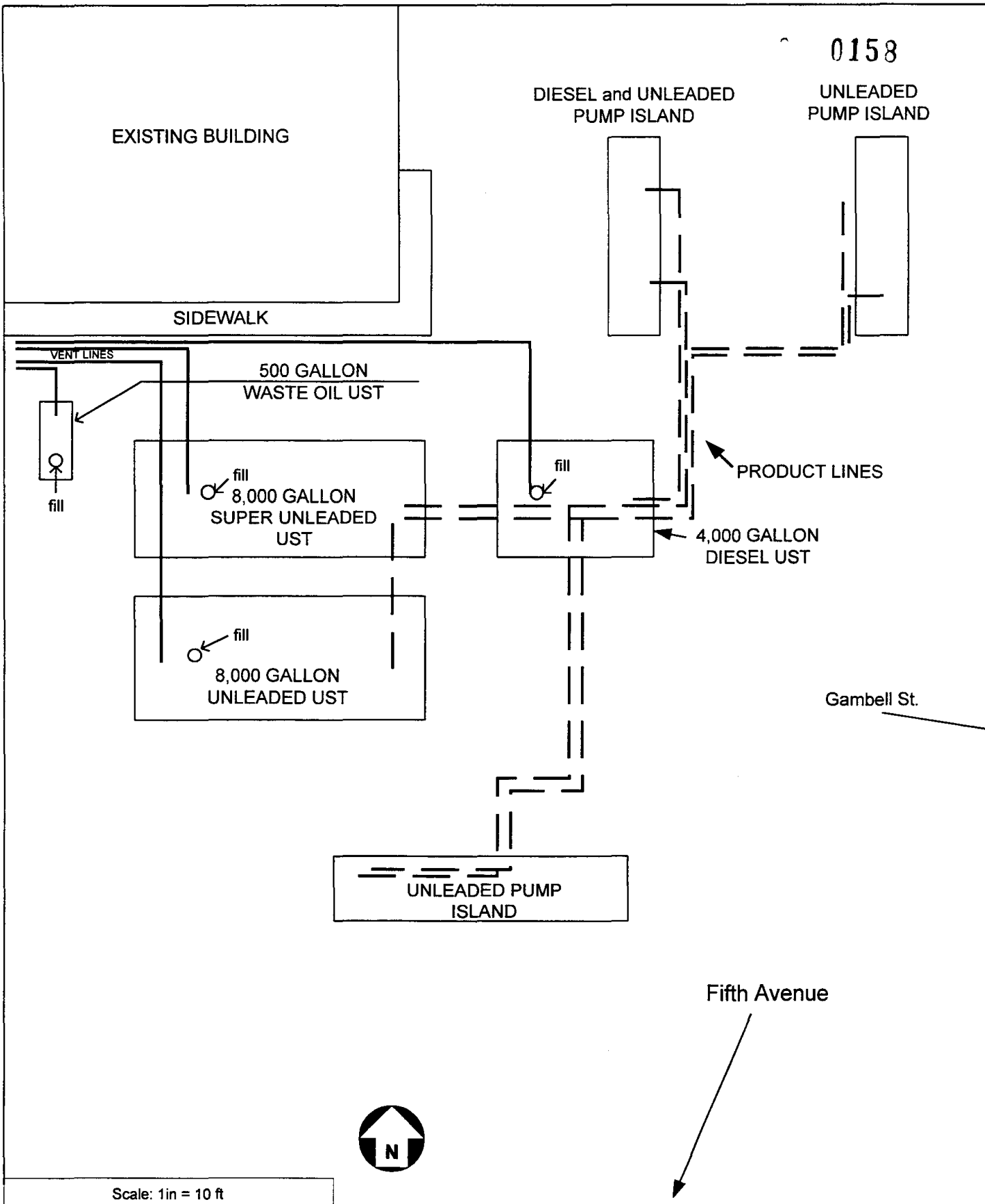


Figures



Source: USGS Anchorage A-8 (NW quadrant), 1959

<p>Bristol Environmental Services Corporation</p>	<p>Site Location Map Cline's Tesoro</p>	<p>Date: May 1998</p>	<p>Figure 1</p>
		<p>Drawn by: AMF</p>	<p>Project No: 9001YJ-00</p>



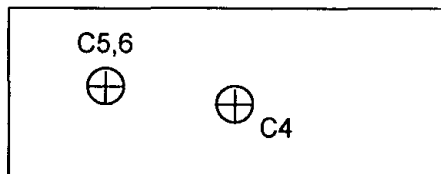
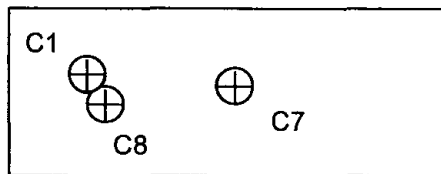
Scale: 1in = 10 ft

Bristol Environmental Services Corporation

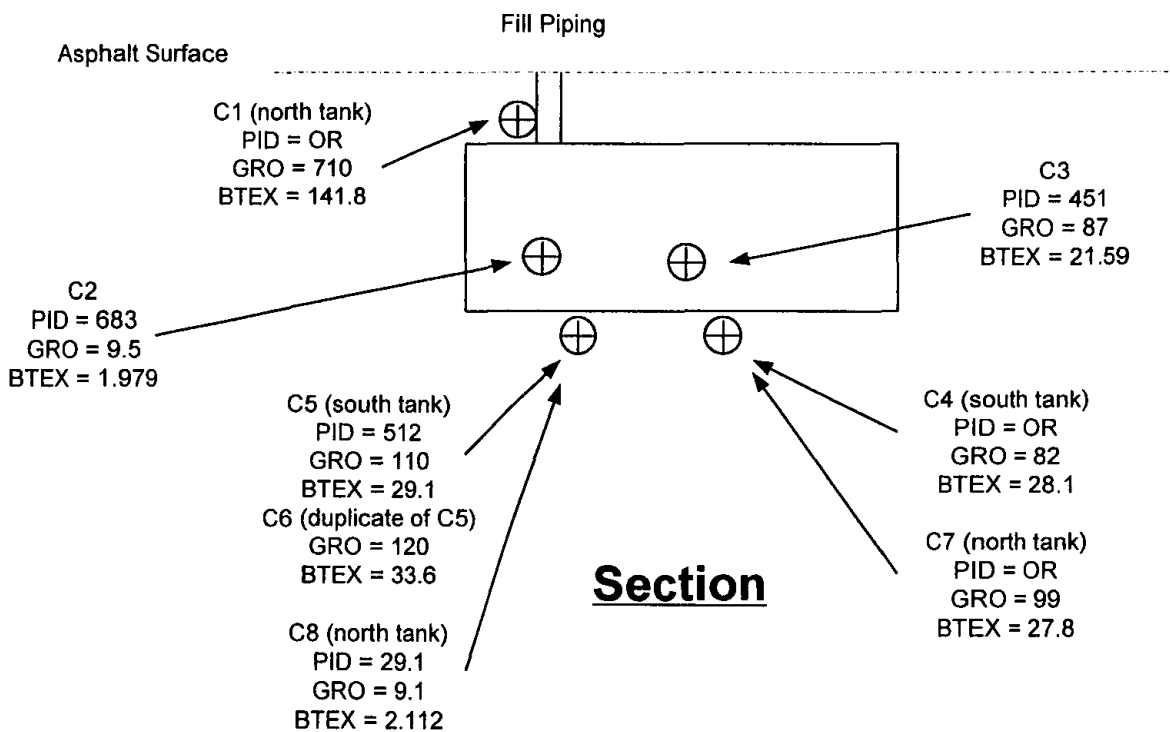
Client: The Dean Company

SITE MAP
for
Cline's Tesoro
Anchorage, AK

Drawn by: JBB	Figure 2
Checked by: J B	Job No. 9001YJ-00



Plan



Section

Scale: 1" = 10'
0 10 ft. 20ft



LEGEND

Concentrations in milligrams per kilogram
 OR = Overrange (>1000 ppm)
 PID = Photoionization Detector
 GRO = Gasoline Range Organics
 BTEX = Benzene, Toluene, Ethylbenzene and Xylenes (total)
 ⊕ Laboratory Sample

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Client: The Dean Company

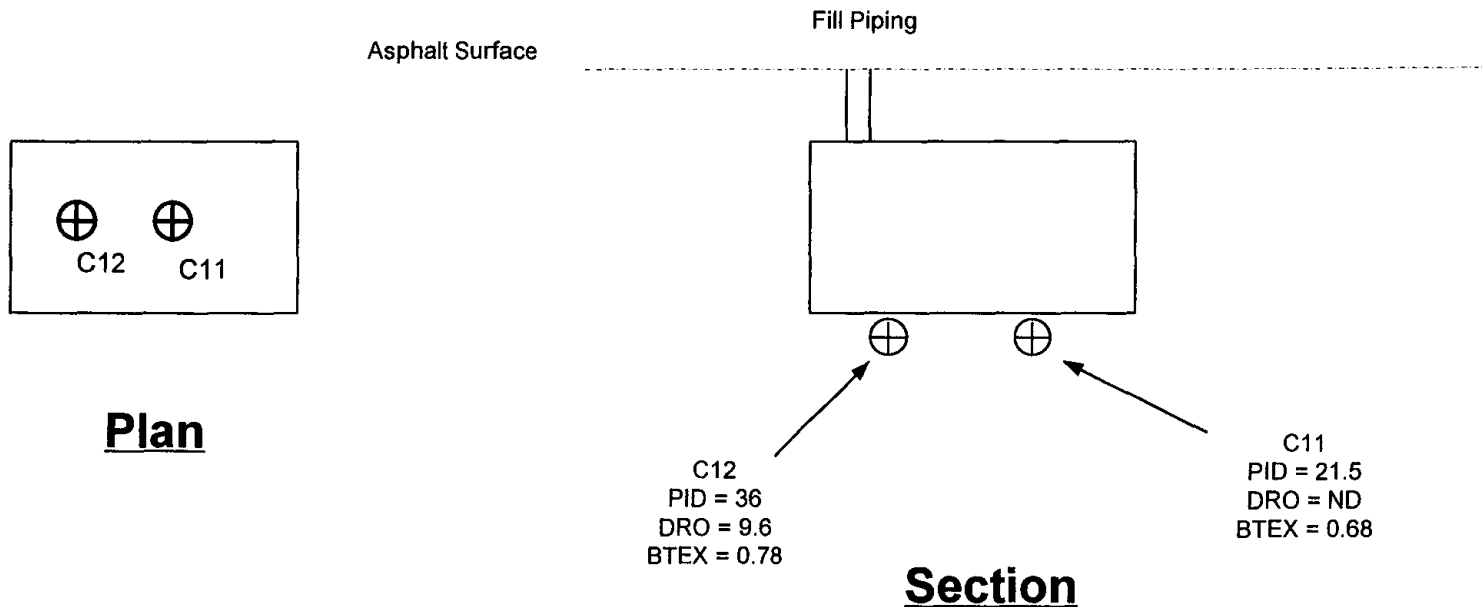
**SAMPLE LOCATION MAP FOR 8,000 GAL. UNLEADED USTS
 PLAN and SECTION VIEWS
 Cline's Tesoro, Anchorage, AK**

Drawn by:
JBB

Figure 3

Checked by:
J B

Project No.
9001YJ-00



C12
 PID = 36
 DRO = 9.6
 BTEX = 0.78

C11
 PID = 21.5
 DRO = ND
 BTEX = 0.68

LEGEND

Concentrations in milligrams per kilogram
 PID = Photoionization Detector
 DRO = Gasoline Range Organics
 BTEX = Benzene, Toluene, Ethylbenzene and Xylenes (total)
 ND = Not Detected

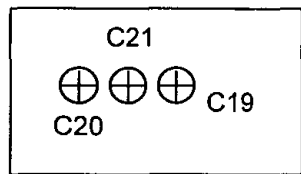
⊕ Laboratory Sample

Scale: 1" = 10'
 0 10 ft. 20ft

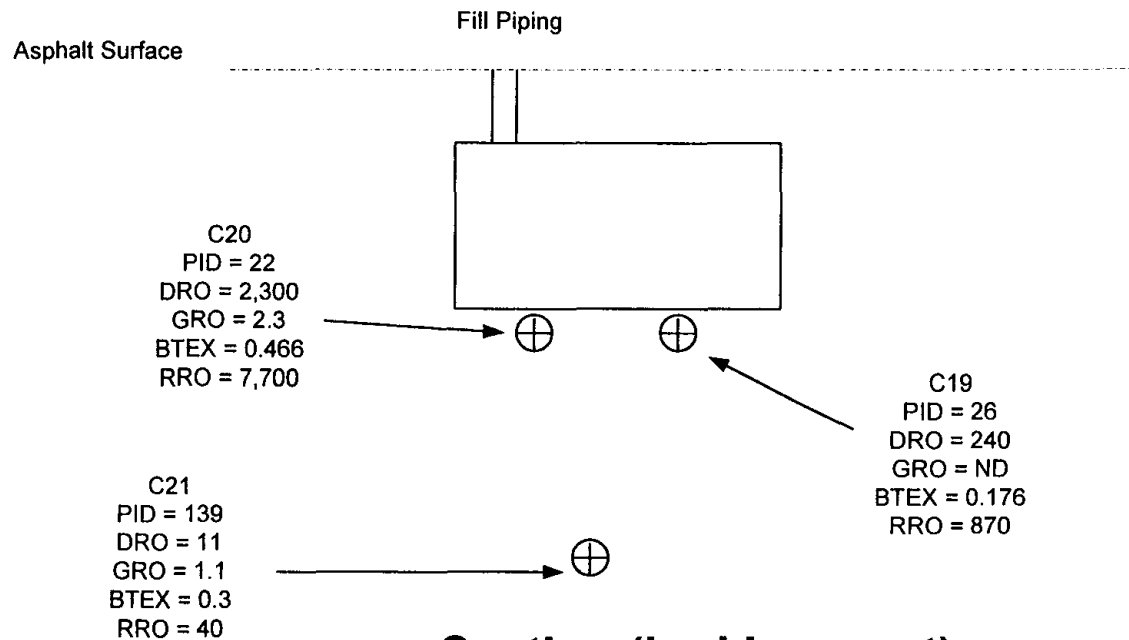


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Bristol Environmental Services Corporation Client: The Dean Company	SAMPLE LOCATION MAP FOR 4,000-GALLON DIESEL UST PLAN and SECTION VIEW Cline's Tesoro, Anchorage, AK	Drawn by: JBB	Figure 4
		Checked by: J B	Project No. 9001YJ-00



Plan



Section (looking west)

LEGEND

Concentrations in milligrams per kilogram

PID = Photoionization Detector

DRO = Diesel Range Organics

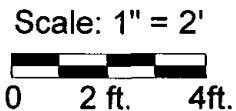
GRO = Gasoline Range Organics

RRO = Residual Range Organics

BTEX = Benzene, Toluene, Ethylbenzene and Xylenes (total)

ND = Not Detected

⊕ Laboratory Sample



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Bristol Environmental Services Corporation

Client: The Dean Company

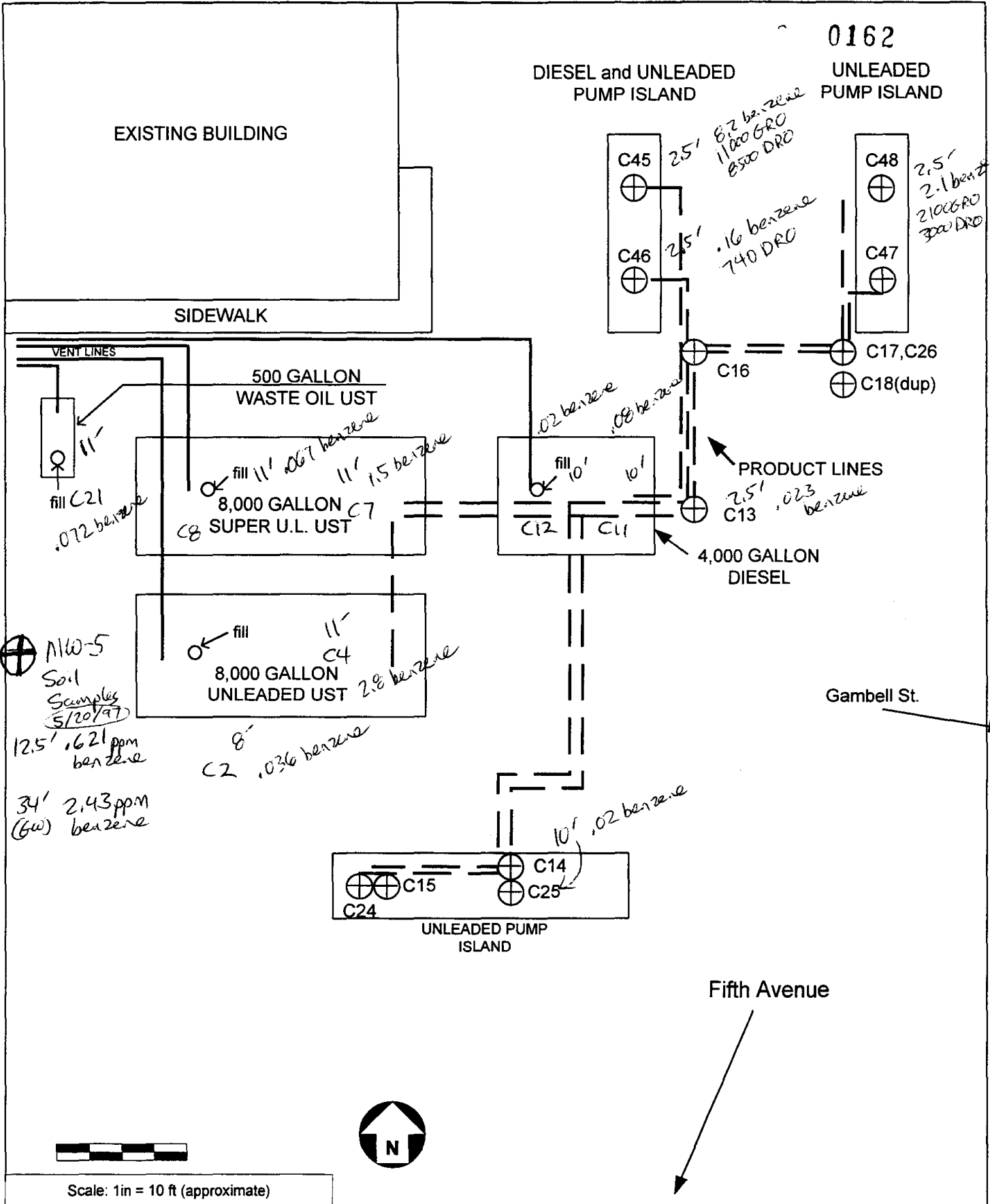
**SAMPLE LOCATION MAP FOR 500-GALLON WASTE OIL UST
PLAN and SECTION VIEW
Cline's Tesoro, Anchorage, AK**

Drawn by:
JBB

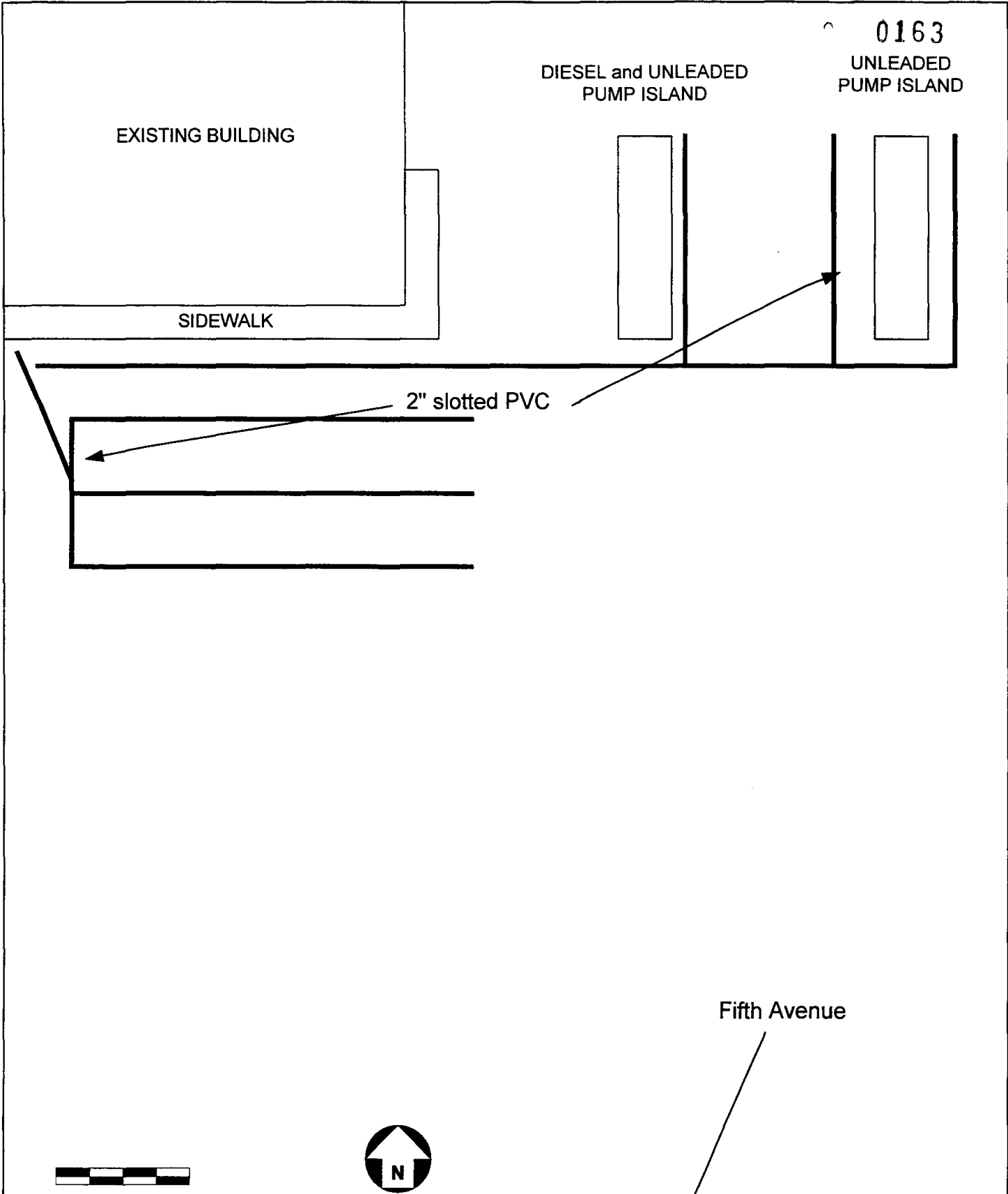
Figure 5

Checked by:
J B

Project No.
9001YJ-00



<p>Bristol Environmental Services Corporation</p> <p>Client: The Dean Company</p>	<p>SAMPLE LOCATION MAP FOR DISTRIBUTION LINES AND PRODUCT DISPENSERS</p> <p>Cline's Tesoro, Anchorage, AK</p>	<p>Drawn by: JBB</p> <p>Checked by: J B</p>	<p>Figure 6</p> <p>Job No. 9001YJ-00</p>
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Client: The Dean Company

Slotted Pipe Location Map
Cline's Tesoro
Anchorage, AK

Drawn by: JBB	Figure 7
Checked by: JB	Job No. 9001YJ-00

Tables

TABLE 1
Analytical Results for Soil Samples
Cline's Tesoro, Anchorage, Alaska
 Bristol Environmental Services Corporation

Sample Number	Sample Date	Sample Location	Depth below ground surface in feet	Benzene (EPA 8020) mg/kg	Toluene (EPA 8020) mg/kg	Ethylbenzene (EPA 8020) mg/kg	Xylenes, total (EPA 8020) mg/kg	DRO (AK 102) mg/kg	GRO (AK 101) mg/kg	Lead (EPA 7421) mg/kg	PID
C26	14-Apr-98	Confirmation of C17	~2.5	0.017	0.069	0.018	0.073	U	U (1.4)	6.7	2.1
C27	14-Apr-98	Duplicate of C26	~2.5	U (0.016)	0.036	U (0.016)	0.035	U	U (1.6)	5.7	Duplicate
C28	14-Apr-98	Clean stockpile	0.0	U (0.012)	0.015	U (0.012)	0.051	120	U (1.2)	NT	3.0
C29	14-Apr-98	Clean stockpile	0.0	U (0.014)	0.027	0.018	0.11	26	U (1.4)	NT	0.9
C30	14-Apr-98	Clean stockpile	0.0	U (0.011)	0.02	0.016	0.099	29	1.1	NT	1.3
C31	14-Apr-98	Clean stockpile	0.0	U (0.012)	0.017	U (0.012)	0.023	6.2	U (1.2)	5.1	10.0
C32	14-Apr-98	Clean stockpile	0.0	U (0.11)	0.026	0.013	0.047	4.7	U (1.1)	5.6	0.7
C33	14-Apr-98	Clean stockpile	0.0	U (0.009)	U (0.009)	U (0.009)	U (0.009)	U (4.1)	U (0.90)	5.1	5.0
C34	14-Apr-98	Clean stockpile	0.0	U (0.008)	U (0.008)	U (0.008)	0.013	20	U (0.80)	7.6	0.1
C35	15-Apr-98	Impacted stockpile	0.0	0.040	0.56	0.14	0.98	50	8.0	24	5.7
C36	15-Apr-98	Duplicate of C35	0.0	0.087	1.0	0.32	2	45	16	22	Duplicate
C37	15-Apr-98	Clean stockpile	0.0	U (0.037)	0.12	0.074	0.66	11	4.5	6.3	0.3
C38	15-Apr-98	Clean stockpile	0.0	U (0.011)	0.017	0.011	0.064	5.0	U (1.1)	5.9	0.3
C39	15-Apr-98	Clean stockpile	0.0	U (0.009)	0.022	0.017	0.11	9.9	U (0.90)	6.0	1.6
C40	15-Apr-98	Impacted stockpile	0.0	0.56	8.4	4.1	32	56	180	11	Overrange
C41	15-Apr-98	Duplicate of C40	0.0	0.52	9.0	4.2	31	78	180	9.9	Duplicate
C42	15-Apr-98	Impacted stockpile	0.0	0.19	2.6	1.6	14	87	80	9.4	74.4
C43	15-Apr-98	Impacted stockpile	0.0	0.23	5.3	2.9	23	90	120	11	59.0
C44	15-Apr-98	Impacted stockpile	0.0	0.14	2.0	1.0	7.8	34	43	13	27.3
C45	21-Apr-98	East dispensers	~2.5	U (8.2)	19	17	2600	8500	11000	41	Overrange
C46	21-Apr-98	East dispensers	~2.5	U (0.16)	U (0.16)	0.20	18	740	130	19	192.0
C47	21-Apr-98	East dispensers	~2.5	U (0.009)	0.037	0.013	0.15	11	1.0	6.9	283.0
C48	21-Apr-98	East dispensers	~2.5	U (2.1)	67.0	14	400	3000	2100	8.6	585.0
C49	21-Apr-98	Impacted stockpile	0.0	U (6.7)	U (6.7)	U (6.7)	820	4600	4600	23	Overrange

102 5.4 5.5 78 250 300
 Regulatory Limits based on Method Two 18 AAC 75

Notes: DRO = Diesel Range Organics
 GRO = Gasoline Range Organics
 RRO = Residual Range Organics
 NT = Not Tested
 Overrange = 1500 units plus volatile organics
 U = Below method detection limits
 UL = Unleaded gasoline
 Bold = above ADEC regulatory limits
 Highlight = Confirmation sample

Benzene = 0.02 mg/kg
 Ethylbenzene = 6 mg/kg
 Toluene = 5 mg/kg
 Xylene (total) = 78
 GRO = 100 mg/kg
 DRO = 200 mg/kg
 RRO = 11,000 mg/kg
 Lead = 400 mg/kg (residential standard)

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TABLE 1
Analytical Results for Soil Samples
Cline's Tesoro, Anchorage, Alaska
 Bristol Environmental Services Corporation

Sample Number	Sample Date	Sample Location	Depth below ground surface in feet	Benzene (EPA 8020) mg/kg	Toluene (EPA 8020) mg/kg	Ethylbenzene (EPA 8020) mg/kg	Xylenes, total (EPA 8020) mg/kg	DRO (AK 102) mg/kg	GRO (AK 101) mg/kg	Lead (EPA 7421) mg/kg	PID
C1	8-Apr-98	North 8,000 gallon fill pipe (UL)	~2	2.3	13	6.5	120	NT	710	25	Overrange
C2	9-Apr-98	South of southern 8000 gallon (UL)	~8	0.036	0.25	0.093	1.6	NT	9.5	3.6	683
C3	9-Apr-98	South center of south 8000 gallon (UL)	~9	U (0.20)	1.9	0.69	19	NT	87	3.8	451
C4	9-Apr-98	Center of south 8000 gallon (UL)	~10-11	2.8	12	1.3	12	NT	82	3.8	Overrange
C5	9-Apr-98	West (fill) of southern 8000 gallon (UL)	~10-11	U (0.26)	3.1	U (0.26)	26	NT	110	4.2	512
C6	9-Apr-98	Duplicate of C5	~10-11	U (0.23)	3.6	U (0.23)	30	NT	120	4.3	Duplicate
C7	9-Apr-98	Center of north 8000 gallon (UL)	~10-11	1.5	9.5	1.8	15	NT	99	11	Overrange
C8	9-Apr-98	West (fill) of north 8000 gallon (UL)	~10-11	0.067	0.39	0.055	1.6	NT	9.1	7.7	29.1
C9	10-Apr-98	Clean stockpile	0.0	0.025	0.022	U (0.011)	0.059	NT	U (1.1)	22	2.1
C10	10-Apr-98	Clean stockpile	0.0	0.032	0.032	0.012	0.065	NT	U (1.1)	37	3.9
C11	10-Apr-98	Center of 4000 gallon diesel	~10	0.08	0.160	0.05	0.39	U (4.1)	NT	NT	21.5
C12	10-Apr-98	West (fill) of 4000 gallon diesel	~10	0.02	0.09	0.03	0.64	9.6	NT	NT	36.0
C13	10-Apr-98	Pipeline Joint (see figure 6)	~2-5	0.023	0.059	0.025	0.360	U (4.1)	2.7	3.9	4.5
C14	10-Apr-98	Pipeline Joint (see figure 6)	~1	85	470	94	500	67	3500	17	Overrange
C15	10-Apr-98	South Dispenser	~1	18	100	18	97	450	740	88	Overrange
C16	10-Apr-98	Pipeline Joint (see figure 6)	~1	0.015	0.11	0.077	1.9	12	11	7.5	7.5
C17	10-Apr-98	Pipeline Joint (see figure 6)	~1	81	840	210	1900	1400	12000	55	Overrange
C18	10-Apr-98	Duplicate of C17	~1	56	570	140	1200	1800	7600	57	Duplicate
C19	10-Apr-98	Center of waste oil tank	~8	0.017	0.042	0.018	0.099	240	U (1.4)	ND	26
C20	10-Apr-98	South (fill) of waste oil tank	~8	0.026	0.084	0.046	0.31	2300	2.3	ND	22
C21	10-Apr-98	Confirmation of C20 overex	~11	0.072	0.120	0.017	0.091	11	1.10	ND	139
C22	10-Apr-98	Stockpile waste oil tank	0.0	0.030	0.062	0.026	0.091	370	U (1.7)	ND	328
C23	10-Apr-98	Stockpile waste oil tank	0.0	0.075	0.043	U (0.015)	0.033	1100	U (1.5)	ND	417
C24	13-Apr-98	Confirmation below C15	~10	U (0.011)	0.052	0.011	0.13	NT	U (1.1)	17	9.6
C25	13-Apr-98	Confirmation below C14	~10	0.020	0.11	0.018	0.12	NT	U (1.2)	4.6	3.9

Notes: DRO = Diesel Range Organics
 GRO = Gasoline Range Organics
 RRO = Residual Range Organics
 NT = Not Tested
 Overrange = 1500 units plus volatile organics
 U = Below method detection limits
 UL = Unleaded gasoline
 Bold = above ADEC regulatory limits
 Highlight = Confirmation sample

Regulatory Limits based on Method Two 18 AAC 75

Benzene = 0.02 mg/kg
 Ethylbenzene = 6 mg/kg 5.5
 Toluene = 6 mg/kg 5.4
 Xylene (total) = 78
 GRO = 100 mg/kg (300) 50
 DRO = 200 mg/kg (250) 100 ← Level A
 RRO = 11,000 mg/kg (10,000) 2000
 Lead = 400 mg/kg (residential standard)

Celine, RSK

10,000 RRO

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TABLE 2
Analytical Results for 500-gallon Waste Oil UST
Cline's Tesoro, Anchorage, Alaska
 Bristol Environmental Services Corporation

Sample Number	Sample Date	Sample Location	Volatile Chlorinated Solvents ug/kg	Arsenic mg/kg	Cadmium mg/kg	Chromium mg/kg	Lead mg/kg	RRO mg/kg	Polychlorinated Biphenyls ug/kg	Depth Below Ground Surface in feet
C19	10-Apr-98	Center	7.9 (Methylene chloride)* 3.1 (Tetrachloroethene)	U (5.3)	U (0.53)	31	U (5.3)	870	U (35)	~8
C20	10-Apr-98	Fill	6.9 (Methylene chloride)* 920 (Tetrachloroethene)#	U (5.3)	U (0.53)	27	U (5.3)	7,700	U (35)	~8
C21	10-Apr-98	Below C20	9.1 (Methylene chloride)* 5.4 (Tetrachloroethene)	U (5.3)	U (0.53)	33	U (5.3)	40	U (34)	~11
C22	10-Apr-98	Stockpile	8.1 (Methylene chloride)* 21 (Tetrachloroethene)	U (5.3)	U (0.53)	36	U (5.3)	1,300	U (34)	0
C23	10-Apr-98	Stockpile	8.1 (Methylene chloride)* 21 (Tetrachloroethene)	5.2	U (0.52)	31	U (5.2)	3,600	U (35)	0

Notes: * Attributable to laboratory contamination
 # Analyte was diluted to bring within instrument calibration range or to remove matrix interference
 RRO = Residual Range Organics
 U - below method detection limits

Regulatory limits based on ADEC Method Two of 18 AAC 75 (May 4, 1998)

Lead 400 mg/kg based on residential standard

PCB Determined on a site specific basis based under EPA PCB Spill Cleanup Policy, 40 CFR 761

RRO 11,000 mg/kg 10k

Methylene Chloride .015 ppm 15ppb

Tetrachloroethene .03 ppm 30ppb

Appendix A
Site Photographs



Cline's Tesoro, Anchorage, Alaska

Photo 1: Chemron removing fluids from tanks, looking south.



Cline's Tesoro, Anchorage, Alaska

Photo 2: Exposing southern 8,000 gallon unleaded UST, looking west.



Cline's Tesoro, Anchorage, Alaska

Photo 3: Removing piping near south dispenser, looking west.



Cline's Tesoro, Anchorage, Alaska

Photo 4: Exposing product lines along the east islands, looking east.

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Cline's Tesoro, Anchorage, Alaska

Photo 5: Exposing north and south 8,000 gallon unleaded tanks, looking west.



Cline's Tesoro, Anchorage, Alaska

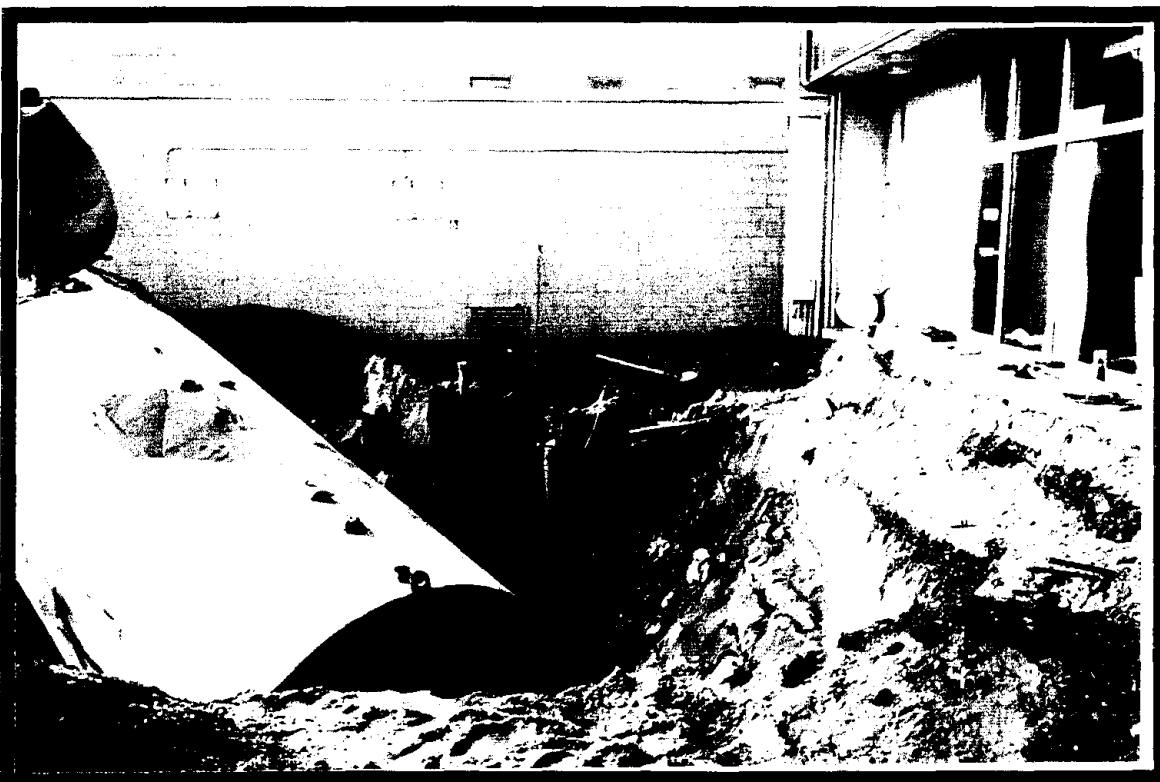
Photo 6: Exposing north 8,000 gallon fill pipe. note broken fill pipe (center), looking SW.

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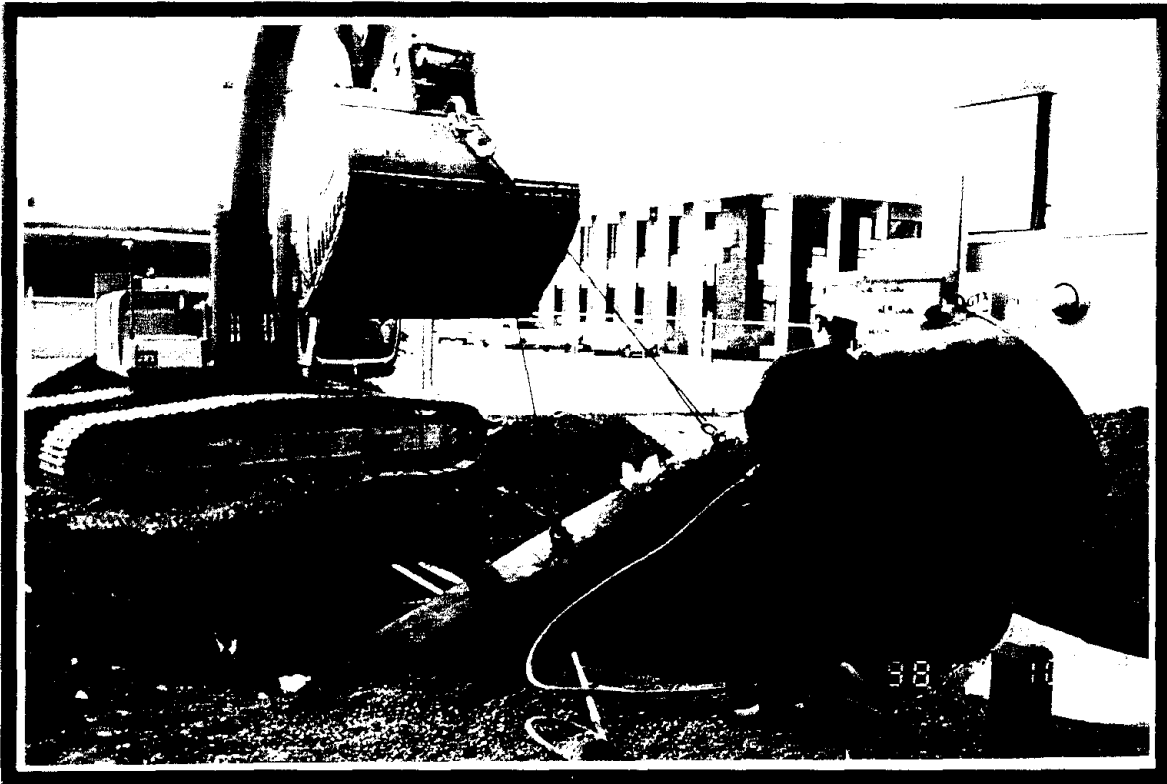
Cline's Tesoro, Anchorage, Alaska

Photo 7: Removing south 8,000 gallon UST, looking south.

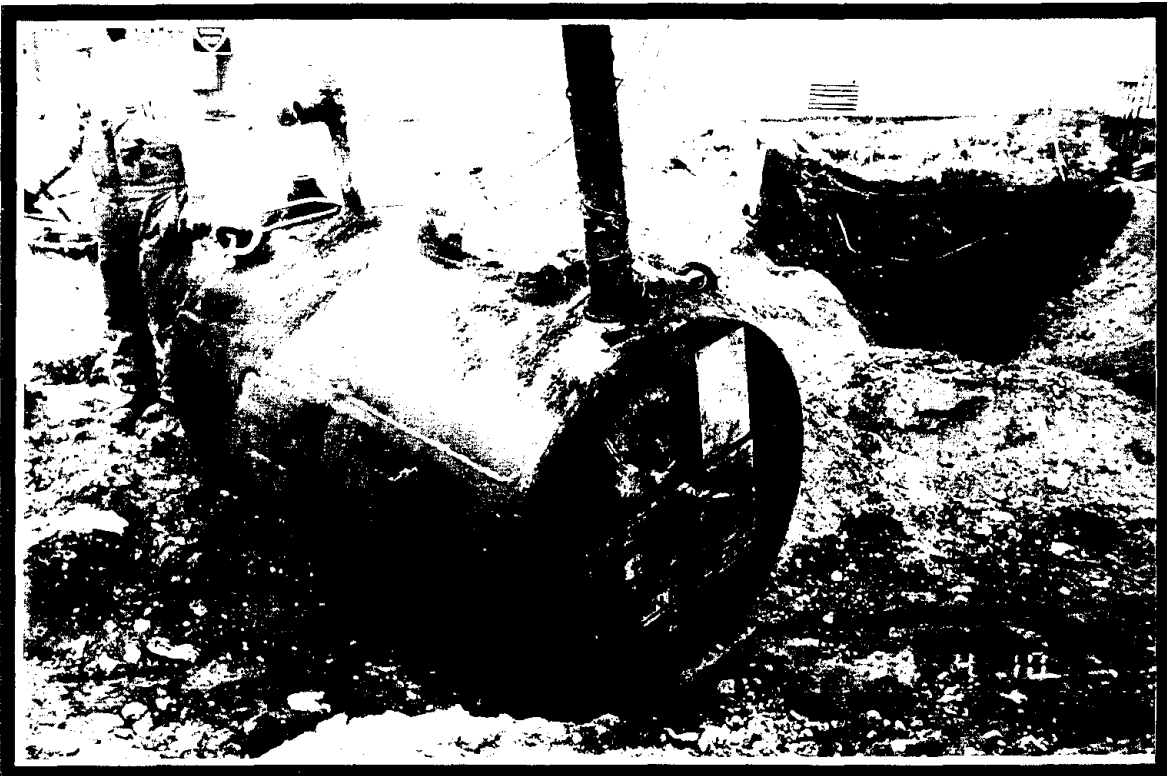


Cline's Tesoro, Anchorage, Alaska

Photo 8: Removing north 8,000 gallon UST, looking west, 500-gallon waste oil UST in back.



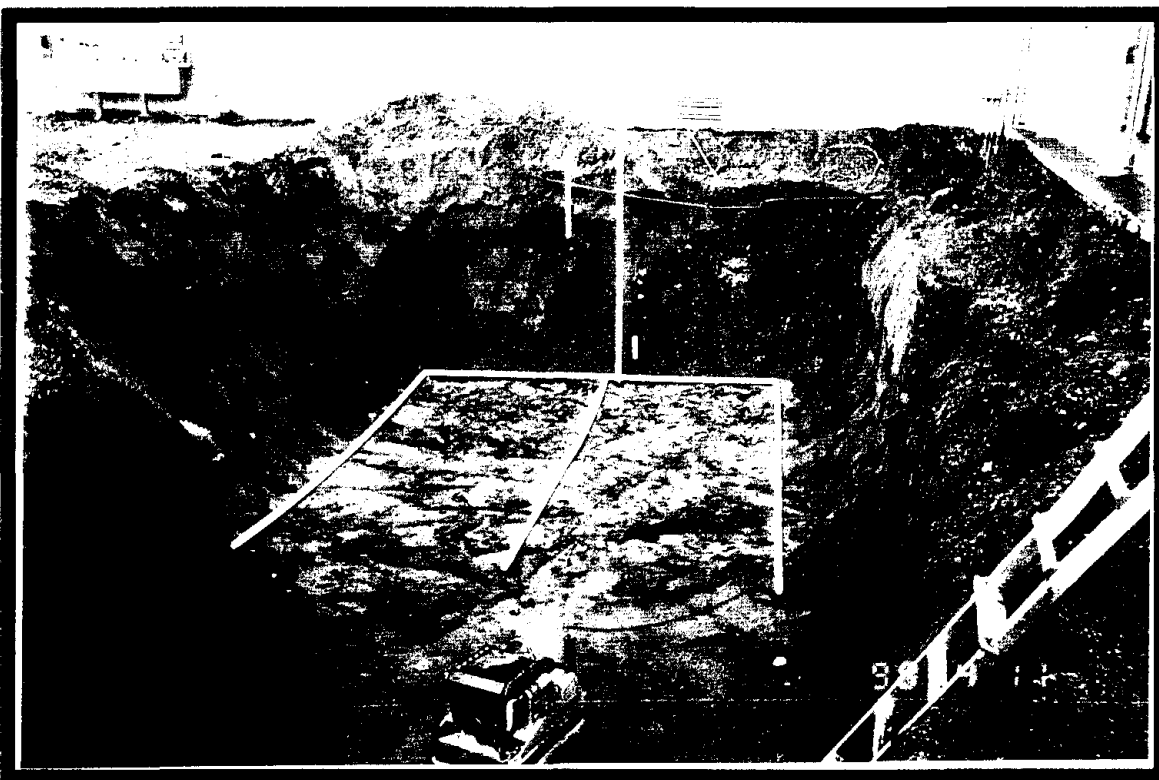
Cline's Tesoro, Anchorage, Alaska
Photo 9: Removing 4,000 gallon UST, looking south.



Cline's Tesoro, Anchorage, Alaska
Photo 10: 500 gallon waste oil tank after removal, looking west.



Cline's Tesoro, Anchorage, Alaska
Photo 11: Excavation after tanks removed, looking west.



Cline's Tesoro, Anchorage, Alaska
Photo 12: Horizontal slotted PVC array installed at former location of two 8,000 gallon USTs.



Cline's Tesoro, Anchorage, Alaska

Photo 13: Clean stockpile and covered waste oil stockpile, looking north.



Cline's Tesoro, Anchorage, Alaska

Photo 14: Impacted stockpile at Alaska Soil Recycling.

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Cline's Tesoro, Anchorage, Alaska
Photo 15: Final excavation for new UST, looking east.



Cline's Tesoro, Anchorage, Alaska
Photo 16: Final excavation for new UST, looking southwest.

Appendix B

Analytical Results and Quality Assurance/Quality Control Measurements



0180

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

an Analytica Group company

Bristol Environmental
201 E. 56th Avenue
Anchorage, AK 99518

Attn: Jim Bates

Order #: 98-04-110
Date: 04/28/98 16:12
Work ID: Clines Tesoro
Date Received: 04/14/98
Date Completed: 04/28/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C1	12	C14
02	C2	13	C15
03	C3	14	C16
04	C4	15	C17
05	C5	16	C18
06	C6	17	C19
07	C7	18	C20
08	C8	19	C21
09	C9	20	C22
10	C10	21	C23
11	C13		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Jeanine M. Camp
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Methods for Chemical Analysis of Water and Wastes, USEPA 600/4-79-020, March 1983.
- o Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR, Part 136, 7-1-94 Edition.

Problems encountered with the analyses are discussed in the following narrative.

The 8021 soil results are reported with target analyte methylene chloride values flagged with a "B". This denotes that this compound was also detected in the associated method blanks. For both days of analysis, methylene chloride was detected at 6.9 ug/L (04/24/98) and 4.6 ug/L (04/23/98) in the method blanks. Methylene chloride is a commonly used laboratory solvent. The methylene chloride values reported in the sample results are attributable to laboratory contamination. Analytica is actively trying to solve this problem. The source of contamination is believed to be the ventilation system in the laboratory.

All 8021 sample results are reported with the surrogate recoveries outside QC limits with the exception of sample C20. These surrogate outliers are due to the sample matrix and soil media type biasing the internal standard and surrogate recoveries. These results were verified in secondary analyses. Sample C20 is reported with the surrogate recovery within QC limits. This is due to the concentration of tetrachloroethene in this sample which necessitated a medium level extraction.

The 8021 matrix spike/matrix spike duplicate performed on sample C21 also is reported with some of the spike recoveries below QC limits. This is also attributable to soil media type interfering with these recoveries. The method blank and method blank spike show acceptable recoveries demonstrating good laboratory performance.

The sample chosen for QC analysis (C23) showed high matrix spike recovery for chromium (162%) this is higher than our QC standards (70-130%). Since the concentration of chromium is more than four times higher than that of the spike, the percentage spike recovery is irrelevant.

Sample: 01A C1 Collected: 04/08/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	25	D	1.0	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	3.60		0.1	WT%	04/16/98

Sample: 02A C2 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	3.6		0.11	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	7.00		0.1	WT%	04/16/98

Sample: 03A C3 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	3.8		0.11	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	7.00		0.1	WT%	04/16/98

Sample: 04A C4 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	3.8		0.11	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	8.30		0.1	WT%	04/16/98

Sample: 05A C5 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	4.2		0.11	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	7.90		0.1	WT%	04/16/98

Sample: 06A C6 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	4.3		0.11	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	6.10		0.1	WT%	04/16/98

Sample: 07A C7 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	11	D	0.21	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	4.90		0.1	WT%	04/16/98

Sample: 08A C8 Collected: 04/09/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	7.7	D	0.23	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	14.5		0.1	WT%	04/16/98

Sample: 09A C9 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	22	D	0.53	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	6.30		0.1	WT%	04/16/98

Sample: 10A C10 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	37	D	1.1	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	5.00		0.1	WT%	04/16/98

Sample: 11A C13 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	3.9		0.10	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	3.40		0.1	WT%	04/16/98

Sample: 12A C14 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	17	D	0.56	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	11.0		0.1	WT%	04/16/98

Sample: 13A C15 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	88	D	2.2	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	7.10		0.1	WT%	04/16/98

Sample: 14A C16 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	7.5	D	0.23	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	13.7		0.1	WT%	04/16/98

Sample: 15A C17 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	55	D	1.1	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	10.6		0.1	WT%	04/16/98

Sample: 16A C18 Collected: 04/10/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	57	D	1.1	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	6.30		0.1	WT%	04/16/98

Sample: 17A C19

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A					
Dichlorodifluoromethane		ND		2.1	ug/Kg-DRY	04/24/98
Chloromethane		ND		3.2	ug/Kg-DRY	04/24/98
Vinyl Chloride		ND		3.2	ug/Kg-DRY	04/24/98
Bromomethane		ND		3.2	ug/Kg-DRY	04/24/98
Chloroethane		ND		3.2	ug/Kg-DRY	04/24/98
Trichlorofluoromethane		ND		4.3	ug/Kg-DRY	04/24/98
1,1-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
Methylene Chloride		7.9	B	5.3	ug/Kg-DRY	04/24/98
trans-1,2-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,1-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Chloroform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,1-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Carbon Tetrachloride		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Trichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloropropane		ND		1.1	ug/Kg-DRY	04/24/98
Bromodichloromethane		ND		2.1	ug/Kg-DRY	04/24/98
2-Chloroethylvinylether		ND		3.2	ug/Kg-DRY	04/24/98
cis-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
trans-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Tetrachloroethene		3.1		1.1	ug/Kg-DRY	04/24/98
Dibromochloromethane		ND		1.1	ug/Kg-DRY	04/24/98
Chlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
Bromoform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2,2-Tetrachloroethane		ND		2.1	ug/Kg-DRY	04/24/98
(m) 1,3-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(p) 1,4-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(o) 1,2-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
SURROGATES, % Recovery						
4-Bromochlorobenzene		59.4	*	Min:	70	Max: 130

Sample: 17A C19

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
ICP Metals, Total	SW 6010A					
Arsenic		ND		5.3	mg/Kg-DRY	04/20/98
Cadmium		ND		0.53	mg/Kg-DRY	04/20/98
Chromium		31		1.1	mg/Kg-DRY	04/20/98
Lead		ND		5.3	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	6.30		0.1	WT%	04/16/98
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		35	ug/Kg-DRY	04/20/98
PCB-1232		ND		18	ug/Kg-DRY	04/20/98
PCB-1242		ND		18	ug/Kg-DRY	04/20/98
PCB-1248		ND		18	ug/Kg-DRY	04/20/98
PCB-1254		ND		18	ug/Kg-DRY	04/20/98
PCB-1260		ND		18	ug/Kg-DRY	04/20/98
PCB-1016		ND		18	ug/Kg-DRY	04/20/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		40.8		Min:	11	Max: 102
Decachlorobiphenyl		49.3		Min:	35	Max: 141

Sample: 18A C20

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A					
Dichlorodifluoromethane		ND		2.1	ug/Kg-DRY	04/24/98
Chloromethane		ND		3.2	ug/Kg-DRY	04/24/98
Vinyl Chloride		ND		3.2	ug/Kg-DRY	04/24/98
Bromomethane		ND		3.2	ug/Kg-DRY	04/24/98
Chloroethane		ND		3.2	ug/Kg-DRY	04/24/98
Trichlorofluoromethane		ND		4.2	ug/Kg-DRY	04/24/98
1,1-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
Methylene Chloride		6.9	B	5.3	ug/Kg-DRY	04/24/98
trans-1,2-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,1-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Chloroform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,1-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Carbon Tetrachloride		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Trichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloropropane		ND		1.1	ug/Kg-DRY	04/24/98
Bromodichloromethane		ND		2.1	ug/Kg-DRY	04/24/98
2-Chloroethylvinylether		ND		3.2	ug/Kg-DRY	04/24/98
cis-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
trans-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Tetrachloroethene		920	D	130	ug/Kg-DRY	04/24/98
Dibromochloromethane		ND		1.1	ug/Kg-DRY	04/24/98
Chlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
Bromoform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2,2-Tetrachloroethane		ND		2.1	ug/Kg-DRY	04/24/98
(m) 1,3-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(p) 1,4-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(o) 1,2-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
SURROGATES, % Recovery						
4-Bromochlorobenzene		97.5		Min: 70	Max: 130	

Sample: 18A C20

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
ICP Metals, Total	SW 6010A					
Arsenic		ND		5.3	mg/Kg-DRY	04/20/98
Cadmium		ND		0.53	mg/Kg-DRY	04/20/98
Chromium		27		1.1	mg/Kg-DRY	04/20/98
Lead		ND		5.3	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	5.80		0.1	WT%	04/16/98
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		35	ug/Kg-DRY	04/20/98
PCB-1232		ND		17	ug/Kg-DRY	04/20/98
PCB-1242		ND		17	ug/Kg-DRY	04/20/98
PCB-1248		ND		17	ug/Kg-DRY	04/20/98
PCB-1254		ND		17	ug/Kg-DRY	04/20/98
PCB-1260		ND		17	ug/Kg-DRY	04/20/98
PCB-1016		ND		17	ug/Kg-DRY	04/20/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		34.8		Min: 11	Max: 102	
Decachlorobiphenyl		37.7		Min: 35	Max: 141	

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Sample: 19A C21

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A					
Dichlorodifluoromethane		ND		2.1	ug/Kg-DRY	04/24/98
Chloromethane		ND		3.2	ug/Kg-DRY	04/24/98
Vinyl Chloride		ND		3.2	ug/Kg-DRY	04/24/98
Bromomethane		ND		3.2	ug/Kg-DRY	04/24/98
Chloroethane		ND		3.2	ug/Kg-DRY	04/24/98
Trichlorofluoromethane		ND		4.2	ug/Kg-DRY	04/24/98
1,1-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
Methylene Chloride		9.1	B	5.3	ug/Kg-DRY	04/24/98
trans-1,2-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,1-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Chloroform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,1-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Carbon Tetrachloride		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Trichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloropropane		ND		1.1	ug/Kg-DRY	04/24/98
Bromodichloromethane		ND		2.1	ug/Kg-DRY	04/24/98
2-Chloroethylvinylether		ND		3.2	ug/Kg-DRY	04/24/98
cis-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
trans-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Tetrachloroethene		5.4		1.1	ug/Kg-DRY	04/24/98
Dibromochloromethane		ND		1.1	ug/Kg-DRY	04/24/98
Chlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
Bromoform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2,2-Tetrachloroethane		ND		2.1	ug/Kg-DRY	04/24/98
(m)1,3-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(p)1,4-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(o)1,2-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
SURROGATES, % Recovery						
4-Bromochlorobenzene		156	*	Min: 70	Max: 130	

Sample: 19A C21

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
ICP Metals, Total	SW 6010A					
Arsenic		ND		5.3	mg/Kg-DRY	04/20/98
Cadmium		ND		0.53	mg/Kg-DRY	04/20/98
Chromium		33		1.1	mg/Kg-DRY	04/20/98
Lead		ND		5.3	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	5.50		0.1	WT%	04/16/98
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		34	ug/Kg-DRY	04/20/98
PCB-1232		ND		17	ug/Kg-DRY	04/20/98
PCB-1242		ND		17	ug/Kg-DRY	04/20/98
PCB-1248		ND		17	ug/Kg-DRY	04/20/98
PCB-1254		ND		17	ug/Kg-DRY	04/20/98
PCB-1260		ND		17	ug/Kg-DRY	04/20/98
PCB-1016		ND		17	ug/Kg-DRY	04/20/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		61.8		Min: 11	Max: 102	
Decachlorobiphenyl		64.7		Min: 35	Max: 141	

Sample: 20A C22

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A					
Dichlorodifluoromethane		ND		2.1	ug/Kg-DRY	04/24/98
Chloromethane		ND		3.2	ug/Kg-DRY	04/24/98
Vinyl Chloride		ND		3.2	ug/Kg-DRY	04/24/98
Bromomethane		ND		3.2	ug/Kg-DRY	04/24/98
Chloroethane		ND		3.2	ug/Kg-DRY	04/24/98
Trichlorofluoromethane		ND		4.2	ug/Kg-DRY	04/24/98
1,1-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
Methylene Chloride		8.1	B	5.3	ug/Kg-DRY	04/24/98
trans-1,2-Dichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,1-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Chloroform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,1-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Carbon Tetrachloride		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Trichloroethene		ND		1.1	ug/Kg-DRY	04/24/98
1,2-Dichloropropane		ND		1.1	ug/Kg-DRY	04/24/98
Bromodichloromethane		ND		2.1	ug/Kg-DRY	04/24/98
2-Chloroethylvinylether		ND		3.2	ug/Kg-DRY	04/24/98
cis-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
trans-1,3-Dichloropropene		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2-Trichloroethane		ND		1.1	ug/Kg-DRY	04/24/98
Tetrachloroethene		21		1.1	ug/Kg-DRY	04/24/98
Dibromochloromethane		ND		1.1	ug/Kg-DRY	04/24/98
Chlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
Bromoform		ND		1.1	ug/Kg-DRY	04/24/98
1,1,2,2-Tetrachloroethane		ND		2.1	ug/Kg-DRY	04/24/98
(m)1,3-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(p)1,4-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(o)1,2-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
SURROGATES, % Recovery						
4-Bromochlorobenzene		46.9	*	Min:	70	Max: 130

Sample: 20A C22

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
ICP Metals, Total	SW 6010A					
Arsenic		ND		5.3	mg/Kg-DRY	04/20/98
Cadmium		ND		0.53	mg/Kg-DRY	04/20/98
Chromium		36		1.1	mg/Kg-DRY	04/20/98
Lead		ND		5.3	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	5.10		0.1	WT%	04/16/98
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		34	ug/Kg-DRY	04/20/98
PCB-1232		ND		17	ug/Kg-DRY	04/20/98
PCB-1242		ND		17	ug/Kg-DRY	04/20/98
PCB-1248		ND		17	ug/Kg-DRY	04/20/98
PCB-1254		ND		17	ug/Kg-DRY	04/20/98
PCB-1260		ND		17	ug/Kg-DRY	04/20/98
PCB-1016		ND		17	ug/Kg-DRY	04/20/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		55.9		Min:	11	Max: 102
Decachlorobiphenyl		57.4		Min:	35	Max: 141

Sample: 21A C23

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A					
Dichlorodifluoromethane		ND		2.1	ug/Kg-DRY	04/24/98
Chloromethane		ND		3.1	ug/Kg-DRY	04/24/98
Vinyl Chloride		ND		3.1	ug/Kg-DRY	04/24/98
Bromomethane		ND		3.1	ug/Kg-DRY	04/24/98
Chloroethane		ND		3.1	ug/Kg-DRY	04/24/98
Trichlorofluoromethane		ND		4.2	ug/Kg-DRY	04/24/98
1,1-Dichloroethene		ND		1.0	ug/Kg-DRY	04/24/98
Methylene Chloride		8.1	B	5.2	ug/Kg-DRY	04/24/98
trans-1,2-Dichloroethene		ND		1.0	ug/Kg-DRY	04/24/98
1,1-Dichloroethane		ND		1.0	ug/Kg-DRY	04/24/98
Chloroform		ND		1.0	ug/Kg-DRY	04/24/98
1,1,1-Trichloroethane		ND		1.0	ug/Kg-DRY	04/24/98
Carbon Tetrachloride		ND		1.0	ug/Kg-DRY	04/24/98
1,2-Dichloroethane		ND		1.0	ug/Kg-DRY	04/24/98
Trichloroethene		ND		1.0	ug/Kg-DRY	04/24/98
1,2-Dichloropropane		ND		1.0	ug/Kg-DRY	04/24/98
Bromodichloromethane		ND		2.1	ug/Kg-DRY	04/24/98
2-Chloroethylvinylether		ND		3.1	ug/Kg-DRY	04/24/98
cis-1,3-Dichloropropene		ND		1.0	ug/Kg-DRY	04/24/98
trans-1,3-Dichloropropene		ND		1.0	ug/Kg-DRY	04/24/98
1,1,2-Trichloroethane		ND		1.0	ug/Kg-DRY	04/24/98
Tetrachloroethene		21		1.0	ug/Kg-DRY	04/24/98
Dibromochloromethane		ND		1.0	ug/Kg-DRY	04/24/98
Chlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
Bromoform		ND		1.0	ug/Kg-DRY	04/24/98
1,1,2,2-Tetrachloroethane		ND		2.1	ug/Kg-DRY	04/24/98
(m)1,3-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(p)1,4-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
(o)1,2-Dichlorobenzene		ND		2.1	ug/Kg-DRY	04/24/98
SURROGATES, % Recovery						
4-Bromochlorobenzene		41.9	*	Min:	70	Max: 130

Sample: 21A C23

Collected: 04/10/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
ICP Metals, Total	SW 6010A					
Arsenic		5.2		5.2	mg/Kg-DRY	04/20/98
Cadmium		ND		0.52	mg/Kg-DRY	04/20/98
Chromium		31		1.0	mg/Kg-DRY	04/20/98
Lead		ND		5.2	mg/Kg-DRY	04/20/98
Percent Moisture	ASTM D2216	4.50		0.1	WT%	04/16/98
Polychlorinated Biphenyls	SW 8082					
PCB-1221		ND		35	ug/Kg-DRY	04/20/98
PCB-1232		ND		17	ug/Kg-DRY	04/20/98
PCB-1242		ND		17	ug/Kg-DRY	04/20/98
PCB-1248		ND		17	ug/Kg-DRY	04/20/98
PCB-1254		ND		17	ug/Kg-DRY	04/20/98
PCB-1260		ND		17	ug/Kg-DRY	04/20/98
PCB-1016		ND		17	ug/Kg-DRY	04/20/98
SURROGATES, % Recovery						
Tetrachlorometaxylene		40.0		Min: 11	Max: 102	
Decachlorobiphenyl		48.6		Min: 35	Max: 141	

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

PCB_8S:	POLYCHLORINATED BIPHENYLS	METHOD: 8082
PCBPRS:	Ultrasonic Extraction - PCBs	METHOD: 3550A
8010_S:	HALOGENATED VOLATILE ORGANICS (GCHECD)	METHOD: 8010
3050_G:	Acid Digestion of Sediments, Sludges, and Soils for GFAA Metals	METHOD: 3050A
PB_GTS:	LEAD, Total (GFAA)	METHOD: 7421
ICP_TS:	METALS, Total (ICP)	METHOD: 6010
PMOIST:	PERCENT MOISTURE	METHOD: ASTM D2216

Sample: 01A C1

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/08/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/08/98	04/14/98	NA		04/16/98

Sample: 02A C2

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 03A C3

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 04A C4

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 05A C5

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 06A C6

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 07A C7

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 08A C8

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/09/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/09/98	04/14/98	NA		04/16/98

Sample: 09A C9

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 10A C10

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 11A C13

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 12A C14

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 13A C15

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 14A C16

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 15A C17

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 16A C18

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/10/98	04/14/98	NA	04/16/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98

Sample: 17A C19

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A	04/10/98	04/14/98	NA		04/24/98
ICP Metals, Total	SW 6010A	04/10/98	04/14/98	NA	04/17/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98
Polychlorinated Biphenyls	SW 8082	04/10/98	04/14/98	NA	04/16/98	04/20/98

Sample: 18A C20

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A	04/10/98	04/14/98	NA		04/24/98
ICP Metals, Total	SW 6010A	04/10/98	04/14/98	NA	04/17/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98
Polychlorinated Biphenyls	SW 8082	04/10/98	04/14/98	NA	04/16/98	04/20/98

Sample: 19A C21

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A	04/10/98	04/14/98	NA		04/24/98
ICP Metals, Total	SW 6010A	04/10/98	04/14/98	NA	04/17/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98
Polychlorinated Biphenyls	SW 8082	04/10/98	04/14/98	NA	04/16/98	04/20/98

Sample: 20A C22

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A	04/10/98	04/14/98	NA		04/24/98
ICP Metals, Total	SW 6010A	04/10/98	04/14/98	NA	04/17/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98
Polychlorinated Biphenyls	SW 8082	04/10/98	04/14/98	NA	04/16/98	04/20/98

Sample: 21A C23

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Halogenated Vol. Organics	SW 8010A	04/10/98	04/14/98	NA		04/24/98
ICP Metals, Total	SW 6010A	04/10/98	04/14/98	NA	04/17/98	04/20/98
Percent Moisture	ASTM D2216	04/10/98	04/14/98	NA		04/16/98
Polychlorinated Biphenyls	SW 8082	04/10/98	04/14/98	NA	04/16/98	04/20/98



Chain of Custody Record / Analysis Request

Company Name Bristol Environmental		Project Name Crono Tesoro							BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	FRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
Company Address 201 E 56th Ste 301 Anch, AK 99508		Report To: Jim Bates																
Telephone 563-0013		Sampler: Jeff Brownlee																
FAX 563-6713		P.O. Number:																
Sample ID	Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX	GRO	DRO	FRO	PH-2	Hold for Further Analysis	RUSH	LAB ID			
	8 oz Glass	4 oz Glass	40 ml. VOA/C	1 Liter														
C1	4.8.98	14:45	Soil	1	1			X	X									
C2	4.9	1110																
C3	4.9	1120																
C4		1415																
C5		1420																
C6		1430																
C7		1600																
C8		1610																

COMMENTS: **⊗ Pb sent to AEL for analysis ⊗**

DELIVERABLES:
 Level I
 ADEC Format
 ACOE
 AFCEE
 EDF - Format: _____ specify

TURNAROUND:
 2 Business Days
 5 Business Days
 10-15 Business Days
 Other: **10** #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: Jeff Brownlee	Signature: Sarah Stevens	Signature: Lorraine Andelt	Signature: D. C. SINEC	Airbill / Freight #:
Printed Name: Jeff Brownlee	Printed Name: Sarah Stevens	Printed Name: Lorraine Andelt	Printed Name: D. C. SINEC	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica Alaska Inc.	Firm: Analytica AK	Firm: Analytica	Temp Received: 5.9 °C
Date/Time: 4.10.98 8:50	Date/Time: 4/16/98 8:50 am	Date/Time: 4/14/98 13:45	Date/Time: 4-14-98 10:00	# of Coolers: 1
				Seals: 2

4/13/98 13:55

0199



ANALYTICA
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Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: 9809710
CSN:

Chain of Custody Record / Analysis Request

Company Name Bristol Envir.		Project Name Clines Teovo																
Company Address 201 E 58th St #302 Anch, AK. 99518		Report To: Jim Bates																
		Sampler: Jeff Brownlee																
		P.O. Number: 9001YJ-00																
Telephone 563-0813		Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
FAX 583-6713					8 oz Glass	4 oz Glass	40 ml. VOAHD	1 Liter										
Sample ID																		
C9		4-10-98	1100	Soil	1	1			X	X								
C10			1110						X	X								
C11			1120									X						
C12			1130									X						
C13			1150							X		X						
C14			1200															
C15			1210															
C16			1220															
C17			1230															
C18			1240															

COMMENTS: **forward to AEL for Pb/7421 analysis**

DELIVERABLES: Level I, ADEC Format, ACOE, AFCEE, EDF - Format: _____ specify

TURNAROUND: 2 Business Days, 5 Business Days, 10-15 Business Days, other: _____ #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: <i>Jeff Brownlee</i>	Signature: <i>Lorraine Andich</i>	Signature: <i>Lorraine Andich</i>	Signature: <i>P.L. SINEL</i>	Airbill / Freight #:
Printed Name: Jeff Brownlee	Printed Name: Lorraine Andich	Printed Name: Lorraine Andich	Printed Name: P.L. SINEL	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica AK	Firm: Analytica AK	Firm: Analytica	Temp Received: 5.7 °C
Date/Time: 4-10-98 1630	Date/Time: 4/10/98 1635	Date/Time: 4/13/98 1330	Date/Time: 4-14-98 10:00	# of Coolers: 1
				Seals: Hand delivered by Jeff Brownlee



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FAX: (303) 469-5254

LGN: _____
CSN: _____

Chain of Custody Record / Analysis Request

Company Name Bristol		Project Name Clino		Date Collected		Time Collected		Matrix Soil/Water (only one)		# Containers				BTEX by 5030/8020 or 602 (specify)		GRO by 5030/8015M		GRO by AK101		DRO by 3550/8100M		DRO by AK102		RRO by AK103		PH-2		Hold for Further Analysis		RUSH (see below)		LAB ID	
Company Address 201 E 58th St, 300 Anch, AK, 99518		Report To: Jim Bates																															
Telephone 563-0013		Sampler: Jeff Brownlee																															
FAX 563-6713		P.O. Number: 9001 W - 00																															
Sample ID																																	
C19		4.10.98		2:30		2017		2		1		X		X		X		X		X		X		X		X		X					
C20				2:40																													
C21				3:30																													
C22				4:00																													
C23				4:18																													

COMMENTS: **forward to AEL for analyses**

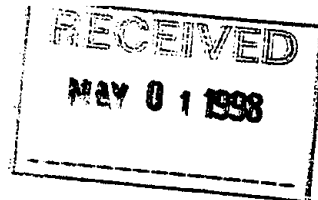
DELIVERABLES:
 Level I
 ADEC Format
 ACOE
 AFCEE
 EDF - Format: _____ specify

TURNAROUND:
 2 Business Days
 5 Business Days
 10-15 Business Days
 other: _____ #Business Days

RELINQUISHED BY SAMPLER: Signature: [Signature] Printed Name: Jeff Brownlee Firm: Bristol Date/Time: 4.10.98 1630	RECEIVED BY: Signature: [Signature] Printed Name: Lorraine Andely Firm: Analytica AK Date/Time: 4/10/98 1635	RELINQUISHED BY: Signature: [Signature] Printed Name: Lorraine Andely Firm: Analytica AK Date/Time: 4/13/98 1330	RECEIVED BY: Signature: [Signature] Printed Name: R.L. SINEC Firm: Analytica Date/Time: 4-14-98 10:00	ANALYTICA USE ONLY: Airbill / Freight #: Condition of Sample Containers: Temp Received: 5.7 °C # of Coolers: 1 Seals: Delivered by Jeff Brownlee PAGE 2 OF 2
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0202



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-023
Date Reported: 04/24/98 13:42
Project Name: CLINE'S TESORO
Date Received: 04/10/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C1	05	C5
02	C2	06	C6
03	C3	07	C7
04	C4	08	C8

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804023

Client: BRISTOL ENVIRONMENTAL SRVCS.

24-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804023-01	C1	SOIL	2.3 (0.39)	13 (0.39)	6.5 (0.39)	120 (0.39)	710 (39)	mg/Kg	()	()	mg/Kg
A804023-02	C2	SOIL	0.036 (0.011)	0.25 (0.011)	0.093 (0.011)	1.6 (0.011)	9.5 (1.1)	mg/Kg	()	()	mg/Kg
A804023-03	C3	SOIL	U (0.20)	1.9 (0.20)	0.69 (0.20)	19 (0.20)	87 (20)	mg/Kg	()	()	mg/Kg
A804023-04	C4	SOIL	2.8 (0.38)	12 (0.38)	1.3 (0.38)	12 (0.38)	82 (38)	mg/Kg	()	()	mg/Kg
A804023-05	C5	SOIL	U (0.26)	3.1 (0.26)	U (0.26)	26 (0.26)	110 (26)	mg/Kg	()	()	mg/Kg
A804023-06	C6	SOIL	U (0.23)	3.6 (0.23)	U (0.23)	30 (0.23)	120 (23)	mg/Kg	()	()	mg/Kg
A804023-07	C7	SOIL	1.5 (0.19)	9.5 (0.19)	1.8 (0.19)	15 (0.19)	99 (19)	mg/Kg	()	()	mg/Kg
A804023-08	C8	SOIL	0.067 (0.013)	0.39 (0.013)	0.055 (0.013)	1.6 (0.013)	9.1 (1.3)	mg/Kg	()	()	mg/Kg

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "(" Indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

0203

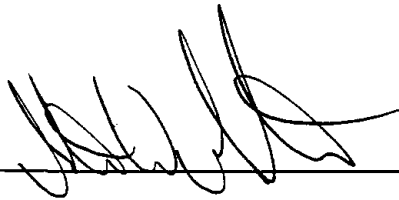
ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 5.9°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:



Date:

4 / 23 / 98

Order # A8-04-023
Analytica Ak.

BRISTOL ENVIRONMENTAL SRVCS.
TEST RESULTS by SAMPLE

Page 3

Client ID: C1 Lab ID: 01A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/08/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8041709.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 40
Results reported on a dry weight basis. Percent Moisture: 1.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	2.3	0.39	
Toluene	108-88-3	13	0.39	
Ethylbenzene	100-41-4	6.5	0.39	
Xylenes, Total	1330-20-7	120	0.39	
Gasoline Range Organics	VPH	710	39	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	94 %	60	-	120
p-Bromofluorobenzene (PID)	D %	60	-	120
1,4-Difluorobenzene (FID)	104 %	60	-	120
p-Bromofluorobenzene (FID)	D %	60	-	120

Client ID: C2 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/09/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8041710.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 4.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.036	0.011	
Toluene	108-88-3	0.25	0.011	
Ethylbenzene	100-41-4	0.093	0.011	
Xylenes, Total	1330-20-7	1.6	0.011	
Gasoline Range Organics	VPH	9.5	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	93 %	60	-	120
p-Bromofluorobenzene (PID)	88 %	60	-	120
1,4-Difluorobenzene (FID)	109 %	60	-	120
p-Bromofluorobenzene (FID)	106 %	60	-	120

Client ID: C3
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/09/98

Lab ID: 03A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/17/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042007.D
UNITS: mg/Kg
DILUTION: 20

Results reported on a dry weight basis.

Percent Moisture: 5.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.20	
Toluene	108-88-3	1.9	0.20	
Ethylbenzene	100-41-4	0.69	0.20	
Xylenes, Total	1330-20-7	19	0.20	
Gasoline Range Organics	VPH	87	20	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C4
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/09/98

Lab ID: 04A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/17/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042008.D
UNITS: mg/Kg
DILUTION: 20

Results reported on a dry weight basis.

Percent Moisture: 6.7

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	2.8	0.38	
Toluene	108-88-3	12	0.38	
Ethylbenzene	100-41-4	1.3	0.38	
Xylenes, Total	1330-20-7	12	0.38	
Gasoline Range Organics	VPH	82	38	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	106 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C5 Lab ID: 05A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/09/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8042009.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 20
Results reported on a dry weight basis. Percent Moisture: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.26	
Toluene	108-88-3	3.1	0.26	
Ethylbenzene	100-41-4	U	0.26	
Xylenes, Total	1330-20-7	26	0.26	
Gasoline Range Organics	VPH	110	26	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C6 Lab ID: 06A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/09/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8042010.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 20
Results reported on a dry weight basis. Percent Moisture: 4.8

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.23	
Toluene	108-88-3	3.6	0.23	
Ethylbenzene	100-41-4	U	0.23	
Xylenes, Total	1330-20-7	30	0.23	
Gasoline Range Organics	VPH	120	23	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	106 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C7 Lab ID: 07A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/09/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8042011.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 20
 Results reported on a dry weight basis. Percent Moisture: 3.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	1.5	0.19	
Toluene	108-88-3	9.5	0.19	
Ethylbenzene	100-41-4	1.8	0.19	
Xylenes, Total	1330-20-7	15	0.19	
Gasoline Range Organics	VPH	99	19	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	96 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	103 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C8 Lab ID: 08A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/09/98 Matrix: SOIL

ANALYSIS DATE: 04/17/98 FILE ID: N8042012.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 1
 Results reported on a dry weight basis. Percent Moisture: 3.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.067	0.013	
Toluene	108-88-3	0.39	0.013	
Ethylbenzene	100-41-4	0.055	0.013	
Xylenes, Total	1330-20-7	1.6	0.013	
Gasoline Range Organics	VPH	9.1	1.3	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	92 %	60 - 120
p-Bromofluorobenzene (PID)	87 %	60 - 120
1,4-Difluorobenzene (FID)	106 %	60 - 120
p-Bromofluorobenzene (FID)	107 %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.



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FAX: (303) 469-5254

LGN: A804023
CSN: A8032

B21
AL3

Chain of Custody Record / Analysis Request

Company Name Bristol Environmental		Project Name Crime Teoro		Date Collected		Time Collected		Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	PRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID	
Company Address 201 E 66th St Ste 301 Anch, AK 99508		Report To: Jim Bates		Sampler: Jeff Browlee		P.O. Number:			8 oz Glass	4 oz Glass	40 ml. VOA/C	1 Liter											
Telephone 563-0013		Company Address 201 E 66th St Ste 301 Anch, AK 99508		Date Collected		Time Collected		Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	PRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID	
FAX 563-6713		Sample ID		Date Collected		Time Collected			8 oz Glass	4 oz Glass	40 ml. VOA/C	1 Liter											
Sample ID		Date Collected		Time Collected		Matrix Soil/Water (only one)		# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	PRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID		
Sample ID		Date Collected		Time Collected		# Containers																	
C1		4-8-98		11:45		SOIL		1 1				X	X									(1)	
C2		4-9		11:10																			(2) 4757
C3		4-9		11:20																			(3)
C4				14:15																			(4) 4762
C5				14:20																			(5) 4752
C6				14:30																			(6)
C7				16:00																			(7) 4763
C8				16:10																			(8) 474E

Lead / moisture
 per 7421 (f)
 as per quote

COMMENTS ⊗ Pb sent to AEL for analysis ⊗	DELIVERABLES	TURNAROUND
	<input type="checkbox"/> Level I <input checked="" type="checkbox"/> ADEC Format <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE <input type="checkbox"/> EDF - Format: _____ specify	<input type="checkbox"/> 2 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 10-15 Business Days <input checked="" type="checkbox"/> Other: 10 #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: _____	Airbill / Freight #:
Printed Name: Jeff Browlee	Printed Name: Sarah Stevens	Printed Name: Lorraine Andels	Printed Name: _____	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica Alaska Inc.	Firm: Analytica AK	Firm: _____	Temp Received: 5.9 °C
Date/Time: 4.10.98 8:50	Date/Time: 4/16/98 8:50 am	Date/Time: 4/10/98 1345	Date/Time: _____	# of Coolers: 1
			Seals: 2	

0210



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804 023
~~A805 B~~ DATE RECEIVED: 4/10/98

PROJECT: Clines Tesoro CLIENT: Bristol Environmental

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/10/98 COC#: N/A
by (print): Sarah Stevens Signature: Sarah A. Stevens

1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
- If YES, enter carrier name & air bill number here: _____
2. Were custody seals on outside of cooler?..... *hand delivered by Jeff Brownlee YES NO
- How many & where? _____ Seal Date: _____ Seal Name: _____
3. Were custody seals unbroken and intact at the date and time of arrival?..... N/A YES NO
4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... N. cooler YES NO
6. Were custody papers filled out properly (ink, signed, etc.)?..... TAT missing YES NO
7. Did you sign custody papers in the appropriate place?..... YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
9. If required, was enough ice used?.....(Type of ice: bagged ; Temp: 5.9°C) YES NO
10. Have designated person initial here to acknowledge receipt of cooler: SS Date: 4/10/98

B. LOG-IN PHASE: Date samples were logged-in: 4/10/98
by (print): Lorraine Andola Signature: L Andola

11. Describe type of packing in cooler: BW Bags
12. Were all bottles sealed in separate plastic bags?..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
15. Did all bottle labels agree with custody papers?..... YES NO
16. Were correct containers used for the tests indicated?..... YES NO
17. Were correct preservatives added to samples?..... YES NO
18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A YES NO
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO

21. Who was called? Jim Bates By whom? Lorraine Andola Date: 4/10/98

Explanations: Phoned Jim + left message re: TAT 11:15 AM
TAT 6 10 Business Days per Jim Bates 4/10/98

#16 - Sample # C1, C3, + C6 4oz. jars are regular
4oz jar - 5/8 tapered jars provided (Per Phyllis, get
final weight for analyst who will make adjustments.)



0212



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-028
Date Reported: 04/27/98 10:14
Project Name: CLINE'S TESORO
Date Received: 04/13/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C9	09	C17
02	C10	10	C18
03	C11	11	C19
04	C12	12	C20
05	C13	13	C21
06	C14	14	C22
07	C15	15	C23
08	C16		

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804028

Client: BRISTOL ENVIRONMENTAL SRVCS.

27-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804028-01	C9	SOIL	0.025 (0.011)	0.022 (0.011)	U (0.011)	0.059 (0.011)	U (1.1)	mg/Kg	()	()	mg/Kg
A804028-02	C10	SOIL	0.032 (0.011)	0.032 (0.011)	0.012 (0.011)	0.065 (0.011)	U (1.1)	mg/Kg	()	()	mg/Kg
A804028-03	C11	SOIL	0.08 (0.010)	0.16 (0.010)	0.05 (0.010)	0.39 (0.010)	()	mg/Kg	U (4.1)	()	mg/Kg
A804028-04	C12	SOIL	0.02 (0.010)	0.09 (0.010)	0.03 (0.010)	0.64 (0.010)	()	mg/Kg	9.6 (4.1)	()	mg/Kg
A804028-05	C13	SOIL	0.023(0.0090)	0.059(0.0090)	0.025(0.0090)	0.36 (0.0090)	2.7 (0.90)	mg/Kg	U (4.1)	()	mg/Kg
A804028-06	C14	SOIL	85 (5.3)	470 (5.3)	94 (5.3)	500 (5.3)	3500 (530)	mg/Kg	67 (4.4)	()	mg/Kg
A804028-07	C15	SOIL	18 (4.9)	100 (4.9)	18 (4.9)	97 (4.9)	740 (490)	mg/Kg	450 (21)	()	mg/Kg
A804028-08	C16	SOIL	0.015 (0.012)	0.11 (0.012)	0.077 (0.012)	1.9 (0.012)	11 (1.2)	mg/Kg	12 (4.5)	()	mg/Kg
A804028-09	C17	SOIL	81 (5.8)	840 (5.8)	210 (5.8)	1900 (5.8)	12000 (580)	mg/Kg	1400 (22)	()	mg/Kg
A804028-10	C18	SOIL	56 (5.3)	570 (5.3)	140 (5.3)	1200 (5.3)	7600 (530)	mg/Kg	1800 (22)	()	mg/Kg
A804028-11	C19	SOIL	0.017 (0.014)	0.042 (0.014)	0.018 (0.014)	0.099 (0.014)	U (1.4)	mg/Kg	240 (4.2)	870 (11)	mg/Kg
A804028-12	C20	SOIL	0.026 (0.016)	0.084 (0.016)	0.046 (0.016)	0.31 (0.016)	2.3 (1.6)	mg/Kg	2300 (85)	7700 (210)	mg/Kg
A804028-13	C21	SOIL	0.072 (0.011)	0.12 (0.011)	0.017 (0.011)	0.091 (0.011)	1.1 (1.1)	mg/Kg	11 (4.2)	40 (11)	mg/Kg
A804028-14	C22	SOIL	0.030 (0.017)	0.062 (0.017)	0.026 (0.017)	0.091 (0.017)	U (1.7)	mg/Kg	370 (21)	1300 (53)	mg/Kg
A804028-15	C23	SOIL	0.075 (0.015)	0.043 (0.015)	U (0.015)	0.033 (0.015)	U (1.5)	mg/Kg	1100 (21)	3600 (52)	mg/Kg

0213

The number in parentheses is the reporting limit. "U" indicates analyte was not detected. "(" indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 5.7°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:



Date:

4/27/98

Analyst:



Date:

4/27/98

Client ID: C9 Lab ID: 01A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042207.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.025	0.011	
Toluene	108-88-3	0.022	0.011	
Ethylbenzene	100-41-4	U	0.011	
Xylenes, Total	1330-20-7	0.059	0.011	
Gasoline Range Organics	VPH	U	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	95 %	60 - 120
p-Bromofluorobenzene (PID)	86 %	60 - 120
1,4-Difluorobenzene (FID)	111 %	60 - 120
p-Bromofluorobenzene (FID)	115 %	60 - 120

Client ID: C10 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042208.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.032	0.011	
Toluene	108-88-3	0.032	0.011	
Ethylbenzene	100-41-4	0.012	0.011	
Xylenes, Total	1330-20-7	0.065	0.011	
Gasoline Range Organics	VPH	U	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	88 %	60 - 120
1,4-Difluorobenzene (FID)	109 %	60 - 120
p-Bromofluorobenzene (FID)	118 %	60 - 120

Client ID: C11
Test Description: BTEX in soil by EPA 8020.
Collected: 04/10/98

Lab ID: 03A
Method: 5030/8020
Matrix: SOIL

ANALYSIS DATE: 04/22/98
ANALYST: SG
INSTRUMENT ID: NAT
Sample reported on a dry weight basis.

FILE ID: N8042209.D
UNITS: mg/Kg
DILUTION: 1
% MOISTURE: 3.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.08	0.010	
Toluene	108-88-3	0.16	0.010	
Ethylbenzene	100-41-4	0.05	0.010	
Xylenes, Total	1330-20-7	0.39	0.010	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene	94 %	60 - 120
p-Bromofluorobenzene	104 %	60 - 120

Client ID: C11
Test Description: DRO in soil by AK102.
Collected: 04/10/98

Lab ID: 03C
Method: 3550/AK102
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis.

FILE ID: B8042315.D
UNITS: mg/Kg
DILUTION: 1
% MOISTURE: 3.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	U	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	73 %	60 - 120

Client ID: C12 Lab ID: 04A
Test Description: BTEX in soil by EPA 8020. Method: 5030/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042210.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION:
Sample reported on a dry weight basis. % MOISTURE: 4.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.02	0.010	
Toluene	108-88-3	0.09	0.010	
Ethylbenzene	100-41-4	0.03	0.010	
Xylenes, Total	1330-20-7	0.64	0.010	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene	93 %	60 - 120
p-Bromofluorobenzene	91 %	60 - 120

Client ID: C12 Lab ID: 04C
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042317.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 4.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	9.6	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	80 %	60 - 120

Client ID: C13 Lab ID: 05A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042211.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 3.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.023	0.0090	
Toluene	108-88-3	0.059	0.0090	
Ethylbenzene	100-41-4	0.025	0.0090	
Xylenes, Total	1330-20-7	0.36	0.0090	
Gasoline Range Organics	VPH	2.7	0.90	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	89 %	60 - 120
1,4-Difluorobenzene (FID)	104 %	60 - 120
p-Bromofluorobenzene (FID)	111 %	60 - 120

Client ID: C13 Lab ID: 05B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042319.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 3.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	U	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	79 %	60 - 120

Client ID: C14 Lab ID: 06A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042309.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 400
Results reported on a dry weight basis. Percent Moisture: 9.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	85	5.3	
Toluene	108-88-3	470	5.3	
Ethylbenzene	100-41-4	94	5.3	
Xylenes, Total	1330-20-7	500	5.3	
Gasoline Range Organics	VPH	3500	530	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	95 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	111 %	60 - 120
p-Bromofluorobenzene (FID)	D %	-60 - 120

Client ID: C14 Lab ID: 06B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042413.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 9.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	67	4.4	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	59 M %	60 - 120

Client ID: C15 Lab ID: 07A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042310.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 400
Results reported on a dry weight basis. Percent Moisture: 6.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	18	4.9	
Toluene	108-88-3	100	4.9	
Ethylbenzene	100-41-4	18	4.9	
Xylenes, Total	1330-20-7	97	4.9	
Gasoline Range Organics	VPH	740	490	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
1,4-Difluorobenzene (PID)	93 %	60	- 120
p-Bromofluorobenzene (PID)	D %	60	- 120
1,4-Difluorobenzene (FID)	104 %	60	- 120
p-Bromofluorobenzene (FID)	D %	60	- 120

Client ID: C15 Lab ID: 07B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042323.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 5
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	450	21	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
o-Terphenyl	D %	60	- 120

Client ID: C16
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/10/98

Lab ID: 08A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/22/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042217.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 11.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.015	0.012	
Toluene	108-88-3	0.11	0.012	
Ethylbenzene	100-41-4	0.077	0.012	
Xylenes, Total	1330-20-7	1.9	0.012	
Gasoline Range Organics	VPH	11	1.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	95 %	60 - 120
p-Bromofluorobenzene (PID)	81 %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	103 %	60 - 120

Client ID: C16
Test Description: DRO in soil by AK102.
Collected: 04/10/98

Lab ID: 08B
Method: 3550/AK102
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042325.D
UNITS: mg/Kg
DILUTION: 1

Sample reported on a dry weight basis.

% MOISTURE: 11.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	12	4.5	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	37 M %	60 - 120

Client ID: C17 Lab ID: 09A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042307.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 400
Results reported on a dry weight basis. Percent Moisture: 9.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	81	5.8	
Toluene	108-88-3	840	5.8	
Ethylbenzene	100-41-4	210	5.8	
Xylenes, Total	1330-20-7	1900	5.8	
Gasoline Range Organics	VPH	12000	580	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	95 %	60	-	120
p-Bromofluorobenzene (PID)	D %	60	-	120
1,4-Difluorobenzene (FID)	104 %	60	-	120
p-Bromofluorobenzene (FID)	D %	60	-	120

Client ID: C17 Lab ID: 09B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042327.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 5
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 9.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	1400	22	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	D %	60	-	120

Client ID: C18 Lab ID: 10A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042308.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 400
 Results reported on a dry weight basis. Percent Moisture: 8.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	56	5.3	
Toluene	108-88-3	570	5.3	
Ethylbenzene	100-41-4	140	5.3	
Xylenes, Total	1330-20-7	1200	5.3	
Gasoline Range Organics	VPH	7600	530	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
1,4-Difluorobenzene (PID)	97 %	60	120
p-Bromofluorobenzene (PID)	D %	60	120
1,4-Difluorobenzene (FID)	109 %	60	120
p-Bromofluorobenzene (FID)	D %	60	120

Client ID: C18 Lab ID: 10B
 Test Description: DRO in soil by AK102. Method: 3550/AK102
 Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042333.D
 ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
 ANALYST: PWS DILUTION: 5
 INSTRUMENT ID: BERTHA
 Sample reported on a dry weight basis. % MOISTURE: 8.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	1800	22	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
o-Terphenyl	D %	60	120

Client ID: C19 Lab ID: 11A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042220.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.017	0.014	
Toluene	108-88-3	0.042	0.014	
Ethylbenzene	100-41-4	0.018	0.014	
Xylenes, Total	1330-20-7	0.099	0.014	
Gasoline Range Organics	VPH	U	1.4	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	86 %	60 - 120
1,4-Difluorobenzene (FID)	104 %	60 - 120
p-Bromofluorobenzene (FID)	111 %	60 - 120

Client ID: C19 Lab ID: 11B
Test Description: DRO/RRO in soil-AK102&103 Method: 3550\AK102\3
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042335.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 5.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	240	4.2	
Residual Range Organics	RRO	870	11	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	76 %	60 - 120
Squalane	79 %	60 - 120

Client ID: C20
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/10/98

Lab ID: 12A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/22/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042221.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 6.3

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.026	0.016	
Toluene	108-88-3	0.084	0.016	
Ethylbenzene	100-41-4	0.046	0.016	
Xylenes, Total	1330-20-7	0.31	0.016	
Gasoline Range Organics	VPH	2.3	1.6	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	92 %	60	-	120
p-Bromofluorobenzene (PID)	88 %	60	-	120
1,4-Difluorobenzene (FID)	103 %	60	-	120
p-Bromofluorobenzene (FID)	112 %	60	-	120

Client ID: C20
Test Description: DRO/RRO in soil-AK102&103
Collected: 04/10/98

Lab ID: 12B
Method: 3550\AK102\3
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042415.D
UNITS: mg/Kg
DILUTION: 20

Sample reported on a dry weight basis.

% MOISTURE: 6.3

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	2300	85	
Residual Range Organics	RRO	7700	210	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	D %	60	-	120
Squalane	D %	60	-	120

Client ID: C21 Lab ID: 13A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042222.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.072	0.011	
Toluene	108-88-3	0.12	0.011	
Ethylbenzene	100-41-4	0.017	0.011	
Xylenes, Total	1330-20-7	0.091	0.011	
Gasoline Range Organics	VPH	1.1	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	95 %	60 - 120
p-Bromofluorobenzene (PID)	85 %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	108 %	60 - 120

Client ID: C21 Lab ID: 13B
Test Description: DRO/RRO in soil-AK102&103 Method: 3550\AK102\3
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042411.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 5.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	11	4.2	
Residual Range Organics	RRO	40	11	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	84 %	60 - 120
Squalane	84 %	60 - 120

Client ID: C22
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/10/98

Lab ID: 14A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/22/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042223.D
UNITS: mg/Kg
DILUTION: 1
Percent Moisture: 5.2

Results reported on a dry weight basis.

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.030	0.017	
Toluene	108-88-3	0.062	0.017	
Ethylbenzene	100-41-4	0.026	0.017	
Xylenes, Total	1330-20-7	0.091	0.017	
Gasoline Range Organics	VPH	U	1.7	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	89 %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	116 %	60 - 120

Client ID: C22
Test Description: DRO/RRO in soil-AK102&103
Collected: 04/10/98

Lab ID: 14B
Method: 3550\AK102\3
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042341.D
UNITS: mg/Kg
DILUTION: 5

Sample reported on a dry weight basis.

% MOISTURE: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	370	21	
Residual Range Organics	RRO	1300	53	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120
Squalane	D %	60 - 120

Client ID: C23 Lab ID: 15A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/10/98 Matrix: SOIL

ANALYSIS DATE: 04/22/98 FILE ID: N8042224.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.075	0.015	
Toluene	108-88-3	0.043	0.015	
Ethylbenzene	100-41-4	U	0.015	
Xylenes, Total	1330-20-7	0.033	0.015	
Gasoline Range Organics	VPH	U	1.5	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	86 %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	110 %	60 - 120

Client ID: C23 Lab ID: 15B
Test Description: DRO/RRO in soil-AK102&103 Method: 3550\AK102\3
Collected: 04/10/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042343.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 5
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	1100	21	
Residual Range Organics	RRO	3600	52	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120
Squalane	D %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK102 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range extends from the beginning of C10 to the beginning of C25. The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

Solids are prepared via sonication per AK102 and U.S. EPA SW-846 method 3550.

Methods AK102 & AK103 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range for AK102 extends from the beginning of C10 to the beginning of C25.

The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

The quantitation range for AK103 extends from the beginning of C25 to the end of C36. A mixture of 1:1 SAE 30 & SAE 40 motor oils are used for instrument calibration.

Solids are prepared via sonication according to methods AK102, AK103, and USEPA SW-846 method 3550.



ANALYTICA
ALASKA INC

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Web: www.analyticagroup.com

325 Interlocken Parkway, Suite 200
Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: A804028
CSN: A8032

821
13

Chain of Custody Record / Analysis Request

Company Name Bristol		Project Name Clino																			
Company Address 201 E 58th St, 300 Anch, AK, 99518		Report To: Jim Bates		Sampler: Jeff Brownlee		P.O. Number: 9001 W - 00															
Telephone 563-0013		Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	FRO by AK103	Volatile Chlors PCBS / SOH U.S. Metals	Aromatics Lead Chrom.	Lead	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
FAX 563-6713					8 oz Glass	4 oz Glass	40 ml. VOFD	1 Liter													
Sample ID																					
C19		4.10.98	2:30	Soil	2	1		X	X	X	X	X	X	X	X	X	X	X	X	X	11 4810
C20			2:40																		12 481
C21			3:30																		13 480
C22			4:00																		14 479
C23			4:10																		15 479

COMMENTS: **forward to AEL for analyses**

DELIVERABLES:
 Level I
 DEC Format
 ACOE
 AFCEE
 EDF - Format: _____ specify

TURNAROUND:
 2 Business Days
 5 Business Days
 10-15 Business Days
 other: _____ #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Airbill / Freight #:
Printed Name: Jeff Brownlee	Printed Name: Lorraine Andela	Printed Name: Lorraine Andela	Printed Name:	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica AK	Firm: Analytica AK	Firm:	Temp Received: 5.7 °C
Date/Time: 4.10.98 1630	Date/Time: 4/10/98 1635	Date/Time: 4/13/98 1335	Date/Time:	# of Coolers: 1
				Seals: Delivered by Jeff Brownlee

0231



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804028

DATE RECEIVED: 4/10/98

PROJECT: Clines Tesoro

CLIENT: Bristol Env.

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened 4/10/98 COC #: —
by (print): Lorraine Andela Signature: L Andela

1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff Brownlee
2. Were custody seals on outside of cooler?..... YES NO
How many & where? — Seal Date: — Seal Name: —
3. Were custody seals unbroken and intact at the date and time of arrival?..... N/A YES NO
4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
7. Did you sign custody papers in the appropriate place?..... YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 5.7°C)..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: ASA Date: 4/10/98

B. LOG-IN PHASE: Date samples were logged-in: 4/13/98
by (print): Lorraine Andela Signature: L Andela

11. Describe type of packing in cooler: BW Bags + ice
12. Were all bottles sealed in separate plastic bags?..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
15. Did all bottle labels agree with custody papers?..... YES NO
16. Were correct containers used for the tests indicated?..... YES NO
17. Were correct preservatives added to samples?..... YES NO
18. Was a sufficient amount of sample sent for tests indicated?..... Had to split 8 oz jar YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: 50L DRU + Pb @ GAT YES NO N/A
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
21. Who was called? — By whom? — Date —

Explanations:

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254



an Analytica Group company

Bristol Environmental
201 E. 56th Avenue
Anchorage, AK 99518

Attn: Jim Bates

Order #: 98-04-119
Date: 04/28/98 13:53
Work ID: CLINES' TESORO
Date Received: 04/15/98
Date Completed: 04/22/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C24	03	C26
02	C25	04	C27

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Jeanine M. Camp

Jeanine M. Camp
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Methods for Chemical Analysis of Water and Wastes, USEPA 600/4-79-020, March 1983.
- o Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR, Part 136, 7-1-94 Edition.

Problems encountered with the analyses are discussed in the following narrative.

The sample chosen for QC (not from this project) had a matrix spike recovery of 150%, this is higher than our QC standards (70-130%). Since the sample concentration of lead is more than four times higher than that of the spike, the spike recovery value is not valid.

Sample: 01A C24 Collected: 04/13/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	17	D	0.52	mg/Kg-DRY	04/21/98
Percent Moisture	ASTM D2216	4.20		0.1	WT%	04/21/98

Sample: 02A C25 Collected: 04/13/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	4.6	D	0.21	mg/Kg-DRY	04/21/98
Percent Moisture	ASTM D2216	3.30		0.1	WT%	04/21/98

Sample: 03A C26 Collected: 04/14/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	6.7	D	0.21	mg/Kg-DRY	04/21/98
Percent Moisture	ASTM D2216	4.60		0.1	WT%	04/21/98

Sample: 04A C27 Collected: 04/14/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	5.7	D	0.22	mg/Kg-DRY	04/21/98
Percent Moisture	ASTM D2216	3.80		0.1	WT%	04/21/98

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

3050_G: Acid Digestion of Sediments, Sludges, and Soils for GFAA Metals METHOD: 3050A

PB_GTS: LEAD, Total (GFAA) METHOD: 7421

PMOIST: PERCENT MOISTURE METHOD: ASTM D2216

Sample: 01A C24

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/13/98	04/15/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/13/98	04/15/98	NA		04/21/98

Sample: 02A C25

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/13/98	04/15/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/13/98	04/15/98	NA		04/21/98

Sample: 03A C26

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/15/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/15/98	NA		04/21/98

Sample: 04A C27

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/15/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/15/98	NA		04/21/98



0240

RECEIVED
MAY 01 1998

811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Attn: MR. JIM BATES

Order #: A8-04-035
Date Reported: 04/28/98 14:14
Project Name: CLINE'S TESORO
Date Received: 04/15/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	C24
02	C25

<u>Sample Number</u>	<u>Client Description</u>
03	C26
04	C27

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804035

Client: BRISTOL ENVIRONMENTAL SRVCS.

28-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804035-01	C24	SOIL	U (0.011)	0.052 (0.011)	0.011 (0.011)	0.13 (0.011)	U (1.1)	mg/Kg	()	()	mg/Kg
A804035-02	C25	SOIL	0.020 (0.012)	0.11 (0.012)	0.018 (0.012)	0.12 (0.012)	U (1.2)	mg/Kg	()	()	mg/Kg
A804035-03	C26	SOIL	0.017 (0.014)	0.069 (0.014)	0.018 (0.014)	0.073 (0.014)	U (1.4)	mg/Kg	U (4.0)	()	mg/Kg
A804035-04	C27	SOIL	U (0.016)	0.036 (0.016)	U (0.016)	0.035 (0.016)	U (1.6)	mg/Kg	U (4.1)	()	mg/Kg

0241

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" Indicates value is estimated.

The Science of Analysis, The Art of Service

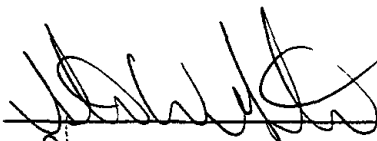
ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 2.6°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

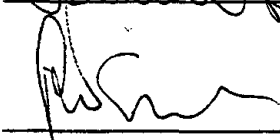
Analyst:



Date:

4 / 28 / 98

Analyst:



Date:

4 / 28 / 98

Client ID: C24 Lab ID: 01A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/13/98 Matrix: SOIL

ANALYSIS DATE: 04/23/98 FILE ID: B8042307.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: BORIS DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 3.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.011	
Toluene	108-88-3	0.052	0.011	
Ethylbenzene	100-41-4	0.011	0.011	
Xylenes, Total	1330-20-7	0.13	0.011	
Gasoline Range Organics	VPH	U	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	106 %	60 - 120
1,4-Difluorobenzene (FID)	94 %	60 - 120
p-Bromofluorobenzene (FID)	108 %	60 - 120

Client ID: C25 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/13/98 Matrix: SOIL

ANALYSIS DATE: 04/23/98 FILE ID: B8042308.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: BORIS DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.020	0.012	
Toluene	108-88-3	0.11	0.012	
Ethylbenzene	100-41-4	0.018	0.012	
Xylenes, Total	1330-20-7	0.12	0.012	
Gasoline Range Organics	VPH	U	1.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	97 %	60 - 120
p-Bromofluorobenzene (PID)	108 %	60 - 120
1,4-Difluorobenzene (FID)	95 %	60 - 120
p-Bromofluorobenzene (FID)	109 %	60 - 120

Client ID: C26 Lab ID: 03A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/14/98 Matrix: SOIL

ANALYSIS DATE: 04/23/98 FILE ID: B8042309.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: BORIS DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 1.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.017	0.014	
Toluene	108-88-3	0.069	0.014	
Ethylbenzene	100-41-4	0.018	0.014	
Xylenes, Total	1330-20-7	0.073	0.014	
Gasoline Range Organics	VPH	U	1.4	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	94 %	60	-	120
p-Bromofluorobenzene (PID)	104 %	60	-	120
1,4-Difluorobenzene (FID)	96 %	60	-	120
p-Bromofluorobenzene (FID)	107 %	60	-	120

Client ID: C26 Lab ID: 03B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/20/98 FILE ID: B8042026.D
ANALYSIS DATE: 04/20/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 1.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	U	4.0	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	84 %	60	-	120

Client ID: C27
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/14/98

Lab ID: 04A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/23/98
ANALYST: SG
INSTRUMENT ID: BORIS

FILE ID: B8042310.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 4.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.016	
Toluene	108-88-3	0.036	0.016	
Ethylbenzene	100-41-4	U	0.016	
Xylenes, Total	1330-20-7	0.035	0.016	
Gasoline Range Organics	VPH	U	1.6	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	99 %	60 - 120
p-Bromofluorobenzene (PID)	110 %	60 - 120
1,4-Difluorobenzene (FID)	92 %	60 - 120
p-Bromofluorobenzene (FID)	106 %	60 - 120

Client ID: C27
Test Description: DRO in soil by AK102.
Collected: 04/14/98

Lab ID: 04B
Method: 3550/AK102
Matrix: SOIL

EXTRACTION DATE: 04/20/98
ANALYSIS DATE: 04/20/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042024.D
UNITS: mg/Kg
DILUTION: 1

Sample reported on a dry weight basis.

% MOISTURE: 4.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	U	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	89 %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.



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(907) 258-2155
FAX (907) 258-6634
Web: www.analyticagroup.com

325 Interlocken Parkway, Suite 200
Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: A804035
CSN: A8032

Chain of Custody Record / Analysis Request

Company Name <u>Bristol Emron.</u>		Project Name <u>CITRO TROUS</u>																
Company Address <u>201 E. 56TH Ave, Ste 300</u> <u>Anch. AK. 99518</u>		Report To: <u>Jim Bates and</u>																
Telephone <u>563-0213</u>		Sampler: <u>Jeff Brownee</u>																
FAX <u>563-6713</u>		P.O. Number: <u>9001-YJ-UD</u>																
Sample ID		Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
<u>C24</u>		<u>4-13-98</u>	<u>1120</u>	<u>SOIL</u>	<u>1</u>	<u>2</u>				X	X							<u>(4)</u>
<u>C25</u>		<u>X</u>	<u>1130</u>							X	X							<u>(4)</u>
<u>C26</u>		<u>4-14-98</u>	<u>1000</u>							X	X	X						<u>(4)</u>
<u>C27</u>			<u>1000</u>							X	X	X						<u>(4)</u>
<u>C28</u>			<u>1200</u>							X	X	X						<u>(4)</u>
<u>C29</u>			<u>1210</u>							X	X	X						<u>(4)</u>
<u>C30</u>			<u>1220</u>							X	X	X						<u>(4)</u>

COMMENTS <u>please rush 28, 29, 30. Any add cost</u> <u>ABC reporting later</u> <u>forward to ATEL to analyze</u>				DELIVERABLES <input checked="" type="checkbox"/> ADEC Form <u>as per quote</u> <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE <input type="checkbox"/> EDF - Format: _____ specify				TURNAROUND <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 5 Business Days <input checked="" type="checkbox"/> 10-15 Business Days <input type="checkbox"/> other: _____ #Business Days			
RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY: <u>0247</u>							
Signature: <u>Jeff Brownee</u>	Signature: <u>Lorraine Andela</u>	Signature: <u>Lorraine Andela</u>	Signature: _____	Airbill / Freight #: _____							
Printed Name: <u>Jeff Brownee</u>	Printed Name: <u>Lorraine Andela</u>	Printed Name: <u>Lorraine Andela</u>	Printed Name: _____	Condition of Sample Containers: _____							
Firm: <u>Bristol</u>	Firm: <u>Analytica AK</u>	Firm: <u>Analytica AK</u>	Firm: _____	Temp Received: <u>2.6 °C</u>							
Date/Time: <u>4-14-98 1330</u>	Date/Time: <u>4/14/98 1330</u>	Date/Time: <u>4/14/98 1331</u>	Date/Time: _____	# of Coolers: _____							
				Seals: <u>Hand delivered by Jeff Brownee</u>							
				PAGE <u>1</u> OF <u>1</u>							



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804035

DATE RECEIVED: 4/14/98

PROJECT: Cline's Tesoro

CLIENT: Bristol Env.

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 4/14/98 COC #: _____

by (print): Lorraine Andela Signature: L Andela

- 1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff Brownlee
- 2. Were custody seals on outside of cooler?..... YES NO
How many & where? _____ Seal Date: _____ Seal Name: _____
- 3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO
- 4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
- 5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
- 6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
- 7. Did you sign custody papers in the appropriate place?..... YES NO
- 8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
- 9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 2.6°C) YES NO
- 10. Have designated person initial here to acknowledge receipt of cooler: LA Date: 4/14/98

B. **LOG-IN PHASE:** Date samples were logged-in: 4/14/98

by (print): Lorraine Andela Signature: L Andela

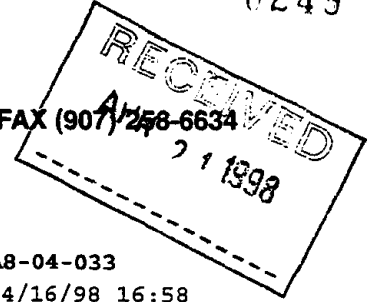
- 11. Describe type of packing in cooler: BW Bags
- 12. Were all bottles sealed in separate plastic bags?..... YES NO
- 13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
- 14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
- 15. Did all bottle labels agree with custody papers?..... YES NO
- 16. Were correct containers used for the tests indicated?..... YES NO
- 17. Were correct preservatives added to samples?..... YES NO
- 18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
- 19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A YES NO
- 20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
- 21. Who was called? _____ By whom? _____ Date _____

Explanations:



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

0249



BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Attn: MR. JIM BATES

Order #: A8-04-033
Date Reported: 04/16/98 16:58
Project Name: CLINE'S TESORO
Date Received: 04/15/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	C28
02	C29

<u>Sample Number</u>	<u>Client Description</u>
03	C30

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804033

Client: BRISTOL ENVIRONMENTAL SRVCS.

16-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804033-01	C28	SOIL	U (0.012)	0.015 (0.012)	U (0.012)	0.051 (0.012)	U (1.2)	mg/Kg	()	()	mg/Kg
A804033-02	C29	SOIL	U (0.014)	0.027 (0.014)	0.018 (0.014)	0.11 (0.014)	U (1.4)	mg/Kg	()	()	mg/Kg
A804033-03	C30	SOIL	U (0.011)	0.020 (0.011)	0.016 (0.011)	0.099 (0.011)	1.1 (1.1)	mg/Kg	()	()	mg/Kg

0250

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

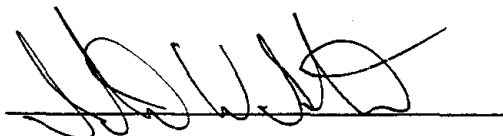
ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 2.6°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:



Date:

4 16 98

Client ID: C28 Lab ID: 01A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/14/98 Matrix: SOIL

ANALYSIS DATE: 04/15/98 FILE ID: N8041520.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 6.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.012	
Toluene	108-88-3	0.015	0.012	
Ethylbenzene	100-41-4	U	0.012	
Xylenes, Total	1330-20-7	0.051	0.012	
Gasoline Range Organics	VPH	U	1.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	92 %	60 - 120
1,4-Difluorobenzene (FID)	103 %	60 - 120
p-Bromofluorobenzene (FID)	117 %	60 - 120

Client ID: C29 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/14/98 Matrix: SOIL

ANALYSIS DATE: 04/15/98 FILE ID: N8041508.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 8.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.014	
Toluene	108-88-3	0.027	0.014	
Ethylbenzene	100-41-4	0.018	0.014	
Xylenes, Total	1330-20-7	0.11	0.014	
Gasoline Range Organics	VPH	U	1.4	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	91 %	60 - 120
1,4-Difluorobenzene (FID)	104 %	60 - 120
p-Bromofluorobenzene (FID)	117 %	60 - 120

Client ID: C30 Lab ID: 03A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/14/98 Matrix: SOIL

ANALYSIS DATE: 04/15/98 FILE ID: N8041509.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 5.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.011	
Toluene	108-88-3	0.020	0.011	
Ethylbenzene	100-41-4	0.016	0.011	
Xylenes, Total	1330-20-7	0.099	0.011	
Gasoline Range Organics	VPH	1.1	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	94 %	60	-	120
p-Bromofluorobenzene (PID)	91 %	60	-	120
1,4-Difluorobenzene (FID)	102 %	60	-	120
p-Bromofluorobenzene (FID)	114 %	60	-	120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.



311 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: AR74033 DATE RECEIVED: 4/14/98

PROJECT: Cline's Tesoro CLIENT: Bristol Env.

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/14/98 COC #: _____
by (print): Lorraine Andela Signature: L Andela

1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff Erickson
2. Were custody seals on outside of cooler?..... YES NO
How many & where? _____ Seal Date: _____ Seal Name: _____
3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
7. Did you sign custody papers in the appropriate place?..... YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 2.6°C)..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: LA Date: 4/14/98

B. LOG-IN PHASE: Date samples were logged-in: 4/14/98
by (print): Lorraine Andela Signature: L Andela

11. Describe type of packing in cooler: BW Bags
12. Were all bottles sealed in separate plastic bags?..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
15. Did all bottle labels agree with custody papers?..... YES NO
16. Were correct containers used for the tests indicated?..... YES NO
17. Were correct preservatives added to samples?..... YES NO
18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A..... YES NO
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
21. Who was called? _____ By whom? _____ Date _____

Explanations:



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(303) 469-8868
FAX: (303) 469-5254

LGN: A804033
CSN: A8035

Chain of Custody Record / Analysis Request

Company Name <u>Bristol Env. Svcs.</u>		Project Name <u>Clines Tesoro</u>		Date Collected	Time Collected	Matrix Soil Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
Company Address <u>201 E. 56th Ave #300 Anchorage AK 99518</u>		Report To: <u>Jim Bates</u>					8 oz Glass	4 oz Glass	40 ml. VOFAC	1 Liter										
Telephone <u>(907) 563-0013</u> FAX <u>563-6713</u>		Sampler: <u>Jeff Brownlee</u>																		
Sample ID		P.O. Number: <u>9001-YJ-00</u>																		
<u>C28</u>	<u>4/14</u>	<u>1200</u>	<u>Soil</u>	<u>1</u>					X	X							X	<u>1</u>	<u>4810</u>	
<u>C29</u>	<u>5</u>	<u>1210</u>	<u>S</u>	<u>1</u>					X	X							X	<u>2</u>	<u>4795</u>	
<u>C30</u>	<u>5</u>	<u>1230</u>	<u>S</u>	<u>1</u>					X	X							X	<u>3</u>	<u>4807</u>	

COMMENTS

DELIVERABLES
 Level I
 ADEC Format
 ACOE
 AFCEE
 EDF - Format: _____ specify

TURNAROUND
 2 Business Days
 5 Business Days
 10-15 Business Days
 Other: 24 Hr. RUSH! #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: <u>Jeff Brownlee</u>	Signature: <u>Andela</u>	Signature:	Signature:	Airbill / Freight #:
Printed Name: <u>Jeff Brownlee</u>	Printed Name: <u>Corina Andela</u>	Printed Name:	Printed Name:	Condition of Sample Containers:
Firm: <u>Bristol</u>	Firm: <u>Analytica AK</u>	Firm:	Firm:	Temp Received: <u>2.6 °C</u>
Date/Time: <u>4/14/98 13:25</u>	Date/Time: <u>4/14/98 13:25</u>	Date/Time:	Date/Time:	# of Coolers: <u>1</u>
				Seals: <u>0</u>
				<u>Hand delivered by Jeff Brownlee</u>
				PAGE OF <u>1</u>

11255



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-034
Date Reported: 04/16/98 15:06
Project Name: CLINE'S TESORO
Date Received: 04/15/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C28	03	C30
02	C29		

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804034

Client: BRISTOL ENVIRONMENTAL SRVCS.

16-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Gasoline Range Organics	Units	Diesel Range Organics	Residual Range Organics	Units
A804034-01	C28	SOIL	()	mg/Kg	120 (4.3)	()	mg/Kg
A804034-02	C29	SOIL	()	mg/Kg	26 (4.3)	()	mg/Kg
A804034-03	C30	SOIL	()	mg/Kg	29 (4.2)	()	mg/Kg

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

0258


ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 2.6°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:



Date:

4,16,98

Client ID: C28 Lab ID: 01A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041518.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	120	4.3	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	90 %		60 - 120	

Client ID: C29 Lab ID: 02A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041520.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 8.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	26	4.3	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	80 %		60 - 120	

Client ID: C30 Lab ID: 03A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041522.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 5.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	29	4.2	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	87 %		60 - 120	

Method AK102 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range extends from the beginning of C10 to the beginning of C25. The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

Solids are prepared via sonication per AK102 and U.S. EPA SW-846 method 3550.



ANALYTICA
ALASKA INC

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Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: A804034
CSN: A8035

Chain of Custody Record / Analysis Request

Company Name <u>Bristol Env. Svcs.</u>		Project Name <u>Cline's Tesoto</u>				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID					
Company Address <u>201 E. 51st Ave #300</u> <u>Anchorage AK 99518</u>		Report To: <u>Jim Bates</u>		Date Collected	Time Collected											Matrix Soil/Water (only one)	# Containers			
Telephone <u>(907) 563-0013</u> FAX <u>5 6713</u>		Sampler: <u>Jeff Brownlee</u>															8 oz Glass	4 oz Glass	40 ml. VOFAC	1 Liter
P.O. Number: <u>1900HY500</u>		Sample ID																		
<u>C28</u>	<u>4/14</u>	<u>1200</u>	<u>Soil</u>	<u>1</u>					<u>X</u>				<u>X</u>	<u>(1)</u>						
<u>C29</u>	<u>5</u>	<u>1210</u>	<u>S</u>	<u>1</u>					<u>X</u>				<u>X</u>	<u>(2)</u>						
<u>C30</u>	<u>5</u>	<u>1220</u>	<u>S</u>	<u>1</u>					<u>X</u>				<u>X</u>	<u>(3)</u>						

DELIVERABLES

- Level I
- ADEC Format
- ACOE
- AFCEE
- EDF - Format: _____ specify

TURNAROUND

- 2 Business Days
- 5 Business Days
- 10-15 Business Days
- Other: 48 Hr. RUSH! Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: <u>Jeff Brownlee</u>	Signature: <u>Lorraine Andela</u>	Signature:	Signature:	Airbill / Freight #:
Printed Name: <u>Jeff Brownlee</u>	Printed Name: <u>Lorraine Andela</u>	Printed Name:	Printed Name:	Condition of Sample Containers:
Firm: <u>Bristol</u>	Firm: <u>Analytica AK</u>	Firm:	Firm:	Temp Received: <u>2.6</u> °C
Date/Time: <u>4/14/98</u>	Date/Time: <u>4/14/98 13:25</u>	Date/Time:	Date/Time:	# of Coolers: <u>1</u>
				Seals: <u>2</u>
				Hand delivered by <u>Jeff Brownlee</u>
				PAGE 1 OF 1

0263



311 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804034

DATE RECEIVED: 4/14/98

PROJECT: Clines Tesoro

CLIENT: Bristol Env.

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/14/98 COC #: _____

by (print) Lorraine Andela

Signature: [Signature]

1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff [Signature]
2. Were custody seals on outside of cooler?..... YES NO
How many & where? _____ Seal Date: _____ Seal Name: _____
3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO
4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
7. Did you sign custody papers in the appropriate place?..... YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 2.6°C)..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: RA Date: 4/14/98

B. LOG-IN PHASE: Date samples were logged-in: 4/14/98

by (print): Lorraine Andela

Signature: [Signature]

11. Describe type of packing in cooler: BW Bags
12. Were all bottles sealed in separate plastic bags?..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
15. Did all bottle labels agree with custody papers?..... YES NO
16. Were correct containers used for the tests indicated?..... YES NO
17. Were correct preservatives added to samples?..... YES NO
18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A..... YES NO
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
21. Who was called? _____ By whom? _____ Date _____

Explanations:



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-036
Date Reported: 04/16/98 15:28
Project Name: CLINE'S TESORO
Date Received: 04/15/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C31	05	C37
02	C32	06	C38
03	C33	07	C39
04	C34		

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804036

Client: BRISTOL ENVIRONMENTAL SRVCS.

16-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804036-01	C31	SOIL	U (0.012)	0.017 (0.012)	U (0.012)	0.023 (0.012)	U (1.2)	mg/Kg	()	()	mg/Kg
A804036-02	C32	SOIL	U (0.011)	0.026 (0.011)	0.013 (0.011)	0.047 (0.011)	U (1.1)	mg/Kg	()	()	mg/Kg
A804036-03	C33	SOIL	U (0.0090)	U (0.0090)	U (0.0090)	U (0.0090)	U (0.90)	mg/Kg	()	()	mg/Kg
A804036-04	C34	SOIL	U (0.0080)	U (0.0080)	U (0.0080)	0.013(0.0080)	U (0.80)	mg/Kg	()	()	mg/Kg
A804036-05	C37	SOIL	U (0.037)	0.12 (0.037)	0.074 (0.037)	0.66 (0.037)	4.5 (3.7)	mg/Kg	()	()	mg/Kg
A804036-06	C38	SOIL	U (0.011)	0.017 (0.011)	0.011 (0.011)	0.064 (0.011)	U (1.1)	mg/Kg	()	()	mg/Kg
A804036-07	C39	SOIL	U (0.0090)	0.022(0.0090)	0.017(0.0090)	0.11(0.0090)	U (0.90)	mg/Kg	()	()	mg/Kg

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" indicates value is estimated.

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0266

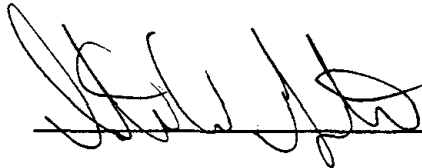
ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 5.5°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst: _____



Date: _____

4 / 16 / 08

Client ID: C31
 Test Description: BTEX/GRO in soil-101/8020
 Collected: 04/14/98

Lab ID: 01A
 Method: AK101/8020
 Matrix: SOIL

ANALYSIS DATE: 04/15/98

FILE ID: N8041510.D

ANALYST: SG

UNITS: mg/Kg

INSTRUMENT ID: NAT

DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 3.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.012	
Toluene	108-88-3	0.017	0.012	
Ethylbenzene	100-41-4	U	0.012	
Xylenes, Total	1330-20-7	0.023	0.012	
Gasoline Range Organics	VPH	U	1.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	92 %	60 - 120
1,4-Difluorobenzene (FID)	106 %	60 - 120
p-Bromofluorobenzene (FID)	114 %	60 - 120

Client ID: C32
 Test Description: BTEX/GRO in soil-101/8020
 Collected: 04/14/98

Lab ID: 02A
 Method: AK101/8020
 Matrix: SOIL

ANALYSIS DATE: 04/15/98

FILE ID: N8041511.D

ANALYST: SG

UNITS: mg/Kg

INSTRUMENT ID: NAT

DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 2.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.011	
Toluene	108-88-3	0.026	0.011	
Ethylbenzene	100-41-4	0.013	0.011	
Xylenes, Total	1330-20-7	0.047	0.011	
Gasoline Range Organics	VPH	U	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	92 %	60 - 120
p-Bromofluorobenzene (PID)	93 %	60 - 120
1,4-Difluorobenzene (FID)	108 %	60 - 120
p-Bromofluorobenzene (FID)	116 %	60 - 120

Client ID: C33
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/14/98

Lab ID: 03A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/15/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8041512.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 3.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.0090	
Toluene	108-88-3	U	0.0090	
Ethylbenzene	100-41-4	U	0.0090	
Xylenes, Total	1330-20-7	U	0.0090	
Gasoline Range Organics	VPH	U	0.90	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	91 %	60 - 120
1,4-Difluorobenzene (FID)	102 %	60 - 120
p-Bromofluorobenzene (FID)	113 %	60 - 120

Client ID: C34
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/14/98

Lab ID: 04A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/15/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8041513.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 4.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.0080	
Toluene	108-88-3	U	0.0080	
Ethylbenzene	100-41-4	U	0.0080	
Xylenes, Total	1330-20-7	0.013	0.0080	
Gasoline Range Organics	VPH	U	0.80	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	95 %	60 - 120
p-Bromofluorobenzene (PID)	89 %	60 - 120
1,4-Difluorobenzene (FID)	108 %	60 - 120
p-Bromofluorobenzene (FID)	111 %	60 - 120

Client ID: C37
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/15/98

Lab ID: 05A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/15/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8041517.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 4.8

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.037	
Toluene	108-88-3	0.12	0.037	
Ethylbenzene	100-41-4	0.074	0.037	
Xylenes, Total	1330-20-7	0.66	0.037	
Gasoline Range Organics	VPH	4.5	3.7	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	91 %	60 - 120
1,4-Difluorobenzene (FID)	110 %	60 - 120
p-Bromofluorobenzene (FID)	113 %	60 - 120

Client ID: C38
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/15/98

Lab ID: 06A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/15/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8041518.D
UNITS: mg/Kg
DILUTION: 1

Results reported on a dry weight basis.

Percent Moisture: 3.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.011	
Toluene	108-88-3	0.017	0.011	
Ethylbenzene	100-41-4	0.011	0.011	
Xylenes, Total	1330-20-7	0.064	0.011	
Gasoline Range Organics	VPH	U	1.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	94 %	60 - 120
p-Bromofluorobenzene (PID)	93 %	60 - 120
1,4-Difluorobenzene (FID)	106 %	60 - 120
p-Bromofluorobenzene (FID)	112 %	60 - 120

Client ID: C39 Lab ID: 07A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/15/98 Matrix: SOIL

ANALYSIS DATE: 04/15/98 FILE ID: N8041519.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 3.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.0090	
Toluene	108-88-3	0.022	0.0090	
Ethylbenzene	100-41-4	0.017	0.0090	
Xylenes, Total	1330-20-7	0.11	0.0090	
Gasoline Range Organics	VPH	U	0.90	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	92 %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	114 %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.



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ALASKA INC

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Web: www.analyticagroup.com

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Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: A804081p
CSN: A8035

Chain of Custody Record / Analysis Request

Company Name <u>Bristol Environ.</u>		Project Name <u>Chey Teoro</u>				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK103	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID				
Company Address <u>201 E 56th Ste 300 Anch, AK. 99518</u>		Report To: <u>Jeff Brownlee</u>																	
Telephone <u>563-0013 240-5786</u>		Sampler: <u>Jeff Brownlee</u>																	
FAX <u>563-6713</u>		P.O. Number: <u>9001-KJ-00</u>																	
Sample ID	Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX	GRO	GRO	DRO	DRO	RRO	PH-2	Hold for Further Analysis	RUSH	LAB ID		
				8 oz Glass	4 oz Glass	40 ml. VOAHC	1 Liter												
<u>C31</u>	<u>4-14</u>	<u>1600</u>	<u>Soil</u>	<u>3</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>①</u>	<u>4814</u>	
<u>C32</u>		<u>1610</u>																<u>②</u>	<u>4815</u>
<u>C33</u>		<u>1620</u>																<u>③</u>	<u>4808</u>
<u>C34</u>		<u>1630</u>																<u>④</u>	<u>4813</u>
<u>C37 7 (C37)</u>	<u>4-15</u>	<u>9:00</u>																<u>⑤</u>	<u>4770</u>
<u>C38</u>		<u>9:10</u>																<u>⑥</u>	<u>4771</u>
<u>C39</u>		<u>9:20</u>																<u>⑦</u>	<u>4769</u>

COMMENTS <u>Also RUSH not necessary if lead possible ADEC Reporting later</u>		DELIVERABLES <input checked="" type="checkbox"/> Level I <input checked="" type="checkbox"/> ADEC Format <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE <input type="checkbox"/> EDF - Format: _____ specify		TURNAROUND <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 10-15 Business Days <input checked="" type="checkbox"/> Other: <u>24 HR RUSH</u> #Business Days	
RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:	
Signature: <u>Jeff Brownlee</u>	Signature: <u>Lorraine Andela</u>	Signature:	Signature:	Airbill / Freight #:	
Printed Name: <u>Jeff Brownlee</u>	Printed Name: <u>Lorraine Andela</u>	Printed Name:	Printed Name:	Condition of Sample Containers:	
Firm: <u>Bristol</u>	Firm: <u>Analytica AK</u>	Firm:	Firm:	Temp Received: <u>5.5</u> °C	
Date/Time: <u>4/15/98 1105</u>	Date/Time: <u>4/15/98 1110</u>	Date/Time:	Date/Time:	# of Coolers: <u>1</u>	
				Seals: <u>Hand delivered by Jeff Brownlee</u>	
				PAGE <u>1</u> OF <u>1</u>	



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804036

DATE RECEIVED: 4/15/98

PROJECT: Clinestason

CLIENT: Bristol

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler opened: 4/15/98 COC #:

by (print): Lorraine Andela Signature: L Andela

1. Did cooler come with a shipping slip (air bill, etc)? Hand delivered by Jeff Brownlee YES NO
2. Were custody seals on outside of cooler? YES NO
How many & where? Seal Date: Seal Name:
3. Were custody seals unbroken and intact at the date and time of arrival? N/A YES NO
4. Did you screen samples for radioactivity using the Geiger Counter? YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO
6. Were custody papers filled out properly (ink, signed, etc.)? YES NO
7. Did you sign custody papers in the appropriate place? YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form. YES NO
9. If required, was enough ice used?.....(Type of ice: gel; Temp: 5.5°C) YES NO
10. Have designated person initial here to acknowledge receipt of cooler: JA Date: 4/15/98

B. **LOG-IN PHASE:** Date samples were logged-in: 4/15/98

by (print): Lorraine Andela Signature: L Andela

11. Describe type of packing in cooler: some BW
12. Were all bottles sealed in separate plastic bags? YES NO
13. Did all bottles arrive unbroken & were labels in good condition? YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? YES NO
15. Did all bottle labels agree with custody papers? YES NO
16. Were correct containers used for the tests indicated? YES NO
17. Were correct preservatives added to samples? YES NO
18. Was a sufficient amount of sample sent for tests indicated? YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A YES NO
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
21. Who was called? By whom? Date

Explanations:



811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-037
Date Reported: 04/16/98 15:48
Project Name: CLINE'S TESORO
Date Received: 04/15/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C31	05	C37
02	C32	06	C38
03	C33	07	C39
04	C34		

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804037

Client: BRISTOL ENVIRONMENTAL SRVCS.

16-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Gasoline Range Organics	Units	Diesel Range Organics	Residual Range Organics	Units
A804037-01	C31	SOIL	()	mg/Kg	6.2 (4.1)	()	mg/Kg
A804037-02	C32	SOIL	()	mg/Kg	4.7 (4.1)	()	mg/Kg
A804037-03	C33	SOIL	()	mg/Kg	U (4.1)	()	mg/Kg
A804037-04	C34	SOIL	()	mg/Kg	20 (4.1)	()	mg/Kg
A804037-05	C37	SOIL	()	mg/Kg	11 (4.2)	()	mg/Kg
A804037-06	C38	SOIL	()	mg/Kg	5.0 (4.1)	()	mg/Kg
A804037-07	C39	SOIL	()	mg/Kg	9.9 (4.1)	()	mg/Kg

0276

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 5.5°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analyte was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate results which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AKD1 requirements. True value is greater than or equal to the reported value.

Analyst:



Date:

4, 16, 98

Client ID: C31 Lab ID: 01A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041524.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 3.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	6.2	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	113 %	60 - 120

Client ID: C32 Lab ID: 02A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/16/98 FILE ID: B8041526.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 2.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	4.7	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	114 %	60 - 120

Client ID: C33 Lab ID: 03A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041528.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 3.5

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	U	4.1	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	92 %		60 - 120	

Client ID: C34 Lab ID: 04A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/14/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041534.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 4.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	20	4.1	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	110 %		60 - 120	

Client ID: C37 Lab ID: 05A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041536.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 4.8

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	11	4.2	
<u>SURROGATE</u>	<u>%RECOVERY</u>		<u>LIMITS</u>	
o-Terphenyl	114 %		60 - 120	

Client ID: C38 Lab ID: 06A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041538.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 3.9

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	5.0	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	92 %	60 - 120

Client ID: C39 Lab ID: 07A
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/15/98 FILE ID: B8041540.D
ANALYSIS DATE: 04/15/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 3.1

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	9.9	4.1	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	111 %	60 - 120

Method AK102 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range extends from the beginning of C10 to the beginning of C25. The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

Solids are prepared via sonication per AK102 and U.S. EPA SW-846 method 3550.



ANALYTICA
ALASKA INC

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Web: www.analyticagroup.com

525 Interlocken Parkway, Suite 200
Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: **A804037**
CSN: **A8035**

Chain of Custody Record / Analysis Request

Company Name Bristol (Env.)		Project Name Clines Tesoro				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID	
Company Address 2015 56th #300 Anchorage AK 99518		Report To: Jim Barlas														
Telephone (907) 563-0613 FAX 56713		Sampler: Jeff Brownlee														
Sample ID		P.O. Number: 9001-VJ-00														
Sample ID	Date Collected	Time Collected	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
			Matrix Soil/Water (see note)	8 oz Glass	4 oz Glass	40 ml. VOFH										
C31	4/14	1600	soil	X					X					X		0001
C32		1610		X					X					X		0002
C33		1620		X					X					X		0003
C34		1630		X					X					X		0004
C37	4/15	0900		X					X					X		0005
C38		0910		X					X					X		0006
C39		0920		X					X					X		0007

COMMENTS	DELIVERABLES	TURNAROUND
	<input type="checkbox"/> Level I <input checked="" type="checkbox"/> ADEC Format <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE <input type="checkbox"/> EDF - Format: _____ specify	<input type="checkbox"/> 2 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 10-15 Business Days <input checked="" type="checkbox"/> Other: 48 HR RUSH #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: Jeff Brownlee	Signature: Lorena Andela	Signature:	Signature:	Airbill / Freight #:
Printed Name: Jeff Brownlee	Printed Name: Lorena Andela	Printed Name:	Printed Name:	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica AK	Firm:	Firm:	Temp Received: 5.5 °C
Date/Time: 4/15/98 10:58	Date/Time: 4/15/98 10:58	Date/Time:	Date/Time:	# of Coolers: 1
				Seals: Hand delivered by Jeff Brownlee
				PAGE 1 OF 1

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811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804037 DATE RECEIVED: 4/15/98

PROJECT: Clines Tosoo CLIENT: Bristol

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/15/98 COC #:
by (print): Lorraine Andela Signature: [Signature]

1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff Brownlee
2. Were custody seals on outside of cooler?..... YES NO
How many & where? Seal Date: Seal Name:
3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO
N/A
4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
7. Did you sign custody papers in the appropriate place?..... YES NO
8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 5.5°C)..... YES NO
10. Have designated person initial here to acknowledge receipt of cooler: [Initials] Date: 4/15/98

B. LOG-IN PHASE: Date samples were logged-in: 4/15/98
by (print): Lorraine Andela Signature: [Signature]

11. Describe type of packing in cooler: some BW
12. Were all bottles sealed in separate plastic bags?..... YES NO
13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
15. Did all bottle labels agree with custody papers?..... YES NO
16. Were correct containers used for the tests indicated?..... YES NO
17. Were correct preservatives added to samples?..... YES NO
18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A..... YES NO
20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO
21. Who was called? By whom? Date

Explanations:



0284
325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

an Analytica Group company

Bristol Environmental
201 E. 56th Avenue
Anchorage, AK 99518

Attn: Jim Bates

Order #: 98-04-128
Date: 04/28/98 11:49
Work ID: Clines Tesoro
Date Received: 04/16/98
Date Completed: 04/27/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C31	06	C36
02	C32	07	C37
03	C33	08	C38
04	C34	09	C39
05	C35		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Jeanine M. Camp
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Methods for Chemical Analysis of Water and Wastes, USEPA 600/4-79-020, March 1983.
- o Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR, Part 136, 7-1-94 Edition.

Problems encountered with the analyses are discussed in the following narrative.

Sample #C35 was selected for the QC analysis. The matrix spike recovery was 150%, this is higher than our QC standards (70-130%). Since the sample had such high levels of mercury (27 mg/kg), and the sample spike of 2.0 mg/kg is less than four times that of the sample concentration, the spike value is considered to be irrelevant.

Sample: 01A C31

Collected: 04/14/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	5.1	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	4.40		0.1	WT%	04/24/98

Sample: 02A C32

Collected: 04/14/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	5.6	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	4.90		0.1	WT%	04/24/98

Sample: 03A C33

Collected: 04/14/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	5.1	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	3.50		0.1	WT%	04/24/98

Sample: 04A C34

Collected: 04/14/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	7.6	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	3.70		0.1	WT%	04/24/98

Sample: 05A C35

Collected: 04/15/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	24	D	1.0	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	6.60		0.1	WT%	04/24/98

Sample: 06A C36

Collected: 04/15/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	22	D	0.50	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	5.90		0.1	WT%	04/24/98

Sample: 07A C37

Collected: 04/15/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	6.3	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	5.10		0.1	WT%	04/24/98

Sample: 08A C38

Collected: 04/15/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	5.9	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	4.40		0.1	WT%	04/24/98

Sample: 09A C39

Collected: 04/15/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	6.0	D	0.20	mg/Kg	04/21/98
Percent Moisture	ASTM D2216	3.50		0.1	WT%	04/24/98

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

Order # 98-04-128
ANALYTICA, INC.

Bristol Environmental
TEST METHODOLOGIES

0289

Page 6

3050_G:	Acid Digestion of Sediments, Sludges, and Soils for GFAA Metals	METHOD: 3050A
PB_GTS:	LEAD, Total (GFAA)	METHOD: 7421
PMOIST:	PERCENT MOISTURE	METHOD: ASTM D2216

Sample: 01A C31

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/16/98	NA		04/24/98

Sample: 02A C32

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/16/98	NA		04/24/98

Sample: 03A C33

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/16/98	NA		04/24/98

Sample: 04A C34

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/14/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/14/98	04/16/98	NA		04/24/98

Sample: 05A C35

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/15/98	04/16/98	NA		04/24/98

Sample: 06A C36

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/15/98	04/16/98	NA		04/24/98

Sample: 07A C37

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/15/98	04/16/98	NA		04/24/98

Sample: 08A C38

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/15/98	04/16/98	NA		04/24/98

Sample: 09A C39

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/16/98	NA	04/20/98	04/21/98
Percent Moisture	ASTM D2216	04/15/98	04/16/98	NA		04/24/98



ANALYTICA
ALASKA INC

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Web: www.analyticagroup.com

325 Interlocken Parkway, Suite 200
Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: 9809/128
CSN:

Chain of Custody Record / Analysis Request

Company Name Bristol Environmental		Project Name Clones Testro		Date Collected		Time Collected		Matrix Soil/Water (only one)		# Containers				BTEX by 5030/8020 or 602 (specify)		GRO by 5030/8015M		GRO by AK101		DRO by 3550/8100M		DRO by AK102		DRO by AK103		PH<2		Hold for Further Analysis		RUSH (see below)		LAB ID	
Company Address 201 E 56th Ste 300 Anch., AK 99518		Report To Jim Rato																															
Telephone 563-0013		Sampler: Jeff Brownlee																															
FAX 563-6713		P.O. Number: 9001-VJ-00																															
Sample ID																																	
C35		4-15		8:00		SOIL		3		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>													
C36		4-15		8:50		L		1		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>													

COMMENTS: **Forward to AEL for analysis**

DELIVERABLES: Level I, ADEC Format, ACOE, AFCEE, EDF - Format: _____ specify

TURNAROUND: 2 Business Days, 5 Business Days, 10-15 Business Days, other: _____ #Business Days

RELINQUISHED BY SAMPLER:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:	ANALYTICA USE ONLY:
Signature: Jeff Brownlee	Signature: Lorraine Andela	Signature: Lorraine Andela	Signature: DL SINEL	Airbill / Freight #:
Printed Name: Jeff Brownlee	Printed Name: Lorraine Andela	Printed Name: Lorraine Andela	Printed Name: DL SINEL	Condition of Sample Containers:
Firm: Bristol	Firm: Analytica AK	Firm: Analytica AK	Firm: Analytica	Temp Received: 5.5 °C
Date/Time: 4-15-98 10:40	Date/Time: 4/15/98 11:05	Date/Time: 4/15/98 12:05	Date/Time: 4-16-98 9:35	# of Coolers: 1
				Seals: 0
				Hand delivered by Jeff Brownlee

0292



ANALYTICA
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FAX: (303) 469-5254

LGN: 9804128
CSN:

Chain of Custody Record / Analysis Request

Company Name Bristol Env.		Project Name Cline Tesold						BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
Company Address 201 E. 51st # 300 Anchorage AK 99518		Report To: Jim Bates															
Telephone (907) 563-0013		Sampler: Jeff Brownlee															
FAX 563-6713		P.O. Number: 91001-YJ-00															
Sample ID	Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID
				8 oz Glass	4 oz Glass	40 ml. VOA/CI	1 Liter										
C31	4/14	1600	SMC										X				
C32		1610											X				
C33		1630											X				
C34		1630											X				
C37	4/15	1400											X				
C38		0910											X				
C39		0920											X				

COMMENTS forward to AEL for analysis				DELIVERABLES <input type="checkbox"/> Level I <input checked="" type="checkbox"/> ADEC Format <input type="checkbox"/> ACOE <input type="checkbox"/> AFCEE <input type="checkbox"/> EDF - Format: _____ specify				TURNAROUND <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 5 Business Days <input checked="" type="checkbox"/> 10-15 Business Days <input type="checkbox"/> other: _____ #Business Days			
RELINQUISHED BY SAMPLER:		RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:		ANALYTICA USE ONLY:			
Signature: [Signature]		Signature: [Signature]		Signature: [Signature]		Signature: [Signature]		Airbill / Freight #:			
Printed Name: Jeff Brownlee		Printed Name: Lorraine Andola		Printed Name: Lorraine Andola		Printed Name: PL SINEL		Condition of Sample Containers: Temp Received: 5.5 °C			
Firm: Bristol		Firm: Analytica AK		Firm: Analytica AK		Firm: Analytica		# of Coolers: 1			
Date/Time: 4/15/98 1110		Date/Time: 4/15/98 1110		Date/Time: 4/15/98 1200		Date/Time: 4-16-98 9:35		Seals: [Signature] Hand delivered by Jeff Brownlee			

0293



0294

811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Order #: A8-04-042
Date Reported: 04/30/98 13:42
Project Name: CLINE'S TESORO
Date Received: 04/16/98

Attn: MR. JIM BATES

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	C40
02	C41
03	C42

<u>Sample Number</u>	<u>Client Description</u>
04	C43
05	C44

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations





Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804042

Client: BRISTOL ENVIRONMENTAL SRVCS.

30-Apr-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804042-01	C40	SOIL	0.56 (0.45)	8.4 (0.45)	4.1 (0.45)	32 (0.45)	180 (45)	mg/Kg	56 (4.2)	()	mg/Kg
A804042-02	C41	SOIL	0.52 (0.19)	9.0 (0.19)	4.2 (0.19)	31 (0.19)	180 (19)	mg/Kg	78 (4.2)	()	mg/Kg
A804042-03	C42	SOIL	0.19 (0.054)	2.6 (0.054)	1.6 (0.054)	14 (0.054)	80 (5.4)	mg/Kg	87 (4.2)	()	mg/Kg
A804042-04	C43	SOIL	0.23 (0.079)	5.3 (0.079)	2.9 (0.079)	23 (0.079)	120 (7.9)	mg/Kg	90 (4.3)	()	mg/Kg
A804042-05	C44	SOIL	0.14 (0.039)	2.0 (0.039)	1.0 (0.039)	7.8 (0.039)	43 (3.9)	mg/Kg	34 (4.3)	()	mg/Kg

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" Indicates value is estimated.

The Science of Analysis, The Art of Service

0295

ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 2.1°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analytes was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:  Date: 4, 30, 98

Analyst:  Date: 11 / 30 / 98

Client ID: C40 Lab ID: 01A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/15/98 Matrix: SOIL

ANALYSIS DATE: 04/27/98 FILE ID: N8042730.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 40
Results reported on a dry weight basis. Percent Moisture: 6.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.56	0.45	
Toluene	108-88-3	8.4	0.45	
Ethylbenzene	100-41-4	4.1	0.45	
Xylenes, Total	1330-20-7	32	0.45	
Gasoline Range Organics	VPH	180	45	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	96 %	60	-	120
p-Bromofluorobenzene (PID)	D %	60	-	120
1,4-Difluorobenzene (FID)	109 %	60	-	120
p-Bromofluorobenzene (FID)	D %	60	-	120

Client ID: C40 Lab ID: 01B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042345.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	56	4.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	77 %	60	-	120

Client ID: C41 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/15/98 Matrix: SOIL

ANALYSIS DATE: 04/27/98 FILE ID: N8042807.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 20
Results reported on a dry weight basis. Percent Moisture: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.52	0.19	
Toluene	108-88-3	9.0	0.19	
Ethylbenzene	100-41-4	4.2	0.19	
Xylenes, Total	1330-20-7	31	0.19	
Gasoline Range Organics	VPH	180	19	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
1,4-Difluorobenzene (PID)	95 %	60	- 120
p-Bromofluorobenzene (PID)	D %	60	- 120
1,4-Difluorobenzene (FID)	105 %	60	- 120
p-Bromofluorobenzene (FID)	D %	60	- 120

Client ID: C41 Lab ID: 02B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042347.D
ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 5.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	78	4.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>	
o-Terphenyl	86 %	60	- 120

Client ID: C42
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/15/98

Lab ID: 03A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/27/98
ANALYST: SG
INSTRUMENT ID: NAT

FILE ID: N8042733.D
UNITS: mg/Kg
DILUTION: 4
Percent Moisture: 5.3

Results reported on a dry weight basis.

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.19	0.054	
Toluene	108-88-3	2.6	0.054	
Ethylbenzene	100-41-4	1.6	0.054	
Xylenes, Total	1330-20-7	14	0.054	
Gasoline Range Organics	VPH	80	5.4	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	94 %	60	-	120
p-Bromofluorobenzene (PID)	D %	60	-	120
1,4-Difluorobenzene (FID)	101 %	60	-	120
p-Bromofluorobenzene (FID)	D %	60	-	120

Client ID: C42
Test Description: DRO in soil by AK102.
Collected: 04/15/98

Lab ID: 03B
Method: 3550/AK102
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042349.D
UNITS: mg/Kg
DILUTION: 1

Sample reported on a dry weight basis.

% MOISTURE: 5.3

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	87	4.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	83 %	60	-	120

Client ID: C43 Lab ID: 04A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/15/98 Matrix: SOIL

ANALYSIS DATE: 04/27/98 FILE ID: N8042734.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 8
 Results reported on a dry weight basis. Percent Moisture: 6.7

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.23	0.079	
Toluene	108-88-3	5.3	0.079	
Ethylbenzene	100-41-4	2.9	0.079	
Xylenes, Total	1330-20-7	23	0.079	
Gasoline Range Organics	VPH	120	7.9	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
1,4-Difluorobenzene (PID)	100 %	60	-	120
p-Bromofluorobenzene (PID)	D %	60	-	120
1,4-Difluorobenzene (FID)	99 %	60	-	120
p-Bromofluorobenzene (FID)	D %	60	-	120

Client ID: C43 Lab ID: 04B
 Test Description: DRO in soil by AK102. Method: 3550/AK102
 Collected: 04/15/98 Matrix: SOIL

EXTRACTION DATE: 04/23/98 FILE ID: B8042351.D
 ANALYSIS DATE: 04/23/98 UNITS: mg/Kg
 ANALYST: PWS DILUTION: 1
 INSTRUMENT ID: BERTHA
 Sample reported on a dry weight basis. % MOISTURE: 6.7

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	90	4.3	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>		
o-Terphenyl	85 %	60	-	120

Client ID: C44
Test Description: BTEX/GRO in soil-101/8020
Collected: 04/15/98

Lab ID: 05A
Method: AK101/8020
Matrix: SOIL

ANALYSIS DATE: 04/27/98
ANALYST: SG

FILE ID: N8042735.D
UNITS: mg/Kg

INSTRUMENT ID: NAT
Results reported on a dry weight basis.

DILUTION: 4
Percent Moisture: 6.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	0.14	0.039	
Toluene	108-88-3	2.0	0.039	
Ethylbenzene	100-41-4	1.0	0.039	
Xylenes, Total	1330-20-7	7.8	0.039	
Gasoline Range Organics	VPH	43	3.9	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	100 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	100 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C44
Test Description: DRO in soil by AK102.
Collected: 04/15/98

Lab ID: 05B
Method: 3550/AK102
Matrix: SOIL

EXTRACTION DATE: 04/23/98
ANALYSIS DATE: 04/23/98
ANALYST: PWS
INSTRUMENT ID: BERTHA

FILE ID: B8042409.D
UNITS: mg/Kg
DILUTION: 1

Sample reported on a dry weight basis.

% MOISTURE: 6.6

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	34	4.3	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	85 %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.

Method AK102 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range extends from the beginning of C10 to the beginning of C25. The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

Solids are prepared via sonication per AK102 and U.S. EPA SW-846 method 3550.



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: ASD4072

DATE RECEIVED: 4/16/98

PROJECT: China's Treasure

CLIENT: Bristol

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/16/98 COC #:

by (print): Lorraine Andels Signature: L Andels

- 1. Did cooler come with a shipping slip (air bill, etc)?..... Hand delivered by Jeff Bonville YES NO
- 2. Were custody seals on outside of cooler?..... YES NO
How many & where? Seal Date: Seal Name:
- 3. Were custody seals unbroken and intact at the date and time of arrival?..... N/A YES NO
- 4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO
- 5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO
- 6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO
- 7. Did you sign custody papers in the appropriate place?..... YES NO
- 8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO
- 9. If required, was enough ice used?.....(Type of ice: gel ; Temp: 2.10C) YES NO
- 10. Have designated person initial here to acknowledge receipt of cooler: LJA Date 4/16/98

B. LOG-IN PHASE: Date samples were logged-in: 4/16/98

by (print): Lorraine Andels Signature: L Andels

- 11. Describe type of packing in cooler: BW
- 12. Were all bottles sealed in separate plastic bags?..... YES NO
- 13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO
- 14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO
- 15. Did all bottle labels agree with custody papers?..... YES NO
- 16. Were correct containers used for the tests indicated?..... YES NO
- 17. Were correct preservatives added to samples?..... YES NO
- 18. Was a sufficient amount of sample sent for tests indicated?..... YES NO
- 19. Were bubbles absent in Volatile samples? If NO, list by QA#: N/A YES NO
- 20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO

21. Who was called? By whom? Date

Explanations:



an Analytica Group company

Bristol Environmental
201 E. 56th Avenue
Anchorage, AK 99518

Attn: Jim Bates

0305
325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

Order #: 98-04-153
Date: 04/29/98 12:58
Work ID: CLINES TESORO TANK YANK
Date Received: 04/17/98
Date Completed: 04/28/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C40	04	C43
02	C41	05	C44
03	C42		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Jeanine M. Camp
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Methods for Chemical Analysis of Water and Wastes, USEPA 600/4-79-020, March 1983.
- o Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR, Part 136, 7-1-94 Edition.

Problems encountered with the analyses are discussed in the following narrative.

For the sample chosen for QC analysis for lead (Sample ID# C40), there was a low matrix spike recovery(47.6%), which is lower then our QC stanards (70-130%). The low spike recovery can be attributed to the concentration of the sample being greater than four times that of the spike.

Order # 98-04-153
ANALYTICA, INC.

Bristol Environmental
TEST RESULTS by SAMPLE

Sample: 01A C40 Collected: 04/15/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	11	D	0.21	mg/Kg-DRY	04/27/98
Percent Moisture	ASTM D2216	4.90		0.1	WT%	04/24/98

Ç Sample: 02A C41 Collected: 04/15/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	9.9	D	0.21	mg/Kg-DRY	04/27/98
Percent Moisture	ASTM D2216	5.00		0.1	WT%	04/24/98

Sample: 03A C42 Collected: 04/15/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	9.4	D	0.21	mg/Kg-DRY	04/27/98
Percent Moisture	ASTM D2216	4.70		0.1	WT%	04/24/98

Sample: 04A C43 Collected: 04/15/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	11	D	0.21	mg/Kg-DRY	04/27/98
Percent Moisture	ASTM D2216	6.60		0.1	WT%	04/24/98

Sample: 05A C44 Collected: 04/15/98 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	13	D	0.21	mg/Kg-DRY	04/27/98
Percent Moisture	ASTM D2216	6.70		0.1	WT%	04/24/98

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

3050_G:	Acid Digestion of Sediments, Sludges, and Soils for GFAA Metals	METHOD: 3050A
PB_GTS:	LEAD, Total (GFAA)	METHOD: 7421
PMOIST:	PERCENT MOISTURE	METHOD: ASTM D2216

Sample: 01A C40

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/17/98	NA	04/22/98	04/27/98
Percent Moisture	ASTM D2216	04/15/98	04/17/98	NA		04/24/98

Sample: 02A C41

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/17/98	NA	04/22/98	04/27/98
Percent Moisture	ASTM D2216	04/15/98	04/17/98	NA		04/24/98

Sample: 03A C42

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/17/98	NA	04/22/98	04/27/98
Percent Moisture	ASTM D2216	04/15/98	04/17/98	NA		04/24/98

Sample: 04A C43

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/17/98	NA	04/22/98	04/27/98
Percent Moisture	ASTM D2216	04/15/98	04/17/98	NA		04/24/98

Sample: 05A C44

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/15/98	04/17/98	NA	04/22/98	04/27/98
Percent Moisture	ASTM D2216	04/15/98	04/17/98	NA		04/24/98

COOLER RECEIPT FORM

CLIENT Bristol Envicsn# PROJECT Clinical Terms ORD# 9804153

USE OTHER SIDE OF THIS FORM TO NOTE DETAILS CONCERNING CHECK-IN PROBLEMS/DISCREPANCIES

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4-17-98 Chain of Custody # _____
by print PLSINEL sign [Signature]

- 1. Did cooler come with a shipping slip air bill, etc. ? YES NO
If YES, enter carrier name & air bill number here: Fedex 2792133
- 2. Were custody seals on outside of cooler? YES NO
How many & where: 1 Front seal date: 4-16-98 seal name: L. Andala
- 3. Were custody seals unbroken and intact on the date and time of arrival? YES NO
- 4. Did you screen samples for radioactivity using the Geiger Counter? YES NO
- 5. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO
- 6. Were custody papers filled out properly ink, signed, etc ? YES NO
- 7. Did you sign custody papers in the appropriate place? YES NO
- 8. Was project identifiable from custody paper?, If yes, enter project name at the top of this form YES NO
- 9. If required, was enough ice used? YES NO Type of ice: WET BLUE Temp 4 °C
- 10. Have designate person initial here to acknowledge receipt of cooler. [Signature] date: 4-17-98

B. LOG-IN PHASE: Date samples were logged-in: 4-17-98
by print PLSINEL sign [Signature]

- 11. Describe type of packing in cooler: Bubble Wrap
- 12. Were all bottles sealed in separate plastic bags? YES NO
- 13. Did all bottles arrive unbroken & were labels in good condition? YES NO
- 14. Were all bottle labels complete ID, date, time, signature, preservative, etc. ? YES NO
- 15. Did all bottle labels agree with custody papers? YES NO
- 16. Number of samples received 5 Number of bottles received 5
- 17. Were correct containers used for the tests indicated? YES NO
- 18. Were correct preservatives added to samples? YES NO
- 19. Was a sufficient amount of sample sent for tests indicated? YES NO
- 20. Were bubbles absent in volatile samples? If NO, list by Sample #/ID YES NO
- 21. Was the project manager called and status discussed? If yes, give details on the back of this form YES NO
- 22. Who was called? _____ By whom? _____ date _____



0313

811 W. 8th Avenue, Anchorage, AK 99501 • (907) 258-2155 • FAX (907) 258-6634

BRISTOL ENVIRONMENTAL SRVCS.
201 EAST 56TH AVE., #301
ANCHORAGE, AK 99518

Attn: MR. JIM BATES

Order #: A8-04-058
Date Reported: 05/04/98 19:23
Project Name: CLINE'S TESORO
Date Received: 04/21/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>
01	C45
02	C46
03	C47

<u>Sample Number</u>	<u>Client Description</u>
04	C48
05	C49

Enclosed are the analytical results for the submitted samples. All analyses met quality assurance objectives, except where noted in the case narratives. If you have any questions regarding the analyses, please feel free to call.

Bradley C. Olson
Vice President - Operations



Analytica Alaska, Inc.

811 W. 8th Ave. Anchorage, AK 99501 Phone-(907)258-2155 FAX-(907)258-6634

tabular sample report - fuels

AAI Project ID: A804058

Client: BRISTOL ENVIRONMENTAL SRVCS.

04-May-98

Project Name: CLINE'S TESORO

Sample ID	Client Sample ID	Matrix	Benzene	Toluene	Ethylbenzene	Xylenes, Total	GRO	Units	DRO	RRO	Units
A804058-01	C45	SOIL	U (8.2)	19 (8.2)	17 (8.2)	2600 (8.2)	11000 (820)	mg/Kg	8500 (43)	()	mg/Kg
A804058-02	C46	SOIL	U (0.16)	U (0.16)	0.20 (0.16)	18 (0.16)	130 (16)	mg/Kg	740 (43)	()	mg/Kg
A804058-03	C47	SOIL	U (0.009)	0.037 (0.009)	0.013 (0.009)	0.15 (0.009)	1.0 (0.90)	mg/Kg	11 (4.2)	()	mg/Kg
A804058-04	C48	SOIL	U (2.1)	67 (2.1)	14 (2.1)	400 (2.1)	2100 (210)	mg/Kg	3000 (45)	()	mg/Kg
A804058-05	C49	SOIL	U (6.7)	U (6.7)	U (6.7)	820 (6.7)	4600 (670)	mg/Kg	4600 (42)	()	mg/Kg

The number in parentheses is the reporting limit. "U" Indicates analyte was not detected. "()" Indicates analyte was not analyzed for. "J" indicates value is estimated.

The Science of Analysis, The Art of Service

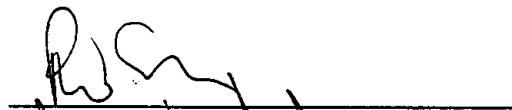
0314

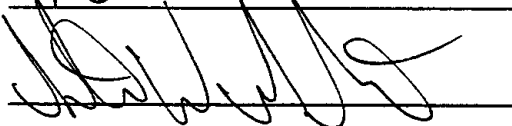
ADEC Laboratory Approval Number: UST-014

The samples were received properly packed in one cooler at 4.4°C and were refrigerated upon receipt.

Data Flag Definitions:

- U - Indicates this analyte was searched for and not detected at the reporting limits listed.
- D - Indicates the surrogate was diluted out of the sample due to high levels of organics native to the samples.
- M - Indicates matrix effects are responsible for surrogate recoveries which are out of limits.
- NC - Indicates analyte was detected in original analysis but not confirmed in secondary analysis.
- DR - Indicates result is from secondary analysis at dilution.
- S - Indicates corrective action did not accomplish desired results or corrective action not performed for cause. See QC Evaluation Summary for details.
- B - Indicates analyte was found in Method Blank. See QC Evaluation Summary for details.
- < - Indicates sample not preserved according to AK101 requirements. True value is greater than or equal to the reported value.

Analyst:  Date: 5, 5, 98

Analyst:  Date: 5, 15, 1998

Client ID: C45 Lab ID: 01A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/21/98 Matrix: SOIL

ANALYSIS DATE: 04/29/98 FILE ID: N8042917.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 800
 Results reported on a dry weight basis. Percent Moisture: 8.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	8.2	
Toluene	108-88-3	19	8.2	
Ethylbenzene	100-41-4	17	8.2	
Xylenes, Total	1330-20-7	2600	8.2	
Gasoline Range Organics	VPH	11000	820	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C45 Lab ID: 01B
 Test Description: DRO in soil by AK102. Method: 3550/AK102
 Collected: 04/21/98 Matrix: SOIL

EXTRACTION DATE: 04/27/98 FILE ID: B8042759.D
 ANALYSIS DATE: 04/27/98 UNITS: mg/Kg
 ANALYST: PWS DILUTION: 10
 INSTRUMENT ID: BERTHA
 Sample reported on a dry weight basis. % MOISTURE: 8.0

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	8500	43	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120

Client ID: C46 Lab ID: 02A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/21/98 Matrix: SOIL

ANALYSIS DATE: 04/29/98 FILE ID: N8042919.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 20
Results reported on a dry weight basis. Percent Moisture: 6.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.16	
Toluene	108-88-3	U	0.16	
Ethylbenzene	100-41-4	0.20	0.16	
Xylenes, Total	1330-20-7	18	0.16	
Gasoline Range Organics	VPH	130	16	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C46 Lab ID: 02B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/21/98 Matrix: SOIL

EXTRACTION DATE: 04/27/98 FILE ID: B8042825.D
ANALYSIS DATE: 04/27/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 10
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.2

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	740	43	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120

Client ID: C47 Lab ID: 03A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/21/98 Matrix: SOIL

ANALYSIS DATE: 04/29/98 FILE ID: N8042909.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 1
Results reported on a dry weight basis. Percent Moisture: 6.8

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	0.0090	
Toluene	108-88-3	0.037	0.0090	
Ethylbenzene	100-41-4	0.013	0.0090	
Xylenes, Total	1330-20-7	0.15	0.0090	
Gasoline Range Organics	VPH	1.0	0.90	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	98 %	60 - 120
p-Bromofluorobenzene (PID)	91 %	60 - 120
1,4-Difluorobenzene (FID)	105 %	60 - 120
p-Bromofluorobenzene (FID)	109 %	60 - 120

Client ID: C47 Lab ID: 03B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/21/98 Matrix: SOIL

EXTRACTION DATE: 04/27/98 FILE ID: B8042827.D
ANALYSIS DATE: 04/27/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 1
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.8

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	11	4.2	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	82 %	60 - 120

Client ID: C48 Lab ID: 04A
 Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
 Collected: 04/21/98 Matrix: SOIL

ANALYSIS DATE: 04/29/98 FILE ID: N8042910.D
 ANALYST: SG UNITS: mg/Kg
 INSTRUMENT ID: NAT DILUTION: 200
 Results reported on a dry weight basis. Percent Moisture: 11.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	2.1	
Toluene	108-88-3	67	2.1	
Ethylbenzene	100-41-4	14	2.1	
Xylenes, Total	1330-20-7	400	2.1	
Gasoline Range Organics	VPH	2100	210	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	98.0 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C48 Lab ID: 04B
 Test Description: DRO in soil by AK102. Method: 3550/AK102
 Collected: 04/21/98 Matrix: SOIL

EXTRACTION DATE: 04/27/98 FILE ID: B8042833.D
 ANALYSIS DATE: 04/27/98 UNITS: mg/Kg
 ANALYST: PWS DILUTION: 10
 INSTRUMENT ID: BERTHA
 Sample reported on a dry weight basis. % MOISTURE: 11.4

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	3000	45	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120

Client ID: C49 Lab ID: 05A
Test Description: BTEX/GRO in soil-101/8020 Method: AK101/8020
Collected: 04/21/98 Matrix: SOIL

ANALYSIS DATE: 04/29/98 FILE ID: N8043007.D
ANALYST: SG UNITS: mg/Kg
INSTRUMENT ID: NAT DILUTION: 800
Results reported on a dry weight basis. Percent Moisture: 6.7

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Benzene	71-43-2	U	6.7	
Toluene	108-88-3	U	6.7	
Ethylbenzene	100-41-4	U	6.7	
Xylenes, Total	1330-20-7	820	6.7	
Gasoline Range Organics	VPH	4600	670	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
1,4-Difluorobenzene (PID)	93 %	60 - 120
p-Bromofluorobenzene (PID)	D %	60 - 120
1,4-Difluorobenzene (FID)	107 %	60 - 120
p-Bromofluorobenzene (FID)	D %	60 - 120

Client ID: C49 Lab ID: 05B
Test Description: DRO in soil by AK102. Method: 3550/AK102
Collected: 04/21/98 Matrix: SOIL

EXTRACTION DATE: 04/27/98 FILE ID: B8042835.D
ANALYSIS DATE: 04/27/98 UNITS: mg/Kg
ANALYST: PWS DILUTION: 10
INSTRUMENT ID: BERTHA
Sample reported on a dry weight basis. % MOISTURE: 6.7

<u>PARAMETER</u>	<u>CAS # or ID</u>	<u>RESULT</u>	<u>LIMIT</u>	<u>Q</u>
Diesel Range Organics	DRO	4600	42	

<u>SURROGATE</u>	<u>%RECOVERY</u>	<u>LIMITS</u>
o-Terphenyl	D %	60 - 120

Method 8020 from Test Methods for Evaluating Solid Waste, USEPA SW-846, third edition, September 1986, is used for the analysis of volatile organics; benzene, toluene, ethylbenzene, xylenes (BTEX) in a solid matrix.

Method AK101 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of gasoline range organics (GRO).

The quantitation range extends from the beginning of C6 to the beginning of C10.

Method AK102 from the State of Alaska Department of Environmental Conservation (ADEC), Storage Tank Program, Underground Storage Tanks Procedures Manual, 18 AAC 78, as amended through January 31, 1996; is referenced for the analysis of diesel range organics (DRO).

The quantitation range extends from the beginning of C10 to the beginning of C25. The standard used is a 1:1:1 mixture of Kerosine, DF1, and DF2.

Solids are prepared via sonication per AK102 and U.S. EPA SW-846 method 3550.



ANALYTICA
ALASKA INC

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Broomfield, Colorado 80021
(303) 469-8868
FAX: (303) 469-5254

LGN: A804058
CSN:

Chain of Custody Record / Analysis Request

Company Name <u>Bristol Environmental</u>		Project Name <u>Clined Tugard</u>																	
Company Address <u>201 E. 56th St. 300 Anch, AK 99518</u>		Report To: <u>Jim Bates</u>																	
Telephone <u>563 6713</u>		Sampler: <u>JRF Brownlee</u>																	
FAX <u>563 6713</u>		P.O. Number: <u>9001-KJ-07</u>																	
Sample ID	Date Collected	Time Collected	Matrix Soil/Water (only one)	# Containers				BTEX by 5030/8020 or 602 (specify)	GRO by 5030/8015M	GRO by AK101	DRO by 3550/8100M	DRO by AK102	RRO by AK103	PH-2	Hold for Further Analysis	RUSH (see below)	LAB ID		
	8 oz Glass	4 oz Glass	40 ml. VOMHO	1 Liter															
<u>C45</u>	<u>4/21</u>	<u>720</u>	<u>Soil</u>	<u>1</u>	<u>2</u>												<u>①</u>	<u>5193</u>	
<u>C46</u>		<u>930</u>																<u>②</u>	<u>5188</u>
<u>C47</u>		<u>740</u>																<u>③</u>	<u>5194</u>
<u>C48</u>		<u>950</u>																<u>④</u>	<u>5189</u>
<u>C49</u>		<u>100</u>																<u>⑤</u>	<u>4585</u>

Lead, Graphite, etc

COMMENTS: Forward to AEL for analysis

DELIVERABLES
 Level I
 ADEC Format
 ACOE
 AFCEE
 EDF - Format: _____ specify

TURNAROUND
 2 Business Days
 5 Business Days
 10-15 Business Days
 other: _____ #Business Days
Due 5/14/98

RELINQUISHED BY SAMPLER: Signature: <u>JRF Brownlee</u> Printed Name: <u>Jeff Brownlee</u> Firm: <u>Bristol</u> Date/Time: <u>4-21-98 1055</u>	RECEIVED BY: Signature: <u>Lorraine Andela</u> Printed Name: <u>Lorraine Andela</u> Firm: <u>Analytica AK</u> Date/Time: <u>4-21-98 10:58</u>	RELINQUISHED BY: Signature: <u>Lorraine Andela</u> Printed Name: <u>Lorraine Andela</u> Firm: <u>Analytica AK</u> Date/Time: <u>4-21-98 1120</u>	RECEIVED BY: Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	ANALYTICA USE ONLY: Airbill / Freight #: _____ Condition of Sample Containers: Temp Received: <u>4.4</u> °C # of Coolers: <u>1</u> Seals: <u>2</u> <u>Hand delivered by Jeff Brownlee</u>
--	---	--	--	---

0322



811 West 8th Ave., Anchorage, AK 99501 (907)258-2155 FAX (907) 258-6634

U. S. ARMY COE OR ADEC COOLER RECEIPT FORM

LGN #: A804058 DATE RECEIVED: 4/21/98

PROJECT: Cline's Research CLIENT: Bristol Env.

A. PRELIMINARY EXAMINATION PHASE: Date cooler opened: 4/21/98 COC #: —

by (print): Lorraine Andela Signature: L Andela

- 1. Did cooler come with a shipping slip (air bill, etc)?..... YES NO NO
If YES, enter carrier name & air bill number here: Hand delivered by Jeff Brown
- 2. Were custody seals on outside of cooler?..... YES NO NO
How many & where? — Seal Date: — Seal Name: —
- 3. Were custody seals unbroken and intact at the date and time of arrival?..... YES NO NO
- 4. Did you screen samples for radioactivity using the Geiger Counter?..... YES NO NO
- 5. Were custody papers sealed in a plastic bag & taped inside to the lid?..... YES NO NO
- 6. Were custody papers filled out properly (ink, signed, etc.)?..... YES NO NO
- 7. Did you sign custody papers in the appropriate place?..... YES NO NO
- 8. Was project identifiable from custody papers? If YES, enter project name at top of form..... YES NO NO
- 9. If required, was enough ice used?.....(Type of ice: gel; Temp: 4.4°C)..... YES NO NO
- 10. Have designated person initial here to acknowledge receipt of cooler: JBA Date: 4/21/98

B. LOG-IN PHASE: Date samples were logged-in: 4/21/98

by (print): Lorraine Andela Signature: L Andela

- 11. Describe type of packing in cooler: BW Bags + BW
- 12. Were all bottles sealed in separate plastic bags?..... YES NO NO
- 13. Did all bottles arrive unbroken & were labels in good condition?..... YES NO NO
- 14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)?..... YES NO NO
- 15. Did all bottle labels agree with custody papers?..... YES NO NO
- 16. Were correct containers used for the tests indicated?..... YES NO NO
- 17. Were correct preservatives added to samples?..... YES NO NO
- 18. Was a sufficient amount of sample sent for tests indicated?..... YES NO NO
- 19. Were bubbles absent in Volatile samples? If NO, list by QA#: — N/A..... YES NO NO
- 20. Was the project manager called and status discussed? If YES, give details at the bottom: YES NO NO

21. Who was called? — By whom? — Date —

Explanations:



an Analytica Group company

Bristol Environmental
201 E. 56th Avenue
Anchorage, AK 99518

Attn: Jim Bates

0324

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

Order #: 98-04-181
Date: 05/04/98 13:15
Work ID: Clines Tesoro
Date Received: 04/22/98
Date Completed: 05/01/98

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	C45	04	C48
02	C46	05	C49
03	C47		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Jeanine M. Camp
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Methods for Chemical Analysis of Water and Wastes, USEPA 600/4-79-020, March 1983.
- o Guidelines Establishing Test Procedures for the Analysis of Pollutants, 40 CFR, Part 136, 7-1-94 Edition.

Problems encountered with the analyses are discussed in the following narrative.

Sample ID# C49 was chosen for QC. Because the sample was inhomogenous, there was a low percent replication between samples. In addition, because the spike was less than four times the sample concentration, the spike results are not considered to be valid.

Sample: 01A C45

Collected: 04/21/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	41	D	1.1	mg/Kg-DRY	04/30/98
Percent Moisture	ASTM D2216	6.40		0.1	WT%	04/24/98

Sample: 02A C46

Collected: 04/21/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	19	D	0.53	mg/Kg-DRY	04/30/98
Percent Moisture	ASTM D2216	6.30		0.1	WT%	04/24/98

Sample: 03A C47

Collected: 04/21/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	6.9	D	0.53	mg/Kg-DRY	04/30/98
Percent Moisture	ASTM D2216	5.30		0.1	WT%	04/24/98

Sample: 04A C48

Collected: 04/21/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	8.6	D	0.21	mg/Kg-DRY	04/30/98
Percent Moisture	ASTM D2216	6.20		0.1	WT%	04/24/98

Sample: 05A C49

Collected: 04/21/98

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Lead, Total	SW 7421	23	D	1.1	mg/Kg-DRY	04/30/98
Percent Moisture	ASTM D2216	8.30		0.1	WT%	04/24/98

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

ND = not detected at the reported limit

NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

* = Recovery or %RPD outside method specifications

H = value is estimated due to analysis run outside EPA holding times

E = reported concentration is above the instrument calibration range

D = analyte was diluted to bring within instrument calibration range or
to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected in the laboratory method blank

J = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

B = analyte was detected above the instrument detection limit (IDL)
but below the analytical reporting limit (CRDL)

W = post digestion spike did not meet criteria (80-120%)

S = reported value determined by the Method of Standard Additions

Order # 98-04-181
ANALYTICA, INC.

Bristol Environmental
TEST METHODOLOGIES

0328

Page 5

3050_G: Acid Digestion of Sediments, Sludges, and Soils METHOD: 3050A
 for GFAA Metals

PB_GTS: LEAD, Total (GFAA) METHOD: 7421

PMOIST: PERCENT MOISTURE METHOD: ASTM D2216

Sample: 01A C45

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/21/98	04/22/98	NA	04/30/98	04/30/98
Percent Moisture	ASTM D2216	04/21/98	04/22/98	NA		04/24/98

Sample: 02A C46

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/21/98	04/22/98	NA	04/30/98	04/30/98
Percent Moisture	ASTM D2216	04/21/98	04/22/98	NA		04/24/98

Sample: 03A C47

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/21/98	04/22/98	NA	04/30/98	04/30/98
Percent Moisture	ASTM D2216	04/21/98	04/22/98	NA		04/24/98

Sample: 04A C48

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/21/98	04/22/98	NA	04/30/98	04/30/98
Percent Moisture	ASTM D2216	04/21/98	04/22/98	NA		04/24/98

Sample: 05A C49

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
Lead, Total	SW 7421	04/21/98	04/22/98	NA	04/30/98	04/30/98
Percent Moisture	ASTM D2216	04/21/98	04/22/98	NA		04/24/98

Appendix C

Closure and Post Closure Notices



NOTIFICATION OF CLOSURE UNDERGROUND STORAGE TANKS

0333



Notice of Closure is required for any tank and/or piping removed, closed in-ground, or changed in service.
See 18 AAC 78.085 (a). "Change in service" means to change the use of a UST from containing a regulated substance to a non-regulated substance (such as heating oil).

Facility - Location (Do not use P.O. Box)

Tank Owner MR CLINE

Name CLINE TESORO
Address 442 GAMBELL ST
City ANCHORAGE AK
State/Zip 99501
Phone/Fax _____

Name The Dean Co.
Address 405 E. FIREWOOD BLVD, SUITE 203
City ANCHORAGE
State/Zip ALASKA 99501
Phone/Fax 297-7096

Facility ID Number: 31
Scheduled Date for Closure: START 4.7.98

This form MUST be completed and sent to ADEC at the address listed below at least 15 and no more than 60 days prior to closure.
Alaska Statute 46.03.375 requires those who supervise an UST closure be certified by the State of Alaska for Decommissioning.
A UST with a confirmed release must be permanently removed from the ground. In-place closure or change in service is not allowed.
A Site Assessment or Release Investigation in accordance with 18 AAC 78.090 must be performed at time of closure by an impartial third party using "Qualified" persons under a Standard Sampling Procedures Manual (SSPM).

Person to Perform Closure Jeff Brownlee UST Worker License # 421

Person and Company to Perform Site Assessment or Release Investigation: Bristol ENVIRONMENTAL SERVICES CORP

Is the Person "Qualified" and on file with ADEC? Yes

Method of Closure: Removal
In-ground _____ (If so, See Discussion on Reverse Side)
Change in Service _____ (If so, what is new fuel usage? _____)

Is there a leak/spill at this site? UNKNOWN (if so, please notify the closest ADEC office)

Have you contacted the local fire department of your intent to close the tank(s)? Yes

Where are the tank, piping, equipment, and sludge to be disposed? AK. METAL RECYCLER / APC

Closure for (please check): Tanks and Piping Tanks only Piping only

Tank Number	Tank Age	Tank Size	Last Product Stored	Date Last Used
<u>1</u>	<u>11 yrs</u>	<u>8000</u>	<u>premium UNLEADED</u>	<u>4.3.98</u>
<u>2</u>	<u> </u>	<u>8000</u>	<u>REG UL</u>	<u> </u>
<u>3</u>	<u> </u>	<u>4000</u>	<u>diesel</u>	<u> </u>

Closure Notice Submitted By: Owner Operator Other Write off
Jeff Brownlee Environmental Specialist
(Please print name) (Title)

(Signature) (Date)

Return Completed Form to: ADEC, Storage Tank Program
555 Cordova Street
Anchorage, AK 99501
FAX # (907) 269-7507

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

0334

DEPT. OF ENVIRONMENTAL CONSERVATION

SOUTHCENTRAL OFFICE
STORAGE TANK PROGRAM
555 CORDOVA STREET
ANCHORAGE, AK 99501

TELEPHONE: (907) 269-7504
FAX: (907) 269-7507

APR 10 1998

April 7, 1998



563 6713

Richard Cline
Cline's Tesoro
442 Gambell Street
Anchorage, AK 99501

Dear Mr. Cline:

Re: Waiver of 15-day notification period for closure of four USTs located at 442 Gambell Street, Anchorage, Alaska; Facility ID # 0-000031, tanks # 001, 002, 003 & 004.

The Department of Environmental Conservation (ADEC) has received a request for waiver of the 15-day notification period for closure of four underground storage tanks (USTs) located at the above location. Jeff Brownlee of Bristol Environmental Services submitted the waiver request to the Department on April 6, 1998.

ADEC grants the waiver, allowing the UST closures to begin on April 7, 1998, as requested. Please contact Robert Weimer at (907) 269-7525, if the closure activities are rescheduled, or if there is a change in the certified worker or qualified person, or to obtain ADEC approval to move petroleum contaminated soils off-site. Closure activities must be supervised by a person certified under 18 AAC 78.400 - 78.495. A site assessment of the UST excavations must be conducted in accordance with 18 AAC 78.090 and the UST Procedures Manual dated September 22, 1995. Please submit the site assessment report to Paul Pinard, ADEC/STP, 555 Cordova Street, Alaska 99501.

Upon removal, the tanks and associated piping must be emptied, cleaned, removed and disposed, as specified in 18 AAC 78.085. In accordance with 18 AAC 78.085 (f), please submit the post-closure notice to David Allen at ADEC/STP, 555 Cordova Street, Anchorage, Alaska 99501, within 30 days of completing closure activities. Any release reporting and corrective action must be done in accordance with 18 AAC 78.220 - 18 AAC 78.280.

Please contact me at (907) 269-7538, if you have any questions.

Sincerely,



Timothy Stevens
Environmental Specialist

TSS/deh: H:/home/uststp/stevens/0000031.wa

cc: Robert Weimer, ADEC, Anchorage
Paul Pinard, ADEC, Anchorage
Jeff Brownlee, AGRA, Anchorage



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**NOTIFICATION OF POST-CLOSURE
UNDERGROUND STORAGE TANKS**



Post-Closure information is required 30 days after UST closure of change in service. See 18 AAC 78.085(f).
The Owner/Operator or his/her representative must fill out and sign Page 1.
The Certified worker who performed or supervised the closure must fill out and sign Page 2.

Facility – Location (Do not use P.O. Box)

Tank Owner

Name Cline's Tesoro
Address 422 Gambell Street
City Anchorage
State/Zip Alaska 99501
Phone/Fax 277-3241/277-0684

Name Rich Cline
Address same as location
City _____
State/Zip _____
Phone/Fax _____

Facility ID # 31

TANK REMOVED OR CLOSED IN-GROUND

Tank #	Tank Size	Removed or Closed In-ground	Date Product Last Stored	Contamination Found?
1	8,000-gallon	removed	April 6, 1998	Yes
2	8,000-gallon	removed	April 6, 1998	Yes
3	4,000-gallon	removed	April 6, 1998	Yes
4	500-gallon	removed	April 6, 1998	Yes

CLOSURE

Performed By: (Person) Jay Brooks (Company) Statewide Petroleum (UST License #) 435

Date Completed: April 21, 1998

PERSON WHO PERFORMED/SUPERVISED CLOSURE MUST FILL OUT PAGE 2.

SITE ASSESSMENT/RELEASE INVESTIGATION:

Performed by:

(Person) Jeff Brownlee (Company) Bristol Environmental Services

SITE ASSESSMENT REPORT MUST BE SUBMITTED TO LOCAL ADEC OFFICE WITHIN 60 DAYS AFTER CLOSURE. RELEASE INVESTIGATION REPORT MUST BE SUBMITTED TO ADEC WITHIN 45 DAYS AFTER CLOSURE.

Was the closed tank replaced by a new UST? Yes No

If yes, please submit a new Registration form containing information on the new tanks.

Submitted By: Owner Operator Other Bristol Environmental Services

Jeff Brownlee Sr. Staff Professional

(Please Print Name)

(Title)

(Signature)

4/29/98

(Date)

Return Completed Form to : ADEC, Storage Tank Program
555 Cordova Street
Anchorage, Alaska 99501
Fax # (907) 269-7507

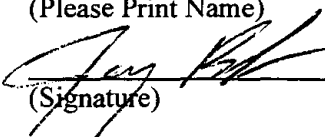
- Notified ADEC office 15 – 60 days prior to beginning permanent closure.
- waiver - April 7, 1998*
Notified applicable local government and fire department.
- Emptied and clean tank by removing liquids and accumulated sludges.*
- Purged or inert the tank of flammable vapors.*
- Removed piping and plug or cap all accessible holes except for vent line.*
- Removed and dispose of tank(s) properly.*
- Submitted Post Closure Notice to ADEC within 30 days after completion of Closure.

In-ground Closure/Change in Service

- Notified ADEC office 15 – 60 days prior to beginning permanent closure.
- Notified applicable local government and fire department.
- Emptied and clean tank by removing liquids and accumulated sludges.*
- Purged the tank of flammable vapors.*
- Removed piping and plug or cap all accessible holes except for vent line.*
- Filled the tank as full as possible with sand or other inert material.*
- Remove and cap the vent line.*
- Submitted Post Closure Notice to ADEC within 30 days after completion of Closure.

• Must be performed or supervised by a person certified in UST Decommissioning in Alaska.

Person who performed or supervised UST work:

<u>Jay Brooks</u>	<u>Site Supervisor</u>	<u>435</u>
(Please Print Name)	(Title)	(UST Worker License #)
	<u>4-30-98</u>	
(Signature)	(Date)	

All releases/contamination should be reported to a DEC District Office within 24 hours. For further information refer to the Alaska Underground Storage Tank Regulation (18 AAC 78) or contact the Department of Environmental Conservation at 1-800-478-4974.

0337

Appendix D

Tank Recycling and Soil Hauling Tickets



B.C. EXCAVATING, INC.

2251 Circle 6, Anchorage, Alaska 99507 Phone: (907) 344-4492 Fax: (907) 344-4492

Phone: 907-344-4492

COMPLETE EXCAVATING & HAULING SERVICES • COLD ASPHALT RECYCLING

0339

Tank Disposal Form

Date: 4/13/98

Client: STATEWIDE PETROLEUM
6108 PETERSBURG
ANCHORAGE, AK. 99507

Re: CLINE'S TESORO

This is to inform you that the tank(s) listed below have been removed, cut, and cleaned according to API Recommended Practice 1604 and API Publication #2015. The tank(s) has been delivered for scrap (metal or fiberglass) at the following location:

Alaska Newell Recycling
97th & King Street
Anchorage, Alaska

The tank(s) were of steel construction and all piping pulled was disposed of with the tank(s). This letter is to certify the delivery of the below listed tank(s) for disposal and destruction for scrap purposes only.

# of tanks	Gallon	Ticket #
1	500	84013
3	8,000	83991
		83983
		84013

Robert M. Haines for RMH
Robert M. Haines
President

Post-it® Fax Note	7671	Date	<u>4/13</u>	# of pages	<u>8</u>
To	<u>Jay</u>	From	<u>Dawn</u>		
Co./Dept.	<u>SPS</u>	Co.	<u>BCY</u>		
Phone #		Phone #			
Fax #	<u>5629044</u>	Fax #			



349-4833

DATE 4-10-98 LICENSE NO.

83991

CUSTOMER NAME R C EXCAVATING

ADDRESS

SHREDDER MATERIAL #1 IRON CAST CAR OTHER

CHECK NO. N/C

REMARKS 8000 GALLON TANK FROM CLINE'S TRESORO

DRIVER ON OFF

GROSS LBS.

41940 16 G

TARE LBS.

33800 16 G

NET LBS.

8140

I hereby certify that I have the right to possess and sell this property.

PRICE N/C PER TOTAL

SIGNED BY



349-4833

DATE 4-10-98 LICENSE NO.

83983

CUSTOMER NAME R C EXCAVATING

ADDRESS

SHREDDER MATERIAL #1 IRON CAST CAR OTHER

CHECK NO. N/C

REMARKS 8000 GALLON TANK FROM CLINE'S TRESORO

DRIVER ON OFF

GROSS LBS.

41880 16 G

TARE LBS.

33860 16 G

NET LBS.

I hereby certify that I have the right to possess and sell this property.

PRICE N/C PER TOTAL

SIGNED BY

0340

APP-13-93 3001 1:44 PM B.C.L. FAX NO. 907 344 4490 P. 2



349 4833

0341

DATE 4-13-98 LICENSE NO.

84013

CUSTOMER NAME

B.C. EXCAVATING

ADDRESS

SCRAPPER MATERIAL

IRON

CAST

CAR

OTHER

FROM CLINE'S TESSIE

CHECK NO.

N/K

REMARKS

500 GALLON TANK FOOD SERVICE TANK

DRIVER

ON

OFF

GROSS LBS.

39260 LB 5

TARE LBS.

34020 LB 5

NET LBS.

5240

I hereby certify that I have the right to possess and sell this property.

PRICE N/K PER _____ TOTAL _____

SIGNED BY _____

ASR

0342

ALASKA SOIL RECYCLING

A Division of Anchorage Sand & Gravel Co. Inc.
1040 O'Malley Road • Anchorage, Alaska 99515
Phone (907) 349-3333 • FAX (907) 344-2844

May 29, 1998

Cline's Tesoro
442 Gambell Street
Anchorage, Alaska 99501

Attn: Mr. Rich Cline

Re: Soil Remediation From Cline,s Tesoro

Dear Mr. Cline:

On April 8-9, 13-15, 20-21, & 29, 1998 Alaska Soil Recycling (ASR) received 716.90 tons of petroleum impacted soil from the above referenced site. On May 11, 1998 thermal treatment of this soil was completed at ASR's 2nd Avenue facility in Anchorage, Alaska. Post remedial analysis reveals that this soil meets the Alaska Department of Environmental Conservation's most restrictive level (Level A). Attached is a copy of the analysis summary and laboratory results.

This soil will be recycled for use in the construction industry.

Please contact me with any questions.

Sincerely,

ALASKA SOIL RECYCLING



James J. Rogers
Manager

JJR:rj

Attachments

Oil Spill Consultants, Inc.

0343

The Environmental Cleanup Company

May 20, 1998

Mr. James J. Rogers
Environmental Manager
Alaska Soil Recycling
1040 O'Malley Road
Anchorage, Alaska 99515

Subject: Laboratory Results for Third Party Sampling - Account Number 1568

Dear Mr. Rogers:

The results for our May 11, 1998 sampling for Account Number 1568 are attached. These results are summarized as follows:

Sample Identification Number	GRO-AK101 mg/kg	BTEX-8020 mg/kg	DRO-AK102 mg/kg	RRO-AK103 mg/kg
98-ASR-1568-001-SL	Undetected	0.0366	10.90	21.9
98-ASR-1568-002-SL	Undetected	0.3803	5.03	Undetected
98-ASR-1568-003-SL	Undetected	0.1946	Undetected	Undetected
98-ASR-1568-004-SL	Undetected	0.1118	4.89	Undetected
98-ASR-1568-005-SL	Undetected	0.0440	11.20	16.3J
98-ASR-1568-005-SLD	Undetected	0.0742	11.40	15.9J
98-ASR-1568-006-TB	Undetected	Undetected	Not applicable	Not applicable
98-ASR-1568-007-MTB	Undetected	Undetected	Not applicable	Not applicable
ADEC Level "A" Cleanup Criteria	50	10.0000	100.00	2,000.0

J = Indicates an estimated value that falls below PQL, but is greater than the MDL.

0344

Mr. James Rogers
May 20, 1998

Page 2

Please be advised that Account Number 1568 meets ADEC Level "A" Cleanup criteria.

Samples No. 98ASR-1568-005-SL and 98ASR-1568-005-SL-SLD are duplicates. The percentage difference for the BTEX samples is 41. The percentage difference for the DRO sample is 1.75. In view of this low petroleum hydrocarbon levels in Account Number 1568, these results are acceptable under our quality control program. All samples were collected following ADEC guidelines.

Sincerely,



Randy E. Easley
President

Attachments



CT&E Environmental Services Inc.

0345

CT&E Ref.# 982195001
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-001-SL
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:34
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Wundebank*

Sample Remarks:

DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	94.0		%	SM1B 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	1.25 U	1.25	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Benzene	0.0313 U	0.0313	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Toluene	0.0313 U	0.0313	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Ethylbenzene	0.0313 U	0.0313	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
P & M -Xylene	0.0366	0.0313	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
o-Xylene	0.0313 U	0.0313	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	64.8		%	AK101/8021	(50-150)	05/11/98	05/12/98	
1,4-Difluorobenzene <Surr>	91.4		%	AK101/8021	(50-150)	05/11/98	05/12/98	
DRO/RRO Combination								
Diesel Range Organics	10.9	4.20	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	21.9	17.3	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5a Androstane <surr>	73.5		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	80.5		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0346

CT&E Ref.# 982195002
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-002-SL
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:30
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Windelbank*

Sample Remarks:
 DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	94.8		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	2.20 U	2.20	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Benzene	0.0549 U	0.0549	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Toluene	0.0963	0.0549	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Ethylbenzene	0.0549 U	0.0549	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
P & M -Xylene	0.194	0.0549	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
o-Xylene	0.0900	0.0549	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	72.3		%	AK101/8021	(50-150)	05/11/98	05/13/98	
1,4-Difluorobenzene <Surr>	91.9		%	AK101/8021	(50-150)	05/11/98	05/13/98	
DRO/RRD Combination								
Diesel Range Organics	5.03	4.21	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	17.4 U	17.4	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5 α Androstane <surr>	78.5		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	79.2		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0347

CT&E Ref.# 982195003
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-003-SL
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:40
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Windebank*

Sample Remarks:
 DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	94.7		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	1.19 U	1.19	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Benzene	0.0297 U	0.0297	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Toluene	0.0476	0.0297	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Ethylbenzene	0.0297 U	0.0297	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
P & M -Xylene	0.0862	0.0297	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
o-Xylene	0.0608	0.0297	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	60.8		%	AK101/8021	(50-150)	05/11/98	05/13/98	
1,4-Difluorobenzene <Surr>	95.1		%	AK101/8021	(50-150)	05/11/98	05/13/98	
DRO/RRO Combination								
Diesel Range Organics	4.16 U	4.16	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	17.1 U	17.1	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5a Androstane <surr>	79.2		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	77.4		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0348

CT&E Ref.# 982195004
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-004-SL
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:45
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Windenbank*

Sample Remarks:
 DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	94.4		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	0.951 U	0.951	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Benzene	0.0238 U	0.0238	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Toluene	0.0258	0.0238	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Ethylbenzene	0.0238 U	0.0238	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
P & M -Xylene	0.0496	0.0238	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
o-Xylene	0.0364	0.0238	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	67.8		%	AK101/8021	(50-150)	05/11/98	05/13/98	
1,4-Difluorobenzene <Surr>	90.9		%	AK101/8021	(50-150)	05/11/98	05/13/98	
DRO/RRD Combination								
Diesel Range Organics	4.89	4.22	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	17.4 U	17.4	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5a Androstane <surr>	79.8		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	80.1		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0349

CT&E Ref.# 982195005
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-005-SL
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:48
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Windelbank*

Sample Remarks:
 DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	92.2		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	0.738 U	0.738	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Benzene	0.0185 U	0.0185	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Toluene	0.0185 U	0.0185	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Ethylbenzene	0.0185 U	0.0185	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
P & M -Xylene	0.0240	0.0185	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
o-Xylene	0.0200	0.0185	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	61.9		%	AK101/8021	(50-150)	05/11/98	05/13/98	
1,4-Difluorobenzene <Surr>	94		%	AK101/8021	(50-150)	05/11/98	05/13/98	
DRO/RRO Combination								
Diesel Range Organics	11.2	4.34	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	16.3 J	17.9	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5a Androstane <surr>	72.2		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	74.6		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0350

CT&E Ref.# 982195006
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-005-SLD
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:48
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *JW inlebank*

Sample Remarks:
 DRO - Heavier hydrocarbons contributing to diesel range quantitation.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	90.6		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	0.725 U	0.725	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Benzene	0.0181 U	0.0181	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Toluene	0.0181 U	0.0181	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Ethylbenzene	0.0181 U	0.0181	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
P & M -Xylene	0.0376	0.0181	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
o-Xylene	0.0366	0.0181	mg/Kg	AK101/8021		05/11/98	05/13/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	64.6		%	AK101/8021	(50-150)	05/11/98	05/13/98	
1,4-Difluorobenzene <Surr>	91.7		%	AK101/8021	(50-150)	05/11/98	05/13/98	
DRO/RRO Combination								
Diesel Range Organics	11.4	4.37	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Residual Range Organics GC	15.9 J	18.0	mg/Kg	AK102/103		05/12/98	05/13/98	MMP
Surrogates								
5a Androstane <surr>	79.7		%	AK102/103	(50-150)	05/12/98	05/13/98	
d-Triacontane <Surr>	80.9		%	AK102/103	(50-150)	05/12/98	05/13/98	



CT&E Environmental Services Inc.

0351

CT&E Ref.# 982195007
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-006-TB
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:50
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede

Released By *J. Wundebank*

Sample Remarks:

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	100		%	SM18 2540G			05/12/98	DAR
GRO/8021 Combo								
Gasoline Range Organics	2.00 U	2.00	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Benzene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Toluene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Ethylbenzene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
P & M -Xylene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
o-Xylene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98	WAA
Surrogates								
4-Bromofluorobenzene <Surr>	72.3		%	AK101/8021	(50-150)	05/11/98	05/12/98	
1,4-Difluorobenzene <Surr>	89.7		%	AK101/8021	(50-150)	05/11/98	05/12/98	



0352

CT&E Ref.# 982195008
 Client Name Alaska Soil Recycling
 Project Name/# AK Soil Recycling 1568
 Client Sample ID 98ASR-1568-007-MTB
 Matrix Soil
 Ordered By
 PWSID

Client PO# 102594
 Printed Date/Time 05/14/98 12:17
 Collected Date/Time 05/11/98 16:50
 Received Date/Time 05/11/98 17:30
 Technical Director: Stephen C. Ede
 Released By *J. Windbank*

Sample Remarks:
 GRO/BTBX - TB, added in-house AK101 MEOH.

Parameter	Results	PQL	Units	Method	Allowable Limits	Prep Date	Analysis Date	Init
Total Solids	100		%	SM18 2540G			05/12/98 DAR	
GRO/8021 Combo								
Gasoline Range Organics	2.00 U	2.00	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
Benzene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
Toluene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
Ethylbenzene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
P & M -Xylene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
o-Xylene	0.0500 U	0.0500	mg/Kg	AK101/8021		05/11/98	05/12/98 WAA	
Surrogates								
4-Bromofluorobenzene <Surr>	73.3		%	AK101/8021	(50-150)	05/11/98	05/12/98	
1,4-Difluorobenzene <Surr>	96.4		%	AK101/8021	(50-150)	05/11/98	05/12/98	



CT&E Environmental Services Inc.
 Laboratory Division

Laboratory Analysis Report

May 14, 1998

Randy Easley
 Oil Spill Consultants, Inc.
 209 E. 51st
 Anchorage, AK 99503

Client Name Alaska Soil Recycling
 Project ID AK Soil Recycling 1568 [982195]
 Printed May 14, 1998

Enclosed are the analytical results associated with the above project.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by CT&E. A copy of our Quality Control Manual that outlines this program is available at your request.

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth in our Quality Assurance Program Plan.

If you have any questions regarding this report or if we can be of any other assistance, please call your CT&E Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

- U - Indicates the compound was analyzed for but not detected.
- J - Indicates an estimated value that falls below PQL, but is greater than the MDL.
- B - Indicates the analyte is found in the blank associated with the sample.
- * - The analyte has exceeded allowable limits.
- GT - Greater Than
- D - Secondary Dilution
- LT - Less Than
- ! - Surrogate out of range

Chain of Custody

P, 14/14
FAX NO. 907 344 2844
AS&G/ABI
JUL-21-98 TUE 03:02 PM

Project: ALASKA SOIL RECYCLING Project No. 98004
Account Number: 1568

Authorization Number:
ASR Purchase Order No. 102594

Client:
Oil Spill Consultants, Inc.
The Environmental Cleanup Company
209 E. 51st. Avenue, Anchorage, Alaska 99503
Tel: (907) 562-7169 Fax: (907) 562-7225

Samplers: Randy E. Easley
(Signature) *Randy E. Easley*
Witness: (Printed) James Patten
(Signature) *James Patten*
982195

Analysis Required by: **RUSH**

Field Screen	Sample Number	Sample Date	Time	PID Reading	Type	# of Cont.	Analysis Required					QA / QC Required
							GRO-AK101	BTEX-8020	DRO-AK102	PRO-AK103		
1	98ASR- 1568 - 001 - SL	5/11/98	1634	- 0 -	Grab	2	X	X	X	X		
2	98ASR- 1568 - 002 - SL	5/11/98	1630	1.9	Grab	2	X	X	X	X		
3	98ASR- 1568 - 003 - SL	5/11/98	1640	- 0 -	Grab	2	X	X	X	X		
4	98ASR- 1568 - 004 - SL	5/11/98	1645	- 0 -	Grab	2	X	X	X	X		
5	98ASR- 1568 - 005 - SL	5/11/98	1648	21	Grab	2	X	X	X	X		
6	98ASR- 1568 - 005 - SLD	5/11/98	1648	21	Grab	2	X	X	X	X		
7	98ASR- 1568 - 006 - TB	5/11/98	1650		Grab	1	X	X				
8	98ASR- 1568 - 007 - MTB	5/11/98	1650		Grab	1	X	X				

Relinquished by: (Printed) James Patten Date: 5-11-98 Time: 530P
(Signature) *James Patten*

Received by: (Printed)
(Signature)

Relinquished by: (Printed)
(Signature)

Received by: (Printed)
(Signature)

Dispatched by: (Printed)
(Signature)

Received at Laboratory by: *Maureen Hall* 5/11/98 @ 1730

Method of Shipment: Hand delivered via Oil Spill Consultants, Inc. truck.

Condition of Containers Received Temp: 6.5°C

Comments:

Good Fair Poor

Summary of Trip Tickets
Cline's Tesoro, Anchorage, Ak

Invoice No.	Tons	Invoice No.	Tons
17833	9.51	17917	11.78
17834	9.64	17920	11.56
17843	9.76	17922	10.47
17844	11.97	17923	10.85
17847	10.32	17925	11.62
17848	12.29	17926	11.47
17851	10.98	17927	11.04
17852	10.29	17928	13.13
17854	11.07	17929	11.14
17856	10.81	17930	10.76
17857	11.55	17931	10.05
17858	7.92	17932	10.86
17879	12.95	17933	12.99
17881	11.84	17934	11.42
17882	13.23	17935	11.42
17883	11.55	17936	11.76
17885	10.07	17938	11.01
17886	11.24	17940	10.1
17888	9.73	17941	11.08
17889	8.93	17943	5.18
17890	9.9	17944	12.69
17891	7.71	18035	10.31
17892	8.21	18039	11.93
17907	12.25	18045	12.77
17909	13.16	18050	11.62
17912	12.07	18054	11.77
17913	12.04	18247	8.95
17914	12.08	18251	7.61
17915	12.66		
Subtotal	315.73	Subtotal	307.34
TOTAL		623.07	

Note:
Several trip tickets were not collected as actual tonnage was 716.90 tons.

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASP/BOX
COMPANY 0355
Jeff Hunt
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

DATE 04:08
GROSS 25720 LB
FARE 0 LB
NET 25720 LB

Law

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASP/BOX
COMPANY
Jeff Hunt
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

DATE 04:08
GROSS 44240 LB
FARE 0 LB
NET 44240 LB
25120

Rich Cline
Miss Tessard
#1508
8177

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 9.51

Carlisle ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASB/BAX
 COMPANY 0356
 AUTHORIZED SIGNATURE
 EMPLOYEE NUMBER

TIME 24:00
 DATE 04 08 98
 GROSS 20390 10
 NET 10 10
 NET 20390 10

TRUCK 440
 TRAILER
 CONVERTER
 TRAILER
 TOTAL WEIGHT

Taw

Carlisle ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASB/BAX
 COMPANY
 AUTHORIZED SIGNATURE
 EMPLOYEE NUMBER

TIME 23:00
 DATE 04 08 98
 GROSS 39660 10
 NET 0 10
 NET 39660 10
 76380

TRUCK 440
 TRAILER
 CONVERTER
 TRAILER
 TOTAL WEIGHT 9.64

Rich Cine
 Andres Tesoro
 #1548
 0577

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17843

AR/Statewide

COMPANY

Mark A. Howell

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

TYPE 8173
DATE 07 09 98
GROSS 47500.00
TARE 0.00
NET 47500.00
21980

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 9076

Rich Alire
Alines Tesoro
15608
8027

0357

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17845

NSR/Alaska-wide

COMPANY

Mark Atwood

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE
TIME
MILE

Tare

TRUCK *136*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

0358

17844

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASE/BCX

JEFF

COMPANY

Jeff Hart
AUTHORIZED SIGNATURE

0359

EMPLOYEE NUMBER

TIME 8:52
DATE 04 09 98
GROSS 47650 LB
TARE 0 LB
NET 47650 LB
20720

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 11.97

Rich Cline
Cline Tesoro
1568
2027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17848

ASE/BCX

COMPANY

AUTHORIZED SIGNATURE

Jeff Hart

EMPLOYEE NUMBER

TIME 9:38
DATE 07 09 98
GROSS 45200 LB
TARE 0 LB
NET 45200 LB
20720

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 12.29

Rich Cline
Cline Tesoro
1568
2027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 276-7301

17847

ASEL Statewide
COMPANY
KURT Neil Maxwell
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

TYPE OF
DATE
MAKE/Model
YEAR
NET

21186

Rich Mine
Mitsui Togyo
1510X
X627

TRUCK 13e
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 10032

0360

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BCX
COMPANY
JEFF Jeff Miller AUTHORIZED SIGNATURE 0361
EMPLOYEE NUMBER

LINE 0340
DATE 04 09 98
GROSS 47000 LB
TARE 0 LB
NET 47000 LB
25100

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 10.98

Rich Clark
lines 103010
#1568
8627

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BCX
COMPANY
JEFF Jeff Miller AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

LINE 0340
DATE 04 09 98
GROSS 20700 LB
TARE 0 LB
NET 20700 LB

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT

Tax

Carlife

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17852

HSE/Alaska-wide

COMPANY

Kurt Kent

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE: 11/18/05
TIME: 10:00 AM
MILE: 1186

*Packings -
Class 1-2000
1018
8021*

TRUCK *136*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *10.29*

0362

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASD / BCX
COMPANY
Casey
AUTHORIZED SIGNATURE

0363

EMPLOYEE NUMBER

DATE 04/09/98
GROSS 42850 LB
TARE 0 LB
N. 42850 LB
20720

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 7.92

Rich Cline
Paul Tesoro
1568
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99601
(907) 276-7797
FAX 278-7301

ASD / BCX
COMPANY
Casey
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04/09/98
GROSS 42850 LB
TARE 0 LB
N. 42850 LB
20720

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 11.07

Rich Cline
Paul Tesoro
1568
8027

17853

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BOX

Jeff [Signature]
COMPANY
AUTHORIZED SIGNATURE

0364

EMPLOYEE NUMBER

DATE 04 09 99
GROSS 25700 LB
TARE 11 LB
NET 25700 LB

TRUCK

424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

Tare

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17856

ASR/BOX

Jeff [Signature]
COMPANY
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04 09 99
GROSS 26720 LB
TARE 11 LB
NET 26720 LB

25100

TRUCK

424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

10.81

Rich Cline
Wes Tesoro
15688
8027



ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17857

ASR Stahlwisch
COMPANY
Neil J. Marshall
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

GROSS WEIGHT
TARE WEIGHT
NET WEIGHT

21186

High Line
Lines Torsion
1508
41271

TRUCK Ble
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 11.55

0365

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17879

1611 Statewide

COMPANY

[Signature]

AUTHORIZED SIGNATURE

11

EMPLOYEE NUMBER

LINE 0159
DATE 09 13 00
GROSS 4,200.00
TARE 214.00
NET 3,986.00

21860

*Rich Cline
Cline 12500*

*Rich Cline
1568*

8027

TRUCK *13e.*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *12970*

0366

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17881

Abel St. Wick

COMPANY

[Signature]

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

6000
6000
6000
6000

21880

TRUCK *B36*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *11.84*

Pink Line
Clara Texas

4/15/08
8/2/1

0367

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17882

ASST to provide

COMPANY

[Signature]

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

LESS
INSTRUMENT
FARE
FUEL

21886

TRUCK

BU

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

13.23

*Rick [unclear]
[unclear] [unclear]
#15108
8627*

Carlisle

ENTERPRISES, INC.

17884

ASR/BCX

COMPANY

0369

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

9100
04 13 98
24720 to
0 to
24720 to

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

Chine
Tesoro
48
Tare

Carlisle

ENTERPRISES, INC.

17883

ASR/BCX

COMPANY

Casey

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

9100
04 13 98
24720 to
0 to
24720 to
24720

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 1155

Chine
Tesoro
93
7

Carlisle

ENTERPRISES, INC.

17885

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

1521 Statewide
COMPANY
[Signature]
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

TITLE: 21886
DATE: 09/13/09
ADDRESS: 21886
CITY: 21886
STATE: 21886
ZIP: 21886

TRUCK Blue
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 10.0M

Rock Mine
15118
80211

0370

Carlisle

ENTERPRISES, INC.

17886

0371

Ship Avenue
Seward, AK 99501
907-7797
907-7301

ASR/BOX
COMPANY
Casey
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

5 199
47 200 10
0 10
47 200 10
21120

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 11.24

L
19816

Carlisle

ENTERPRISES, INC.

17889

Ship Avenue
Seward, AK 99501
907-7797
907-7301

ASR/BOX
COMPANY
KON
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

5 199
47 200 10
0 10
47 200 10
1120

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 8.93

L
19816

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17888

Northwind

COMPANY

[Signature]

AUTHORIZED SIGNATURE

11

EMPLOYEE NUMBER

DATE
TIME
MILEAGE
FUEL
OIL
21880

TRUCK *136*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *9.73*

*Rocky Mountain
Anchorage Alaska
#15114
8027*

0372

Carlisle

ENTERPRISES, INC.

17890

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

D. J. ...

COMPANY
[Signature]

AUTHORIZED SIGNATURE
111

EMPLOYEE NUMBER

1366

1368
86271

TRUCK *136e*
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT *9,910*

0373

17897

Carlisle

ENTERPRISES, INC.

Ship Avenue
Choraga, AK 99501
276-7797
278-7301

ASEL BOX

COMPANY

XON

AUTHORIZED SIGNATURE

0374

EMPLOYEE NUMBER

4/12/98
40290 10
40290 10
24720

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 4.77

Jim
Tesoro
217

Post-it [®] Fax Note 7671		Date 4/14	# of pages 3
To Jay	Co./Dept. SPS	From Bob	Co. BCX
Phone #	Fax # 5629044	Phone #	Fax #



ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17892

1367 10/10/00
COMPANY
[Signature]
AUTHORIZED SIGNATURE
114
EMPLOYEE NUMBER

DATE
TIME
WEIGHT
TYPE

3880

1/15/00
11:15 AM
4115108
3627

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 8.21

0375

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17907

ASR/BOX

COMPANY

Ken

AUTHORIZED SIGNATURE

0376

EMPLOYEE NUMBER

DATE 04/15/98
ROSS 45340 10
AKR 0 10
ST 45340 10
20840

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 12.25

John Cline
Mesa Tesoro
1508
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17913

ASR/BOX

COMPANY

Ken

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04/15/98
ROSS 44920 10
AKR 0 10
ST 44920 10
20840

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 12.04

John Cline
Mesa Tesoro
#1508
8027

Post-it® Fax Note	7671	Date	4/15	# of pages	2
From	Bob	Co.	BCX		
Co./Dept	SPS	Phone #			
Phone #		Fax #			
Fax #	5629044				

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17909

ASB / Statewide

COMPANY

Kent

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 07/27/00
GROSS 24,000.00
TARE 2,120.00
NET 21,880.00

21880

Rich Hill
Plus Tax 10
#1568
80277

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 13,116

0377

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BAK

COMPANY

Ralph

AUTHORIZED SIGNATURE

0378

EMPLOYEE NUMBER

TIME 15:54
DATE 04 14 98
GROSS 48900 LB
TARE 0 LB
NET 48900 LB
21760

TRUCK

424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

1207

Richline
lines Tesoro
#1568
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BAK

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

17915

TIME 15:54
DATE 04 14 98
GROSS 45700 LB
TARE 0 LB
NET 45700 LB
20846

TRUCK

440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

2166

Richline
lines Tesoro
#15108

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17914

ASR / J. Howard C

COMPANY

Kenet

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE
TIME
MILEAGE
TARE
NET

21980

*Right Mine
(Mine) Tare
#15018
56277*

TRUCK *136*
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT *12.08*

0379

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17917

state wide ASU

COMPANY

[Signature]

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE OF ORDER
GROSS WEIGHT
TARE WEIGHT
NET WEIGHT

11.25 NET

11.25 NET

11.25 NET

11.25 NET

11.25 NET

11.25 NET

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

0380

Carlisle

ENTERPRISES, INC.

1524 Shlp Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 276-7301

17921

ASR/BCX
COMPANY

AUTHORIZED SIGNATURE

0381

EMPLOYEE NUMBER

DATE 03 15 98
GROSS 20760 LB
TARE 0 LB
NET 20760 LB

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

Tare

Carlisle

ENTERPRISES, INC.

1524 Shlp Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17920

BCX ASR/BCX
COMPANY

Ken
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

cline Tesoro

DATE 03 15 98
GROSS 43850 LB
TARE 0 LB
NET 43850 LB

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 11.56

*Ken Cline
Tina & Tesoro*

*F1508
8027*

Post-It® Fax Note	7671	Date	4/16	# of pages	8
To	Jay	From	Bob		
Co./Dept.	SPS	Co.	BCX		
Phone #		Phone #			
Fax #	5629044	Fax #			

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17922

ASP / Intevic
COMPANY
Jay
AUTHORIZED SIGNATURE
EMPLOYEE NUMBER

Address
City
State
Zip
21760
Rick (line)
Munro (line)
#1368
8027

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 10.4M

0382

Carlisle

ENTERPRISES, INC.

17924

1624 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BCX

COMPANY

AUTHORIZED SIGNATURE

0383

EMPLOYEE NUMBER

TIME 07:18 98
DATE 04 18 98
GROSS 29960 10
TARE 0 10
ET 29960 10

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

~~RIGHT CLEAR~~
~~CLIPS 7~~
~~1565~~
~~80-5~~
Carlisle

Carlisle

ENTERPRISES, INC.

17923

1624 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASR/BCX

COMPANY

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

349-4453

TIME 07:18 98
DATE 04 18 98
GROSS 29960 10
TARE 0 10
ET 29960 10
- 29960 = 7020
21,000 = 10-85 7020

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 10,85

McLine
1162 125070
1568
177

17925

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASE/ACC COMPANY

KEN
AUTHORIZED SIGNATURE

0384

EMPLOYEE NUMBER

DATE 04 25 98
GROSS 44000 LB
TARE 0 LB
NET 44000 LB
- TOLC

11.62

23x240 = 11.62 TONS

CLINES TESORO
#1568
8007 PEGASUS A/C 11-27

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17929

ASE/BCL COMPANY

KEN
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04 23 98
GROSS 43040 LB
TARE 0 LB
NET 43040 LB
20760

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT ~~43040~~ 11.14

Rich Cline
Lines TESORO
#15108
0177

Carlisle

ENTERPRISES, INC.

17926

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

H. J. Hildebrand

COMPANY

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

TIME
DATE
GROSS
TARE
NET

2766

TRUCK

136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

11.4M

*Rock Line
#1518
8627*

0385

17927

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASK/BOX

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04 25 98
GROSS 47000 LB
TARE 0 LB
NET 47000 LB

#1110

TRUCK 424

0386

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

~~11.04~~ 11.04

Rich Line
Lines Tedoro
1518
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17930

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04 25 98
GROSS 46400 LB
TARE 0 LB
NET 46400 LB

#24760

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

~~10.76~~ 10.76

Rich Line
Lines Tedoro
#1518
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17928

ASPL Statewide

COMPANY

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

TYPE OF USE
DATE OF USE
GROSS WEIGHT
TARE WEIGHT
NET WEIGHT

21760

TRUCK

13e

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

13.13

Rich Hline
Clines T 22670
15118
8027

0387

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17931

HSE/Statewide

COMPANY

[Signature]
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE OF SALE

GRAND TOTAL \$1850 10

TAX 0 10

NET 1850 10

21766

TRUCK

Bee

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT

16.05

*Rick Mine
Clay 25000
#15118
8627*

0388

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17932

ASP/BOX

COMPANY

REN

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

LINE 00158
DATE 04 25 98
GROSS #2480 LB
TARE 0 LB
NET #2480 LB
20160

TRUCK 440

0389

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 10.86

Rich Clinic
Vines Testis
Bus
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17935

ASP/BOX

COMPANY

REN

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

LINE 00175
DATE 04 25 98
GROSS #3600 LB
TARE 0 LB
NET #3600 LB
20166

TRUCK 440

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 11.42

Rich Clinic
Vines Testis
Bus
8127

Carlisle

ENTERPRISES, INC.

1624 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ASD/BOX

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04-28-98
GROSS 50990.10
TARE 0.10
NET 50990.10
24960

TRUCK 424

0390

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT ~~10200~~ 12.99

Rick Clune
Lined Tesoro
#1568
8027

Carlisle

ENTERPRISES, INC.

1624 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

17936

ASD/BOX

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04-28-98
GROSS 48990.10
TARE 0.10
NET 48990.10
~~24960~~
24960

TRUCK 424

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT ~~10200~~ 11.76

Rick Clune
Lined Tesoro
#1568
8027

Carlisle

ENTERPRISES, INC.

17934

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

ARL Statewide

COMPANY

Sally

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

04439
97500 LE
97500 LE
97500 LE

21760

McClintock
Texas

018

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 11.42

0391

17940

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

1521 Box

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04-25 98
GROSS 45750 LB
TARE 0 LB
NET 45750 LB
24910

TRUCK 424 0392
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT ~~800~~ ~~1000~~ 10.10

Rick (Mike)
Hines Tesoro
#1518
8027

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

17943

1521 Box

COMPANY

Ralph

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 04-28 98
GROSS 35320 LB
TARE 0 LB
NET 35320 LB
24910

TRUCK 424
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT ~~3000~~ 5.18

Rick (Mike)
Hines Tesoro
#1518
8027

Cardile ENTERPRISES, INC.

1824 Ship Avenue
Anchorage, AK 99501
(907) 278-7707
FAX 278-7301

17938

HSR/BCX
COMPANY

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

204160

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 11.01

Pink Mine
Hills T-210
1518
8629

0393

Cardile ENTERPRISES, INC.

1824 Ship Avenue
Anchorage, AK 99501
(907) 278-7707
FAX 278-7301

17941

HSR/BCX
COMPANY

Ken
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

204160

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 11.08

Pink Mine
Hills T-210
1518
8629

Cardile ENTERPRISES, INC.

1824 Ship Avenue
Anchorage, AK 99501
(907) 278-7707
FAX 278-7301

17944

HSR/BCX
COMPANY

Ken
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

204160

TRUCK 440
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 12.69

Pink Mine
Hills T-210
1518
8629

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

18035

[Handwritten Signature]

COMPANY

Keith Howell

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 07-26-98
GROSS 42760 lb
TARE 0 lb
NET 42760 lb
22140

TRUCK ~~1008~~ 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 10.31

*Rich Oline
Oline Tesoro*

1568

Process Agg.

0394

Carlisle

ENTERPRISES, INC.

18039

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

ASP / Statewide
COMPANY

Kevin Howard
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 01/28/98
GROSS 76000 LB
TARE 0 LB
NET 76000 LB
22140

TRUCK *Blue*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *11930*

*John (Mina)
Lesourd*

Massed 1/97

0395

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

18045

Abel H. Hilde
COMPANY
Kent Hilde
AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 07:18 AM
GROSS 47580 LB
TARE 0 LB
NET 47580 LB
22146

TRUCK 13le
TRAILER
CONVERTER
TRAILER
TOTAL WEIGHT 12777

Rich Line
165670
1518
8027

0396

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 276-7797
FAX 278-7301

18050

ASEI Skidsteer

COMPANY

Kent Howell

AUTHORIZED SIGNATURE

x/initials

EMPLOYEE NUMBER

DATE 07/20/98
GROSS 22140 LB
TARE 0 LB
NET 22140 LB

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 11.62

Rick Mines
Mines 12000

#1568
8027 PROBABLY 11/98

0397

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

18054

ASR1 statewide

COMPANY

Paul M. [unclear]

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

*45600 10
0 10
45600 10
2240*

*Carlisle
1524 Ship Ave
Anchorage, AK
99501
8027*

TRUCK *136*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *11.77*

0398

18247

ENTERPRISES, INC.

Carroll

1624 Ship Avenue
Anchorage, AK 99507
(907) 278-7787
FAX 278-7307

ASP Stalvide
COMPANY

AUTHORIZED SIGNATURE
[Signature]

EMPLOYEE NUMBER
111

GROSS WEIGHT
NET WEIGHT
2174

TRUCK *1824*

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT *8915*

Waste Oil
pile
2 - Loads
coming

Waste Oil

Waste Oil

Waste Oil

0399

Carlisle

ENTERPRISES, INC.

1524 Ship Avenue
Anchorage, AK 99501
(907) 278-7797
FAX 278-7301

18251

ASR / statewide

COMPANY

[Signature]

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER

DATE 07/29/98
GROSS 36960 lb
TARE 0 lb
NET 36960 lb

21748

TRUCK 136

TRAILER

CONVERTER

TRAILER

TOTAL WEIGHT 7.61

Rich Olwe
Olwe Tesoro
#1568
8027

Last load
Waste oil pile

0400