

**FINAL REQUEST FOR CLOSURE REPORT
2576 MAIN STREET
ALAMEDA, CALIFORNIA**

April 2000

PREPARED FOR:

Alameda Public Works Department
Alameda Point, Building 1
950 West Mall Square, Room 110
Alameda, California 94501

PREPARED BY:

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April 17, 2000
Project No 400301-02

April 17, 2000
Project No. 400301-02

Ms. Malika Ramachandran, P.E.
Senior Civil Engineer
Alameda Public Works Department
Alameda Point, Building 1
950 West Mall Square, Room 110
Alameda, California 94501

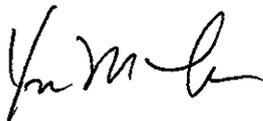
Subject: Final Request for Closure Report
2756 Main Street
Alameda, California

Dear Ms. Ramachandran:

Ninyo & Moore is pleased to present this report requesting closure of the site at 2756 Main Street, located in Alameda, California. The purpose of this report was to collect and report information that would satisfy Alameda County Environmental Health Services site closure requirements.

We appreciate this opportunity to be of service to The City of Alameda on this project. If you have any questions regarding this report, please contact the undersigned.

Sincerely,
NINYO & MOORE



Kris M. Larson
Senior Staff Environmental Geologist



York R. Gorzolla, R.G., R.E.A.
Manager of Environmental Sciences

KML/YRG/jms

Distribution: (2) Addressee

- (1) Eva Chu, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

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1. INTRODUCTION AND SCOPE OF SERVICES

This report summarizes the results of an investigation done to comply with the Alameda County Environmental Health Services Request for Closure requirements for the site at 2756 Main Street, in the City and County of Alameda, California. (Figure 1). Our scope of services included the following:

- Determine the distance to production wells utilized for municipal, domestic, agriculture, industry and other purposes within 2,000 feet of the site.
- Prepare site map, to scale, showing locations of former and existing tank systems, elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities.
- Determine high and low ground water levels (below ground surface).
- Prepare tabulated results of all sampling and analyses.
- Discuss rationale why conditions remaining at the site will not adversely impact water quality, health, or other beneficial uses.

2. SITE BACKGROUND

The subject site is located near the northeast corner of Main Street and Singleton Avenue in the City and County of Alameda, California. The site was formerly occupied by a gas station, which reportedly contained up to seven underground storage tanks (USTs), and was most recently occupied by Dale's Bar.

Two 6,000-gallon gasoline USTs, one 550-gallon oil UST and a hydraulic lift were removed from the former Dale's Bar site in December 1999. Subsequently on site soil and groundwater sampling and analysis indicated detection of total extractable petroleum hydrocarbons as diesel (TEPH-D) and motor oil (TEPH-MO), total petroleum hydrocarbons as gas (TPH-G) and benzene, toluene, ethylbenzene and total xylenes (BTEX)

3. PHYSICAL SETTING

3.1 Site Geology

Fill and bay deposits were encountered during a subsurface evaluation completed by Ninyo & Moore in March 2000. The fill was encountered to depths of up to five feet below ground surface (bgs). The fill generally consisted of brown to orange, damp to saturated, sand and gravels, with scattered bricks and asphalt. The bay deposits generally consisted of loose to medium dense, fine to coarse sand with gravel, and gray and dark brown, moist to saturated, soft to stiff clay and fat clay, with minor fine to medium sand and silt and scattered shells.

3.2 Hydrology

Based on the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Basin Plan, the site is located in the East Bay Plain Groundwater Basin. Existing beneficial uses for groundwater in the site vicinity include municipal and domestic water supply, agricultural supply, and industrial service and process supply.

The nearest major surface water to the site is the Oakland Inner Harbor, approximately 2,000 feet north of the site. Existing beneficial uses for surface water in the site vicinity include ocean, commercial, and sport fishing, estuarine habitat, industrial service supply, fish migration, navigation, preservation of rare and endangered species, contact and non-contact water recreation, shellfish harvesting, and wildlife habitat.

Based on the topography of the site vicinity, groundwater flows generally to the north and northwest. During our subsurface evaluation at the site, the depth to groundwater was encountered from 3 inches to 1-foot bgs in five of the borings (B-6 through B-9, and P-3).

4. SENSITIVE RECEPTORS SURVEY (SRS)

An SRS was performed to locate domestic, industrial or agricultural wells and surface waters within a 2,000-foot radius of the site

4.1. Water Well Inventory

Ninyo & Moore conducted a water well inventory within a 2,000-foot radius of the site to identify potential water well users. The water well inventory consisted of a reconnaissance of the site vicinity, inquiries to the Alameda County Public Works, Water Resources Division (ACPW) and the State of California Department of Water Resources (DWR).

4.1.1 Site Reconnaissance

Ninyo & Moore personnel performed a site reconnaissance of the project vicinity. Two groundwater-monitoring wells were visually located along Main street, approximately 1,300 to 1,400 feet south of the site. Two other monitoring wells were located on the former Navy Exchange Fuel Station property, located approximately 1,500 feet southwest of the site.

4.1.2 Alameda County Public Works, Water Resources Division (ACPW)

ACPW was contacted regarding wells within a 2000-foot radius of the site. They have not responded prior to the distribution of this report.

4.1.3. State of California Department of Water Resources (DWR)

Ms. Anne Roth of the DWR was contacted regarding wells within the 2,000-foot site radius. Two wells, approximately 353 and 500 feet bgs, were located on the former Alameda Naval Air Station property (NAS), and according to the boring logs were used for a Bay Barrier Study. These wells are either cross gradient or downgradient of the site and should not be impacted by the site. A third well was also located on NAS property and was drilled to a depth of 110 feet bgs as a cathodic well. This well is also upgradient/crossgradient of the site and should not be impacted by the site. Several groundwater monitoring wells were discovered by the DWR and are not considered sensitive receptors. Well Logs are located in Appendix B of this report.

4.2. Surface water Inventory

The nearest surface water observed during our site reconnaissance was a drainage ditch located on the east border of Main Street, approximately 100 feet south of the site. A second drainage ditch was located approximately 500 feet north of the site. The Oakland Inner Harbor waterway is located approximately 2,000 feet north of the site.

5. SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Several environmental investigation reports were prepared for the site regarding the former USTs and their impact on site. A report summary is listed below.

ACC Environmental Consultants, Underground Storage Tank Location Oversight Report, Dales Bar, Alameda, California, May 20, 1999

ACC Environmental performed excavation oversight and soil sampling May 5 to 10, 1999. Trenches were excavated adjacent to a concrete pad to determine the locations of the eight suspected USTs and one to two hydraulic lifts. Two USTs and a hydraulic lift were discovered during the excavations. A subsurface vault was discovered south of the concrete pad and identified as an abandoned sewer main or oil water separator. Soil samples were collected from approximately 5-foot bgs and analyzed for TEPH-G, TEPH-D, TEPH-MO, BTEX, and CAM 17 Metals.

Soil samples analyzed indicated the highest concentrations (130 mg/kg, 610 mg/kg, and 2,800 mg/kg) of TEPH-G, TEPH-D, and TEPH-MO, respectively, were detected from samples collected near the hydraulic lift. The highest concentrations of benzene and toluene (0.063 mg/kg and 0.089 mg/kg, respectively) were detected near the former gasoline USTs. The highest concentrations of ethylbenzene (2.0 mg/kg) and total xylenes (1.9 mg/kg) were also detected near the hydraulic lift.

This report concluded that two areas of impact were identified as moderate impact zones created from petroleum hydrocarbons believed to have originated from the former USTs.

ACC Environmental Consultants, Underground Storage Location Oversight report – Supplement Dale's Bar, Main Street and Singleton Avenue, Alameda, California, August 19, 1999

One soil sample and five groundwater samples (SB-1 through SB-5) were collected from different locations on site on August 13, 1999. SB-1 and SB-2 were located south of the former USTs, and SB-3 and SB-5 were located east of the former USTs. SB-4 was located on the far east portion of the site, east of the former railroad tracks. The groundwater samples were analyzed for TEPH-G, TEPH-D, TEPH MO and BTEX. TEPH-G and TEPH-D were detected in SB-1 at 100 µg/l and 230 µg/l, respectively. TEPH-D was detected in SB-4 and SB-5 at 150 µg/l and 240 µg/l and toluene, ethylbenzene and total xylenes were detected at 1.7 µg/l, 0.83 µg/l and 2.0 µg/l in samples collected from SB-5.

A soil pile was sampled near the site (there was no indication in this report of the stock-pile location) for Cam 17 Metals. According to the report the sample was well below the residential preliminary remediation goals (PRGs) for CAM 17 Metals set by the California EPA, Region IX.

Conclusions indicated that minor, residual impact to the soil and groundwater remained at the site and the primary constituent of concern was likely degraded motor oil as diesel range hydrocarbons which has a low migration potential. The report also concluded that the impacted soil is restricted to a zone immediately adjacent to the former USTs.

ACC Environmental Consultants, Underground Storage Tank Removal Report for 2756 Main Street, Alameda, California, January 25, 2000

Two 6,000-gallon gasoline USTs and one 550-gallon oil UST were removed from the former Dale's Bar site in December 1999. Subsequent on site groundwater sampling and analysis indicated detection of TEPH-D, TEPH-MO, TEPH-G and BTEX. Groundwater samples collected indicated the highest concentrations of TEPH-G at 100 ^{micrograms} ~~milligrams~~ per liter (mg/l) from a sample collected near the southwestern corner of the site and TEPH-D at 240 ^{mg/l} ~~mg/l~~ collected from a sample in the northeast corner of the site.

Toluene, ethylbenzene and total xylenes (1.7 ^{ug/l} mg/l, 0.83 ^{ug/l} mg/l, 2.0 ^{ug/l} mg/l, respectively) were also detected from samples collected in the northeast corner of the site. MTBE was not detected in groundwater samples collected during our evaluation.

Stockpiled soil from the former gasoline UST tank pit area was stored east of the former gasoline USTs and analyzed. Concentrations of TEPH-G, TEPH-D, and TEPH-MO were detected in soil samples collected from the stockpile. The highest concentration of TEPH-G, TEPH-D, and TEPH-MO were 580 milligrams per kilogram (mg/kg), 64 mg/kg and 240 mg/kg, respectively. Minor concentrations of toluene, ethylbenzene, and total xylenes were detected at 0.95 mg/kg, 0.63 mg/kg, and 1.6 mg/kg, respectively. MTBE was analyzed for and not detected.

This report concluded that TEPH-G had a localized impact on soil and groundwater in the vicinity of the former USTs. Indications were that the impact is localized due to the fine-grained nature of the subsurface soils, and that the natural attenuation process would decrease the levels of petroleum hydrocarbon constituents.

The report recommended that no further investigation was warranted in the vicinity of the two former gasoline USTs, that the residual concentrations of petroleum hydrocarbons be allowed to naturally degrade, and that the site be evaluated for site closure.

6. HISTORICAL SUMMARY- SOIL REMEDIATION

According to the documents available for review from the City of Alameda, no soil or groundwater remediation has occurred on site.

7. SUBSURFACE EVALUATION

Representatives of our firm observed a subsurface evaluation of 2756 Main Street on February 25, 2000. The subsurface evaluation included the excavation, sampling, and logging of four geoprobe and four hand auger exploratory borings. The purpose of the borings was to evaluate the

subsurface soil conditions and to obtain soil and groundwater samples for laboratory testing. The approximate locations of the test borings are indicated on the Boring Location Map (Figure 2).

Four borings (B6 through B8) were advanced to depths ranging from 4.0 to 10.0 feet bgs with a truck-mounted geoprobe using 1-1/4-inch diameter, stainless steel rods. Borings B9 through B12 were hand augured to three feet bgs using a four-inch diameter stainless steel hand auger. Groundwater was encountered at depths ranging from 3-inches to 1-foot bgs. Relatively undisturbed soil samples were collected from the four-geoprobe borings at approximately 3 feet bgs in clear acetate liners, and capped with Teflon tape and plastic caps. A soil sample was collected from boring P³ by excavating the soil from a depth of two-feet bgs with the hand auger and placing the sample into a six-inch long and two-inch diameter brass tube. The tube was sealed with Teflon tape and plastic caps. Groundwater samples were collected using a 3/4-inch disposable bailer immediately subsequent to the collection of soil samples

Samples collected were designated according to the whether they were soil (S) or groundwater (W), the boring from which they were collected (SB, WB6 through SB, WB9), and the depths they were collected from, (ex. SB6-3 means the sample was collected at three-foot bgs). The samples collected for the Public Works Department were designated "B" (ex. SB6-3) and the samples for Alameda Power and Telecom were designated "P" (ex. SP3-3). Subsequent to sampling, the borings were back-filled with grout and were completed to match the existing ground surface. Borings B6 through B9 were advanced per the request of the City of Alameda Public Works Department. Boring P3 was advanced per the request of Alameda Power and Telecom.

8. SOIL AND GROUNDWATER ENVIRONMENTAL ASSESSMENT

Soil and groundwater samples were delivered to Associated Laboratories, a state-certified analytical laboratory. Selected soil and groundwater samples were analyzed for some or all of the following: TPH-D, TPH-MO and TPH-G by modified EPA test method 8015M (with silica gel cleanup), BTEX and MTBE using EPA Method 8020, Cam 17 metals using EPA Method 6010, and VOC's using EPA test method 8260B. Copies of the laboratory report, including quality assurance/quality control and chain-of-custody documentation is presented in Appendix C.

9. SOIL AND GROUNDWATER SAMPLE RESULTS

9.1. Soil Samples

Minor amounts of TPH-G, TPH-D, and BTEX constituents were detected in two of the soil samples (SB-10 and SB-12) collected on site. Halogenated volatile organics were not detected in any of the samples.

Various concentrations of different metals were detected in most soil samples collected on site. Metals analyzed for included antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, mercury, nickel, selenium, silver, thallium, vanadium and zinc. None of the metals detected exceeded Title 22 Total Threshold Limit Concentrations (TTLC) which are used as a regulatory detection limit threshold.

[Pb] > 10x STLC
up to 813 ppm

9.2 Groundwater Samples

The highest concentrations of TPH-D and TPH-G were detected in water sample WP-3, at 4,500 µg/l and 5,100 µg/l, respectively. TPH-MO was not detected in any groundwater samples collected. Minor amounts of BTEX and MTBE constituents were detected in samples WB-09, WB-10, and WB-12 (Table 3).

Metals analyzed for included antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, mercury, nickel, selenium, silver, thallium, vanadium and zinc. Various concentrations of different metals were detected in all water samples collected on site. Samples collected where metal concentrations exceeded Soluble Threshold Limit Concentrations (STLC) included lead detected in sample WP-3 (13.5 mg/l), WB-06 (13.0 mg/l), WB-08 (13.5 mg/l), WB-09 (15.4 mg/l) and WB-10 (41.6 mg/l).

10. UTILITY TRENCHES

A study of utility trenches located in the site area was conducted. Sewer, storm-drain and water line maps from the Alameda County Public Works (Appendix B) Department were reviewed. Subsurface water lines appear below Singleton Street and do not appear to be in contact to the

site. According to city sewer maps, a stormdrain and sewer line runs through the east end of the site in a north-south direction. Our site reconnaissance indicated that gas pipes run under Singleton Street and do not contact the site. Markings adjacent to a telephone pole located on the northeast corner of Singleton and Main Streets indicated possible underground electrical conduit located beneath the site.

11. SUMMARY AND CONCLUSIONS

- Soil samples collected from recent subsurface investigations at the site indicate that any impacted soil on the site is located in a zone adjacent to the former USTs. Soil samples collected by Ninyo & Moore around the perimeter of the site indicate non-detect concentrations of petroleum hydrocarbons, BTEX, MTBE, and halogenated VOC constituents.
- Groundwater Analysis from sampling completed in December 1999 and February 2000 indicate minor to moderate concentrations of TPH-G, TPH-D, BTEX, and MTBE at the site. No other VOCs were detected from samples collected on site.
- Indications from other studies conducted on the site show that the impacted soil and groundwater is localized due to the fine-grained nature of the subsurface soils and that the natural attenuation processes will reduce the petroleum hydrocarbon constituent concentrations.
- According to utility maps of the area, there are no stormdrain or water trenches traversing the site and a sewer line is located under the eastern border of the site. A gas line is located under the north side of Singleton Avenue and there is an unconfirmed possibility that a telephone line may run under the site.
- A sensitive receptor survey indicated three wells located on the former Alameda Naval Air Station property. This property is located upgradient/crossgradient of the site and should not be impacted by the site.

12. RECOMMENDATIONS

The results of this investigation indicate that petroleum hydrocarbons and VOCs in the soil and groundwater have been adequately defined. Based on the lack of detection of minor petroleum hydrocarbons and VOCs in soil samples collected and the minor to moderate amount of petroleum hydrocarbons and VOCs detected in groundwater samples collected on site, it is suggested that continued natural attenuation of the constituents is likely. The possibility of the constituents impacting off site locations is also unlikely due to the fine-grained nature of the subsurface soils. Additionally, the lack of a MTBE plume designates the site as a "Low Risk Groundwater Site" and fulfills the "no further action" status as defined by the California State Water Board's Draft Policy for Cleanup of Petroleum Hydrocarbon Releases dated October 29, 1996. Additional Site investigations do not appear to be warranted at this time and Ninyo & Moore recommends that the site be closed.

13. LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Our conclusions, recommendations and opinions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore

should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

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14. SELECTED REFERENCES

ACC Environmental Consultants, Underground Storage Tank Removal Report for 2756 Main Street, Alameda, California, January 25, 2000

ACC Environmental Consultants, Underground Storage Location Oversight report – Supplement Dale's Bar, Main Street and Singleton Avenue, Alameda, California, August 19, 1999

ACC Environmental Consultants, Underground Storage Tank Location Oversight Report, Dales Bar, Alameda, California, May 20, 1999.



REFERENCE: 1998 THOMAS GUIDE, ALAMEDA CONTRA COSTA COUNTIES STREET GUIDE AND DIRECTORY

SITE LOCATION MAP

MAIN STREET GREENWAY
ALAMEDA, CALIFORNIA

Ninyo & Moore

PROJECT NO. 400301-01 DATE 3/00

FIGURE 1

400301-01.slm



Main Street

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	ND	ND	ND	ND	ND	ND	ND
GW	ND	ND	ND	ND	ND	ND	ND

Pb

13,000

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	ND	ND	ND	ND	ND	ND	ND
GW	5,100	4,500	ND	1	13	2	ND

Pb

13,500

B6
SB6-3
WB-06

Sidewalk

P3
SP3-3
WB-03

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	ND	ND	ND	ND	ND	ND	ND
GW	ND	ND	ND	1	ND	2	6

Pb

15,400

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	45	ND	ND	0.01	0.07	0.17	ND
GW	360	ND	2	3	1	5	ND

Singleton Avenue

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	ND	ND	ND	ND	ND	ND	ND
GW	ND	ND	ND	ND	ND	ND	ND

B12
SB12-1
WB-12



B10
SB10-5
WB-10

B9
SB9-2
WB-09

B11
SB11-1
WB-11

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	50	28	ND	0.02	0.08	0.09	ND
GW	1,150	ND	5.0	5.0	3.0	10.0	ND

Pb

41,600

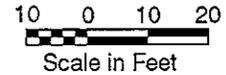
B8
SB8-3
WB-08

Pb

13,500

B7
SB7-3
WB-07

	TPH-G	TPH-D	B	T	E	X	MTBE
SOIL	ND	ND	ND	ND	ND	ND	ND
GW	ND	ND	ND	ND	ND	ND	ND



APPROXIMATE LOCATION OF FORMER RAILROAD

LEGEND



LOCATION OF FORMER 6,000-GALLON USTs



LOCATION OF FORMER 550-GALLON UST



APPROXIMATE BORING LOCATION (SYMBOL NOT TO SCALE)

ND NOT DETECTED

B BENZENE

E ETHYL BENZENE

T TOLUENE

X TOTAL XYLENES

MTBE METHYL TERTIARY BUTYL ETHER

TPH-D TOTAL PETROLEUM HYDROCARBON AS GAS

TPH-G TOTAL PETROLEUM HYDROCARBON AS DIESEL

NOTES 1 - SOIL RESULTS ARE PRESENTED IN MILLIGRAMS / KILOGRAM
2 - GW RESULTS ARE PRESENTED IN MICROGRAMS / LITER

REFERENCE 1 25 US* REPORT ACC ENVIRONMENTAL

C:\D:\DRAWINGS\KML\30102BORING

Ninyo & Moore

SOIL AND GROUND WATER CONSTITUENT / BORING LOCATION MAP

2756 MAIN ST.
ALAMEDA, CA

PROJECT NO.
400301-02

DATE
03/00

FIGURE
2

**TABLE 2
SOIL SAMPLE ANALYTICAL DATA-METALS
CITY OF ALAMEDA MAIN STREET GREENWAY PROJECT**

BORING	DATE	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thalium	Vanadium	Zinc
SP3-3	2/25/00	ND	2.43	433	ND	3.14	56.1	37.9	13.7	7.17	5.71	0.13	46.5	ND	ND	5.26	184	50.2
SB6-3	2/25/00	ND	7.41	79.4	ND	0.352	38.1	10.5	35.5	813	2.67	0.13	39.6	ND	ND	4.75	45	90.9
SB7-3	2/25/00	ND	6.87	77.5	ND	ND	65.5	5.9	52.5	22.9	2.8	0.47	43.8	0.874	ND	3.02	44.8	49.2
SB8-3**	2/25/00	1.48	127	165	ND	2.06	23.7	11.1	90.3	68.1	1.99	0.36	39.7	1.58	ND	3.02	44.4	112
SB9-2	2/25/00	ND	3.89	62.5	ND	ND	31.7	5.21	18.1	23.9	1.79	0.33	28.1	0.531	ND	1.59	26	102
SB10-5	3/21/00	3.66	9.19	183	ND	1.17	30.4	7.07	73.8	64.9	3.62	0.22	33.1	0.577	ND	1.67	27	297
SB11-1	3/21/00	5.97	5.07	61.1	ND	1.07	17.7	8.36	160	201	2.38	0.39	18.3	0.612	ND	2.09	42.8	188
SB12-1	3/21/00	3.91	8.6	428	ND	1.83	42.7	8.1	105	169	8.3	0.35	46.1	0.979	ND	1.95	22	534

Notes

Soil sample units in miligrams per liter *kilogram*
 ND non detect

¹ S = soil sample, P = Alameda Power & Telecom boring, 1 = boring location and -2 = depth of sample in feet

² S = soil sample, B = City of Alameda Public Works boring, 1 = boring location and -3.5 = depth of sample in feet

**Samples collected outside Greenway boundaries

NA Not analyzed

2000-03-27 - 01/12/2001

TABLE 4
 WATER SAMPLE ANALYTICAL DATA-METALS
 CITY OF ALAMEDA MAIN STREET GREENWAY PROJECT

BORING	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
WP-3	2/25/00	ND	3.88	18.8	ND	0.627	5.22	1.93	6.73	13.5	ND	0.039	7.44	ND	ND	0.483	5.65	16.3
WB-06	2/25/00	ND	0.735	7.64	ND	0.051	2.99	0.856	3.78	13	0.265	0.039	2.99	0.071	ND	0.149	3.32	12
WB-07	2/25/00	0.491	0.187	3.23	0.02	ND	0.883	0.276	1.51	1.68	0.156	0.01	1.42	ND	ND	ND	0.868	7.69
WB-08**	2/25/00	0.417	1.15	2.56	ND	0.044	1.55	0.281	10.2	13.5	0.124	0.049	1.48	0.045	ND	0.073	1.02	12.7
WB-09	2/25/00	0.525	1.73	15.2	ND	0.399	2.78	0.718	8.89	15.4	0.201	0.02	3.16	0.091	ND	0.184	2.86	52.1
WB10	3/21/00	ND	3.71	63.3	0.003	0.692	7.95	2.14	36.1	41.6	0.7	0.079	10.8	0.402	ND	0.531	6.13	129
WB-11	3/21/00	0.037	0.03	0.402	ND	0.01	0.073	0.034	0.98	0.854	ND	0.035	0.082	0.01	ND	0.006	0.117	0.907
WB-12	3/21/00	0.033	0.013	0.27	ND	ND	0.03	0.005	0.187	0.103	0.062	0.0008	0.024	ND	ND	ND	0.021	0.411

Notes

Soil samples units in milligrams per liter (mg/l) ?

ND non detect

¹ W = Water sample, P = Alameda Power & Telecom boring and 1 = boring location.

² W = Water sample, B = City of Alameda Public Works boring and 1 = boring location

NA Not analyzed

**Samples were collected outside the Greenway boundaries

3/22/00 - 01/20/01

APPENDIX A
LABORATORY RESULTS AND CHAIN OF CUSTODY DOCUMENTATION

Order #: 170037

Client Sample ID WP-3

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 11:55

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	100	3.0	0.012	mg/L	02/29/00 MD
6010B	Arsenic	8.88	100	0.3	0.003	mg/L	02/29/00 MT
6010B	Barium	18.8	100	0.2	0.002	mg/L	02/29/00 MD
6010B	Beryllium	ND	100	0.1	0.001	mg/L	02/29/00 MD
6010B	Cadmium	0.627	100	0.4	0.004	mg/L	02/29/00 MD
6010B	Chromium	5.22	100	0.3	0.003	mg/L	02/29/00 MD
6010B	Cobalt	1.93	100	0.5	0.003	mg/L	02/29/00 MD
6010B	Copper	6.73	100	0.4	0.004	mg/L	02/29/00 MD
6010B	Lead	13.5	100	0.2	0.002	mg/L	02/29/00 MT
6010B	Molybdenum	ND	100	1.0	0.009	mg/L	02/29/00 MD
6010B	Nickel	7.44	100	0.8	0.008	mg/L	02/29/00 MD
6010B	Selenium	ND	100	0.4	0.004	mg/L	02/29/00 MT
6010B	Silver	ND	100	0.5	0.004	mg/L	02/29/00 MD
6010B	Thallium	0.483	100	0.3	0.002	mg/L	02/29/00 MT
6010B	Vanadium	5.65	100	0.5	0.005	mg/L	02/29/00 MD
6010B	Zinc	16.3	100	0.2	0.001	mg/L	02/29/00 MD
245.1	Mercury	0.039	10	0.004	0.0002	mg/L	02/29/00 NK
8021B/AVO	Benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Diesel	4,500	1	100	0.03	ug/L	02/29/00 PP
8021B/AVO	Ethyl benzene	13	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Gasoline	5,110	20	2000.0	50	ug/L	02/28/00 HP
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.24	ug/L	02/28/00 HP
8015	Motor Oil	ND	1	500	150	ug/L	02/29/00 PP
8021B/AVO	Toluene	1.0	1	0.3	0.14	ug/L	02/28/00 HP
8021B/AVO	Xylene (total)	2.0	1	0.6	0.26	ug/L	02/28/00 HP
8260B	1,1,1,2-Tetrachloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,1-Trichloroethane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,1,2,2-Tetrachloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,2-Trichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,2-Trichlorotrifluoroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1-Dichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1-Dichloroethene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	1,1-Dichloropropene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,3-Trichlorobenzene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,3-Trichloropropane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,4-Trichlorobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2,4-Trimethylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170037

Client Sample ID WP-3

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 11:55

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	1,2-Dibromo-3-chloropropane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dibromoethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dichlorobenzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,2-Dichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dichloropropane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,3,5-Trimethylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,3-Dichlorobenzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,3-Dichloropropane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,4-Dichlorobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,4-Dioxane	ND	1	57	5.7	ug/L	02/28/00 DP
8260B	1-Chlorohexane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	2,2-Dichloropropane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	2-Butanone (MEK)	ND	1	100	0.3	ug/L	02/28/00 DP
8260B	2-Chloroethyl vinyl ether	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	2-Chlorotoluene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	2-Hexanone	ND	1	20	0.3	ug/L	02/28/00 DP
8260B	4-Chlorotoluene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	4-Methyl -2- Pentanone	ND	1	10	0.2	ug/L	02/28/00 DP
8260B	Acetone	ND	1	100	0.2	ug/L	02/28/00 DP
8260B	Acetonitrile	ND	1	50	1.5	ug/L	02/28/00 DP
8260B	Acrolein	ND	1	200	3.3	ug/L	02/28/00 DP
8260B	Acrylonitrile	ND	1	10	1.6	ug/L	02/28/00 DP
8260B	Allyl chloride	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Benzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Benzyl chloride	ND	1	5	5	ug/L	02/28/00 DP
8260B	Bromobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Bromochloromethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Bromodichloromethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Bromoform	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Bromomethane	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Carbon Disulfide	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Carbon tetrachloride	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Chlorobenzene	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Chloroethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Chloroform	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Chloromethane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Dibromochloromethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Dibromomethane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Dichlorodifluoromethane	ND	1	5	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170037

Client Sample ID WP-3

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 11:55

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	Ethyl benzene	10	1	5	0.2	ug/L	02/28/00 DP
8260B	Ethyl methacrylate	ND	1	50	0.2	ug/L	02/28/00 DP
8260B	Hexachlorobutadiene	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Iodomethane	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Isopropylbenzene (Cumene)	68	1	5	0.2	ug/L	02/28/00 DP
8260B	Methacrylonitrile	ND	1	35	3.9	ug/L	02/28/00 DP
8260B	Methyl methacrylate	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Methyl-tert-butylether (MTBE)	ND	1	5	0.6	ug/L	02/28/00 DP
8260B	Methylene chloride	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Naphthalene	224	1	5	0.2	ug/L	02/28/00 DP
8260B	Pentachloroethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Propionitrile	ND	1	100	1.9	ug/L	02/28/00 DP
8260B	Styrene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Tetrachloroethene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Toluene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Trichloroethene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Trichlorofluoromethane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Vinyl acetate	ND	1	50	0.3	ug/L	02/28/00 DP
8260B	Vinyl chloride	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Xylenes, total	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	cis-1,2-Dichloroethene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	cis-1,3-Dichloropropene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	cis-1,4-Dichloro-2-butene	ND	1	20	0.4	ug/L	02/28/00 DP
8260B	m and p-Xylene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	n-Butylbenzene	94	1	5	0.1	ug/L	02/28/00 DP
8260B	n-Propylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	o-Xylene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	p-Isopropyltoluene	ND	1	5	0.6	ug/L	02/28/00 DP
8260B	sec-Butylbenzene	63	1	5	0.1	ug/L	02/28/00 DP
8260B	tert-Butylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	trans-1,2-Dichloroethene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	trans-1,3-Dichloropropene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	trans-1,4-Dichloro-2-butene	ND	1	20	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



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Order #: 170045

Client Sample ID SP3-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	10	14.4	1.44	mg/Kg	02/29/00 MD
6010B	Arsenic	2.43	10	2.0	0.16	mg/Kg	02/29/00 MT
6010B	Barium	433	10	2.0	0.06	mg/Kg	02/29/00 MD
6010B	Beryllium	ND	10	1.0	0.05	mg/Kg	02/29/00 MD
6010B	Cadmium	3.14	10	2.0	0.20	mg/Kg	02/29/00 MD
6010B	Chromium	56.1	10	5.9	0.59	mg/Kg	02/29/00 MD
6010B	Cobalt	37.9	10	6.7	0.67	mg/Kg	02/29/00 MD
6010B	Copper	13.7	10	2.2	0.22	mg/Kg	02/29/00 MD
6010B	Lead	7.17	10	2.5	0.25	mg/Kg	02/29/00 MT
6010B	Molybdenum	5.71 J	10	6.5	0.65	mg/Kg	02/29/00 MD
6010B	Nickel	46.5	10	6.8	0.68	mg/Kg	02/29/00 MD
6010B	Selenium	ND	10	3.7	0.37	mg/Kg	02/29/00 MT
6010B	Silver	ND	10	5.0	0.35	mg/Kg	02/29/00 MD
6010B	Thallium	5.26	10	2.4	0.24	mg/Kg	02/29/00 MT
6010B	Vanadium	184	10	2.3	0.23	mg/Kg	02/29/00 MD
6010B	Zinc	50.2	10	3.4	0.34	mg/Kg	02/29/00 MD
245.5	Mercury	0.13	1	0.12	0.10	mg/Kg	02/28/00 NK
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	02/29/00 PP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	02/29/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	02/29/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	02/29/00 PP
8015	Motor Oil	ND	1	50	7	mg/Kg	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	02/29/00 PP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	02/29/00 PP
8260B	1,1,1,2-Tetrachloroethane	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	1,1,1-Trichloroethane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	1,1,2,2-Tetrachloroethane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	1,1,2-Trichloroethane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,1,2-Trichlorotrifluoroethane	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	1,1-Dichloroethane	ND	1	5	2.8	ug/Kg	02/28/00 DP
8260B	1,1-Dichloroethene	ND	1	5	1.2	ug/Kg	02/28/00 DP
8260B	1,1-Dichloropropene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,2,3-Trichlorobenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,2,3-Trichloropropane	ND	1	5	1.5	ug/Kg	02/28/00 DP
8260B	1,2,4-Trichlorobenzene	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	1,2,4-Trimethylbenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170045

Client Sample ID SP3-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	1,2-Dibromo-3-chloropropane	ND	1	5	2.0	ug/Kg	02/28/00 DP
8260B	1,2-Dibromoethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,2-Dichlorobenzene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	1,2-Dichloroethane	ND	1	5	1.0	ug/Kg	02/28/00 DP
8260B	1,2-Dichloropropane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,3,5-Trimethylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,3-Dichlorobenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,3-Dichloropropane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,4-Dichlorobenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,4-Dioxane	ND	1	200	200	ug/Kg	02/28/00 DP
8260B	1-Chlorohexane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	2,2-Dichloropropane	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	2-Butanone (MEK)	ND	1	100	38.6	ug/Kg	02/28/00 DP
8260B	2-Chloroethyl vinyl ether	ND	1	5	1.2	ug/Kg	02/28/00 DP
8260B	2-Chlorotoluene	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	2-Hexanone	ND	1	5	4.7	ug/Kg	02/28/00 DP
8260B	4-Chlorotoluene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	4-Methyl -2- Pentanone	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Acetone	ND	1	5	3.7	ug/Kg	02/28/00 DP
8260B	Acetonitrile	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Acrolein	ND	1	200	172	ug/Kg	02/28/00 DP
8260B	Acrylonitrile	ND	1	5	1.3	ug/Kg	02/28/00 DP
8260B	Allyl chloride	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Benzene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Benzyl chloride	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	Bromobenzene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Bromochloromethane	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	Bromodichloromethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Bromoform	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Bromomethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Carbon Disulfide	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	Carbon tetrachloride	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Chlorobenzene	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	Chloroethane	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Chloroform	ND	1	5	0.2	ug/Kg	02/28/00 DP
8260B	Chloromethane	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Dibromochloromethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Dibromomethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Dichlorodifluoromethane	ND	1	5	1.1	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170031

Client Sample ID WB-06

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 10:55

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	10	0.3	0.012	mg/L	02/29/00 MD
6010B	Arsenic	0.735	10	0.03	0.003	mg/L	02/29/00 MT
6010B	Barium	7.64	10	0.02	0.002	mg/L	02/29/00 MD
6010B	Beryllium	ND	10	0.01	0.001	mg/L	02/29/00 MD
6010B	Cadmium	0.051	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Chromium	2.99	10	0.03	0.003	mg/L	02/29/00 MD
6010B	Cobalt	0.856	10	0.05	0.003	mg/L	02/29/00 MD
6010B	Copper	3.78	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Lead	13.0	100	0.2	0.002	mg/L	02/29/00 MT
6010B	Molybdenum	0.265	10	0.1	0.009	mg/L	02/29/00 MD
6010B	Nickel	2.99	10	0.08	0.008	mg/L	02/29/00 MD
6010B	Selenium	0.071	10	0.04	0.004	mg/L	02/29/00 MT
6010B	Silver	ND	10	0.05	0.004	mg/L	02/29/00 MD
6010B	Thallium	0.149	10	0.03	0.002	mg/L	02/29/00 MT
6010B	Vanadium	3.32	10	0.05	0.005	mg/L	02/29/00 MD
6010B	Zinc	12.0	10	0.02	0.001	mg/L	02/29/00 MD
245.1	Mercury	0.039	50	0.02	0.0002	mg/L	02/29/00 NK
8021B/AVO	Benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Gasoline	ND	1	100	50	ug/L	02/28/00 HP
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.24	ug/L	02/28/00 HP
8015	Motor Oil	ND	1	500	150	ug/L	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.3	0.14	ug/L	02/28/00 HP
8021B/AVO	Xylene (total)	ND	1	0.6	0.26	ug/L	02/28/00 HP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170032

Client Sample ID WB-07

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 11:17

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	0.491	10	0.3	0.012	mg/L	02/29/00 MD
6010B	Arsenic	0.187	10	0.03	0.003	mg/L	02/29/00 MT
6010B	Barium	3.23	10	0.02	0.002	mg/L	02/29/00 MD
6010B	Beryllium	0.02	10	0.01	0.001	mg/L	02/29/00 MD
6010B	Cadmium	ND	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Chromium	0.883	10	0.03	0.003	mg/L	02/29/00 MD
6010B	Cobalt	0.276	10	0.05	0.003	mg/L	02/29/00 MD
6010B	Copper	1.51	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Lead	1.68	10	0.02	0.002	mg/L	02/29/00 MT
6010B	Molybdenum	0.156	10	0.1	0.009	mg/L	02/29/00 MD
6010B	Nickel	1.42	10	0.08	0.008	mg/L	02/29/00 MD
6010B	Selenium	ND	10	0.04	0.004	mg/L	02/29/00 MT
6010B	Silver	ND	10	0.05	0.004	mg/L	02/29/00 MD
6010B	Thallium	ND	10	0.03	0.002	mg/L	02/29/00 MT
6010B	Vanadium	0.868	10	0.05	0.005	mg/L	02/29/00 MD
6010B	Zinc	7.69	10	0.02	0.001	mg/L	02/29/00 MD
245.1	Mercury	0.010	10	0.004	0.0002	mg/L	02/29/00 NK
8021B/AVO	Benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Gasoline	ND	1	100	50	ug/L	02/28/00 HP
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.24	ug/L	02/28/00 HP
8015	Motor Oil	ND	1	500	150	ug/L	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.3	0.14	ug/L	02/28/00 HP
8021B/AVO	Xylene (total)	ND	1	0.6	0.26	ug/L	02/28/00 HP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Order #: 170033

Client Sample ID WB-08

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 12:15

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	0.417	10	0.3	0.012	mg/L	02/29/00 MD
6010B	Arsenic	1.15	10	0.03	0.003	mg/L	02/29/00 MT
6010B	Barium	2.56	10	0.02	0.002	mg/L	02/29/00 MD
6010B	Beryllium	ND	10	0.01	0.001	mg/L	02/29/00 MD
6010B	Cadmium	0.044	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Chromium	1.55	10	0.03	0.003	mg/L	02/29/00 MD
6010B	Cobalt	0.281	10	0.05	0.003	mg/L	02/29/00 MD
6010B	Copper	10.2	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Lead	13.5	100	0.2	0.002	mg/L	02/29/00 MT
6010B	Molybdenum	0.124	10	0.1	0.009	mg/L	02/29/00 MD
6010B	Nickel	1.48	10	0.08	0.008	mg/L	02/29/00 MD
6010B	Selenium	0.045	10	0.04	0.004	mg/L	02/29/00 MT
6010B	Silver	ND	10	0.05	0.004	mg/L	02/29/00 MD
6010B	Thallium	0.073	10	0.03	0.002	mg/L	02/29/00 MT
6010B	Vanadium	1.02	10	0.05	0.005	mg/L	02/29/00 MD
6010B	Zinc	12.7	10	0.02	0.001	mg/L	02/29/00 MD
245.1	Mercury	0.049	10	0.004	0.0002	mg/L	02/29/00 NK
8021B/AVO	Benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Gasoline	ND	1	100	50	ug/L	02/28/00 HP
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.24	ug/L	02/28/00 HP
8015	Motor Oil	ND	1	500	150	ug/L	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.3	0.14	ug/L	02/28/00 HP
8021B/AVO	Xylene (total)	ND	1	0.6	0.26	ug/L	02/28/00 HP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Order #: 170034

Client Sample ID WB-09

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 15:40

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	0.525	10	0.3	0.012	mg/L	02/29/00 MD
6010B	Arsenic	1.73	10	0.03	0.003	mg/L	02/29/00 MT
6010B	Barium	15.2	10	0.02	0.002	mg/L	02/29/00 MD
6010B	Beryllium	ND	10	0.01	0.001	mg/L	02/29/00 MD
6010B	Cadmium	0.399	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Chromium	2.78	10	0.03	0.003	mg/L	02/29/00 MD
6010B	Cobalt	0.718	10	0.05	0.003	mg/L	02/29/00 MD
6010B	Copper	8.89	10	0.04	0.004	mg/L	02/29/00 MD
6010B	Lead	15.4	100	0.2	0.002	mg/L	02/29/00 MT
6010B	Molybdenum	0.201	10	0.1	0.009	mg/L	02/29/00 MD
6010B	Nickel	3.16	10	0.08	0.008	mg/L	02/29/00 MD
6010B	Selenium	0.091	10	0.04	0.004	mg/L	02/29/00 MT
6010B	Silver	ND	10	0.05	0.004	mg/L	02/29/00 MD
6010B	Thallium	0.184	10	0.03	0.002	mg/L	02/29/00 MT
6010B	Vanadium	2.86	10	0.05	0.005	mg/L	02/29/00 MD
6010B	Zinc	52.1	10	0.02	0.001	mg/L	02/29/00 MD
245.1	Mercury	0.020	10	0.004	0.0002	mg/L	02/29/00 NK
8021B/AVO	Benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.3	0.18	ug/L	02/28/00 HP
TPH-DHS	Gasoline	ND	1	100	50	ug/L	02/28/00 HP
8021B/AVO	Methyl t - butyl ether	6.0	1	5	0.24	ug/L	02/28/00 HP
8015	Motor Oil	ND	1	500	150	ug/L	02/29/00 PP
8021B/AVO	Toluene	1.0	1	0.3	0.14	ug/L	02/28/00 HP
8021B/AVO	Xylene (total)	2.0	1	0.6	0.26	ug/L	02/28/00 HP
8260B	1,1,1,2-Tetrachloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,1-Trichloroethane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,1,2,2-Tetrachloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,2-Trichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1,2-Trichlorotrifluoroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1-Dichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,1-Dichloroethene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	1,1-Dichloropropene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,3-Trichlorobenzene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,3-Trichloropropane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	1,2,4-Trichlorobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2,4-Trimethylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit. MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

Lab Request 49625 results, page 7 of 37

Order #: 170034

Client Sample ID WB-09

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 15:40

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	1,2-Dibromo-3-chloropropane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dibromoethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dichlorobenzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,2-Dichloroethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,2-Dichloropropane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,3,5-Trimethylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,3-Dichlorobenzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,3-Dichloropropane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	1,4-Dichlorobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	1,4-Dioxane	ND	1	57	5.7	ug/L	02/28/00 DP
8260B	1-Chlorohexane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	2,2-Dichloropropane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	2-Butanone (MEK)	ND	1	100	0.3	ug/L	02/28/00 DP
8260B	2-Chloroethyl vinyl ether	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	2-Chlorotoluene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	2-Hexanone	ND	1	20	0.3	ug/L	02/28/00 DP
8260B	4-Chlorotoluene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	4-Methyl -2- Pentanone	ND	1	10	0.2	ug/L	02/28/00 DP
8260B	Acetone	ND	1	100	0.2	ug/L	02/28/00 DP
8260B	Acetonitrile	ND	1	50	1.5	ug/L	02/28/00 DP
8260B	Acrolein	ND	1	200	3.3	ug/L	02/28/00 DP
8260B	Acrylonitrile	ND	1	10	1.6	ug/L	02/28/00 DP
8260B	Allyl chloride	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Benzene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Benzyl chloride	ND	1	5	5	ug/L	02/28/00 DP
8260B	Bromobenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Bromochloromethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Bromodichloromethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Bromoform	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Bromomethane	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Carbon Disulfide	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Carbon tetrachloride	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Chlorobenzene	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Chloroethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Chloroform	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Chloromethane	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Dibromochloromethane	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Dibromomethane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Dichlorodifluoromethane	ND	1	5	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit. MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Order #: 170034

Client Sample ID WB-09

Matrix: WATER

Date Sampled: 02/25/2000

Time Sampled: 15:40

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	Ethyl benzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Ethyl methacrylate	ND	1	50	0.2	ug/L	02/28/00 DP
8260B	Hexachlorobutadiene	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Iodomethane	ND	1	5	0.5	ug/L	02/28/00 DP
8260B	Isopropylbenzene (Cumene)	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Methacrylonitrile	ND	1	35	3.9	ug/L	02/28/00 DP
8260B	Methyl methacrylate	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Methyl-tert-butylether (MTBE)	ND	1	5	0.6	ug/L	02/28/00 DP
8260B	Methylene chloride	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Naphthalene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Pentachloroethane	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	Propionitrile	ND	1	100	1.9	ug/L	02/28/00 DP
8260B	Styrene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Tetrachloroethene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Toluene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Trichloroethene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	Trichlorofluoromethane	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	Vinyl acetate	ND	1	50	0.3	ug/L	02/28/00 DP
8260B	Vinyl chloride	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	Xylenes, total	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	cis-1,2-Dichloroethene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	cis-1,3-Dichloropropene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	cis-1,4-Dichloro-2-butene	ND	1	20	0.4	ug/L	02/28/00 DP
8260B	m and p-Xylene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	n-Butylbenzene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	n-Propylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	o-Xylene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	p-Isopropyltoluene	ND	1	5	0.6	ug/L	02/28/00 DP
8260B	sec-Butylbenzene	ND	1	5	0.1	ug/L	02/28/00 DP
8260B	tert-Butylbenzene	ND	1	5	0.2	ug/L	02/28/00 DP
8260B	trans-1,2-Dichloroethene	ND	1	5	0.4	ug/L	02/28/00 DP
8260B	trans-1,3-Dichloropropene	ND	1	5	0.3	ug/L	02/28/00 DP
8260B	trans-1,4-Dichloro-2-butene	ND	1	20	0.2	ug/L	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL. J=Trace



Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	1	0.030	0.012	mg/L	03/23/00 MD
6010B	Arsenic	3.71	1	0.003	0.003	mg/L	03/23/00 MT
6010B	Barium	63.3	1	0.002	0.002	mg/L	03/23/00 MD
6010B	Beryllium	0.003	1	0.001	0.001	mg/L	03/23/00 MD
6010B	Cadmium	0.692	1	0.004	0.004	mg/L	03/23/00 MD
6010B	Chromium	7.95	1	0.003	0.003	mg/L	03/23/00 MD
6010B	Cobalt	2.14	1	0.005	0.003	mg/L	03/23/00 MD
6010B	Copper	36.1	1	0.004	0.004	mg/L	03/23/00 MD
6010B	Lead	41.6	1	0.002	0.002	mg/L	03/23/00 MT
6010B	Molybdenum	0.700	1	0.010	0.009	mg/L	03/23/00 MD
6010B	Nickel	10.8	1	0.008	0.008	mg/L	03/23/00 MD
6010B	Selenium	0.402	1	0.004	0.004	mg/L	03/23/00 MT
6010B	Silver	ND	1	0.005	0.004	mg/L	03/23/00 MD
6010B	Thallium	0.531	1	0.003	0.002	mg/L	03/23/00 MT
6010B	Vanadium	6.13	1	0.005	0.005	mg/L	03/23/00 MD
6010B	Zinc	129	1	0.002	0.001	mg/L	03/23/00 MD
245.1	Mercury	0.079	10	0.004	0.0002	mg/L	03/23/00 NK
8021B/HVO	1,1,1-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	0.8	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	2.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	0.7	0.7	ug/L	03/23/00 DP
8021B/HVO	Benzene	5.0	2	0.6	0.18	ug/L	03/22/00 HP
8021B/HVO	Bromoform	ND	1	0.5	0.1	ug/L	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	0.7	0.2	ug/L	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B HVO	Chloroethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B HVO	Chloroform	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B HVO	Chloromethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B HVO	Dibromochloromethane	ND	1	0.5	0.2	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL. J=Trace



Order #: 175248

Client Sample ID WB-10

Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	2.0	0.3	ug/L	03/23/00 DP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	03/22/00 PP
8021B/AVO	Ethyl benzene	3.0	2	0.6	0.18	ug/L	03/22/00 HP
TPH-DHS	Gasoline	1,150	2	200	50	ug/L	03/22/00 HP
8021B/AVO	Methyl t - butyl ether	ND	2	10.0	0.24	ug/L	03/22/00 HP
8021B/HVO	Methylene Chloride	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/AVO	Toluene	5.0	2	0.6	0.14	ug/L	03/22/00 HP
8021B/HVO	Trichloroethene	ND	1	0.6	0.2	ug/L	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/AVO	Xylene (total)	10	2	1.2	0.26	ug/L	03/22/00 HP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

Lab Request 50815 results, page 8 of 24

Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	0.037	1	0.030	0.012	mg/L	03/24/00 MD
6010B	Arsenic	0.030	1	0.003	0.003	mg/L	03/24/00 MT
6010B	Barium	0.402	1	0.002	0.002	mg/L	03/24/00 MD
6010B	Beryllium	ND	1	0.001	0.001	mg/L	03/24/00 MD
6010B	Cadmium	0.010	1	0.004	0.004	mg/L	03/24/00 MD
6010B	Chromium	0.073	1	0.003	0.003	mg/L	03/24/00 MD
6010B	Cobalt	0.034	1	0.005	0.003	mg/L	03/24/00 MD
6010B	Copper	0.980	1	0.004	0.004	mg/L	03/24/00 MD
6010B	Lead	0.854	1	0.002	0.002	mg/L	03/24/00 MT
6010B	Molybdenum	ND	1	0.010	0.009	mg/L	03/24/00 MD
6010B	Nickel	0.082	1	0.008	0.008	mg/L	03/24/00 MD
6010B	Selenium	0.010	1	0.004	0.004	mg/L	03/24/00 MT
6010B	Silver	ND	1	0.005	0.004	mg/L	03/24/00 MD
6010B	Thallium	0.006	1	0.003	0.002	mg/L	03/24/00 MT
6010B	Vanadium	0.117	1	0.005	0.005	mg/L	03/24/00 MD
6010B	Zinc	0.907	1	0.002	0.001	mg/L	03/24/00 MD
245.1	Mercury	0.035	1	0.0004	0.0002	mg/L	03/23/00 NK
8021B/HVO	1,1,1-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	0.8	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	2.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	0.7	0.7	ug/L	03/23/00 DP
8021B/HVO	Benzene	ND	1	0.3	0.18	ug/L	03/22/00 HP
8021B/HVO	Bromoform	ND	1	0.5	0.1	ug/L	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	0.7	0.2	ug/L	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	Chloroethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B/HVO	Chloroform	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	Chloromethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/HVO	Dibromochloromethane	ND	1	0.5	0.2	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit. MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	2.0	0.3	ug/L	03/23/00 DP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	03/22/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.3	0.18	ug/L	03/22/00 HP
TPH-DHS	Gasoline	ND	1	100	50	ug/L	03/22/00 HP
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.24	ug/L	03/22/00 HP
8021B/HVO	Methylene Chloride	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/AVO	Toluene	ND	1	0.3	0.14	ug/L	03/22/00 HP
8021B/HVO	Trichloroethene	ND	1	0.6	0.2	ug/L	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/AVO	Xylene (total)	ND	1	0.6	0.26	ug/L	03/22/00 HP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	0.033	1	0.030	0.012	mg/L	03/24/00 MD
6010B	Arsenic	0.013	1	0.003	0.003	mg/L	03/24/00 MT
6010B	Barium	0.270	1	0.002	0.002	mg/L	03/24/00 MD
6010B	Beryllium	ND	1	0.001	0.001	mg/L	03/24/00 MD
6010B	Cadmium	ND	1	0.004	0.004	mg/L	03/24/00 MD
6010B	Chromium	0.030	1	0.003	0.003	mg/L	03/24/00 MD
6010B	Cobalt	0.005	1	0.005	0.003	mg/L	03/24/00 MD
6010B	Copper	0.187	1	0.004	0.004	mg/L	03/24/00 MD
6010B	Lead	0.103	1	0.002	0.002	mg/L	03/24/00 MT
6010B	Molybdenum	0.062	1	0.010	0.009	mg/L	03/24/00 MD
6010B	Nickel	0.024	1	0.008	0.008	mg/L	03/24/00 MD
6010B	Selenium	ND	1	0.004	0.004	mg/L	03/24/00 MT
6010B	Silver	ND	1	0.005	0.004	mg/L	03/24/00 MD
6010B	Thallium	ND	1	0.003	0.002	mg/L	03/24/00 MT
6010B	Vanadium	0.021	1	0.005	0.005	mg/L	03/24/00 MD
6010B	Zinc	0.411	1	0.002	0.001	mg/L	03/24/00 MD
245.1	Mercury	0.0008	1	0.0004	0.0002	mg/L	03/23/00 NK
8021B/HVO	1,1,1-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	0.8	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	2.0	0.2	ug/L	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	1.0	0.2	ug/L	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	0.7	0.7	ug/L	03/23/00 DP
8021B/AVO	Benzene	2.0	2	0.6	0.18	ug/L	03/22/00 HP
8021B/HVO	Bromoform	ND	1	0.5	0.1	ug/L	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	0.7	0.2	ug/L	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B HVO	Chloroethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B HVO	Chloroform	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B HVO	Chloromethane	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B.HVO	Dibromochloromethane	ND	1	0.5	0.2	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit. MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL. J=Trace



Order #: 175250

Client Sample ID WB-12

Matrix: WATER

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	2.0	0.3	ug/L	03/23/00 DP
TPH-DHS	Diesel	ND	1	100	0.03	ug/L	03/22/00 PP
8021B/AVO	Ethyl benzene	1.0	2	0.6	0.18	ug/L	03/22/00 HP
TPH-DHS	Gasoline	360	2	200	50	ug/L	03/22/00 HP
8021B/AVO	Methyl t - butyl ether	ND	2	10.0	0.24	ug/L	03/22/00 HP
8021B/HVO	Methylene Chloride	ND	1	1.0	0.1	ug/L	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/AVO	Toluene	3.0	2	0.6	0.14	ug/L	03/22/00 HP
8021B/HVO	Trichloroethene	ND	1	0.6	0.2	ug/L	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	0.5	0.3	ug/L	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	1.0	0.5	ug/L	03/23/00 DP
8021B/AVO	Xylene (total)	5.0	2	1.2	0.26	ug/L	03/22/00 HP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	0.5	0.2	ug/L	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	0.8	0.2	ug/L	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	1.5	0.1	ug/L	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace


ASSOCIATED LABORATORIES Analytical Results Report

Lab Request 50815 results, page 12 of 24

Order #: 170045

Client Sample ID SP3-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	Ethyl benzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	Ethyl methacrylate	ND	1	5	1.8	ug/Kg	02/28/00 DP
8260B	Hexachlorobutadiene	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Iodomethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Isopropylbenzene (Cumene)	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Methacrylonitrile	ND	1	5	1.4	ug/Kg	02/28/00 DP
8260B	Methyl methacrylate	ND	1	5	1.8	ug/Kg	02/28/00 DP
8260B	Methyl-tert-butylether (MTBE)	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Methylene chloride	ND	1	5	2.0	ug/Kg	02/28/00 DP
8260B	Naphthalene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Pentachloroethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Propionitrile	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	Styrene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Tetrachloroethene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Toluene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Trichloroethene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	Trichlorofluoromethane	ND	1	5	1.6	ug/Kg	02/28/00 DP
8260B	Vinyl acetate	ND	1	50	10.2	ug/Kg	02/28/00 DP
8260B	Vinyl chloride	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Xylenes, total	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	cis-1,2-Dichloroethene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	cis-1,3-Dichloropropene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	cis-1,4-Dichloro-2-butene	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	m and p-Xylene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	n-Butylbenzene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	n-Propylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	o-Xylene	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	p-Isopropyltoluene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	sec-Butylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	tert-Butylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	trans-1,2-Dichloroethene	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	trans-1,3-Dichloropropene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	trans-1,4-Dichloro-2-butene	ND	1	5	1.5	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

Order #: 170055

Client Sample ID SB6-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	1	1.44	1.44	mg/Kg	02/29/00 MD
6010B	Arsenic	7.41	10	2.0	0.16	mg/Kg	02/29/00 MT
6010B	Barium	79.4	1	0.20	0.06	mg/Kg	02/29/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	02/29/00 MD
6010B	Cadmium	0.352	1	0.20	0.20	mg/Kg	02/29/00 MD
6010B	Chromium	38.1	1	0.59	0.59	mg/Kg	02/29/00 MD
6010B	Cobalt	10.5	1	0.67	0.67	mg/Kg	02/29/00 MD
6010B	Copper	35.5	1	0.22	0.22	mg/Kg	02/29/00 MD
6010B	Lead	813	10	2.5	0.25	mg/Kg	02/29/00 MT
6010B	Molybdenum	2.67	1	0.65	0.65	mg/Kg	02/29/00 MD
6010B	Nickel	39.6	1	0.68	0.68	mg/Kg	02/29/00 MD
6010B	Selenium	ND	10	3.7	0.37	mg/Kg	02/29/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	02/29/00 MD
6010B	Thallium	4.75	10	2.4	0.24	mg/Kg	02/29/00 MT
6010B	Vanadium	45.0	1	0.23	0.23	mg/Kg	02/29/00 MD
6010B	Zinc	90.9	1	0.34	0.34	mg/Kg	02/29/00 MD
245.5	Mercury	0.13	1	0.12	0.10	mg/Kg	02/28/00 NK
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	02/29/00 PP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	02/29/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	02/29/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	02/29/00 PP
8015	Motor Oil	ND	1	50	7	mg/Kg	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	02/29/00 PP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	02/29/00 PP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170056

Client Sample ID SB7-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	1	1.44	1.44	mg/Kg	02/29/00 MD
6010B	Arsenic	6.87	1	0.20	0.16	mg/Kg	02/29/00 MT
6010B	Barium	77.5	1	0.20	0.06	mg/Kg	02/29/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	02/29/00 MD
6010B	Cadmium	ND	1	0.20	0.20	mg/Kg	02/29/00 MD
6010B	Chromium	65.5	1	0.59	0.59	mg/Kg	02/29/00 MD
6010B	Cobalt	5.90	1	0.67	0.67	mg/Kg	02/29/00 MD
6010B	Copper	52.5	1	0.22	0.22	mg/Kg	02/29/00 MD
6010B	Lead	22.9	1	0.25	0.25	mg/Kg	02/29/00 MT
6010B	Molybdenum	2.80	1	0.65	0.65	mg/Kg	02/29/00 MD
6010B	Nickel	43.8	1	0.68	0.68	mg/Kg	02/29/00 MD
6010B	Selenium	0.874	1	0.37	0.37	mg/Kg	02/29/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	02/29/00 MD
6010B	Thallium	3.02	1	0.24	0.24	mg/Kg	02/29/00 MT
6010B	Vanadium	44.8	1	0.23	0.23	mg/Kg	02/29/00 MD
6010B	Zinc	49.2	1	0.34	0.34	mg/Kg	02/29/00 MD
245.5	Mercury	0.47	1	0.12	0.10	mg/Kg	02/28/00 NK
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	02/29/00 PP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	02/29/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	02/29/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	02/29/00 PP
8015	Motor Oil	ND	1	50	7	mg/Kg	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	02/29/00 PP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	02/29/00 PP

PQL = Practical Quantitation Limit. MDL = Method detection limit. DF = Dilution Factor
ND = Not detected below indicated MDL. J=Trace



Order #: 170057

Client Sample ID SB8-3

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	1.48	1	1.44	1.44	mg/Kg	02/29/00 MD
6010B	Arsenic	127	1	0.20	0.16	mg/Kg	02/29/00 MT
6010B	Barium	165	1	0.20	0.06	mg/Kg	02/29/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	02/29/00 MD
6010B	Cadmium	2.06	1	0.20	0.20	mg/Kg	02/29/00 MD
6010B	Chromium	23.7	1	0.59	0.59	mg/Kg	02/29/00 MD
6010B	Cobalt	11.1	1	0.67	0.67	mg/Kg	02/29/00 MD
6010B	Copper	90.3	1	0.22	0.22	mg/Kg	02/29/00 MD
6010B	Lead	68.1	1	0.25	0.25	mg/Kg	02/29/00 MT
6010B	Molybdenum	1.99	1	0.65	0.65	mg/Kg	02/29/00 MD
6010B	Nickel	39.7	1	0.68	0.68	mg/Kg	02/29/00 MD
6010B	Selenium	1.58	1	0.37	0.37	mg/Kg	02/29/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	02/29/00 MD
6010B	Thallium	3.02	1	0.24	0.24	mg/Kg	02/29/00 MT
6010B	Vanadium	44.4	1	0.23	0.23	mg/Kg	02/29/00 MD
6010B	Zinc	112	1	0.34	0.34	mg/Kg	02/29/00 MD
245.5	Mercury	0.36	1	0.12	0.10	mg/Kg	02/28/00 NK
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	02/29/00 PP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	02/29/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	02/29/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	02/29/00 PP
8015	Motor Oil	ND	1	50	7	mg/Kg	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	02/29/00 PP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	02/29/00 PP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL. J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170058

Client Sample ID SB9-2

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	ND	1	1.44	1.44	mg/Kg	02/29/00 MD
6010B	Arsenic	3.89	1	0.20	0.16	mg/Kg	02/29/00 MT
6010B	Barium	62.5	1	0.20	0.06	mg/Kg	02/29/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	02/29/00 MD
6010B	Cadmium	ND	1	0.20	0.20	mg/Kg	02/29/00 MD
6010B	Chromium	31.7	1	0.59	0.59	mg/Kg	02/29/00 MD
6010B	Cobalt	5.21	1	0.67	0.67	mg/Kg	02/29/00 MD
6010B	Copper	18.1	1	0.22	0.22	mg/Kg	02/29/00 MD
6010B	Lead	23.9	1	0.25	0.25	mg/Kg	02/29/00 MT
6010B	Molybdenum	1.79	1	0.65	0.65	mg/Kg	02/29/00 MD
6010B	Nickel	28.1	1	0.68	0.68	mg/Kg	02/29/00 MD
6010B	Selenium	0.531	1	0.37	0.37	mg/Kg	02/29/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	02/29/00 MD
6010B	Thallium	1.59	1	0.24	0.24	mg/Kg	02/29/00 MT
6010B	Vanadium	26.0	1	0.23	0.23	mg/Kg	02/29/00 MD
6010B	Zinc	102	1	0.34	0.34	mg/Kg	02/29/00 MD
245.5	Mercury	0.33	1	0.12	0.10	mg/Kg	03/01/00 NK
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	02/29/00 PP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	02/29/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	02/29/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	02/29/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	02/29/00 PP
8015	Motor Oil	ND	1	50	7	mg/Kg	02/29/00 PP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	02/29/00 PP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	02/29/00 PP
8260B	1,1,1,2-Tetrachloroethane	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	1,1,1-Trichloroethane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	1,1,2,2-Tetrachloroethane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	1,1,2-Trichloroethane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,1,2-Trichlorotrifluoroethane	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	1,1-Dichloroethane	ND	1	5	2.8	ug/Kg	02/28/00 DP
8260B	1,1-Dichloroethene	ND	1	5	1.2	ug/Kg	02/28/00 DP
8260B	1,1-Dichloropropene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,2,3-Trichlorobenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,2,3-Trichloropropane	ND	1	5	1.5	ug/Kg	02/28/00 DP
8260B	1,2,4-Trichlorobenzene	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	1,2,4-Trimethylbenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170058

Client Sample ID SB9-2

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	1,2-Dibromo-3-chloropropane	ND	1	5	2.0	ug/Kg	02/28/00 DP
8260B	1,2-Dibromoethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,2-Dichlorobenzene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	1,2-Dichloroethane	ND	1	5	1.0	ug/Kg	02/28/00 DP
8260B	1,2-Dichloropropane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,3,5-Trimethylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,3-Dichlorobenzene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	1,3-Dichloropropane	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,4-Dichlorobenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	1,4-Dioxane	ND	1	200	200	ug/Kg	02/28/00 DP
8260B	1-Chlorohexane	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	2,2-Dichloropropane	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	2-Butanone (MEK)	ND	1	100	38.6	ug/Kg	02/28/00 DP
8260B	2-Chloroethyl vinyl ether	ND	1	5	1.2	ug/Kg	02/28/00 DP
8260B	2-Chlorotoluene	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	2-Hexanone	ND	1	5	4.7	ug/Kg	02/28/00 DP
8260B	4-Chlorotoluene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	4-Methyl -2- Pentanone	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Acetone	ND	1	5	3.7	ug/Kg	02/28/00 DP
8260B	Acetonitrile	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Acrolein	ND	1	200	172	ug/Kg	02/28/00 DP
8260B	Acrylonitrile	ND	1	5	1.3	ug/Kg	02/28/00 DP
8260B	Allyl chloride	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Benzene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Benzyl chloride	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	Bromobenzene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Bromochloromethane	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	Bromodichloromethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Bromoform	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Bromomethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Carbon Disulfide	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	Carbon tetrachloride	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Chlorobenzene	ND	1	5	0.3	ug/Kg	02/28/00 DP
8260B	Chloroethane	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Chloroform	ND	1	5	0.2	ug/Kg	02/28/00 DP
8260B	Chloromethane	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Dibromochloromethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Dibromomethane	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Dichlorodifluoromethane	ND	1	5	1.1	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Order #: 170058

Client Sample ID SB9-2

Matrix: SOLID

Date Sampled: 02/25/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8260B	Ethyl benzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	Ethyl methacrylate	ND	1	5	1.8	ug/Kg	02/28/00 DP
8260B	Hexachlorobutadiene	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Iodomethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Isopropylbenzene (Cumene)	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Methacrylonitrile	ND	1	5	1.4	ug/Kg	02/28/00 DP
8260B	Methyl methacrylate	ND	1	5	1.8	ug/Kg	02/28/00 DP
8260B	Methyl-tert-butylether (MTBE)	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	Methylene chloride	ND	1	5	2.0	ug/Kg	02/28/00 DP
8260B	Naphthalene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Pentachloroethane	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Propionitrile	ND	1	5	5	ug/Kg	02/28/00 DP
8260B	Styrene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Tetrachloroethene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	Toluene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	Trichloroethene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	Trichlorofluoromethane	ND	1	5	1.6	ug/Kg	02/28/00 DP
8260B	Vinyl acetate	ND	1	50	10.2	ug/Kg	02/28/00 DP
8260B	Vinyl chloride	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	Xylenes, total	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	cis-1,2-Dichloroethene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	cis-1,3-Dichloropropene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	cis-1,4-Dichloro-2-butene	ND	1	5	1.1	ug/Kg	02/28/00 DP
8260B	m and p-Xylene	ND	1	5	0.7	ug/Kg	02/28/00 DP
8260B	n-Butylbenzene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	n-Propylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	o-Xylene	ND	1	5	0.8	ug/Kg	02/28/00 DP
8260B	p-Isopropyltoluene	ND	1	5	0.6	ug/Kg	02/28/00 DP
8260B	sec-Butylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	tert-Butylbenzene	ND	1	5	0.5	ug/Kg	02/28/00 DP
8260B	trans-1,2-Dichloroethene	ND	1	5	0.9	ug/Kg	02/28/00 DP
8260B	trans-1,3-Dichloropropene	ND	1	5	0.4	ug/Kg	02/28/00 DP
8260B	trans-1,4-Dichloro-2-butene	ND	1	5	1.5	ug/Kg	02/28/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL. J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

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Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	3.66	1	1.44	1.44	mg/Kg	03/23/00 MD
6010B	Arsenic	9.19	1	0.20	0.16	mg/Kg	03/23/00 MT
6010B	Barium	183	1	0.20	0.06	mg/Kg	03/23/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	03/23/00 MD
6010B	Cadmium	1.17	1	0.20	0.20	mg/Kg	03/23/00 MD
6010B	Chromium	30.4	1	0.59	0.59	mg/Kg	03/23/00 MD
6010B	Cobalt	7.07	1	0.67	0.67	mg/Kg	03/23/00 MD
6010B	Copper	73.8	1	0.22	0.22	mg/Kg	03/23/00 MD
6010B	Lead	64.9	1	0.25	0.25	mg/Kg	03/23/00 MT
6010B	Molybdenum	3.62	1	0.65	0.65	mg/Kg	03/23/00 MD
6010B	Nickel	33.1	1	0.68	0.68	mg/Kg	03/23/00 MD
6010B	Selenium	0.577	1	0.37	0.37	mg/Kg	03/23/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	03/23/00 MD
6010B	Thallium	1.67	1	0.24	0.24	mg/Kg	03/23/00 MT
6010B	Vanadium	27.0	1	0.23	0.23	mg/Kg	03/23/00 MD
6010B	Zinc	297	1	0.34	0.34	mg/Kg	03/23/00 MD
245.5	Mercury	0.22	1	0.12	0.10	mg/Kg	03/23/00 MDJ
8021B/HVO	1,1,1-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	5.0	5.0	ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	03/22/00 PP
8021B/HVO	Bromoform	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Chloroethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Chloroform	ND	1	5.0		ug/Kg	03/23/00 DP
8021B HVO	Chloromethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Dibromochloromethane	ND	1	5.0		ug/Kg	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Order #: 175245

Client Sample ID SB-10-5

Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	15.0		ug/Kg	03/23/00 DP
TPH-DHS	Diesel	28	1	10	1.4	mg/Kg	03/22/00 PP
8021B/AVO	Ethyl benzene	0.08	1	0.005	0.0020	mg/Kg	03/22/00 PP
TPH-DHS	Gasoline	50	1	5	2	mg/Kg	03/22/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	03/22/00 PP
8021B/HVO	Methylene Chloride	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/AVO	Toluene	0.02	1	0.005	0.0008	mg/Kg	03/22/00 PP
8021B/HVO	Trichloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Xylene (total)	0.09	1	0.015	0.0024	mg/Kg	03/22/00 PP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	10.0		ug/Kg	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES Analytical Results Report

Lab Request 50815 results, page 2 of 24

Order #: 175246

Client Sample ID SB-11-1

Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	5.97	1	1.44	1.44	mg/Kg	03/23/00 MD
6010B	Arsenic	5.07	1	0.20	0.16	mg/Kg	03/23/00 MT
6010B	Barium	61.1	1	0.20	0.06	mg/Kg	03/23/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	03/23/00 MD
6010B	Cadmium	1.07	1	0.20	0.20	mg/Kg	03/23/00 MD
6010B	Chromium	17.7	1	0.59	0.59	mg/Kg	03/23/00 MD
6010B	Cobalt	8.36	1	0.67	0.67	mg/Kg	03/23/00 MD
6010B	Copper	160	1	0.22	0.22	mg/Kg	03/23/00 MD
6010B	Lead	201	1	0.25	0.25	mg/Kg	03/23/00 MT
6010B	Molybdenum	2.38	1	0.65	0.65	mg/Kg	03/23/00 MD
6010B	Nickel	18.3	1	0.68	0.68	mg/Kg	03/23/00 MD
6010B	Selenium	0.612	1	0.37	0.37	mg/Kg	03/23/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	03/23/00 MD
6010B	Thallium	2.09	1	0.24	0.24	mg/Kg	03/23/00 MT
6010B	Vanadium	42.8	1	0.23	0.23	mg/Kg	03/23/00 MD
6010B	Zinc	188	1	0.34	0.34	mg/Kg	03/23/00 MD
245.5	Mercury	0.39	1	0.12	0.10	mg/Kg	03/23/00 MDJ
8021B/HVO	1,1,1-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	5.0	5.0	ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	03/22/00 PP
8021B/HVO	Bromoform	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Chloroethane	ND	1	10.0		ug/Kg	03 23 00 DP
8021B HVO	Chloroform	ND	1	5.0		ug/Kg	03 23 00 DP
8021B HVO	Chloromethane	ND	1	10.0		ug/Kg	03 23 00 DP
8021B HVO	Dibromochloromethane	ND	1	5.0		ug/Kg	03 23 00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace



Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	15.0		ug/Kg	03/23/00 DP
TPH-DHS	Diesel	ND	1	10	1.4	mg/Kg	03/22/00 PP
8021B/AVO	Ethyl benzene	ND	1	0.005	0.0020	mg/Kg	03/22/00 PP
TPH-DHS	Gasoline	ND	1	5	2	mg/Kg	03/22/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	03/22/00 PP
8021B/HVO	Methylene Chloride	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/AVO	Toluene	ND	1	0.005	0.0008	mg/Kg	03/22/00 PP
8021B/HVO	Trichloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Xylene (total)	ND	1	0.015	0.0024	mg/Kg	03/22/00 PP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	10.0		ug/Kg	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
6010B	Antimony	3.91	1	1.44	1.44	mg/Kg	03/23/00 MD
6010B	Arsenic	8.60	1	0.20	0.16	mg/Kg	03/23/00 MT
6010B	Barium	428	1	0.20	0.06	mg/Kg	03/23/00 MD
6010B	Beryllium	ND	1	0.10	0.05	mg/Kg	03/23/00 MD
6010B	Cadmium	1.83	1	0.20	0.20	mg/Kg	03/23/00 MD
6010B	Chromium	42.7	1	0.59	0.59	mg/Kg	03/23/00 MD
6010B	Cobalt	8.10	1	0.67	0.67	mg/Kg	03/23/00 MD
6010B	Copper	105	1	0.22	0.22	mg/Kg	03/23/00 MD
6010B	Lead	169	1	0.25	0.25	mg/Kg	03/23/00 MT
6010B	Molybdenum	8.30	1	0.65	0.65	mg/Kg	03/23/00 MD
6010B	Nickel	46.1	1	0.68	0.68	mg/Kg	03/23/00 MD
6010B	Selenium	0.979	1	0.37	0.37	mg/Kg	03/23/00 MT
6010B	Silver	ND	1	0.50	0.35	mg/Kg	03/23/00 MD
6010B	Thallium	1.95	1	0.24	0.24	mg/Kg	03/23/00 MT
6010B	Vanadium	22.0	1	0.23	0.23	mg/Kg	03/23/00 MD
6010B	Zinc	534	1	0.34	0.34	mg/Kg	03/23/00 MD
245.5	Mercury	0.35	1	0.12	0.10	mg/Kg	03/23/00 MDJ
8021B/HVO	1,1,1-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2,2-Tetrachloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1,2-Trichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethane	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,1-Dichloroethene	ND	1	8.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dibromoethane	ND	1	5.0	5.0	ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloroethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,2-Dichloropropane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	1,3-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	1,4-Dichlorobenzene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	2-Chloroethylvinyl ether	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Benzene	ND	1	0.005	0.0006	mg/Kg	03/22/00 PP
8021B/HVO	Bromoform	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Bromomethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Carbon tetrachloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Chlorobenzene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Chloroethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Chloroform	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Chloromethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B HVO	Dibromochloromethane	ND	1	5.0		ug/Kg	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



Matrix: SOLID

Date Sampled: 03/21/2000

Method	Analyte	Result	DF	PQL	MDL	Units	Date/Analyst
8021B/HVO	Dichlorobromomethane	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Dichlorodifluoromethane	ND	1	15.0		ug/Kg	03/23/00 DP
TPH-DHS	Diesel	ND	.1	10	1.4	mg/Kg	03/22/00 PP
8021B/AVO	Ethyl benzene	0.07	1	0.005	0.0020	mg/Kg	03/22/00 PP
TPH-DHS	Gasoline	45	1	5	2	mg/Kg	03/22/00 PP
8021B/AVO	Methyl t - butyl ether	ND	1	0.035	0.0009	mg/Kg	03/22/00 PP
8021B/HVO	Methylene Chloride	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Tetrachloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/AVO	Toluene	0.01	1	0.005	0.0008	mg/Kg	03/22/00 PP
8021B/HVO	Trichloroethene	ND	1	5.0		ug/Kg	03/23/00 DP
8021B/HVO	Trichlorofluoromethane	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	Vinyl chloride	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/AVO	Xylene (total)	0.17	1	0.015	0.0024	mg/Kg	03/22/00 PP
8021B/HVO	cis-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	cis-1,3-Dichloropropene	ND	1	15.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,2-Dichloroethene	ND	1	10.0		ug/Kg	03/23/00 DP
8021B/HVO	trans-1,3-Dichloropropene	ND	1	10.0		ug/Kg	03/23/00 DP

PQL = Practical Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor

ND = Not detected below indicated MDL, J=Trace



ASSOCIATED LABORATORIES
QA REPORT FORM

Sample: LR 49625 - 170058
 Matrix: SOLID
 Prep. Date: 03/01/00
 Analysis Date: 03/01/00
 IDs in Batch: LR 49625, 49727, 49468, 49112, 49228, 49353

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.5	0.33	0.76	1.01	1.03	89.5	92.1	2.0

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
 REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.88	0.76	115.8	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
 LCS Result = Lab Control Sample Result
 True = True Value of LCS
 L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: LCS/LCSD Soil Samples

Matrix: SOIL

Method: 8260

Analysis Date: 02/29/00

Applies to: LR 49625

Reporting Units = ug/Kg

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	50	44.93	44.14	89.9	88.3	1.8	22	59-172
Benzene	ND	50	45.04	46.41	90.1	92.8	3.0	24	62-137
Trichloroethene	ND	50	42.51	41.06	85.0	82.1	3.5	21	66-142
Toluene	ND	50	47.78	45.48	95.6	91.0	4.9	21	59-139
Chlorobenzene	ND	50	46.30	46.87	92.6	93.7	1.2	21	60-133

ND = Not Detected

RPD = Relative Percent Difference of LCS and LCS Dup.

%REC-MS & MSD = Percent Recovery of LCS & LCS Dup.

Method Blank = All ND

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: G14 - LFB000229 - S3

Matrix: SOLID

Prep. Date: 02/29/00

Analysis Date: 03/01/00

ID#'s in Batch: LR 49625, 49510

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	1.0	1.174	1.113	117.4	111.3	5.3

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130

RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	1.089	1.0	108.9	80%	120%

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: G3 - 49625 - 044 - S1
 Matrix: SOLID
 Prep. Date: 02/29/00
 Analysis Date: 03/01/00
 ID#'s in Batch: LR 49625, 49558

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
TPH	8015D	ND	500	482	490	96.4	98.0	1.6

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
	Value	Result	True	%Rec	L.Limit
ND	1079	1000	107.9	80%	120%

NA = Not Applicable

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

Sample: G14 - LFB000229 - S1
 Matrix: SOLID
 Prep. Date: 02/29/00
 Analysis Date: 03/01/00
 Lab ID#'s in Batch: LR 49625, 49510

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	0.02	0.0175	0.0176	87.5	88.0	0.6
Toluene	8021	ND	0.02	0.0212	0.0210	106.0	105.0	0.9
Ethylbenzene	8021	ND	0.02	0.0211	0.0208	105.5	104.0	1.4
Xylenes	8021	ND	0.06	0.0639	0.0632	106.5	105.3	1.1

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130

RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	0.0163	0.02	81.5	80%	120%
Toluene	8021	ND	0.0199	0.02	99.5	80%	120%
Ethylbenzene	8021	ND	0.0201	0.02	100.5	80%	120%
Xylenes	8021	ND	0.0609	0.06	101.5	80%	120%

LCS = Lab Control Sample Result

RUE = True Value of LCS

LIMIT / H.LIMIT = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 45682

Matrix: SOLID

rep. Date: 02/28/00

analysis Date: 02/28/00

D#'s in Batch: LR 45682, 49510, 48291, 48909, 49625

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.5	0.12	0.81	0.90	0.92	96.3	98.8	2.2

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	1.00	0.83	120.5	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

QC Sample: LR 49625 - 170048

Matrix: SOLID

Prep. Date: 02/28/00

Analysis Date: 02/29/00

Lab ID#'s in Batch: LR 49625, 49468, 49545, 49546, 49547, 49549

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Arsenic	6010	2.40		9.06	12.5	12.7	111.5	113.7	1.6
Selenium	6010	0.37	U	9.06	9.5	9.5	105.2	105.3	0.1
Thallium	6010	0.89		9.06	11.0	11.1	111.5	112.6	0.9
Lead	6010	1.97		18.10	20.8	21.4	104.0	107.3	2.8
Antimony	6010	1.44	U	90.60	80.0	83.2	88.3	91.8	3.9
Barium	6010	12.10		90.60	101.0	104.0	98.1	101.4	2.9
Beryllium	6010	0.10	U	90.60	79.4	83.3	87.6	91.9	4.8
Cadmium	6010	0.24		90.60	94.8	99.3	104.4	109.3	4.6
Chromium	6010	21.40		90.60	103.0	107.0	90.1	94.5	3.8
Cobalt	6010	4.47		90.60	88.2	92.0	92.4	96.6	4.2
Copper	6010	3.69		90.60	103.0	102.0	109.6	108.5	1.0
Molybdenum	6010	1.13		90.60	84.0	88.8	91.5	96.8	5.6
Nickel	6010	17.80		90.60	103.0	106.0	94.0	97.4	2.9
Vanadium	6010	14.80		90.60	98.9	103.0	92.8	97.4	4.1
Zinc	6010	14.20		90.60	106.0	110.0	101.3	105.7	3.7
Silver	6010	0.50	U	90.60	79.1	81.4	87.3	89.8	2.9

NC = Not Calculated

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 - 125
RPD LIMITS = 20

ASSOCIATED LABORATORIES

LCS/MB REPORT FORM

C Code #: H022800S12 Prep. Method : 3050
 Prep. Date : 02/28/00 Matrix : LIQUID Wt./Vol : 2ml/100ml
 LCS Source(s) : QC21-LOT#QC2/84/4;QC7-LOT7A84/1
 Lab ID#'s in Batch: LR 49625, 49468, 49545, 49546, 49547, 49549

Reporting Units : mg/Kg

Lab Control Sample (LCS)

Element	Method	Result	True	%Rec	L.Limit	H.Limit	Method Blank	
							PB	ND
Arsenic	6010	206.0	200	103.0	80%	120%	0.200	U
Selenium	6010	204.6	200	102.3	80%	120%	0.370	U
Thallium	6010	204.5	200	102.3	80%	120%	0.240	U
Lead	6010	200.0	200	100.0	80%	120%	0.250	U
Antimony	6010	205.7	200	102.9	80%	120%	1.440	U
Barium	6010	203.9	200	102.0	80%	120%	0.200	U
Beryllium	6010	206.7	200	103.4	80%	120%	0.100	U
Cadmium	6010	210.2	200	105.1	80%	120%	0.200	U
Chromium	6010	208.3	200	104.2	80%	120%	0.590	U
Cobalt	6010	211.4	200	105.7	80%	120%	0.670	U
Copper	6010	197.6	200	98.8	80%	120%	0.220	U
Iron	6010	210.0	200	105.0	80%	120%	1.000	U
Molybdenum	6010	202.5	200	101.3	80%	120%	0.650	U
Nickel	6010	206.1	200	103.1	80%	120%	0.680	U
Vanadium	6010	205.4	200	102.7	80%	120%	0.230	U
Zinc	6010	207.2	200	103.6	80%	120%	0.340	U
Silver	6010	94.6	100	94.6	80%	120%	0.500	U

Notes RESULT = Sample Result; TRUE = True Value, %Rec = 100*Result/True
 L LIMIT / H LIMIT = Low / High Control Limits
 PB = Preparation Blank; ND = "U" for Non-Detected

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: LCS/LCSD Water Samples

Matrix: WATER

Method: 8260

Analysis Date: 02/29/00

Applies to: LR 49258, 49299, 49625

Reporting Units = ug/L

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	50	44.99	44.57	90.0	89.1	0.9	22	59-172
Benzene	ND	50	46.16	45.70	92.3	91.4	1.0	24	62-137
Trichloroethene	ND	50	42.27	40.86	84.5	81.7	3.4	21	66-142
Toluene	ND	50	45.50	44.88	91.0	89.8	1.4	21	59-139
Chlorobenzene	ND	50	45.45	45.47	90.9	90.9	0.0	21	60-133

ND = Not Detected

RPD = Relative Percent Difference of LCS and LCS Dup.

%REC-MS & MSD = Percent Recovery of LCS & LCS Dup.

Method Blank = All ND

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: G3 - LFB000228 - S1
 Matrix: WATER
 Prep. Date: 02/28/00
 Analysis Date: 02/29/00
 ID#'s in Batch: LR 49396, 49625

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
TPH	8015D	ND	6.25	7.26	7.45	116.2	119.2	2.6

ND = Not Detected
 RD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
 %REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	12.57	12.50	100.6	80%	120%

NA = Not Applicable
 CS Result = Lab Control Sample Result
 True = True Value of LCS
 L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 49625

Matrix: WATER

Prep. Date: 02/28/00

Analysis Date: 02/28/00 - 02/29/00

ID#'s in Batch: LR 49625

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	250	262	198	104.8	79.2	27.8

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	326	300	108.7	80%	120%

LCS Result = Lab Control Sample Result

True = True Value of LCS

Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

Sample: LR 49625
 Matrix: WATER
 Rep. Date: 02/28/00
 Analysis Date: 02/28/00 - 02/29/00
 LAB ID#'s in Batch: LR 49625

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	6	5.2	5.7	86.7	95.0	9.2
Toluene	8021	ND	6	5.8	6.1	96.7	101.7	5.0
Ethylbenzene	8021	ND	6	5.8	6.5	96.7	108.3	11.4
Xylenes	8021	ND	18	18.7	20.7	103.9	115.0	10.2

VD = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup
 REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	7.9	9	87.8	80%	120%
Toluene	8021	ND	9.3	9	103.3	80%	120%
Ethylbenzene	8021	ND	9.3	9	103.3	80%	120%
Xylenes	8021	ND	28.9	27	107.0	80%	120%

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

Sample: LR 49625 - 170042

Matrix: WATER

Prep. Date: 02/29/00

Analysis Date: 02/29/00

#s in Batch: LR 49198, 48923, 49472, 48259, 49625

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.1	ND	0.001	0.001	0.002	100.0	200.0	66.7

ND = Not - Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.005	0.005	102.0	80%	120%

Value = Preparation Blank Value

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 50134 - 172068

Matrix: WATER

Prep. Date: 03/23/00

Analysis Date: 03/23/00

#'s in Batch: LR 50134, 50062, 49853, 50815, 50399, 50624, 47349, 50273

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.1	ND	0.0020	0.0018	0.0019	90.0	95.0	5.4

ND = Not - Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.0051	0.0050	102.0	80%	120%

Value = Preparation Blank Value

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES

LCS/MB REPORT FORM

C Code #: LR 032200W45 Prep. Method : 3010
 Rep. Date : 03/22/00 Matrix : WATER Wt./Vol : 0.5ml/25ml
 LCS Source(s) : QC21-LOT#QC2/84/4;QC7-LOT7A84/1
 Lab ID#'s in Batch: LR 50575, 50793, 50755, 50703, 50815, 50704, 50702, 50692, 50795

Reporting Units : mg/L

Lab Control Sample (LCS)							Method Blank	
Element	Method	Result	True	%Rec	L.Limit	H.Limit	DLR	ND
Arsenic	6010	2.021	2.0	101.1	80%	120%	0.003	U
Selenium	6010	1.998	2.0	99.9	80%	120%	0.004	U
Thallium	6010	1.927	2.0	96.4	80%	120%	0.003	U
Lead	6010	1.899	2.0	95.0	80%	120%	0.002	U
Aluminum	6010	1.951	2.0	97.6	80%	120%	0.052	U
Antimony	6010	2.076	2.0	103.8	80%	120%	0.030	U
Barium	6010	1.972	2.0	98.6	80%	120%	0.002	U
Beryllium	6010	2.029	2.0	101.5	80%	120%	0.001	U
Boron	6010	2.160	2.0	108.0	80%	120%	0.011	U
Cadmium	6010	2.036	2.0	101.8	80%	120%	0.004	U
Chromium	6010	2.067	2.0	103.4	80%	120%	0.003	U
Cobalt	6010	2.067	2.0	103.4	80%	120%	0.005	U
Copper	6010	2.008	2.0	100.4	80%	120%	0.004	U
Iron	6010	2.091	2.0	104.6	80%	120%	0.011	U
Manganese	6010	2.026	2.0	101.3	80%	120%	0.002	U
Molybdenum	6010	2.007	2.0	100.4	80%	120%	0.010	U
Nickel	6010	2.025	2.0	101.3	80%	120%	0.008	U
Vanadium	6010	2.003	2.0	100.2	80%	120%	0.005	U
Zinc	6010	2.017	2.0	100.9	80%	120%	0.002	U
Silver	6010	1.042	1.0	104.2	80%	120%	0.005	U

Notes: RESULT = Sample Result, TRUE = True Value, %Rec = 100*Result/True
 L LIMIT / H.LIMIT = Low / High Control Limits
 PB = Preparation Blank, ND = "U" for Non-Detected

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

QC Sample: LR 50790 - 175169
 Matrix: WATER
 Prep. Date: 03/22/00
 Analysis Date: 03/23/00
 Sample ID#s in Batch: LR 50575, 50793, 50755, 50703, 50815, 50704, 50702, 50692, 50795

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Arsenic	6010	0.010		0.1	0.121	0.123	111.0	113.0	1.6
Selenium	6010	0.004	U	0.1	0.117	0.116	117.0	116.0	0.9
Gallium	6010	0.003		0.1	0.080	0.080	77.0	77.0	0.0
Lead	6010	0.002	U	0.2	0.190	0.191	95.0	95.5	0.5
Antimony	6010	0.090		1.0	1.050	1.060	96.0	97.0	0.9
Barium	6010	0.036		1.0	1.030	1.040	99.4	100.4	1.0
Beryllium	6010	0.001	U	1.0	0.890	0.898	89.0	89.8	0.9
Cadmium	6010	0.004	U	1.0	0.997	1.010	99.7	101.0	1.3
Chromium	6010	0.048		1.0	1.040	1.040	99.2	99.2	0.0
Cobalt	6010	0.013		1.0	1.020	1.030	100.7	101.7	1.0
Copper	6010	0.107		1.0	1.030	1.040	92.3	93.3	1.0
Molybdenum	6010	16.100		1.0	17.500	17.600	NC	NC	0.6
Nickel	6010	0.015		1.0	1.010	1.010	99.5	99.5	0.0
Vanadium	6010	0.005	U	1.0	0.883	0.888	88.3	88.8	0.6
Zinc	6010	0.136		1.0	1.070	1.080	93.4	94.4	0.9
Silver	6010	0.005	U	0.4	0.399	0.402	99.8	100.5	0.7
Iron	6010	21.400		1.0	22.800	22.900	NC	NC	0.4
Manganese	6010	0.113		1.0	1.100	1.110	98.7	99.7	0.9
Aluminum	6010	1.100		1.0	2.070	2.080	97.0	98.0	0.5

NC = Not Calculated
 U = "U" - Not Detected
 RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
 %REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 - 125
RPD LIMITS = 20

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: G5 - LFB000321 - S3

Matrix: SOLID

Prep. Date: 03/21/00

Analysis Date: 03/21/00

ID#s in Batch: LR 50735, 50754, 50733, 50815

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	1	1.120	0.978	112.0	97.8	13.5

ND = Not Detected

RD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

REPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	1.059	1	105.9	80%	120%

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 50815 - 175245

Matrix: SOLID

Prep. Date: 03/23/00

Analysis Date: 03/23/00

ID#'s in Batch: LR 50815

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
MERCURY	245.5	0.22	0.77	0.97	0.96	97.4	96.1	1.0

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	0.80	0.77	103.9	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES

LCS/MB REPORT FORM

QC Code #: H032200S34 **Prep. Method :** 3050
Prep. Date : 03/22/00 **Matrix :** LIQUID **Wt./Vol :** 2ml/100ml
LCS Source(s) : QC21-LOT#QC2/84/4;QC7-LOT7A84/1
Lab ID#'s in Batch: LR 50815

Reporting Units : mg/Kg

Lab Control Sample (LCS)							Method Blank	
Element	Method	Result	True	%Rec	L.Limit	H.Limit	PB	ND
Arsenic	6010	202.5	200	101.3	80%	120%	0.200	U
Selenium	6010	201.9	200	101.0	80%	120%	0.370	U
Barium	6010	193.6	200	96.8	80%	120%	0.240	U
Lead	6010	191.3	200	95.7	80%	120%	0.250	U
Antimony	6010	205.0	200	102.5	80%	120%	1.440	U
Barium	6010	197.4	200	98.7	80%	120%	0.200	U
Beryllium	6010	200.5	200	100.3	80%	120%	0.100	U
Cadmium	6010	201.8	200	100.9	80%	120%	0.200	U
Chromium	6010	202.9	200	101.5	80%	120%	0.590	U
Cobalt	6010	203.3	200	101.7	80%	120%	0.670	U
Copper	6010	193.7	200	96.9	80%	120%	0.220	U
Iron	6010	206.1	200	103.1	80%	120%	1.000	U
Molybdenum	6010	196.0	200	98.0	80%	120%	0.650	U
Nickel	6010	200.5	200	100.3	80%	120%	0.680	U
Vanadium	6010	198.5	200	99.3	80%	120%	0.230	U
Zinc	6010	199.5	200	99.8	80%	120%	0.340	U
Silver	6010	95.7	100	95.7	80%	120%	0.500	U

*Notes . RESULT = Sample Result, TRUE = True Value; %Rec = 100*Result/True
 L LIMIT / H LIMIT = Low / High Control Limits
 PB = Preparation Blank, ND = " U " for Non- Detected*

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

Sample: LR 50815 - 175247
 Matrix: SOLID
 rep. Date: 03/22/00
 Analysis Date: 03/23/00
 Lab ID#'s in Batch: LR 50815

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/Kg

Element	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Arsenic	6010	8.60		9.60	17.6	18.5	93.8	103.1	5.0
Barium	6010	0.98		9.60	9.3	10.7	87.0	101.3	13.7
Bismuth	6010	1.95		9.60	10.0	11.2	83.9	96.4	11.3
Cadmium	6010	169.00		19.2	166.0	162.0	NC	NC	2.4
Antimony	* 6010	3.91		96.0	74.2	73.5	73.2	72.5	0.9
Barium	6010	428.00		96.0	435.0	386.0	NC	NC	11.9
Beryllium	6010	0.10	U	96.0	89.0	86.9	92.7	90.5	2.4
Cadmium	6010	1.83		96.0	97.4	94.5	99.6	96.5	3.0
Chromium	6010	42.70		96.0	134.0	130.0	95.1	90.9	3.0
Cobalt	6010	8.10		96.0	101.0	97.8	96.8	93.4	3.2
Copper	6010	105.00		96.0	212.0	206.0	111.5	105.2	2.9
Molybdenum	6010	8.30		96.0	93.2	90.3	88.4	85.4	3.2
Nickel	6010	46.10		96.0	132.0	128.0	89.5	85.3	3.1
Radium	6010	22.00		96.0	114.0	111.0	95.8	92.7	2.7
Vanadium	6010	534.00		96.0	562.0	549.0	NC	NC	2.3
Zinc	6010	0.50	U	96.0	91.3	88.8	95.1	92.5	2.8
Iron	6010	20600.00		96.0	51580.0	21050.0	NC	NC	84.1
Manganese	6010	345.00		96.0	440.0	428.0	99.0	86.5	2.8

* Post Digest of Recovery for Antimony = 96%
 C = Not Calculated
 U = "U" - Not Detected
 D = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
 REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 - 125
RPD LIMITS = 20

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LR 50812 - 239 - GC1
 Matrix: WATER
 Prep. Date: 03/23/00
 Analysis Date: 03/23/00 - 03/24/00
 Lot #'s in Batch: LR 50766, 50787, 50815, 50949

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	500.0	437.6	458.4	87.5	91.7	4.6

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
 %REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	603.3	600.0	100.6	80%	120%

LCS Result = Lab Control Sample Result
 True = True Value of LCS
 L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

Sample: LR 50812 - 239 - GC1

Matrix: WATER

Rep. Date: 03/24/00

Analysis Date: 03/23/00 - 03/24/00

LAB ID#'s in Batch: LR 50766, 50787, 50815, 50949

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	16.0	15.3	16.6	95.8	103.8	8.0
Toluene	8021	ND	16.0	16.8	16.0	105.3	99.8	5.3
Ethylbenzene	8021	ND	16.0	16.5	16.1	102.8	100.6	2.2

ND = Matrix Interference. LCS OK. Data Reported.

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130

RPD LIMITS = 30

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	194	200	97.0	80%	120%
Toluene	8021	ND	188	200	94.0	80%	120%
Xylenes	8021	ND	192	200	96.0	80%	120%

MS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits

COOLER RECEIPT FORM

Project: NINYO + MOORE W.O. #: _____

Cooler received on: 3-22-00 And opened on: 3-22-00 By: JARON DEMPSEY

(Signature)

Was cooler scanned for presence of radioactivity, and noted if found?..... YES NO

Were custody seals present on outside of cooler?..... YES NO

a. If YES, were they intact?..... YES NO

b. How many and where? _____

c. Were signature and date correct?..... YES NO

Were custody papers taped to the lid inside the cooler?..... YES NO

Were custody properly filled out (ink, signed, dated, etc.)?..... YES NO

Did you sign custody papers in the appropriate place?..... YES NO

Was a shipper's packing slip attached to cooler?..... YES NO

a. If YES, did you attach it to this form?..... YES NO

What kind of packing material was used? BUBBLE WRAP

Was sufficient ice used (if appropriate)?..... YES NO

Temperature: 3.5°C

Approved by: [Signature] Date: 3-22-00

Were all bottles sealed in separate plastic bags?..... YES NO

Did all bottles arrive in good condition (unbroken)?..... YES NO

Were all bottle labels complete (ID. No., dated, Analysis method, etc.)?..... YES NO

Did all bottle labels agree with custody papers?..... YES NO

Were correct bottles used for the tests indicated?..... YES NO

If present, were VOA vials checked for head space and noted if present?..... YES NO

Was sufficient volume of sample sent in each bottle?..... YES NO

Were correct preservatives used?..... YES NO

Approved by: _____ Date: _____

If not approved:

a. Name of person contacted: _____ Date: _____

b. Corrective action taken: _____

50815

CLIENT <u>NINYO & MOORE</u>	PROJECT MANAGER <u>YORK WOLZELLA</u>	Samples Intact Yes _____ No _____ County Seals Intact Yes _____ No _____ Sample Ambient _____ Cooled _____ Frozen _____ Same Day _____ 24 Hr. _____ Regular _____ 48 Hr. _____ <u>RUSH PER DANIELLE</u>
ADDRESS <u>675 HEBBONBORGER #220</u> <u>OAKLAND CA 94621</u>	PHONE NUMBER <u>(510) 633-5640</u>	
PROJECT NAME <u>CITY OF ALAMEDA</u>	SAMPLERS: (Signature) <u>[Signature]</u>	

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE			NO OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
				WATER	AIR	SOLID			
SBTD-5	<u>2756 MAIN</u>	<u>3/21</u>	<u>—</u>			<u>X</u>	<u>1</u>		<u>SOISM (TPH, TPHD) 810, CAM 17</u>
SB11-1	↓	<u>3/21</u>	<u>—</u>			<u>X</u>	<u>1</u>		↓
SB12-2		<u>3/21</u>	<u>—</u>			<u>X</u>	<u>1</u>		
WB-10		<u>3/21</u>	<u>9:31</u>	<u>X</u>			<u>6</u>		
WB-11		<u>9:45</u>	<u>X</u>			<u>6</u>			
WB-12		<u>10:45</u>	<u>X</u>			<u>6</u>			
SWET-1		<u>WETLANDS</u>	<u>—</u>			<u>X</u>	<u>1</u>		
SWET-2		<u>—</u>				<u>X</u>	<u>1</u>		
SWET-3		<u>—</u>				<u>X</u>	<u>1</u>		
WBT-1				<u>1005</u>	<u>X</u>		<u>6</u>		
WBT-2				<u>1020</u>	<u>X</u>		<u>6</u>		
WBT-3		<u>1030</u>	<u>X</u>			<u>6</u>			

Relinquished by: (Signature) <u>[Signature]</u>	Received by: (Signature) <u>CAL OVERNIGHT</u>	Date/Time <u>3/21</u>	I hereby authorize the performance of the above indicated work.
Relinquished by: (Signature) <u>CAL OVERNIGHT</u>	Received by Laboratory for analysis: (Signature) <u>JARON O'NEILL</u>	Date/Time <u>3-22-00</u>	
Special Instructions			

APPENDIX B
ADDITIONAL SITE ILLUSTRATION AND DOCUMENTATION

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

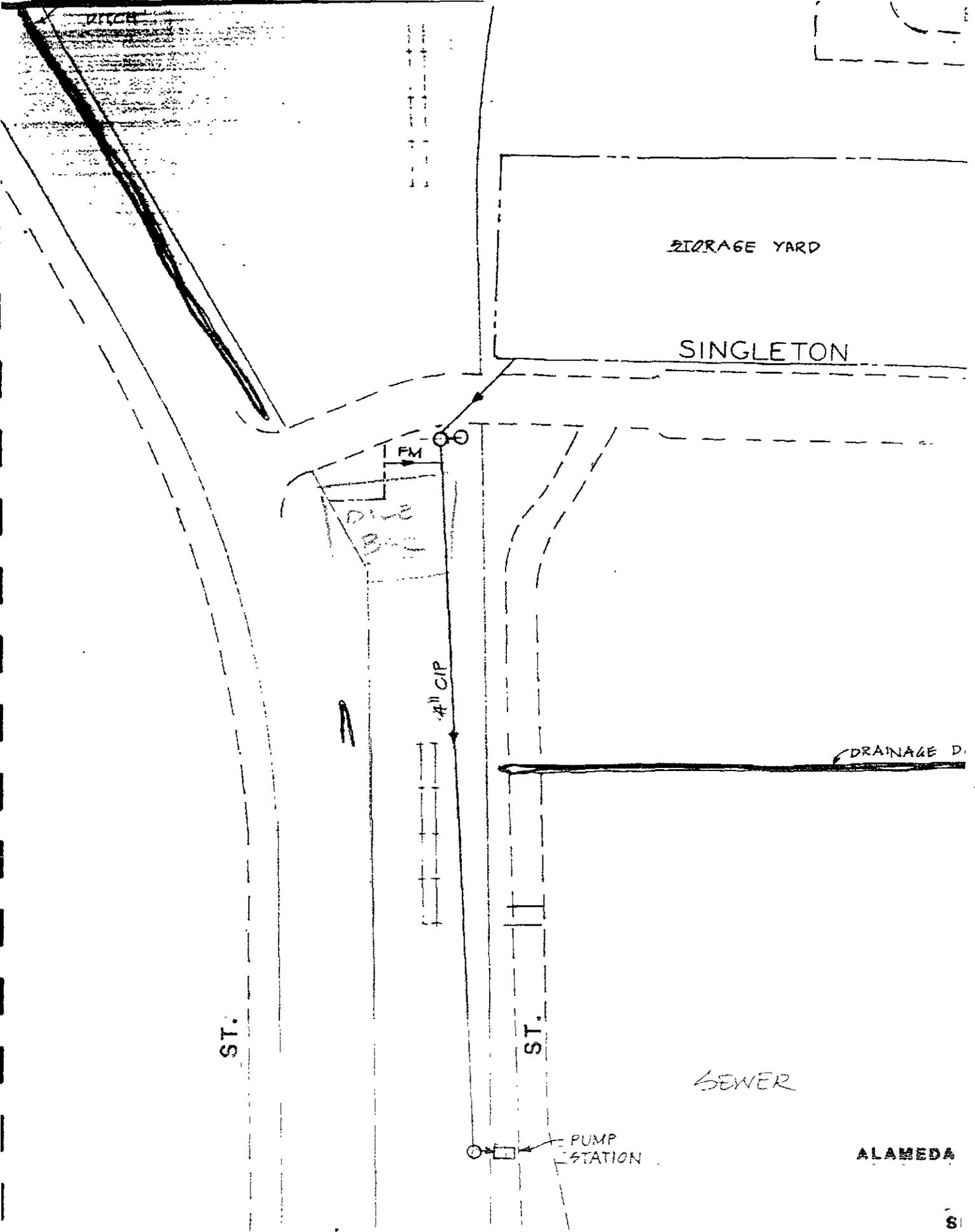
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

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