CITY OF OAKLAND

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February 26, 2001

Mr. Barney Chan
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: **Results of Groundwater Monitoring on December 22, 2000**
2662 Fruitvale Avenue Oakland, California

Dear Mr. Chan:

Enclosed is a copy of the subject report, prepared by our consultant, Innovative Technical Solutions, Inc., for the property located at 2662 Fruitvale Avenue in Oakland. Additionally, this report describes periodic application of hydrogen peroxide in select monitoring wells from August to December 2000.

The latest results showed a significant improvement in groundwater quality in monitoring well MW-F4 since the last monitoring events. Free- floating product was not observed in any of the wells.

Please call me at 238-6259, if you have any questions or require additional information.

Sincerely,

Joseph A. Cotton
Environmental Program Specialist

Innovative
Technical
Solutions, Inc.

February 21, 2001

Project No: 97-037

Mr. Joseph Cotton
City of Oakland Environmental Services
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612

Results of Semi-Annual Groundwater Monitoring on December 22, 2000
2662 Fruitvale Avenue
Oakland, California

Dear Mr. Cotton:

Innovative Technical Solutions, Inc. (ITSI) is pleased to provide the results of the semi-annual groundwater monitoring performed on December 22, 2000 for the property located at 2662 Fruitvale Avenue in Oakland. Additionally, a discussion of the periodic application of hydrogen peroxide in selected monitoring wells from August through December is provided.

Figure 1 shows the site layout and approximate location of the monitoring wells sampled as part of this semi-annual groundwater monitoring event. The semi-annual groundwater monitoring included monitoring seven monitoring wells, MW-F1 through MW-F6 and MW-13, and sampling five monitoring wells, MW-F2, MW-F4, MW-F5, MW-F6, and MW-13. Monitoring wells MW-F1 and MW-F3 were removed from the semi-annual sampling program as suggested in the November 18, 1999, letter from Alameda County.

The purpose of this groundwater monitoring program is to identify changes in shallow groundwater quality at the site over time, including an evaluation of groundwater conditions that may serve as indicators of intrinsic bioremediation of petroleum hydrocarbons occurring beneath the site. On October 31, 1998, oxygen-releasing compounds (ORC) were placed in the saturated zone along the downgradient property line to enhance natural biodegradation of the petroleum hydrocarbons, and a petroleum hydrocarbon-absorbent sock was placed in MW-13 to recover available free product during this monitoring event. These events were documented in the *Completion Report, Treatment of Groundwater Impacted with Petroleum Hydrocarbons Using Enhanced Natural Bioremediation*, (Innovative Technical Solutions, Inc., December 28, 1998).

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SCOPE OF WORK

Addition of Hydrogen Peroxide

Hydrogen peroxide (over-the-counter medical grade 3% hydrogen peroxide in solution) was applied directly into the groundwater in two monitoring wells at the site, MW-F4 and MW-13, starting on August 31, 2000. The hydrogen peroxide was applied weekly (consisting of 96-ounces per well) for 4 weeks, followed by a 2-week period of no application, and then interim sampling was performed on October 6, 2000 on the two wells where the hydrogen peroxide was being applied. The interim sampling was performed consistent with procedures identified above for the semi-annual groundwater monitoring.

The application sequence was then repeated. Following completion of the second interim sampling event on November 13, 2000, hydrogen peroxide was applied weekly for an additional 2 weeks. Following a period of approximately 4 weeks when no hydrogen peroxide was applied to the wells, the semi-annual groundwater sampling was performed on December 22, 2000.

Groundwater Monitoring and Sampling

Prior to groundwater sample collection, the depth to groundwater was measured in each of the groundwater monitoring wells. The groundwater monitoring wells were checked for the presence of floating product using disposable bailers. Product was not observed in the groundwater monitoring wells. Depth to water levels were measured in each of the monitoring wells using a water level meter accurate to 0.01 foot. Depth to water measurements were recorded on a Monitoring Well Water Level Measurement Form for each monitoring well. A copy of the Monitoring Well Water Level Measurement Form is included in Appendix A.

Subsequent to depth to water measurements, the monitoring wells were purged using a peristaltic pump and dedicated tubing. The water column in each groundwater monitoring well was used for the calculation of three well casing water volumes to estimate the approximate amount of water to be removed for stabilization. Water was removed from the monitoring wells by pumping until at least three volumes were removed. The field parameters of pH, conductivity, temperature, oxidation-reduction potential (ORP in mV), and dissolved oxygen were observed during purging activities for indications of aquifer and groundwater stabilization using a Horiba U-10 meter equipped with a flow-through cell. The field parameters were recorded on Monitoring Well Purge and Sample Forms. Copies of the Monitoring Well Purge and Sample Forms are included in Appendix A.

Groundwater samples were collected from each monitoring well using the peristaltic pump. The tubing is dedicated for use at each monitoring well. Groundwater for sample collection was transferred directly into preserved laboratory-provided sample containers. Groundwater samples containers were then labeled, placed on ice in an insulated cooler, and transported under chain-of-custody procedures to Chromalab, Inc., a California-certified laboratory.

Groundwater samples were analyzed for the following constituents:

- Total Petroleum Hydrocarbons as gasoline (TPHg) by modified EPA Method 8015
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020A
- Nitrate, sulfate, total and soluble iron.

RESULTS

Groundwater elevations are summarized in Table 1 and shown on Figure 1. Results of groundwater sample analyses are summarized in Table 2 and shown on Figures 2 and 3. Copies of the analytical results and chain-of-custody forms are included in Appendix B.

Depth to groundwater ranged from approximately 9 to 10 feet below ground surface (bgs). Groundwater flow direction was generally towards the west-southwest, at a gradient of approximately 0.02 feet per foot. The groundwater flow direction as measured on December 22, 2000 is generally consistent with groundwater flow directions from previous monitoring events, with the exception of a slight increase in elevation in monitoring well MW-F4 relative to the other wells measured.

Floating product was not observed in the seven groundwater monitoring wells monitored during this monitoring and sampling event. However, a sheen was observed in groundwater removed from monitoring well MW-13 during the two interim sampling events and semi-annual sampling event during the period of October to December 2000. As noted above, a petroleum hydrocarbon-absorbent sock was placed in MW-13 to remove available free product from the surface of the groundwater, and has been routinely changed during previous monitoring events. The absorbent sock in monitoring well MW-13 exhibited black staining at the surface water interface and a strong petroleum hydrocarbon odor was noted from the well.

Petroleum Hydrocarbons

TPHg was detected in groundwater samples collected from two monitoring wells, MW-F4 and MW-13, at concentrations of 4.7 and 9.2 milligrams per liter (mg/L), respectively. TPHg was reportedly not detected (at a detection limit of 0.05 mg/L) in the groundwater samples collected from monitoring wells MW-F2, MW-F5 and MW-F6.

Volatile organic indicator compounds were detected in two monitoring wells, MW-F4 and MW-13, as discussed below:

- Benzene was detected in groundwater samples collected from MW-F4 and MW-13 at concentrations of 0.054 and 0.27 mg/L, respectively. Benzene concentrations detected in MW-F4 and MW-13 exceed the Maximum Contaminant Level (MCL) for benzene of 0.001 mg/L.
- Toluene, ethylbenzene and xylenes were detected in groundwater samples collected from MW-F4 at concentrations of 0.0096, 0.85, 0.34 mg/L, respectively. Toluene, ethylbenzene and xylenes were detected in groundwater samples collected from MW-13 at concentrations of 0.033, 0.53, and 0.12 mg/L, respectively. The ethylbenzene concentration detected in MW-F4 exceeds the MCL for ethylbenzene of 0.7 mg/L.

Volatile organic indicator compounds were reportedly not detected (at a detection limit of 0.0005 mg/L) in groundwater samples collected from the remaining three monitoring wells sampled.

Intrinsic Bioremediation Indicator Compounds

Table 3 provides the results of bioremediation indicator parameters, including laboratory and field measurements, for the December 22, 2000 groundwater monitoring and sampling event and previous events performed during 2000. As shown in Table 3, the following indicator parameters were reported:

- Soluble iron, representing ferrous iron (Fe2+), was detected in three of the monitoring wells sampled, MW-F4, MW-F6 and MW-13, at concentrations from 0.29 to 6.7 mg/L, with the highest concentration reported in MW-13.
- Nitrate was detected in three of the five monitoring wells sampled, MW-F5, MW-F6 and MW-13, at concentrations from 1.0 to 23 mg/L, with the highest concentration reported in MW-F5.
- Sulfate was detected in four of the five wells sampled, MW-F2, MW-F4, MW-F5 and MW-F6, at concentrations ranging from 9.9 to 61 mg/L, with the highest concentration reported in MW-F6.

Dissolved oxygen and ORP, as monitored in the field during purging of the monitoring wells, were relatively high in the three monitoring wells outside the affected groundwater, consistent with previous monitoring events.

ORP, and thus likely dissolved oxygen[1], in MW-F4 and MW-13 within the affected groundwater plume were very low during the previous June 2000 monitoring event. Both wells responded to the addition of hydrogen peroxide. Results for MW-F4 indicated high oxygen conditions and elevated ORC readings during the first of two interim monitoring events, and these levels persisted at near-normal levels through the semi-annual monitoring in December 2000. Results for MW-13 indicated a slower response to the addition of hydrogen peroxide, but indicated an increase to near-background oxygen conditions by the time of the semi-annual monitoring event. (O_2 from H_2O_2 being consumed)

DISCUSSION

Free floating product was not observed in monitoring well MW-13 or the other monitoring wells during the January 2000 sampling event. However, a sheen was observed on the water removed from MW-13, a strong odor was noted from the well, and black staining was observed on the absorbent sock.

The extent of the affected groundwater plume appears relatively limited. The location and extent of the plume is consistent with observations made during previous sampling events. TPHg and BTEX were not reported in up-gradient monitoring well MW-F2. TPHg and BTEX were not reported in MW-F5 and MW-F6, which are located downgradient of MW-13. Previous sporadic detection of TPHg (June 1995), benzene (June 1997), and xylenes (December 1995) indicate MW-F5 is located near the downgradient margin of the plume.

The concentrations of TPHg and BTEX reported in MW-F4 and MW-13, located in the southwest corner of the site and offsite to the southwest, respectively, were generally consistent with the data collected during previous monitoring events, and show a general decreasing trend with time. As seen in the graphs in Figure 4, the overall trend of TPHg and benzene in monitoring wells MW-F4 and MW-13 is decreasing, especially since the addition of ORC and the recent addition of hydrogen peroxide. Prior to the introduction of the ORC, seasonal water level fluctuations significantly affected TPHg concentrations in monitoring well MW-F4 close to the apparent source area. Since the introduction of the ORC, the historic peaks in TPHg concentrations previously observed during the higher groundwater elevations in the winter have been moderated. Additional reductions are noted following the addition of hydrogen peroxide.

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[1] Dissolved oxygen measured in the field during the June 2000 sampling event were not reflective of actual groundwater conditions, and were thus not used in the analysis of the data. ORP, which is generally consistent with dissolved oxygen concentration, was used as an indirect measurement of dissolved oxygen.

(what does this mean?)

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The apparent response of groundwater in MW-F4 to the addition of the hydrogen peroxide was rapid and positive. Within a couple of applications of hydrogen peroxide, the odor from the well was no longer noted, and the dissolved oxygen and ORP increased to above normal conditions. Continued reduction in the TPHg and benzene concentrations in groundwater from this well is expected to continue.

The slight rise in the concentration of TPHg and benzene evident in MW-13 during the last three months may be due to the continued release of residual petroleum hydrocarbons present in the soil at the top of the water table. This is supported by the sheen observed in water from MW-13, and the staining of the absorbent sock. The residual petroleum hydrocarbons are likely the reason why the groundwater in MW-13 responded slowly to the addition of the hydrogen peroxide, as the contaminant mass is higher than in the groundwater at MW-F4. Removal of soil containing residual petroleum hydrocarbons from within the depths between seasonal low and high groundwater levels, and from just above the seasonal high groundwater level may help reduce the mass of petroleum hydrocarbons released to the groundwater.

RECOMMENDATIONS

Based on the results of this semi-annual monitoring and sampling event, the following activities are recommended:

- Continued semi-annual water quality monitoring of MW-F2, MW-F4, MW-F5, MW-F6 and MW-13 to monitor the extent of the hydrocarbon plume and the effects of intrinsic bioremediation on the plume.
- Consider the continued periodic application of hydrogen peroxide in monitoring wells MW-F4 and MW-13 to encourage both the chemical oxidation of the TPHg and benzene, and continued biodegradation of these chemicals.

Please call me if you have any questions or need additional information.

Sincerely,

Jeffrey D. Hess, R.G. x104
Project Director

cc: Kevin O'Dea
Baseline Environmental Consulting

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Table 1

Groundwater Elevations
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Casing Elevation[1] (feet)	Date Measured	Product Thickness (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Note
MW-F1	104.41	08/16/93	-	11.13	93.28	1
		06/29/94	-	10.38	93.53	1
		09/09/94	-	11.56	92.85	1
		12/21/94	-	8.96	95.45	1
		06/30/95	-	10.49	93.92	1
		12/29/95	-	9.38	95.03	1
		06/27/96	-	10.69	93.72	1
		12/13/96	-	8.55	95.86	1
		06/26/97	-	11.23	93.18	
		03/11/98	-	8.73	95.68	
		12/11/98	-	9.38	95.03	
		06/29/99	-	10.87	93.54	
		01/21/00	-	9.42	94.99	
		06/27/00	-	9.92	94.49	
		12/22/00	-	9.91	94.50	
MW-F2	102.22	08/16/93	-	12.15	90.07	1
		06/29/94	-	11.74	90.48	1
		09/09/94	-	12.21	90.01	1
		12/21/94	-	10.34	91.88	1
		06/30/95	-	11.32	90.90	1
		12/29/95	-	9.94	92.28	1
		06/27/96	-	11.51	90.71	1
		12/13/96	-	8.62	93.60	1
		06/26/97	-	11.96	90.26	
		03/11/98	-	7.70	94.52	
		12/11/98	-	10.40	91.82	
		06/29/99	-	11.42	90.80	
		01/21/00	-	10.32	91.9	
		06/27/00	-	10.47	91.75	
		12/22/00	-	10.52	91.70	
MW-F3	102.42	08/16/93	-	11.99	90.43	1
		06/29/94	-	11.40	91.02	1
		09/09/94	-	12.39	90.03	1
		12/21/94	-	9.32	93.10	1
		06/30/95	-	11.14	91.28	1
		12/29/95	-	10.08	92.34	1
		06/27/96	-	11.31	91.11	1
		12/13/96	-	8.76	93.66	1
		06/26/97	-	11.85	90 57	
		03/11/98	-	8.82	93.6	
		12/11/98	-	9.61	92.81	
		06/29/99	-	11.25	91.17	
		06/27/00	-	10.28	92.14	
		12/22/00	-	10.24	92.18	

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Table 1 (Continued)

Groundwater Elevations
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Casing Elevation[1] (feet)	Date Measured	Product Thickness (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Note
MW-F4	101 56	09/09/94	-	11.21	90.35	1
		12/21/94	-	8.00	93.56	1
		06/30/95	-	10.08	91.48	1
		12/29/95	-	8.52	93.04	1
		06/27/96	-	9.75	91.81	1
		12/13/96	-	6.61	94.95	1
		06/26/97	-	10.94	90.62	
		03/11/98	-	8.40[2]	-	
		12/11/98	-	9.40	92.16	
		06/29/99	-	10.36	91.20	
		01/21/00	-	8.11	93.45	
		06/27/00	-	9.43	92.13	
		10/6/00	-	10.80	90.76	
		11/13/00	-	9.50	92.06	
		12/22/00	-	10.80	90.76	
MW-F5	100.32	06/30/95	-	11.09	89.23	1
		12/29/95	-	9.37	90.95	1
		06/27/96	-	11.33	88.99	1
		12/13/96	-	8.72	91.60	1
		06/26/97	-	11.61	88.71	
		03/11/98	-	8.79	91.53	
		12/11/98	-	9.62	90.70	
		06/29/99	-	11.07	89.25	
		01/21/00	-	9.39	90.93	
		06/27/00	-	10.29	90.03	
		12/22/00	-	9.99	90.33	
MW-F6	100.11	06/30/95	-	10.96	89.15	1
		12/29/95	-	9.84	90.27	1
		06/27/96	-	10.98	89.13	1
		12/13/96	-	8.44	91.67	1
		06/26/97	-	11.35	88.76	
		03/11/98	-	8.60	91.51	
		12/11/98	-	10.12	89.99	
		06/29/99	-	10 96	89.15	
		01/21/00	-	9.37	90.74	
		06/27/00	-	10.12	89.99	
		12/22/00	-	9.85	90.26	

Table 1 (Continued)

Groundwater Elevations
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Casing Elevation[1] (feet)	Date Measured	Product Thickness (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Note
MW-13	101.20	09/09/94	-	12.27	88.93	1
		12/21/94	-	9.32	91.88	1
		06/30/95	-	11.32	89.88	1
		12/29/95	-	9.00	92.20	1
		06/27/96	-	11 49	89.71	1
		12/13/96	-	8.28	92.92	1
		06/26/97	0.02	11.76	89.45[3]	
		03/11/98	0.02	8.11	93.11[3]	
		12/11/98	-	9.30	91.90	
		06/29/99	-	11.08	90.12	
		06/27/00	-	10.48	90.72	
		01/21/00	-	9.22	91.98	
		06/27/00	-	10.48	90.72	
		10/6/00	-	11.19	90.01	
		11/13/00	-	10.50	90.70	
		12/22/00	-	10.31	90.89	

[1] From Table 3, Groundwater Elevation and Gradient Determination Data, February 7, 1997, BASELINE.
[2] Depth to groundwater not stabilized.
[3] Groundwater elevation calculated assuming a specific gravity of 0.75 for product.

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Table 2

Summary of Laboratory Results for Groundwater Samples
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Date Sampled	TPHg (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylenes (mg/L)	Total Iron (mg/L)	Soluble Iron (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Note
MW-F1	08/16/93	<0.05	<0.002	<0 002	<0.002	<0.002	-	-	-	-	1
	06/29/94	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	09/09/94	<0.9	<0.0009	<0.0009	<0.0009	<0.0009	-	-	-	-	1
	12/21/94	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	06/30/95	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/29/95	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/13/96	-	-	-	-	-	-	<0.10	8.5	38	1
	06/26/97	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.1	<0.10	7.7	38	
	03/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.90	<0.10	11	38	
	12/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	7.1	38	
	06/29/99	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	30	35	
	No longer part of semi-annual monitoring program										
MW-F2	08/16/93	<0.05	<0.002	<0.002	<0.002	<0.002	-	-	-	-	1
	06/29/94	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	09/09/94	<0.9	<0.0009	<0.0009	<0.0009	<0.0009	-	-	-	-	1
	12/21/94	0.096	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	06/30/95	0.34	<0.0005	<0.0005	<0.0005	0.0005	-	-	-	-	1
	12/29/95	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	06/27/96	0.064	0.0012	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/13/96	0.06	<0.0005	<0.0005	<0.0005	<0.0005	-	0.24	0.20	8	1
	06/26/97	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.1	<0.10	<0.05	7.4	
	03/11/98	0.20	0.00088	<0.0005	<0.0005	<0.0005	4.8	0.18	<0.05	7.1	
	12/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.25	<0.10	<0.05	7.8	
	06/29/99	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	<1.0	<1.0	
	01/21/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	<0.2	9	
	06/27/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	53	<0.10	<1.0	2	
	12/22/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	<1.0	9.9	
MW-F3	08/16/93	<0.1	<0.002	<0.002	<0.002	<0.002	-	-	-	-	1
	06/29/94	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	09/09/94	<0.9	<0.0009	<0.0009	<0.0009	<0.0009	-	-	-	-	1
	12/21/94	0.13	<0.0005	0.0013	<0.0005	<0.0005	-	-	-	-	1
	06/30/95	0.11	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/29/95	0.35	0.0008	<0.0005	0.0012	0.0007	-	-	-	-	1
	06/27/96	0.088	0.002	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/13/96	0.18	<0.0005	<0.0005	<0.0005	<0.0005	–	0.11	0.69	23	1
	6/26/97	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.46	0.16	0.70	23	
	3/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.11	0.20	2.5	28	
	12/11/98	<0.05	<0 0005	<0.0005	<0.0005	<0.0005	0.31	0.12	0.97	30	
	6/29/99	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	3	38	
	No longer part of semi-annual monitoring program										

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Table 2 (Continued)

Summary of Laboratory Results for Groundwater Samples
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Date Sampled	TPHg (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylenes (mg/L)	Total Iron (mg/L)	Soluble Iron (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Note
MW-F4	09/9/94*	3.5	0.029	0.003	0.038	0.099	-	-	-	-	1
	12/21/94	37	0.66	28	2.3	5.9	-	-	-	-	1
	06/30/95	9.2	0.18	<0.1	0.76	1.0	-	-	-	-	1
	12/29/95	38	0.61	0.019	4.3	5.8	-	-	-	-	1
	06/27/96	6.2	0.081	0.14	0.52	0.29	-	-	-	-	1
	12/13/96	27	0.59	0.05	3.2	3.7	-	6.6	<0.05	<2	1
	06/26/97	6.2	0.16	0.018	0.71	0.32	2.4	3.1	<0.05	0.2	
	03/11/98	9.5	0.062	0.03	1.0	0.80	1.2	3.0	<0.05	<0.1	
	12/11/98	12	0.34	0.051	2.0	0.62	5.7	5.9	<0.05	1.5	
	06/29/99	10	0.23	0.032	1.8	0.30	0.93	0.90	<1.0	9	
	01/21/00	7.9	0.033	<0.005	1.0	0.25	13	2.7	<0.2	<1.0	
	06/27/00	10	0.08	<0.025	1.1	0.32	160	<0.10	<1.0	<1.0	
A →	10/6/00	3	0.011	0.0018	0.12	0.069	0.24	<0.10	2.1	38	
	11/13/00	3.9	0.039	0.016	0.84	0.30	0.14	<0.10	<1 0	13	
A →	12/22/00	4.7	0.054	0.0096	0.85	0.34	0.32	0.17	<1.0	11	
MW-F5	06/30/95	0.10	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/29/95	<0.05	<0.0005	<0.0005	<0.0005	0.0007	-	-	-	-	1
	06/27/96	<0.05	<0 0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/13/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	6.6	45	1
	06/26/97	<0.05	0.0032	0.0064	0.00073	0.0042	0.21	<0.1	6.1	45	
	03/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	6.1	45	
	12/11/98	<0.05	<0.0005	<0 0005	<0.0005	<0.0005	0.58	0.19	6.0	41	
	06/29/99	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	23	50	
	01/21/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.14	<0.10	5.2	42	
	06/27/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	60	<0.10	20	37	
	12/22/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	23	56	
MW-F6	06/30/95	<0 05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/29/95	<0.05	<0.0005	<0.0005	<0 0005	<0.0005	-	-	-	-	1
	06/27/96	<0 05	<0.0005	<0.0005	<0.0005	<0.0005	-	-	-	-	1
	12/13/96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	–	<0.10	0.44	39	1
	06/26/97	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.22	0.18	<0.05	47	
	03/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	<0.10	0.14	49	
	12/11/98	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.24	0.11	0.06	43	
	06/29/99	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<0.10	0.93	<1.0	54	
	01/21/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.11	<0.10	0.5	42	
	06/27/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	10	<0.10	<1.0	9	
	12/22/00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.29	0.15	1.1	61	

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Table 2 (Continued)

Summary of Laboratory Results for Groundwater Samples
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Date Sampled	TPHg (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylenes (mg/L)	Total Iron (mg/L)	Soluble Iron (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Note
MW-13	12/21/94	3.3	0.43	<0.013	0.024	0.24	-	-	-	-	1
	06/30/95	22	0.85	<0.0005	1.2	1.6	-	-	-	-	1
	12/29/95	22	0.97	0.078	1.3	2.4	-	-	-	-	1
	06/27/96	18	0.63	0.026	1.1	1.0	-	-	-	-	1
	12/13/96	16	0.67	0.04	1.2	1.0	–	6.8	<0 05	<2	1
	6/26/97*	11	0.42	0.037	0.64	0.26	7.7	6.9	<0.05	0.3	
	3/11/98*	13	0.30	<0.025	0.89	0.51	4.3	6.7	<0.05	2.3	
	12/11/98	12	0.47	0.048	1.1	0.48	6.6	7.0	<0.05	16	
	06/29/99	7	0.24	0.13	0.44	0.11	1.3	1.3	<1.0	11	
	01/21/00	7.3	0.035	<0.005	0.62	0.22	7.3	6.9	<0.2	<1.0	
	06/27/00	6.1	0.11	<0.025	0.27	0.038	15	<0.10	1	2	
A	10/6/00	4.6	0.10	<0.025	0.19	0.036	4.3	3.5	<1	5.4	
	11/13/00	6.0	0.22	0.035	0.47	0.12	4.5	1.4	1.1	1.7	
A	12/22/00	9.2	0.27	0.033	0.53	0.12	6.7	6.7	1.0	<1.0	
MCL	–	–	0.001	0.150	0.700	1.75	–	–	–	–	

Note: Bold indicates detected concentrations. Shaded indicates concentrations exceeding MCLs.
1 Historical laboratory data provided by Baseline Environmental Consulting.
* Higher concentration reported for either the sample or field duplicate sample (QC/1)

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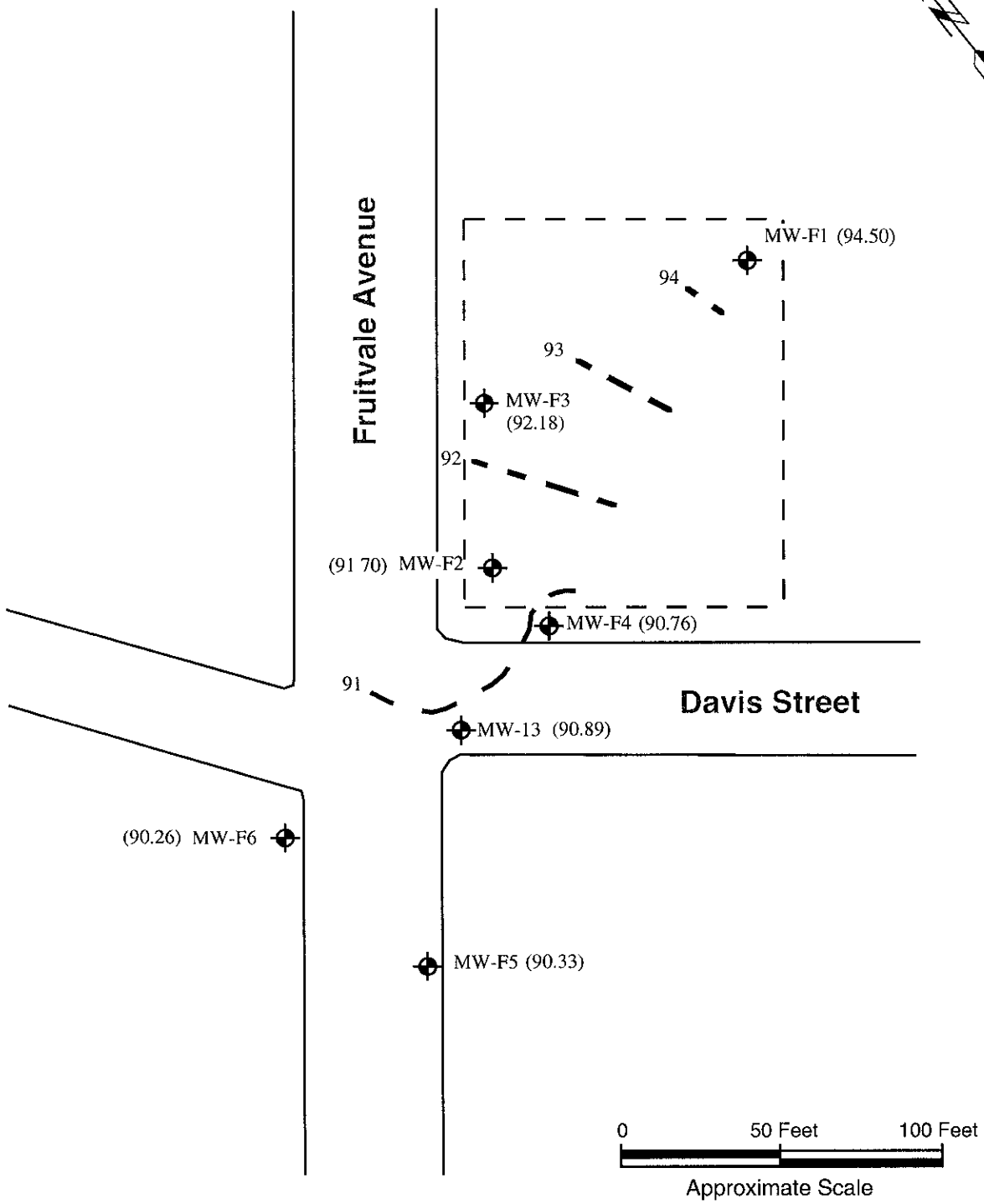
Table 3

Bioremediation Indicator Parameters
2662 Fruitvale Avenue
Oakland, California

Monitoring Well ID	Date	Total Iron (mg/L)	Soluble Iron (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Dissolved Oxygen (mg/L)	ORP (mV)
MW-F2	1/23/00	<0.10	<0.10	<0.2	9	8.63	121
	6/27/00	53	<0.10	<1.0	2	NA	130
	12/22/00	<0.10	<0.10	<1.0	9.9	9.12	155
MW-F4	1/23/00	13	2.7	<0.2	<1.0	9.19	81
	6/7/00	160	<0.10	<1.0	<1.0	NA	-57
	10/6/00	0.24	<0.10	2.1	38	17.37	283
	11/13/00	0.14	<0.10	<1.0	13	19.23	164
	12/22/00	0.32	0.17	<1.0	11	7.95	164
MW-F5	1/23/00	0.14	<0.10	5.2	42	8.53	189
	6/27/00	60	<0.10	20	37	NA	157
	12/22/00	<0.10	<0.10	23	56	9.69	95
MW-F6	1/23/00	0.11	<0.10	0.5	42	9.17	156
	6/27/00	10	<0.10	<1.0	9	NA	141
	12/22/00	0.29	0.15	1.1	61	8.82	100
MW-13	1/23/00	7.3	6.9	<0.2	<1.0	9.15	87
	6/7/00	15	<0.10	1.0	2	NA	-48
	10/6/00	4.3	3.5	<1.0	5.4	0.80	-36
	11/13/00	4.5	1.4	1.1	1.7	0.06	9.23
	12/22/00	6.7	6.7	1.0	<1.0	8.22	56

ITSI

97-037/F 1-Wells



Legend

- Approximate Location of Monitoring Wells
- 90 26 Groundwater Elevations
- Lines of Equal Groundwater Elevations

Source: Modified from Figure 3, Groundwater Elevation Contour Map, 13 December 1996, BASELINE

FIGURE 1

GROUNDWATER ELEVATIONS MEASURED ON DECEMBER 22, 2000

2662 Fruitvale Avenue
Oakland, California

CITY OF OAKLAND

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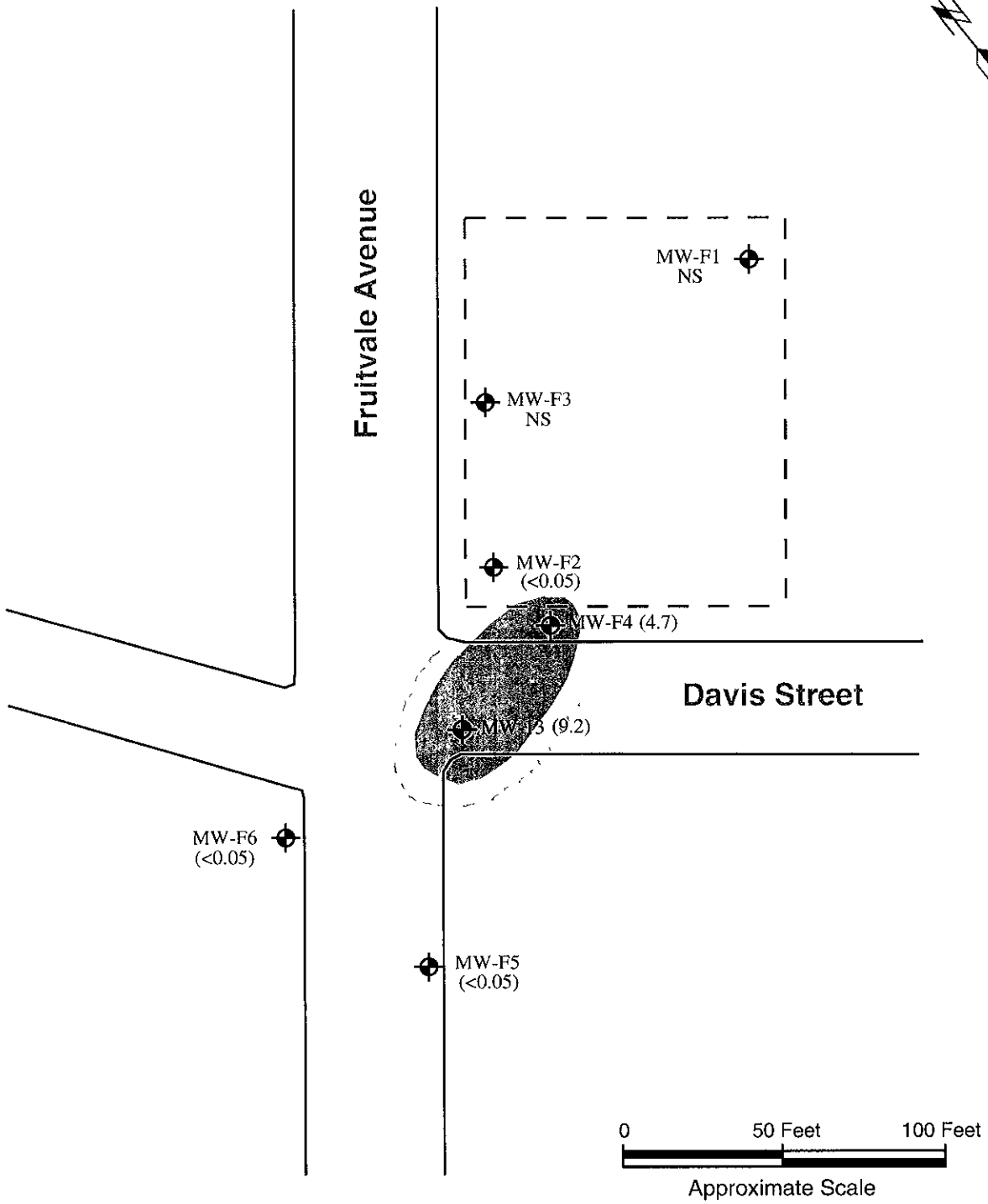
97-037/F 2-TPHg



Legend

- Approximate Location of Monitoring Wells
- 9.2 Concentration of TPHg in mg/L
- TPHg ≥ 0.1 mg/L
- TPHg ≥ 1 mg/L >5 <10 mg/l
- NS Not Sampled

Source: Modified from Figure 3, Groundwater Elevation Contour Map, 13 December 1996, BASELINE

FIGURE 2

LABORATORY RESULTS FOR TPHg FOR SAMPLES COLLECTED ON DECEMBER 22, 20000

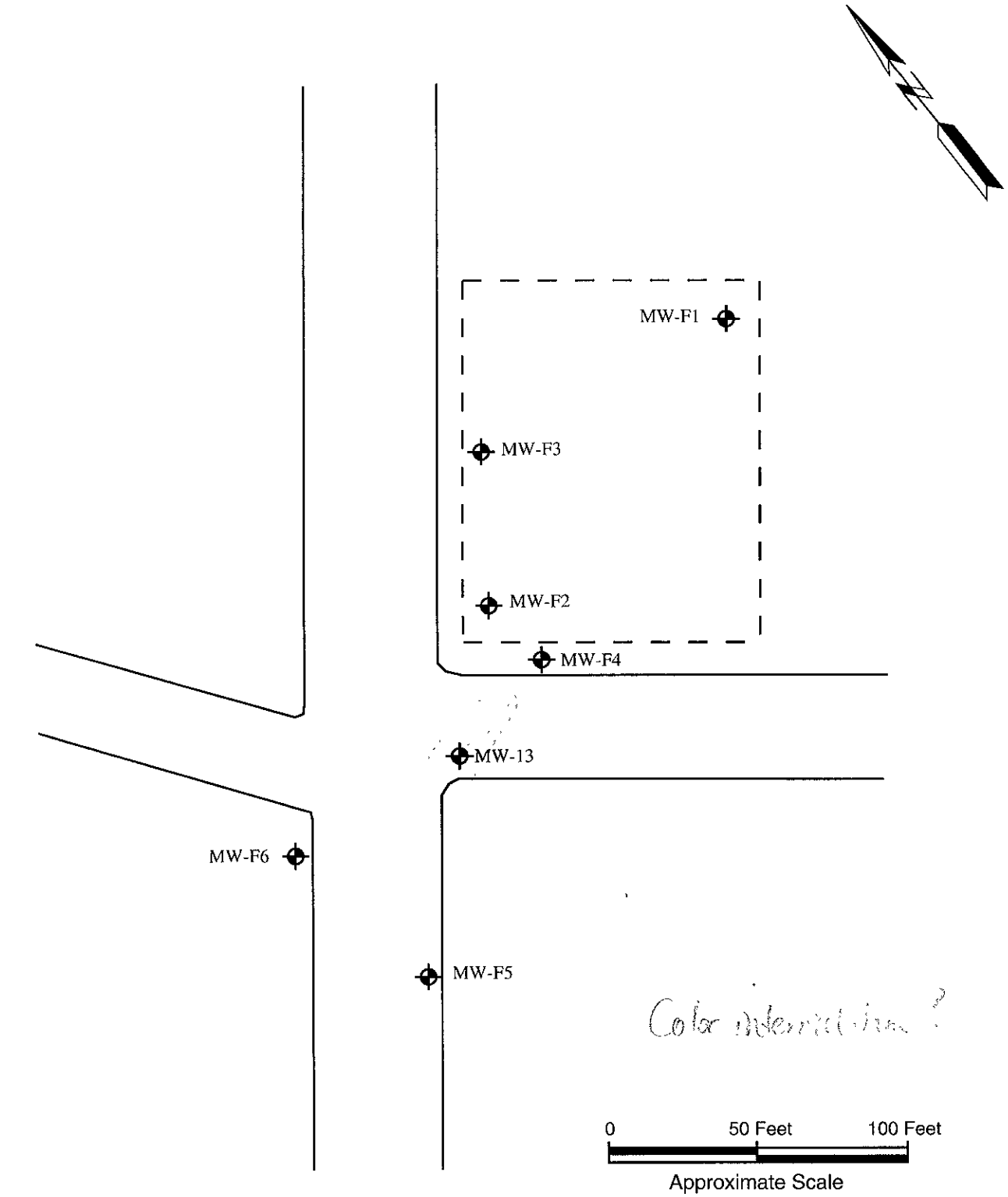
2662 Fruitvale Avenue
Oakland, California

CITY OF OAKLAND

ITSI

INNOVATIVE TECHNICAL SOLUTIONS, INC.

97-037/F 3-Benzene



Legend
Approximate Location of Monitoring Wells

Source: Modified from Figure 3, Groundwater Elevation Contour Map, 13 December 1996, BASELINE

FIGURE 3

LABORATORY RESULTS FOR BENZENE FOR SAMPLES COLLECTED ON DECEMBER 22, 2000

2662 Fruitvale Avenue
Oakland, California

CITY OF OAKLAND

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Figure 4a: Graph of Historical Concentrations of TPHg in MW-F4 and MW-13

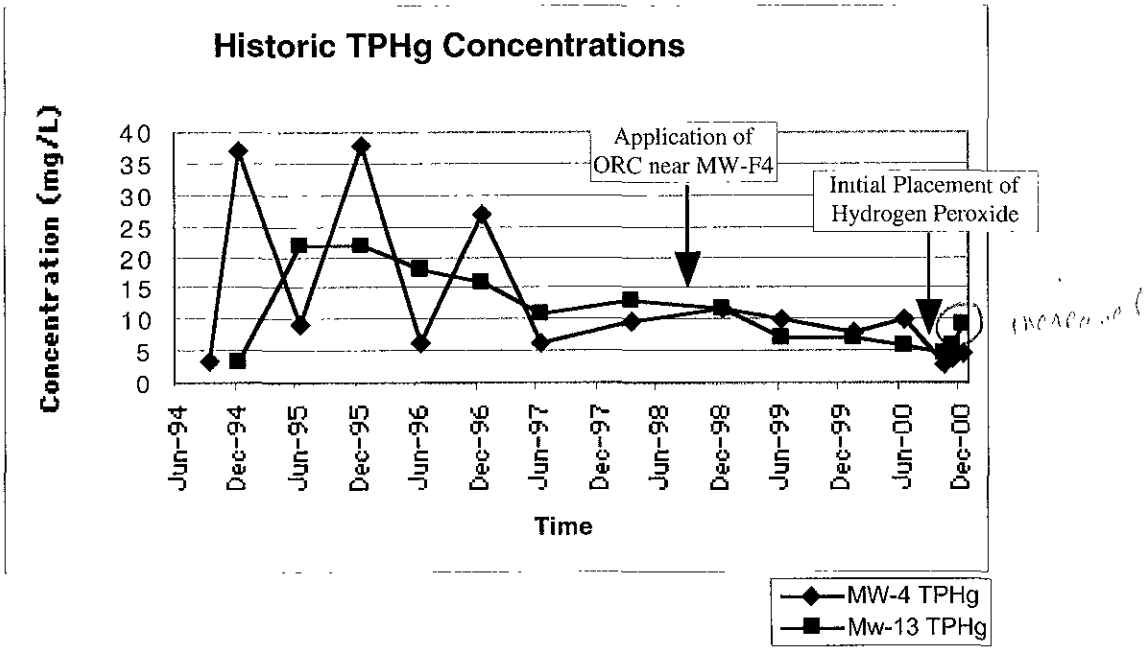

Figure 4b: Graph of Historical Concentrations of TPHg in MW-F4 and MW-13

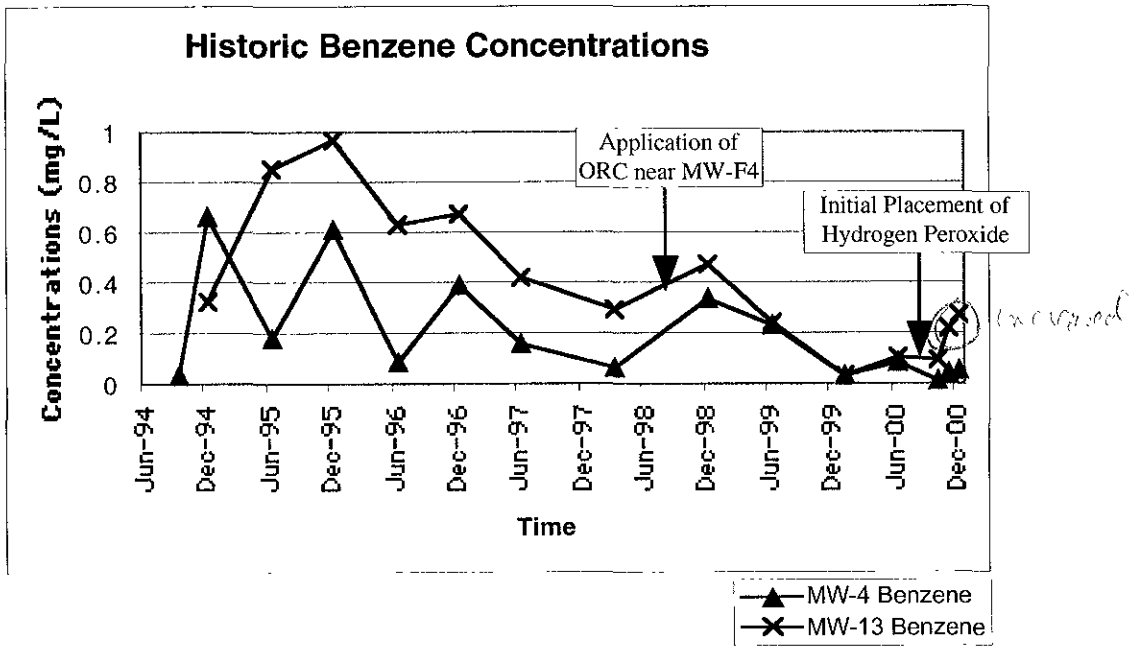

FIGURE 4

GRAPHS OF HISTORICAL CONCENTRATION TRENDS FOR TPHg AND BENZENE

2662 Fruitvale Avenue
Oakland, California

CITY OF OAKLAND

INNOVATIVE TECHNICAL SOLUTIONS, INC.

APPENDIX A

COPIES OF MONITORING WELL PURGE AND SAMPLE FORMS

ITSI Innovative Technical Solutions, Inc.

Sheet ___ of ___

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale Ave PROJECT NO.: 97.037.03

WELL NO.: MW-13 TESTED BY: T. WATCHERS DATE: 10-6-00

Measuring Point Description: TOC

Static Water Level (ft.): 11.19

Total Well Depth (ft.): 23.00

Sample Method: P. pump

Water Level Measurement Method: Solinst

Time Sampled: 3:20

Purge Method: P. Pump

Sample Depth (ft.): 20ft bottom

Time Start Purge: 2:40

Field Filtering: yes soluble Fe only

Time End Purge: 3:19

Field Preservation: HCL → VOAs (lab)

Comments: odor during purging

Well Volume Calculation (fill in before purging)	Total Depth (ft)		Depth to Water (ft)		Water Column (ft)		Multiplier for Casing Diameter (in)				Casing Volume (gal)
							(2) circled	4	6		
	23	-	11.19	=	11.81	x	(0.16) circled	0.64	1.44	=	1.88

Time	2:40	2:45	2:52	3:00	3:07	3:15	3:19
Volume Purged (gals)	0	1	1	1	1	1	1
Cumulative Volume Purged (gals)	0	1	2	3	4	5	6
Cumulative Number of Casing Volumes	0	0.5	1	1.5	2	2.5	3
Purge Rate (gpm)	0	0.2	0.14	0.125	0.14	0.125	0.25
Temperature (F°) or (C°)	21.6	21.2	20.9	20.7	20.6	20.6	20.6
pH	7.00	6.97	6.94	6.92	6.91	6.91	6.91
Specific Conductivity (mS/cm)	.734	.737	.738	.740	.740	.742	.742
Dissolved Oxygen (mg/L)	0.81	0.75	1.12	1.00	0.82	0.80	0.80
Turbidity/Color (NTU)	8	19	24	32	29	24	24
Odor	no	yes	yes	yes	yes	yes	yes
Dewatered?	no	no	no	no	no	no	no
mV	15	8	3	21	-42	-36	-36

← low D.O. [illegible] w/ [illegible]

Public HD Public Folders Office Forms Field/Govt Forms Groundwater Forms Purge & Sample

Innovative Technical Solutions, Inc.

Sheet ___ of ___

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale Ave PROJECT NO.: 97-037.03

WELL NO.: MW-F4 TESTED BY: T. WATCHERS DATE: 10-6-00

Measuring Point Description: TOC (N) Static Water Level (ft.): 10.80

Total Well Depth (ft.): 16.65 Sample Method: P. pump

Water Level Measurement Method: solinist Time Sampled: 2:00 PM

Purge Method: P. Pump Sample Depth (ft.): @ 15 ft (bottom)

Time Start Purge: 1:30 Field Filtering: yes - Soluble Fe only

Time End Purge: 1:57 Field Preservation: VOAs - HCL (Lab)

Comments: odor (petroleum

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in) 2	4	6	=	Casing Volume (gal)
	16.65		10.80		5.85		(0.16)	0.64	1.44		0.936

Time	1:30	1:38	1:41	1:44	1:48	1:52	1:57
Volume Purged (gals)	0	0.5	0.5	0.5	0.5	0.5	0.5
Cumulative Volume Purged (gals)	0	0.5	1.0	1.5	2.0	2.5	3.0
Cumulative Number of Casing Volumes	0	0.5	1.0	1.5	2.0	2.5	3.0
Purge Rate (gpm)	0	0.06	0.16	0.16	0.12	0.12	0.16
Temperature (F°) or (C°)	21.7	22.0	22.2	22.3	22.2	21.8	21.8
pH	6.57	6.59	6.59	6.56	6.57	6.62	6.60
Specific Conductivity (mS/cm)	0.682	0.634	0.598	0.596	0.592	0.596	0.600
Dissolved Oxygen (mg/L)	19.91	19.91	19.42	16.34	14.62	15.91	17.37
Turbidity/Color (NTU)	16	22	24	21	19	20	25
Odor	no	no	yes	yes	yes	yes	yes
Dewatered?	no	no	no	no	no	no	no
mV	228	251	281	305	303	299	283

MONITORING WELL WATER LEVEL MEASUREMENT FORM

PROJECT NAME: 2662 Fruitvale PROJECT NO.: 97-037.03

MEASURED BY: T. WATCHERS DATE: 10-6-00

Monitoring Well I.D.	Depth to Water (feet)	Total Well Depth (feet)	Time
MW-F1	10.16		
MW-F2	11.18		
MW-F3	10.97		
MW-F4	10.80	16.65	
MW-F5	10.89		
MW-F6	10.59		
MW-13	11.19	23.00	

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MONITORING WELL
PURGE AND SAMPLE FORM

PROJECT NAME: Fruitvale PROJECT NO.: 97-037.03

WELL NO.: MW-F4 TESTED BY: RG & CC DATE: 11/13/00

Measuring Point Description: TOC

Static Water Level (ft.): 9.50

Total Well Depth (ft.): 16.91

Sample Method: peristaltic pump + discharge

Water Level Measurement Method: Solinst Interface Probe

Time Sampled: 11:30

Purge Method: peristatic pump

Sample Depth (ft.): ~10'

Time Start Purge: 10:35AM

Field Filtering: ~~Dissolve~~ metals

Time End Purge: 11:27

Field Preservation: HNO_3, HCl

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
							2	4	6		1.18
	16.91		9.50		7.41		0.16	0.64	1.44		3 Vols = 3.6 gals

Time	10:35AM	10:55AM	11:15	11:25			
Volume Purged (gals)	~~1.20~~ 1.10	1.20	1.20	1.20			
Cumulative Volume Purged (gals)	1.20 1.10	~~2.40~~ 1.30	2.50	3.70			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.15	0.15	0.15	0.15			
Temperature (F°) or (C°)	21.3°C	21.5°C	21.4°C	21.3°C			
pH	5.80	5.80	5.85	5.96			
Specific Conductivity (mS/cm)	0.580	.577	.565	.570			
Dissolved Oxygen (mg/L)	19.99	12.53	17.89	19.23			
ORP	220	201	157	164			
Turb		13 NTU	13 NTU	15 NTU			

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MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale PROJECT NO.: 97-037.03

WELL NO.: MW-13 TESTED BY: RG & CC DATE: 11/13/00

Measuring Point Description: TOC

Static Water Level (ft.): 10.50

Total Well Depth (ft.): 23.25

Sample Method: peristaltic pump Disch hose

Water Level Measurement Method: Solinst Interface

Time Sampled: 12:05 PM

Purge Method: peristatic pump

Sample Depth (ft.): 11'

Time Start Purge: 11:50

Field Filtering: ~~None~~ metals

Time End Purge: 12:37

Field Preservation: HNO3, HCl

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
	~~22.75~~ 23.25		10.50		12.75		2	4	6		2.04
							0.16	0.64	1.44		6.12 = 3 Vols

Time	11:50	12:05	~~12:20~~	12:35			
Volume Purged (gals)	.20	2.0 gal	~~2.0~~ gal	2.0 gal			
Cumulative Volume Purged (gals)	.20	2.20	~~4.20~~ gal	6.20			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	.15	.15	.20	.20			
Temperature (F°) or (C°)	21.2°C	20.7°C	20.5°C	20.6°C			
pH	6.37	6.33	6.39	6.42			
Specific Conductivity (mS/cm)	.713	.724	.726	.728			
Dissolved Oxygen (mg/L)	0.52	0.26	0.12	0.06			
Turbidity	15 NTU	5 NTU	17 NTU	8 NTU			
ORP	9.0	9.07	9.02	9.23			

Innovative Technical Solutions, Inc.
2855 Mitchell Drive, Suite 111
Walnut Creek, California 94598
(925) 256-8898 (Tel), (925) 256-8998 (Fax)

CHAIN-OF-CUSTODY

PROJECT NAME: 2662 ~~FRUITVALE~~
PROJECT NUMBER: 97-037.03
SITE LOCATION: OAKLAND, CA

LABORATORY NAME: CHROMALAB, INC
ADDRESS: 1220 Quarry LANE, Pleasanton, CA
CONTACT/PHONE NO: (925) 484-1919

DATE: 11/13/00
PAGE: 1 of 1

SAMPLE I.D	SAMPLE DEPTH	DATE	TIME	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	SAMPLE MATRIX	PRESERVATIVE	ANALYSIS: TPH-g + BTEX + MTBE	ANALYSIS: Nitrates	ANALYSIS: Sulfates	ANALYSIS: Total Fe	ANALYSIS: Soluble Fe	SPECIAL INSTRUCTIONS/COMMENTS	TOTAL NUMBER OF ANALYSES
MW-F4		11/13/00	11:30	6				X	X	X	X	X		
MW-13		11/13/00	12:45	6				X	X	X	X	X		
TOTAL NUMBER OF CONTAINERS						TOTAL TESTS								

SAMPLED BY: RG & CC
SIGNATURE: R Bruneo

SPECIAL INSTRUCTIONS/COMMENTS

RELINQUISHED BY
Printed Name / Signature
Company / Date and Time

RELINQUISHED BY
Printed Name / Signature
Company / Date and Time

RELINQUISHED BY:
Printed Name / Signature
Company / Date and Time

RECEIVED BY.
Printed Name / Signature

RECEIVED BY
Printed Name / Signature

RECEIVED BY.
Printed Name / Signature
CHRISTINA 14:40

SEND RESULTS TO.

Innovative Technical Solutions, Inc.
1330 Broadway, Suite 1625
Oakland, California 94612
(510) 286-8888 (Tel), (510) 286-8889 (Fax)

PROJECT NAME: 2662 FRUITVALE
PROJECT NUMBER: 97-037.03
SITE LOCATION: 2662 FRUITVALE AVENUE

DAILY ACTIVITY REPORT

DATE: 12/22/00
PAGE 1 OF 2

TIME	DESCRIPTION OF FIELD ACTIVITIES AND EVENTS
0800	ORGANIZE SAMPLING GEAR AT ITSI OFFICE.
1000	ARRIVE AT SITE. SET UP TO SAMPLE. WILL TAKE DTW READINGS FIRST.
1010	BEGIN TAKING DTW READINGS.
1015	TOOK DTW READINGS AT WELLS MW-F1 AND MW-F3. WILL SET UP AT WELL MW-F2 AND TAKE DTW READINGS. NO DEDICATED TUBING FOUND AT WELLHEAD TO MW-F2. BEGAN CALIBRATING INSTRUMENTS. WILL USE DEDICATED TUBING FROM WELL MW-F1 TO PURGE WELL MW-F2. (MW-F1 IS "CLEAN" BASED ON 6/29/00 ANALYTICAL RESULTS.). BULB TO PH SENSOR BROKE SO WILL NOT BE ABLE TO MEASURE PH.
1112	BEGAN PURGING WELL MW-F2 USING PERISTALTIC PUMP.
1200	FINISHED PURGING WELL MW-F2.
1210	COLLECTED SAMPLE MW-F2.
1245	LUNCHBREAK.
1345	RETURNED FROM LUNCHBREAK. SET UP AT WELL MW-F6.
1405	BEGAN PURGING WELL MW-F6.
1443	STOPPED PURGING WELL MW-F6.
1445	COLLECTED SAMPLE MW-F6.
1505	MOVED TO WELL MW-F5.
1520	DEDICATED TUBING WILL NOT GO DOWN CASING FAR ENOUGH TO PUMP OUT WATER. WILL RESORT TO BAILING.
1535	BEGAN BAILING FROM WELL MW-F5.

REFERENCE SKETCH

PREPARED BY: A. JENSEN
DATE: 12/22/00
CHECKED BY*:
DATE:

DISTRIBUTION:

PREPARERS SIGNATURE: A. Jensen
REVIEWERS SIGNATURE:

* *Not appropriate for a field activity report when only one responsible person is in the field*

ITSI Innovative Technical Solutions, Inc.
1330 Broadway, Suite 1625
Oakland, California 94612
(510) 286-8888 (Tel), (510) 286-8889 (Fax)

PROJECT NAME: 2662 FRUITVALE
PROJECT NUMBER: 97-037.03

DAILY ACTIVITY REPORT

DATE: 12/22/00
PAGE 2 OF 2

SITE LOCATION: 2662 FRUITVALE AVENUE

TIME	DESCRIPTION OF FIELD ACTIVITIES AND EVENTS
1552	FINISHED BAILING WELL MW-F5.
1555	COLLECTED SAMPLE MW-F5.
1610	MOVED TO WELL MW-13. SET UP TO PURGE WELL.
1617	BEGAN PURGING WELL MW-13.
1648	FINISHED PURGING WELL MW-13.
1650	COLLECTED SAMPLE MW-13.
1700	MOVED TO WELL MW-F4.
1705	BEGAN PURGING WELL MW-F4.
1723	FINISHED PURGING WELL MW-F4.
1725	COLLECTED SAMPLE MW-F4.
1740	DEPARTED SITE. ENROUTE TO CHROMALAB.
1835	DELIVERED SAMPLES TO CHROMALAB.
1920	RETURNED TO ITSI OFFICE. FINISHED FOR THE DAY.

REFERENCE SKETCH

PREPARED BY: ART JENSEN
DATE: 12/22/00
CHECKED BY*:
DATE:

DISTRIBUTION:

PREPARERS SIGNATURE: Art Jensen
REVIEWERS SIGNATURE:

* *Not appropriate for a field activity report when only one responsible person is in the field.*

Innovative Technical Solutions, Inc.
1330 Broadway, Suite 1625
Oakland, California 94612
(510) 286-8888 (Tel), (510) 286-8889 (Fax)

CHAIN-OF-CUSTODY

PROJECT NAME: 2662 FRUITVALE AVENUE
PROJECT NUMBER: 97-037.03
SITE LOCATION: 2662 FRUITVALE AVENUE, OAKLAND, CA

LABORATORY NAME: CHROMALAB, INC.
ADDRESS: 1220 QUARRY LANE, PLEASANTON, CA
CONTACT/PHONE NO.: SURINDER SIDHU (925) 484-1919

DATE: 12/22/00
PAGE: 1 of 1

SAMPLE I.D	SAMPLE DEPTH (FEET)	DATE	TIME	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	SAMPLE MATRIX	PRESERVATIVE	ANALYSIS: TPHg/BTEX 3x40mL HCl	Total Fe 1x250mL Poly w/ HNO_3	Soluble Fe (Filtered) 1x250mL Poly	Sulfate 1x500mL Poly	Nitrate In same bottle as sulfate	SPECIAL INSTRUCTIONS/COMMENTS	TOTAL NUMBER OF ANALYSES
MW-F2	≈15	12/22/00	1210	6		WATER	....	x	x	x	x	x		6
MW-F4	≈14	↓	1725	↓		↓		x	x	x	x	x		6
MW-F5	≈20		1555					x	x	x	x	x		6
MW-F6	≈15		1445					x	x	x	x	x		6
MW-13	≈15	↓	1650	↓		↓		x	x	x	x	x		6
TOTAL NUMBER OF CONTAINERS						TOTAL TESTS		5	5	5	5	5		

SAMPLED BY: C.C./A.J.
SIGNATURE: Art Jensen

SPECIAL INSTRUCTIONS/COMMENTS: Please provide sample results to Jeff Hess (jhess@itsi.com) at (925) 256-8898 x104

RELINQUISHED BY: ART JENSEN Art Jensen
Printed Name Signature
ITSI 12/22/00 @ 1835
Company Date and Time

RECEIVED BY: D. HARRINGTON Denise Harrington
Printed Name Signature
Chromalab 12/22/00 @ 1835
Company Date and Time

RELINQUISHED BY: _____
Printed Name Signature
_____
Company Date and Time

RECEIVED BY: _____
Printed Name Signature
_____
Company Date and Time

RELINQUISHED BY _____
Printed Name Signature
_____
Company Date and Time

RECEIVED BY _____
Printed Name Signature
_____
Company Date and Time

SEND RESULTS TO: Standard TAT

Innovative Technical Solutions, Inc.

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale Avenue PROJECT NO.: 97-037.03

WELL NO.: MW-F2 TESTED BY: CC/AJ DATE: 12/22/00

Measuring Point Description: T.O.C. Static Water Level (ft.): 10.52

Total Well Depth (ft.): 19.66 Sample Method: PERISTALTIC PUMP

Water Level Measurement Method: SOLINST Time Sampled: 1210

Purge Method: PERISTALTIC PUMP Sample Depth (ft.): ≈15

Time Start Purge: 1112 Field Filtering: YES FOR SOLUBLE IRON

Time End Purge: 1200 Field Preservation: HCL FOR VOCs; HNO_3 FOR TOTAL IRON

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
							(2)	4	6		
							0.16	0.64	1.44		
	19.66		10.52		9.14						1.46 (3 VOLUMES = 4.5)

Time	1119	1140	1150	1200			
Volume Purged (gals)	INITIAL	1.5	3	4.5			
Cumulative Volume Purged (gals)	INITIAL	1.5	3	4.5			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.07	0.07	0.15	0.15			
Temperature (F°) or (C°)	19.8	20.3	20.1	19.5			
pH	~~4.56~~ NA	~~4.69~~ NA	~~4.72~~ NA	~~5.39~~ NA a.j.			
Specific Conductivity (mS/cm)	0.406	0.403	0.411	0.416			
Dissolved Oxygen (mg/L)	8.67	8.88	9.01	9.12			
Turbidity (NTU)	10	10	10	10			
ORP (mV)	203	194	195	155			
Odor	NONE	NONE	NONE	NONE			
Dewatered?	NO	NO	NO	NO			

Innovative Technical Solutions, Inc.

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale Avenue PROJECT NO.: 97-037.03

WELL NO.: MW-F6 TESTED BY: CC/AJ DATE: 12/22/00

Measuring Point Description: T.O.C. Static Water Level (ft.): 9.85

Total Well Depth (ft.): 21.10 Sample Method: PERISTALTIC PUMP

Water Level Measurement Method: SOLINST Time Sampled: 1445

Purge Method: PERISTALTIC PUMP Sample Depth (ft.): ≈15

Time Start Purge: 1405 Field Filtering: YES FOR SOLUBLE IRON

Time End Purge: 1443 Field Preservation: HCL FOR VOCs; HNO_3 FOR TOTAL IRON

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
	21.10		9.85		11.25		(2)	4	6		1.8
							0.16	0.64	1.44		3 VOLUMES = 5.4

Time	1405	1420	1433	1443			
Volume Purged (gals)	INITIAL	1.8	3.6	5.4			
Cumulative Volume Purged (gals)	INITIAL	1.8	3.6	5.4			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.12	0.12	0.14	0.18			
Temperature (F°) or (C°)	19.5	18.5	19.2	18.9			
pH	NA	NA	NA	NA			
Specific Conductivity (mS/cm)	0.491	0.505	0.466	0.486			
Dissolved Oxygen (mg/L)	8.40	8.66	8.74	8.82			
Turbidity (NTU)	6	9	10	10			
ORP (mV)	152	53	62	100			
Odor	NONE	NONE	NONE	NONE			
Dewatered?	NO	NO	NO	NO			

Innovative Technical Solutions, Inc.

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: **2662 Fruitvale Avenue** PROJECT NO.: 97-037.03

WELL NO.: MW-F5 TESTED BY: CC/AJ DATE: 12/22/00

Measuring Point Description: T.O.C. Static Water Level (ft.): 9.99

Total Well Depth (ft.): 23.78 Sample Method: BAILER (DISPOSABLE)

Water Level Measurement Method: SOLINST Time Sampled: 1555

Purge Method: DISPOSABLE BAILER. DID NOT USE PERISTALTIC PUMP BECAUSE TUBING WOULD NOT GO DOWN WELL FAR ENOUGH. Sample Depth (ft.): ≈ 20

Time Start Purge: 1535 Field Filtering: DID NOT FILTER IN FIELD (FOR SOLUBLE IRON) SINCE PUMP WAS NOT USED.

Time End Purge: 1552 Field Preservation: HCL FOR VOCs; HNO_3 FOR TOTAL IRON

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
							(2)	4	6		
	23.78		9.99		13.79		0.16	0.64	1.44		2.2 3 VOLUMES = 6.6

Time	1535	1540	1545	1552			
Volume Purged (gals)	INITIAL	2.2	4.4	6.6			
Cumulative Volume Purged (gals)	INITIAL	2.2	4.4	6.6			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.44	0.44	0.44	0.31			
Temperature (F°) or (C°)	17.4	18.9	19.0	17.9			
pH	NA	NA	NA	NA			
Specific Conductivity (mS/cm)	0.492	0.482	0.486	0.490			
Dissolved Oxygen (mg/L)	8.75	8.70	8.73	9.69			
Turbidity (NTU)	10	10	10	10			
ORP (mV)	153	161	40	95			
Odor	NONE	NONE	NONE	NONE			
Dewatered?	NO	NO	NO	NO			

Innovative Technical Solutions, Inc.

MONITORING WELL
PURGE AND SAMPLE FORM

PROJECT NAME: 2662 Fruitvale Avenue PROJECT NO.: 97-037.03

WELL NO.: MW-13 TESTED BY: CC/AJ DATE: 12/22/00

Measuring Point Description: T.O.C. Static Water Level (ft.): 10.31

Total Well Depth (ft.): 22.92 Sample Method: PERISTALTIC PUMP

Water Level Measurement Method: SOLINST Time Sampled: 1650

Purge Method: PERISTALTIC PUMP Sample Depth (ft.): ≈15

Time Start Purge: 1617 Field Filtering: YES FOR SOLUBLE IRON

Time End Purge: 1648 Field Preservation: HCL FOR VOCs; HNO_3 FOR TOTAL IRON

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
	22.92	-	10.31	=	12.61	x	(2)	4	6	=	2.02
							0.16	0.64	1.44		3 VOLUMES = 6.1

Time	1617	1630	1642	1648			
Volume Purged (gals)	INITIAL	2.4	4.4	6.4			
Cumulative Volume Purged (gals)	INITIAL	2.4	4.4	6.4			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.18	0.18	0.17	0.33			
Temperature (F°) or (C°)	18.9	18.2	18.5	19.0			
pH	NA	NA	NA	NA			
Specific Conductivity (mS/cm)	0.716	0.722	0.801	0.718			
Dissolved Oxygen (mg/L)	8.81	9.25	8.50	8.22			
Turbidity (NTU)	4	0	1	2			
ORP (mV)	65	74	76	56			
Odor	YES	YES	YES	YES			
Dewatered?	NO	NO	NO	NO			

Innovative Technical Solutions, Inc.

MONITORING WELL PURGE AND SAMPLE FORM

PROJECT NAME: **2662 Fruitvale Avenue** PROJECT NO.: 97-037.03

WELL NO.: MW-E4 TESTED BY: CC/AJ DATE: 12/22/00

Measuring Point Description: T.O.C. Static Water Level (ft.): 10.80

Total Well Depth (ft.): 16.65 Sample Method: PERISTALTIC PUMP

Water Level Measurement Method: SOLINST Time Sampled: 1725

Purge Method: PERISTALTIC PUMP Sample Depth (ft.): ≈14

Time Start Purge: 1705 Field Filtering: YES FOR SOLUBLE IRON

Time End Purge: 1723 Field Preservation: HCL FOR VOCs

Comments:

Well Volume Calculation (fill in before purging)	Total Depth (ft)	-	Depth to Water (ft)	=	Water Column (ft)	x	Multiplier for Casing Diameter (in)			=	Casing Volume (gal)
							(2)	4	6		
							0.16	0.64	1.44		
	16.65		10.80		5.85						0.94 3 VOLUMES ≅ 3 GAL

Time	1705	1712	1717	1723			
Volume Purged (gals)	INITIAL	1	2	3			
Cumulative Volume Purged (gals)	INITIAL	1	2	3			
Cumulative Number of Casing Volumes	0	1	2	3			
Purge Rate (gpm)	0.14	0.14	0.20	0.17			
Temperature (F°) or (C°)	17.8	18.7	17.7	19.5			
pH	NA	NA	NA	NA			
Specific Conductivity (mS/cm)	0.605	0.630	0.600	0.602			
Dissolved Oxygen (mg/L)	9.36	8.43	8.75	7.95			
Turbidity (NTU)	0.0	1.0	1.0	1.0			
ORP (mV)	66	88	109	164			
Odor	NONE	NONE	NONE	NONE			
Dewatered?	NO	NO	NO	NO			

MONITORING WELL WATER LEVEL MEASUREMENT FORM

PROJECT NAME: 2662 Fruitvale Avenue PROJECT NO.: 97-037.03

MEASURED BY: C. CLYDE/A. JENSEN DATE: 12/22/00

Monitoring Well I.D.	Depth to Water (feet)	Total Well Depth (feet)	Time
MW-F1	9.91	24.63 NA	1010
MW-F2	10.52	19.66 NA	1100
MW-F3	10.24	23.79 NA	1015
MW-F4	10.80	16.65 NA	1630
MW-F5	a.j. ~~9.99~~	23.78 NA	1510
MW-F6	9.85	21.10 ~~28.10~~ a.j. NA	1355
MW-13	10.31	22.92 NA	1615

APPENDIX B

COPIES OF LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORM FOR GROUNDWATER SAMPLES

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-10-0147
Date: October 16, 2000

Innovative Technical Solutions, Inc
2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn.: Mr. Jeff Hess

Project: 97-037.03
Fruitvale

Dear Jeff.

Attached is our report for your samples received on Friday October 6, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after November 20, 2000 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: ssidhu@chromalab.com

Sincerely,

Surinder Sidhu

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

Gas/BTEX

Innovative Technical Solutions, Inc

2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn: Jeff Hess

Phone: (925) 256-8898 Fax: (925) 256-8998

Project #: 97-037.03

Project: Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4	Water	10/06/2000 14:00	1
MW-13	Water	10/06/2000 15:20	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-10-0147-001**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/12/2000 10:59
Sampled:	10/06/2000 14:00	QC-Batch:	2000/10/12-01.02
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	3000	100	ug/L	2.00	10/12/2000 10:59	
Benzene	11	1.0	ug/L	2.00	10/12/2000 10:59	
Toluene	1.8	1.0	ug/L	2.00	10/12/2000 10:59	
Ethyl benzene	120	1.0	ug/L	2.00	10/12/2000 10:59	
Xylene(s)	69	1.0	ug/L	2.00	10/12/2000 10:59	
Surrogate(s)						
Trifluorotoluene	87.3	58-124	%	1.00	10/12/2000 10:59	
4-Bromofluorobenzene-FID	87.5	50-150	%	1.00	10/12/2000 10:59	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-13**	Lab Sample ID:	**2000-10-0147-003**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/12/2000 01:27
Sampled:	10/06/2000 15:20	QC-Batch:	2000/10/11-01.05
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	4600	500	ug/L	10.00	10/12/2000 01:27	
Benzene	100	5.0	ug/L	10.00	10/12/2000 01:27	
Toluene	ND	5.0	ug/L	10.00	10/12/2000 01:27	
Ethyl benzene	190	5.0	ug/L	10.00	10/12/2000 01:27	
Xylene(s)	36	5.0	ug/L	10.00	10/12/2000 01:27	
Surrogate(s)						
Trifluorotoluene	83.8	58-124	%	1.00	10/12/2000 01:27	
4-Bromofluorobenzene-FID	88.7	50-150	%	1.00	10/12/2000 01:27	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report
Gas/BTEX

Method Blank | **Water** | **QC Batch # 2000/10/12-01.02**

MB: 2000/10/12-01.02-001

Date Extracted: 10/12/2000 06:20

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	10/12/2000 06:20	
Benzene	ND	0.5	ug/L	10/12/2000 06:20	
Toluene	ND	0.5	ug/L	10/12/2000 06:20	
Ethyl benzene	ND	0.5	ug/L	10/12/2000 06:20	
Xylene(s)	ND	0.5	ug/L	10/12/2000 06:20	
Surrogate(s)					
Trifluorotoluene	78.2	58-124	%	10/12/2000 06:20	
4-Bromofluorobenzene-FID	80.0	50-150	%	10/12/2000 06:20	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report
Gas/BTEX

Method Blank	**Water**	**QC Batch # 2000/10/11-01.05**
MB: 2000/10/11-01.05-001		Date Extracted: 10/11/2000 16:19

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	10/11/2000 16:19	
Benzene	ND	0.5	ug/L	10/11/2000 16:19	
Toluene	ND	0.5	ug/L	10/11/2000 16:19	
Ethyl benzene	ND	0.5	ug/L	10/11/2000 16:19	
Xylene(s)	ND	0.5	ug/L	10/11/2000 16:19	
Surrogate(s)					
Trifluorotoluene	84.2	58-124	%	10/11/2000 16:19	
4-Bromofluorobenzene-FID	69.2	50-150	%	10/11/2000 16:19	

To: ***Innovative Technical Solutions, Inc***

Attn: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/10/12-01.02**

LCS: 2000/10/12-01.02-002 Extracted: 10/12/2000 06:51 Analyzed 10/12/2000 06:51

LCSD: 2000/10/12-01.02-003 Extracted: 10/12/2000 07:22 Analyzed 10/12/2000 07:22

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	475	483	500	500	95.0	96.6	1.7	75-125	20		
Benzene	99.5	97.6	100.0	100.0	99.5	97.6	1.9	77-123	20		
Toluene	95.3	94.2	100.0	100.0	95.3	94.2	1.2	78-122	20		
Ethyl benzene	91.1	90.9	100.0	100.0	91.1	90.9	0.2	70-130	20		
Xylene(s)	259	259	300	300	86.3	86.3	0.0	75-125	20		
Surrogate(s)											
Trifluorotoluene	421	417	500	500	84.2	83.4		58-124			
4-Bromofluorobenzene-FI	438	447	500	500	87.6	89.4		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**

Test Method: 8015M
8020

Attn: Jeff Hess

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/10/11-01.05**

LCS: 2000/10/11-01.05-002 Extracted: 10/11/2000 16:51 Analyzed 10/11/2000 16:51

LCSD: 2000/10/11-01.05-003 Extracted: 10/11/2000 17:23 Analyzed 10/11/2000 17:23

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	471	469	500	500	94.2	93.8	0.4	75-125	20		
Benzene	92.3	88.0	100.0	100.0	92.3	88.0	4.8	77-123	20		
Toluene	91.3	85.5	100.0	100.0	91.3	85.5	6.6	78-122	20		
Ethyl benzene	94.2	88.6	100.0	100.0	94.2	88.6	6.1	70-130	20		
Xylene(s)	265	252	300	300	88.3	84.0	5.0	75-125	20		
Surrogate(s)											
Trifluorotoluene	449	420	500	500	89.8	84.0		58-124			
4-Bromofluorobenzene-FI	394	395	500	500	78.8	79.0		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

Metals

Innovative Technical Solutions, Inc	2855 Mitchell Drive, Suite 111 Walnut Creek, CA 94598-1627
Attn: Jeff Hess	Phone: (925) 256-8898 Fax: (925) 256-8998
Project #: 97-037.03	Project: Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4	Water	10/06/2000 14:00	1
MW-13	Water	10/06/2000 15:20	3

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-10-0147-001**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/13/2000 08:26
Sampled:	10/06/2000 14:00	QC-Batch:	2000/10/13-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.24	0.10	mg/L	1.00	10/13/2000 16:01	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-13**	Lab Sample ID:	**2000-10-0147-003**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/13/2000 08:26
Sampled:	10/06/2000 15:20	QC-Batch:	2000/10/13-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	4.3	0.10	mg/L	1.00	10/13/2000 16:18	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Batch QC Report
Metals

Method Blank **Water** **QC Batch # 2000/10/13-03.15**

MB: 2000/10/13-03.15-040 Date Extracted: 10/13/2000 08:26

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	10/16/2000 07:48	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 6010B

Prep Method: 3010A

Batch QC Report

Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/10/13-03.15**

LCS: 2000/10/13-03.15-041 Extracted: 10/13/2000 08:26 Analyzed 10/13/2000 15:50

LCSD: 2000/10/13-03.15-042 Extracted: 10/13/2000 08:26 Analyzed 10/13/2000 15:54

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	5.51	5.32	5.00	5.00	110.2	106.4	3.5	80-120	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

Soluble Metals

Innovative Technical Solutions, Inc

☒ 2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn: Jeff Hess

Phone: (925) 256-8898 Fax: (925) 256-8998

Project #: 97-037.03

Project: Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4 (FILTERED)	Water	10/06/2000 14:00	2
MW-13 (FILTERED)	Water	10/06/2000 15:20	4

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-F4 (FILTERED)**	Lab Sample ID:	**2000-10-0147-002**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/11/2000 12:57
Sampled:	10/06/2000 14:00	QC-Batch:	2000/10/11-05.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	10/12/2000 08:48	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-13 (FILTERED)**	Lab Sample ID:	**2000-10-0147-004**
Project:	97-037.03 Fruitvale	Received:	10/06/2000 17:15
		Extracted:	10/11/2000 12:57
Sampled:	10/06/2000 15:20	QC-Batch:	2000/10/11-05.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	3.5	0.10	mg/L	1.00	10/12/2000 08:51	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Batch QC Report
Soluble Metals

Method Blank | **Water** | **QC Batch # 2000/10/11-05.15**

MB: 2000/10/11-05.15-034 | Date Extracted: 10/11/2000 12:57

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	10/11/2000 21:28	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-10-0147

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 6010B

Prep Method: 3005A

Batch QC Report

Soluble Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/10/11-05.15**

LCS: 2000/10/11-05.15-035 Extracted: 10/11/2000 12:57 Analyzed 10/11/2000 21:31

LCSD: 2000/10/11-05.15-036 Extracted: 10/11/2000 12:57 Analyzed 10/11/2000 21:35

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	4.81	4.77	5.00	5.00	96.2	95.4	0.8	80-120	20		

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # L283-07 **Date:** 10/17/00

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2000-10-0147

PO#

Date Rec'd: 10/09/00
Date Started: 10/09/00
Date Completed: 10/09/00

Date Sampled: 10/06/00
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
MW-F4	L310013	1.0	300.0	Nitrate (NO3)	2.1	mg/L
		1.0	300.0	Sulfate	38	mg/L
MW-13	L310014	1.0	300.0	Nitrate (NO3)	ND	mg/L
		1.0	300.0	Sulfate	5.4	mg/L

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# L283-07

QC REPORT

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Dates Analyzed 10/09/00

Analyte	Batch #	Method	MS % Recovery	MSD % Recovery	RPD	Blank
Nitrate (NO3)	I09820	300.0	102.6	106.4	3.6	ND
Sulfate	I09821	300.0	107.0	118.0	9.8	ND

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

Chain of Custody 2000-10-0147-1

Date Shipped: 10/09/2000

From:

ChromaLab, Inc. (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager: Surinder Sidhu
Phone: Ext:
Fax: (925) 484-1096
Email: ssidhu@chromalab.com

To:

GeoAnalytical Labs
1405 Kansas Avenue
Modesto, CA 95351

Phone: (209) 572-0900
Fax: (209) 572-0916
Contact: Ramiro Salgado
Phone: (209) 572-0900

L283-07

CL Submission #: **2000-10-0147**
CL PO #:

Project #: 97-037.03
Project Name: Fruitvale

Client Sample ID / Analysis		CL#	Sampled	Matrix / Method	Due
MW-F4		001	10/06/2000 14:00	Water	L310013
Subcontract - Nitrate	(2)			300/352.1	**10/16/2000 17:00**
Subcontract - Sulfate				300/375.4	**10/16/2000 17:00**
MW-13		003	10/06/2000 15:20	Water	L310014
Subcontract - Nitrate	(2)			300/352.1	**10/16/2000 17:00**
Subcontract - Sulfate				300/375.4	**10/16/2000 17:00**

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature / Time: Crowley 10/09/00	Signature / Time	Signature / Time
Printed Name / Date: Chromalab	Printed Name / Date	Printed Name / Date
Company	Company	Company
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature / Time: 1010	Signature / Time	Signature / Time
Printed Name / Date: Cheryl VARgas 10-9-00	Printed Name / Date	Printed Name / Date
Company: CEL	Company	Company

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

2000-10-0147

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Fax (925) 484-1096

Reference #: 04781

Chain of Custody

DATE 10-6-00 PAGE 1 OF 1

PROJ MGR Jeff Hess
COMPANY ITSI
ADDRESS 2855 Mitchell Drive, #111
Walnut Ck., CA 94598
SAMPLERS (SIGNATURE) T. Watchers (PHONE NO.) (FAX NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH-(EPA 8015, 8020) ■ Gas w/ ■ BTEX ☐MTBE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) ☐ Diesel ☐ M.O. ☐ Other	PURGEABLE HALOCARBONS (HVOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	Oil & Grease ☐ Petrol ☐ Total ☐ 1664	Nitrates	☐ PESTICIDES(EPA 8080) ☐ PCB'S (EPA 8080)	PNA's by ☐ 8270 ☐ 8310	☐ Spec. Cond. ☐ TSS ☐ TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	☐ W.E.T. (STLC) ☐ TCLP	☐ Hexavalent Chromium ☐ pH (24 hr hold time for H20)	Sulfate	Total Fe	Soluble Fe	NUMBER OF CONTAINERS
MW-F4	10-6-00	2:00	water		X								X									X	X	X	
MW-13	10-6-00	3:20	water		X								X									X	X	X	

PROJECT INFORMATION

PROJECT NAME: Fruitvale
PROJECT NUMBER 97-037.03
P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS
HEAD SPACE
TEMPERATURE
CONFORMS TO RECORD

TAT: STANDARD 5-DAY | 24 | 48 | 72 | OTHER

SPECIAL INSTRUCTIONS/COMMENTS.
Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ Electronic Report

RELINQUISHED BY 1.	RELINQUISHED BY 2	RELINQUISHED BY 3
(SIGNATURE) T. Watchers (TIME) 17:15	(SIGNATURE) (TIME)	(SIGNATURE) (TIME)
(PRINTED NAME) Tim Watchers (DATE) 10/6/00	(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)
(COMPANY)	(COMPANY)	(COMPANY)
RECEIVED BY 1	**RECEIVED BY 2**	**RECEIVED BY (LABORATORY) 3**
(SIGNATURE) (TIME)	(SIGNATURE) (TIME)	(SIGNATURE) Denise Harrington (TIME) 17:15
(PRINTED NAME) (DATE)	(PRINTED NAME) (DATE)	(PRINTED NAME) D. Harrington (DATE) 10/6/00
(COMPANY)	(COMPANY)	(LAB) Chromalab

Innovative Technical Solutions, Inc
2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn.: Mr. Jeff Hess

Project: 97-037.03
2662 Fruitvale

Dear Jeff.

Attached is our report for your samples received on Monday November 13, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after December 28, 2000 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: ssidhu@chromalab.com

Sincerely,

Surinder Sidhu

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

Gas/BTEX and MTBE

Innovative Technical Solutions, Inc

2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn: Jeff Hess

Phone: (925) 256-8898 Fax: (925) 256-8998

Project #: 97-037.03

Project: 2662 Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4	Water	11/13/2000 11:30	1
MW-13	Water	11/13/2000 12:45	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-11-0249-001**
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/17/2000 15:45
Sampled:	11/13/2000 11:30	QC-Batch:	2000/11/17-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	3900	250	ug/L	5.00	11/17/2000 15:45	
Benzene	39	2.5	ug/L	5.00	11/17/2000 15:45	
Toluene	16	2.5	ug/L	5.00	11/17/2000 15:45	
Ethyl benzene	840	2.5	ug/L	5.00	11/17/2000 15:45	
Xylene(s)	300	2.5	ug/L	5.00	11/17/2000 15:45	
MTBE	ND	25	ug/L	5.00	11/17/2000 15:45	
Surrogate(s)						
Trifluorotoluene	119.1	58-124	%	1.00	11/17/2000 15:45	
4-Bromofluorobenzene-FID	93.0	50-150	%	1.00	11/17/2000 15:45	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**MW-13**	Lab Sample ID:	**2000-11-0249-003**
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/17/2000 16:20
Sampled:	11/13/2000 12:45	QC-Batch:	2000/11/17-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	6000	500	ug/L	10.00	11/17/2000 16:20	
Benzene	220	5.0	ug/L	10.00	11/17/2000 16:20	
Toluene	35	5.0	ug/L	10.00	11/17/2000 16:20	
Ethyl benzene	470	5.0	ug/L	10.00	11/17/2000 16:20	
Xylene(s)	120	5.0	ug/L	10.00	11/17/2000 16:20	
MTBE	ND	50	ug/L	10.00	11/17/2000 16:20	
Surrogate(s)						
4-Bromofluorobenzene	97.9	50-150	%	1.00	11/17/2000 16:20	
4-Bromofluorobenzene-FID	85.3	50-150	%	1.00	11/17/2000 16:20	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 2000/11/17-01.01**

MB: 2000/11/17-01.01-001

Date Extracted: 11/17/2000 06:48

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	11/17/2000 06:48	
Benzene	ND	0.5	ug/L	11/17/2000 06:48	
Toluene	ND	0.5	ug/L	11/17/2000 06:48	
Ethyl benzene	ND	0.5	ug/L	11/17/2000 06:48	
Xylene(s)	ND	0.5	ug/L	11/17/2000 06:48	
MTBE	ND	5.0	ug/L	11/17/2000 06:48	
Surrogate(s)					
Trifluorotoluene	104.2	58-124	%	11/17/2000 06:48	
4-Bromofluorobenzene-FID	82.4	50-150	%	11/17/2000 06:48	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/11/17-01.01**

LCS: 2000/11/17-01.01-002 Extracted: 11/17/2000 07:23 Analyzed 11/17/2000 07:23

LCSD: 2000/11/17-01.01-003 Extracted: 11/17/2000 07:57 Analyzed 11/17/2000 07:57

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	507	441	500	500	101.4	88.2	13.9	75-125	20		
Benzene	91.3	85.8	100.0	100.0	91.3	85.8	6.2	77-123	20		
Toluene	87.6	82.3	100.0	100.0	87.6	82.3	6.2	78-122	20		
Ethyl benzene	89.7	84.5	100.0	100.0	89.7	84.5	6.0	70-130	20		
Xylene(s)	266	250	300	300	88.7	83.3	6.3	75-125	20		
Surrogate(s)											
Trifluorotoluene	477	435	500	500	95.4	87.0		58-124			
4-Bromofluorobenzene-FI	425	379	500	500	85.0	75.8		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

Metals

Innovative Technical Solutions, Inc	✉ 2855 Mitchell Drive, Suite 111 Walnut Creek, CA 94598-1627
Attn: Jeff Hess	Phone: (925) 256-8898 Fax: (925) 256-8998
Project #: 97-037.03	Project: 2662 Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4	Water	11/13/2000 11:30	1
MW-13	Water	11/13/2000 12:45	3

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-11-0249-001**
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/14/2000 10:47
Sampled:	11/13/2000 11:30	QC-Batch:	2000/11/14-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.14	0.10	mg/L	1.00	11/14/2000 18:58	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-13**	Lab Sample ID:	**2000-11-0249-003**
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/14/2000 10:47
Sampled:	11/13/2000 12:45	QC-Batch:	2000/11/14-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	4.5	0.10	mg/L	1.00	11/14/2000 19:02	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Batch QC Report
Metals

Method Blank | **Water** | **QC Batch # 2000/11/14-04.15**

MB: 2000/11/14-04.15-006 | Date Extracted: 11/14/2000 10:47

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	11/14/2000 16:48	

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 6010B

Prep Method: 3010A

Batch QC Report

Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/11/14-04.15**

LCS: 2000/11/14-04.15-007 Extracted: 11/14/2000 10:47 Analyzed 11/14/2000 16:53

LCSD: 2000/11/14-04.15-008 Extracted: 11/14/2000 10:47 Analyzed 11/14/2000 16:57

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	4.90	4.98	5.00	5.00	98.0	99.6	1.6	80-120	20		

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-11-0249

Soluble Metals

Innovative Technical Solutions, Inc
2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627
Attn: Jeff Hess
Phone: (925) 256-8898 Fax: (925) 256-8998
Project #: 97-037.03
Project: 2662 Fruitvale

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F4	Water	11/13/2000 11:30	2
MW-13	Water	11/13/2000 12:45	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-F4**	Lab Sample ID:	***2000-11-0249-002***
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/15/2000 07:22
Sampled:	11/13/2000 11:30	QC-Batch:	2000/11/15-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	11/15/2000 09:05	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-13**	Lab Sample ID:	**2000-11-0249-004**
Project:	97-037.03 2662 Fruitvale	Received:	11/13/2000 14:40
		Extracted:	11/15/2000 07:22
Sampled:	11/13/2000 12:45	QC-Batch:	2000/11/15-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	1.4	0.10	mg/L	1.00	11/15/2000 09:10	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Batch QC Report
Soluble Metals

Method Blank **Water** **QC Batch # 2000/11/15-03.15**

MB: 2000/11/15-03.15-014 Date Extracted: 11/15/2000 07:22

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	11/15/2000 08:52	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0249

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 6010B

Prep Method: 3005A

Batch QC Report

Soluble Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/11/15-03.15**

LCS: 2000/11/15-03.15-015 Extracted: 11/15/2000 07:22 Analyzed 11/15/2000 08:56

LCSD: 2000/11/15-03.15-016 Extracted: 11/15/2000 07:22 Analyzed 11/15/2000 09:01

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	4.90	4.92	5.00	5.00	98.0	98.4	0.4	80-120	20		

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # L319-16 **Date:** 11/17/00

Chromalab
220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2000-11-0249

PO#

Date Rec'd: 11/14/00
Date Started: 11/14/00
Date Completed: 11/15/00

Date Sampled: 11/13/00
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
MW-F4	L311281	1.0	300.0	Nitrate (NO3)	ND	mg/L
		1.0	300.0	Sulfate	13	mg/L
MW-13	L311282	1.0	300.0	Nitrate (NO3)	1.1	mg/L
		1.0	300.0	Sulfate	1.7	mg/L

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# L319-16

QC REPORT

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Dates Analyzed 11/14/00-11/15/00

Analyte	Batch #	Method	MS % Recovery	MSD % Recovery	RPD	Blank
Nitrate (NO3)	I11485	300.0	92.8	93.6	0.9	ND
Sulfate	I11486	300.0	99.4	101.2	1.8	ND

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

Chain of Custody 2000-11-0249-1

Date Shipped: 11/13/2000

L319-16

From:

ChromaLab, Inc. (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager: Surinder Sidhu
Phone: Ext:
Fax: (925) 484-1096
Email: ssidhu@chromalab.com

To:

GeoAnalytical Labs
1405 Kansas Avenue
Modesto, CA 95351

Phone: (209) 572-0900
Fax: (209) 572-0916
Contact: Ramiro Salgado
Phone: (209) 572-0900

CL Submission #: **2000-11-0249**
CL PO #:

Project #: 97-037.03
Project Name: 2662 Fruitvale

Client Sample ID / Analysis	CL#	Sampled	Matrix / Method	Due
MW-F4	001	11/13/2000 11:30	Water	L311281
Subcontract - Nitrate		500ml/P1	300/352.1	**11/20/2000 17:00**
Subcontract - Sulfate			300/375.4	**11/20/2000 17:00**
MW-13	003	11/13/2000 12:45	Water	L311282
Subcontract - Nitrate			300/352.1	**11/20/2000 17:00**
Subcontract - Sulfate			300/375.4	**11/20/2000 17:00**

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time:	Signature: Time:	Signature: Time:
Printed Name: CRISELDA Date: 11/14/00	Printed Name: Date:	Printed Name: Date:
Company: CL	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: [signature] Time: 11:44	Signature: Time:	Signature: Time:
Printed Name: Cheryl Vargas Date: 11/14	Printed Name: Date:	Printed Name: Date:
Company: GeoA	Company:	Company:

ITSI Innovative Technical Solutions, Inc.

PURCHASE ORDER
P9703700009
THIS NUMBER MUST APPEAR ON ALL INVOICES, PACKING SLIPS, PACKAGES & CORRESPONDENCE

SELLER:
Chromalab, Inc
1220 Quarry Lane
Pleasanton, CA 94566

BUYER:
Innovative Technical Solutions, Inc.
2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598

Attn: SURINDER SIDHU

Project # 97-037

Ship supplies or perform services:
(✓) CONFIRMING ORDER ( ) CHANGE ORDER ( ) TAXABLE (✓) NON-TAXABLE
( ) Davis-Bacon Minimum Wage/Weekly Certified Payroll ( ) R-150 Equipment Inspection Report

PLEASE ENTER OUR OR AND FURNISH GOODS OR SERVICE SPECIFIED BELOW IN ACCORDANCE WITH TERMS OF THIS PURCHASE ORDER INCLUDING THOSE TERMS AND CONDITIONS ATTACHED HERETO

ITEM	QTY	U/M	DESCRIPTION/PRODUCT NUMBER	UNIT PRICE	TOTAL
1		2EACH	TPHg AND BTEX BY EPA METHOD 8015/8020	60.00	120.00
2		2EACH	TOTAL IRON	22.50	45.00
3		2EACH	SOLUBLE IRON	22.50	45.00
4		2EACH	NITRATES	21.00	42.00
5		2EACH	SULFATES	21.00	42.00
6		2EACH	FILTRATION FOR IRON, IF REQUESTED BY ITSI WHEN SAMPLES ARE DELIVERED TO CHROMOLAB	10.00	20.00

Total 314.00*

November 9, 2000 2:46 pm

SAMPLE CONTAINERS TO BE DELIVERED TO ITSI BY FRIDAY 11/10/00 BEFORE 4:00 P.M. AT

2855 MITCHELL DRIVE, SUITE 111
WALNUT CREEK, CA 94598

ITSI PERSONNEL WILL DELIVER SAMPLES TO CHROMOLAB ON MONDAY NOVEMBER 13, 2000.

Post-it® Fax Note 7671	Date 11/9/00	# of pages ▶ 2
To Surinder Sidhu	From Dave Cox
Co./Dept. Chromo Lab	Co. ITSI
Phone #	Phone #
Fax # 484-1096	Fax #

BILLING INSTRUCTIONS: Send an original and one copy of invoice to the address below, marked "ATTN: ACCOUNTS PAYABLE"

ACCEPTANCE OF THIS ORDER IS EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF THE ORDER.

DATE: 11/9/00

INNOVATIVE TECHNICAL SOLUTIONS, INC. (ITSI)
TERMS AND CONDITIONS

ACCEPTANCE: This order expressly limits acceptance to the terms and conditions stated herein. Any purported acceptance containing additional or different terms shall not operate as acceptance of this order. Seller's shipment of materiel in response to this order shall constitute acceptance on the terms and conditions set out herein, notwithstanding any additional or different terms contained on any form submitted by Seller. Each order may be accepted by return mail confirming price, quantity and delivery dates. Delivery of material shall be made when stated and failure to attempt timely delivery, unless excused by ITSI entitles it to reject a late delivery. ITSI may cancel this order at any time and for any reason prior to delivery of the materiel by Seller. ITSI's liabilities, if any, to Seller for such cancellation shall be mutually agreed upon.

PRICE: This order shall not be filled at prices higher than specified herein. If no price is specified, the materiels shall be billed at the price last quoted by Seller, or paid by Buyer to Seller, or at the prevailing market price, whichever is lower.

LIENS: Seller shall hold ITSI harmless from liens which are made or asserted by anyone against ITSI for materiels supplied and delivered to the premises of ITSI or any other location designated by ITSI.

MODIFICATION: Modification, rescission or amendment of this order or the contract of sale resulting from its acceptance shall be ineffective unless approved in writing by an authorized representative of the Purchasing Department of ITSI.

INSPECTION: All materiel is subject to ITSI's acceptance within a reasonable time not withstanding any prior payment. Materiel rejected will be held at Seller's risk and expense and may be returned and charged back to seller, including all transportation and handling cost. No substitutions or replacement shall be made unless so authorized by ITSI.

CHARGES: Seller shall box, crate or package as necessary for shipment without charge unless otherwise specified on this order.

WARRANTIES: Seller represents and warrants
A. That no article supplied hereunder and packaging and labeling thereof is in violation of any Federal, state or other laws.
B. That no article supplied hereunder is produced in violation of the Fair Labor Standards Act of 1938, as amended, and that the prices do not violate any provision of the Robinson-Patman Act.
C. That the goods under this order do not infringe the claim of any United States Patent, but Seller does not warrant against infringement by reason of the use thereof in combination with other materiel.
D. That all goods furnished pursuant to this order are free from defects and are of merchantable quality and are in accordance with the Buyer's specifications. Seller agrees to defend, indemnify and hold harmless the Buyer against all liability costs, expenses, damages and judgments occasioned by or resulting from any breach of any of the warranties set out above.
E. That any equipment shown on the face of this order meets and complies with The Occupational Safety and Health Act regulations.

ASSIGNMENT; Seller shall not in any manner, delegate its duty of performance, a subcontract, license or assign its rights or obligations under this order without the prior written consent of the Buyer.

GOVERNING LAW: This order and any agreement of sale resulting from its acceptance shall be governed by and construed according to the law of the State of California.

PATENTS: If by reason of selling or using the article furnished hereunder ITSI or a customer is sued or threatened with suit for alleged infringement of patent claims covering the article furnished in the form furnished the Seller shall at its own expense, defend such suit and indemnify ITSI and the customers against all loss and expense incurred in connection with such suit or threatened suit including judgments, decrees, court costs, and attorney"s fees.

In the event said article is in such suit held to constitute a patent infringement and its use is enjoined or limited in ay manner Seller shall at its own expense and at the sole option of ITSI either (a) procure for ITSI or (b) replace same with a non-infringing article satisfactorily to ITSI or (c) modify such so it becomes non-infringing or (d) remove such and refund the purchase price and any other costs incurred by ITSI or its customers from the installation or removal thereof.

INDEMNITY: Seller agrees to defend indemnify and hold ITSI wholly harmless from any and all liability to all persons because of bodily injuries (including death) and/or damage to all property arising directly or indirectly from the performance of this order except where caused by the sole negligence of ITSI.

FORCE MAJEURE: ITSI may delay delivery and/or acceptance occasioned by causes beyond its control.

ITSI FURNISHED PROPERTY: All drawings, specifications materiel and other property (herein called "ITSI Data") disclosed by ITSI to Seller for use in connection with this order shall remain the property of ITSI. Because ITSI Data involves confidential information of ITSI seller shall use the same only for the purpose of fulfilling this order and shall not disclose, transfer or reproduce same to anyone without the prior written consent of ITSI. All such ITSI Data (if in tangible form) shall be returned to ITSI upon request or upon completion of this order.

INSTRUCTIONS

PACKING SLIPS AND PACKAGE MARKINGS: Show quantity, our purchase order number, your company name, our title and description of contents. On shipments of chemicals also show number of containers in each lot.

INVOICES: Must show our purchase order number, list of materiel or services delivered and net weights. Invoices improperly rendered may be returned for correction without loss of discount. Cash discount will be computed from date of invoice.

BILL OF LADING: Show our purchase order number, net weights and number of containers. If transportation is F.O.B. origin and transportation charges are for our account, ship at value which will produce lowest transportation cost, unless otherwise specified on the order.

INNOVATIVE TECHNICAL SOLUTIONS, INC., PURCHASING DEPARTMENT
2855 MITCHELL DRIVE, Suite 111, WALNUT CREEK, CA., 94598
(925) 256-8898 x118
FAX (925) 256-8998

55771

2000-11-0249

Innovative Technical Solutions, Inc. (ITSI)

2855 Mitchell Drive, Suite 111
Walnut Creek, California 94598
(925) 256-8898 (Tel), (925) 256-8998 (Fax)

CHAIN-OF-CUSTODY

PROJECT NAME: 2662 Fruitvale
PROJECT NUMBER: 97-037.03
SITE LOCATION: OAKLAND, CA

LABORATORY NAME: CHROMALAB, INC
ADDRESS: 1220 Quarry LANE, Pleasanton, CA
CONTACT/PHONE NO.: (925) 484-1919

DATE: 11/13/00
PAGE: 1 of 1

SAMPLE I.D.	SAMPLE DEPTH	DATE	TIME	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	SAMPLE MATRIX	PRESERVATIVE	ANALYSIS: TPHg, BTEX & MTBE	Nitrates	Sulfates	Total Fe	Soluble Fe								SPECIAL INSTRUCTIONS/COMMENTS	TOTAL NUMBER OF ANALYSES
MW-F4		11/13/00	11:30	6				X	X	X	X	X									
MW-F3		11/13/00	12:45	6				X	X	X	X	X									
TOTAL NUMBER OF CONTAINERS					TOTAL TESTS																

SAMPLED BY: RG & CC
SIGNATURE: R. Guerrero

SPECIAL INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: Chuck Clyde [signature]
Printed Name / Signature
Company / Date and Time

RECEIVED BY:
Printed Name / Signature

RELINQUISHED BY:
Printed Name / Signature
Company / Date and Time

RECEIVED BY:
Printed Name / Signature

RELINQUISHED BY:
Printed Name / Signature
Company / Date and Time

RECEIVED BY: [signature]
Printed Name / Signature
CRISELDA 14:40

SEND RESULTS TO:

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-12-0450
Date: January 3, 2001

RECEIVED
JAN - 8 2001

Innovative Technical Solutions, Inc
2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn.: Mr. Jeff Hess

Project: 97-037.03
2662 Fruitvale Avenue

Dear Jeff.

Attached is our report for your samples received on Friday December 22, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after February 5, 2001 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: ssidhu@chromalab.com

Sincerely,

Surinder Sidhu

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096
CA DHS ELAP#1096

Gas/BTEX

Innovative Technical Solutions, Inc

✉ 2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn: Jeff Hess

Phone: (925) 256-8898 Fax: (925) 256-8998

Project #: 97-037.03

Project: 2662 Fruitvale Avenue

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F2	Water	12/22/2000 12:10	1
MW-F4	Water	12/22/2000 17:25	2
MW-F5	Water	12/22/2000 15:55	3
MW-F6	Water	12/22/2000 14:45	4
MW-13	Water	12/22/2000 16:50	5

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-F2**	Lab Sample ID:	**2000-12-0450-001**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/29/2000 17:36
Sampled:	12/22/2000 12:10	QC-Batch:	2000/12/29-01.05
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/29/2000 17:36	
Benzene	ND	0.50	ug/L	1.00	12/29/2000 17:36	
Toluene	ND	0.50	ug/L	1.00	12/29/2000 17:36	
Ethyl benzene	ND	0.50	ug/L	1.00	12/29/2000 17:36	
Xylene(s)	ND	0.50	ug/L	1.00	12/29/2000 17:36	
Surrogate(s)						
Trifluorotoluene	86.7	58-124	%	1.00	12/29/2000 17:36	
4-Bromofluorobenzene-FID	74.3	50-150	%	1.00	12/29/2000 17:36	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-12-0450-002**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	01/02/2001 13:47
Sampled:	12/22/2000 17:25	QC-Batch:	2001/01/02-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	4700	250	ug/L	5.00	01/02/2001 13:47	
Benzene	54	2.5	ug/L	5.00	01/02/2001 13:47	
Toluene	9.6	2.5	ug/L	5.00	01/02/2001 13:47	
Ethyl benzene	850	2.5	ug/L	5.00	01/02/2001 13:47	
Xylene(s)	340	2.5	ug/L	5.00	01/02/2001 13:47	
Surrogate(s)						
Trifluorotoluene	97.9	58-124	%	1.00	01/02/2001 13:47	
4-Bromofluorobenzene-FID	83.3	50-150	%	1.00	01/02/2001 13:47	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-F5**	Lab Sample ID:	**2000-12-0450-003**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/28/2000 16:40
Sampled:	12/22/2000 15:55	QC-Batch:	2000/12/28-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/28/2000 16:40	
Benzene	ND	0.50	ug/L	1.00	12/28/2000 16:40	
Toluene	ND	0.50	ug/L	1.00	12/28/2000 16:40	
Ethyl benzene	ND	0.50	ug/L	1.00	12/28/2000 16:40	
Xylene(s)	ND	0.50	ug/L	1.00	12/28/2000 16:40	
Surrogate(s)						
Trifluorotoluene	91.8	58-124	%	1.00	12/28/2000 16:40	
4-Bromofluorobenzene-FID	90.4	50-150	%	1.00	12/28/2000 16:40	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-F6**	Lab Sample ID:	**2000-12-0450-004**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/29/2000 19:45
Sampled:	12/22/2000 14:45	QC-Batch:	2000/12/29-01.05
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/29/2000 19:45	
Benzene	ND	0.50	ug/L	1.00	12/29/2000 19:45	
Toluene	ND	0.50	ug/L	1.00	12/29/2000 19:45	
Ethyl benzene	ND	0.50	ug/L	1.00	12/29/2000 19:45	
Xylene(s)	ND	0.50	ug/L	1.00	12/29/2000 19:45	
Surrogate(s)						
Trifluorotoluene	80.5	58-124	%	1.00	12/29/2000 19:45	
4-Bromofluorobenzene-FID	73.6	50-150	%	1.00	12/29/2000 19:45	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX

Sample ID:	**MW-13**	Lab Sample ID:	**2000-12-0450-005**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	01/02/2001 14:20
Sampled:	12/22/2000 16:50	QC-Batch:	2001/01/02-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	9200	250	ug/L	5.00	01/02/2001 14:20	
Benzene	270	2.5	ug/L	5.00	01/02/2001 14:20	
Toluene	33	2.5	ug/L	5.00	01/02/2001 14:20	
Ethyl benzene	530	2.5	ug/L	5.00	01/02/2001 14:20	
Xylene(s)	120	2.5	ug/L	5.00	01/02/2001 14:20	
Surrogate(s)						
4-Bromofluorobenzene	102.9	50-150	%	1.00	01/02/2001 14:20	
4-Bromofluorobenzene-FID	95.5	50-150	%	1.00	01/02/2001 14:20	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report
Gas/BTEX

Method Blank | **Water** | **QC Batch # 2000/12/28-01.01**

MB: 2000/12/28-01.01-001

Date Extracted: 12/28/2000 09:04

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	12/28/2000 09:04	
Benzene	ND	0.5	ug/L	12/28/2000 09:04	
Toluene	ND	0.5	ug/L	12/28/2000 09:04	
Ethyl benzene	ND	0.5	ug/L	12/28/2000 09:04	
Xylene(s)	ND	0.5	ug/L	12/28/2000 09:04	
Surrogate(s)					
Trifluorotoluene	78.0	58-124	%	12/28/2000 09:04	
4-Bromofluorobenzene-FID	70.2	50-150	%	12/28/2000 09:04	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Method Blank **Water** **QC Batch # 2000/12/29-01.05**

MB: 2000/12/29-01.05-003 Date Extracted: 12/29/2000 06:06

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	12/29/2000 06:06	
Benzene	ND	0.5	ug/L	12/29/2000 06:06	
Toluene	ND	0.5	ug/L	12/29/2000 06:06	
Ethyl benzene	ND	0.5	ug/L	12/29/2000 06:06	
Xylene(s)	ND	0.5	ug/L	12/29/2000 06:06	
Surrogate(s)					
Trifluorotoluene	117.6	58-124	ug/L	12/29/2000 06:06	
4-Bromofluorobenzene-FID	78.6	50-150	ug/L	12/29/2000 06:06	

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Method Blank | **Water** | **QC Batch # 2001/01/02-01.01**

MB: 2001/01/02-01.01-008 | Date Extracted: 01/02/2001 12:34

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	01/02/2001 12:34	
Benzene	ND	0.5	ug/L	01/02/2001 12:34	
Toluene	ND	0.5	ug/L	01/02/2001 12:34	
Ethyl benzene	ND	0.5	ug/L	01/02/2001 12:34	
Xylene(s)	ND	0.5	ug/L	01/02/2001 12:34	
Surrogate(s)					
Trifluorotoluene	102.8	58-124	%	01/02/2001 12:34	
4-Bromofluorobenzene-FID	96.4	50-150	%	01/02/2001 12:34	

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/28-01.01**

LCS: 2000/12/28-01.01-002 Extracted: 12/28/2000 06:51 Analyzed 12/28/2000 06:51

LCSD: 2000/12/28-01.01-003 Extracted: 12/28/2000 07:24 Analyzed 12/28/2000 07:24

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	538	542	500	500	107.6	108.4	0.7	75-125	20		
Benzene	99.2	91.8	100.0	100.0	99.2	91.8	7.7	77-123	20		
Toluene	88.2	81.5	100.0	100.0	88.2	81.5	7.9	78-122	20		
Ethyl benzene	93.5	85.8	100.0	100.0	93.5	85.8	8.6	70-130	20		
Xylene(s)	281	259	300	300	93.7	86.3	8.2	75-125	20		
Surrogate(s)											
Trifluorotoluene	463	430	500	500	92.6	86.0		58-124			
4-Bromofluorobenzene-FI	375	405	500	500	75.0	81.0		50-150			

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/29-01.05**

LCS: 2000/12/29-01.05-004 Extracted: 12/29/2000 06:39 Analyzed 12/29/2000 06:39

LCSD: 2000/12/29-01.05-005 Extracted: 12/29/2000 07:11 Analyzed 12/29/2000 07:11

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Benzene	110	104	100.0	100.0	110.0	104.0	5.6	77-123	20		
Toluene	105	99.3	100.0	100.0	105.0	99.3	5.6	78-122	20		
Ethyl benzene	102	96.3	100.0	100.0	102.0	96.3	5.7	70-130	20		
Xylene(s)	299	287	300	300	99.7	95.7	4.1	75-125	20		
Surrogate(s)											
Trifluorotoluene	570	515	500	500	114.0	103.0		58-124			

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/29-01.05**

LCS: 2000/12/29-01.05-006 Extracted: 12/29/2000 07:43 Analyzed 12/29/2000 07:43

LCSD: 2000/12/29-01.05-007 Extracted: 12/29/2000 08:15 Analyzed 12/29/2000 08:15

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	478	495	500	500	95.6	99.0	3.5	75-125	20		
Surrogate(s)											
4-Bromofluorobenzene-FI	397	410	500	500	79.4	82.0		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2001/01/02-01.01**

LCS: 2001/01/02-01.01-009 Extracted: 01/02/2001 10:23 Analyzed 01/02/2001 10:23

LCSD: 2001/01/02-01.01-010 Extracted: 01/02/2001 10:56 Analyzed 01/02/2001 10:56

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	463	541	500	500	92.6	108.2	15.5	75-125	20		
Benzene	93.0	87.6	100.0	100.0	93.0	87.6	6.0	77-123	20		
Toluene	83.3	78.5	100.0	100.0	83.3	78.5	5.9	78-122	20		
Ethyl benzene	92.5	85.5	100.0	100.0	92.5	85.5	7.9	70-130	20		
Xylene(s)	270	253	300	300	90.0	84.3	6.5	75-125	20		
Surrogate(s)											
Trifluorotoluene	440	406	500	500	88.0	81.2		58-124			
4-Bromofluorobenzene-FI	391	441	500	500	78.2	88.2		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 8015M
8020

Prep Method: 5030

Batch QC Report

Gas/BTEX

Matrix Spike (MS / MSD) **Water** **QC Batch # 2000/12/28-01.01**

Sample ID: **MW-F5** Lab Sample ID: 2000-12-0450-003

MS: 2000/12/28-01.01-004 Extracted: 12/28/2000 17:12 Analyzed: 12/28/2000 17:12 Dilution: 1.0

MSD: 2000/12/28-01.01-005 Extracted: 12/28/2000 17:45 Analyzed: 12/28/2000 17:45 Dilution: 1.0

Compound	Conc. [ug/L]			Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD	[%]	Recovery	RPD	MS	MSD
Gasoline	501	390	ND	500	500	100.2	78.0	24.9	65-135	20		rpd
Benzene	99.4	95.9	ND	100.0	100.0	99.4	95.9	3.6	65-135	20		
Toluene	88.2	85.1	ND	100.0	100.0	88.2	85.1	3.6	65-135	20		
Ethyl benzene	94.3	90.6	ND	100.0	100.0	94.3	90.6	4.0	65-135	20		
Xylene(s)	274	266	ND	300	300	91.3	88.7	2.9	65-135	20		
Surrogate(s)												
Trifluorotoluene	462	455		500	500	92.4	91.0		58-124			
4-Bromofluorobenzene-F	394	318		500	500	78.8	63.6		50-150			

Metals

Innovative Technical Solutions, Inc

2855 Mitchell Drive, Suite 111
Walnut Creek, CA 94598-1627

Attn: Jeff Hess

Phone: (925) 256-8898 Fax: (925) 256-8998

Project #: 97-037.03

Project: 2662 Fruitvale Avenue

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F2	Water	12/22/2000 12:10	1
MW-F4	Water	12/22/2000 17:25	2
MW-F5	Water	12/22/2000 15:55	3
MW-F6	Water	12/22/2000 14:45	4
MW-13	Water	12/22/2000 16:50	5

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F2**	Lab Sample ID:	**2000-12-0450-001**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/27/2000 10:32
Sampled:	12/22/2000 12:10	QC-Batch:	2000/12/27-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	12/27/2000 16:52	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F4**	Lab Sample ID:	**2000-12-0450-002**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/27/2000 10:32
Sampled:	12/22/2000 17:25	QC-Batch:	2000/12/27-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.32	0.10	mg/L	1.00	12/27/2000 17:05	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F5**	Lab Sample ID:	**2000-12-0450-003**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/27/2000 10:32
Sampled:	12/22/2000 15:55	QC-Batch:	2000/12/27-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	12/27/2000 17:10	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-F6**	Lab Sample ID:	**2000-12-0450-004**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/27/2000 10:32
Sampled:	12/22/2000 14:45	QC-Batch:	2000/12/27-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.29	0.10	mg/L	1.00	12/27/2000 17:14	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Metals

Sample ID:	**MW-13**	Lab Sample ID:	**2000-12-0450-005**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/27/2000 10:32
Sampled:	12/22/2000 16:50	QC-Batch:	2000/12/27-03.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	6.7	0.10	mg/L	1.00	12/27/2000 17:19	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3010A

Batch QC Report

Metals

Method Blank **Water** **QC Batch # 2000/12/27-03.15**

MB: 2000/12/27-03.15-005 Date Extracted: 12/27/2000 10:32

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	12/27/2000 16:38	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn: Jeff Hess

Test Method: 6010B

Prep Method: 3010A

Batch QC Report

Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/27-03.15**

LCS: 2000/12/27-03.15-006 Extracted: 12/27/2000 10:32 Analyzed 12/27/2000 16:43

LCSD: 2000/12/27-03.15-007 Extracted: 12/27/2000 10:32 Analyzed 12/27/2000 16:47

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	5.26	5.14	5.00	5.00	105.2	102.8	2.3	80-120	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**

Attn.: Jeff Hess

Test Method: 6010B

Prep Method: 3010A

Batch QC Report

Metals

Matrix Spike (MS / MSD) **Water** **QC Batch # 2000/12/27-03.15**

Sample ID: **MW-F2** Lab Sample ID: 2000-12-0450-001

MS: 2000/12/27-03.15-009 Extracted: 12/27/2000 10:32 Analyzed: 12/27/2000 16:56 Dilution: 1.0

MSD: 2000/12/27-03.15-010 Extracted: 12/27/2000 10:32 Analyzed: 12/27/2000 17:01 Dilution: 1.0

Compound	Conc. [mg/L]			Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD	[%]	Recovery	RPD	MS	MSD
Iron	5.75	5.16	ND	5.00	5.00	115.0	103.2	10.8	75-125	20		

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

Soluble Metals

Innovative Technical Solutions, Inc	2855 Mitchell Drive, Suite 111 Walnut Creek, CA 94598-1627
Attn: Jeff Hess	Phone: (925) 256-8898 Fax: (925) 256-8998
Project #: 97-037.03	Project: 2662 Fruitvale Avenue

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-F2	Water	12/22/2000 12:10	1
MW-F4	Water	12/22/2000 17:25	2
MW-F5	Water	12/22/2000 15:55	3
MW-F6	Water	12/22/2000 14:45	4
MW-13	Water	12/22/2000 16:50	5

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-F2**	Lab Sample ID:	**2000-12-0450-001**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/26/2000 11:05
Sampled:	12/22/2000 12:10	QC-Batch:	2000/12/26-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	12/26/2000 16:27	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID: **MW-F4**
Project: 97-037.03
2662 Fruitvale Avenue
Sampled: 12/22/2000 17:25
Matrix: Water

Lab Sample ID: **2000-12-0450-002**
Received: 12/22/2000 18:35
Extracted: 12/26/2000 11:05
QC-Batch: 2000/12/26-04.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.17	0.10	mg/L	1.00	12/26/2000 16:31	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-F5**	Lab Sample ID:	**2000-12-0450-003**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/26/2000 11:05
Sampled:	12/22/2000 15:55	QC-Batch:	2000/12/26-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	ND	0.10	mg/L	1.00	12/26/2000 16:36	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-F6**	Lab Sample ID:	**2000-12-0450-004**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/26/2000 11:05
Sampled:	12/22/2000 14:45	QC-Batch:	2000/12/26-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	0.15	0.10	mg/L	1.00	12/26/2000 16:40	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0450

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Soluble Metals

Sample ID:	**MW-13**	Lab Sample ID:	**2000-12-0450-005**
Project:	97-037.03 2662 Fruitvale Avenue	Received:	12/22/2000 18:35
		Extracted:	12/26/2000 11:05
Sampled:	12/22/2000 16:50	QC-Batch:	2000/12/26-04.15
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Iron	6.7	0.10	mg/L	1.00	12/26/2000 16:45	

To: **Innovative Technical Solutions, Inc**
Attn.: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Batch QC Report
Soluble Metals

Method Blank **Water** **QC Batch # 2000/12/26-04.15**

MB: 2000/12/26-04.15-086 Date Extracted: 12/26/2000 11:05

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Iron	ND	0.10	mg/L	12/26/2000 15:09	

To: **Innovative Technical Solutions, Inc**
Attn: Jeff Hess

Test Method: 6010B
Prep Method: 3005A

Batch QC Report

Soluble Metals

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/12/26-04.15**

LCS: 2000/12/26-04.15-087 Extracted: 12/26/2000 11:05 Analyzed 12/26/2000 15:14
LCSD: 2000/12/26-04.15-088 Extracted: 12/26/2000 11:05 Analyzed 12/26/2000 15:18

Compound	Conc. [mg/L]		Exp.Conc. [mg/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Iron	5.08	5.06	5.00	5.00	101.6	101.2	0.4	80-120	20		

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

Report# L361-04

QC REPORT

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Dates Analyzed 12/27/00-12/28/00

Analyte	Batch #	Method	% Recovery	Duplicate %	RPD	Blank
Nitrate (NO3)	I13126	300.0	94.7	95.0	0.4	ND
Sulfate	I12128	300.0	100.0	98.0	2.0	ND

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # L361-04 **Date:** 12/28/00

Chromalab
1220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2000-12-0450

PO#

Date Rec'd: 12/26/00
Date Started: 12/27/00
Date Completed: 12/28/00

Date Sampled: 12/22/00
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
MW-F2	L312846	1.0	300.0	Nitrate (NO3)	ND	mg/L
		1.0	300.0	Sulfate	9.9	mg/L
MW-F4	L312847	1.0	300.0	Nitrate (NO3)	ND	mg/L
		1.0	300.0	Sulfate	11	mg/L
MW-F5	L312848	1.0	300.0	Nitrate (NO3)	23	mg/L
		1.0	300.0	Sulfate	56	mg/L
MW-F6	L312849	1.0	300.0	Nitrate (NO3)	1.1	mg/L
		1.0	300.0	Sulfate	61	mg/L
MW-13	L312850	1.0	300.0	Nitrate (NO3)	1.0	mg/L
		1.0	300.0	Sulfate	ND	mg/L

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

Chain of Custody **2000-12-0450-1**

Date Shipped: 12/26/2000

From:

ChromaLab, Inc. (CL)
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project Manager: Surinder Sidhu
Phone: Ext:
Fax: (925) 484-1096
Email: ssidhu@chromalab.com

To:

GeoAnalytical Labs
1405 Kansas Avenue
Modesto, CA 95351

L361-04

Phone: (209) 572-0900
Fax: (209) 572-0916
Contact: Ramiro Salgado
Phone: (209) 572-0900

CL Submission #: **2000-12-0450**
CL PO #:

Project #: 97-037.03
Project Name: 2662 Fruitvale Avenue

Client Sample ID / Analysis	CL#	Sampled	Matrix / Method	Due
MW-F2 (2)	001	12/22/2000 12:10	Water	L312846
Subcontract - Nitrate			300/352.1	01/02/2001 17:00
Subcontract - Sulfate			300/375.4	01/02/2001 17:00
MW-F4 (2)	002	12/22/2000 17:25	Water	L312847
Subcontract - Nitrate			300/352.1	01/02/2001 17:00
Subcontract - Sulfate			300/375.4	01/02/2001 17:00
MW-F5 (2)	003	12/22/2000 15:55	Water	L312848
Subcontract - Nitrate			300/352.1	01/02/2001 17:00
Subcontract - Sulfate			300/375.4	01/02/2001 17:00
MW-F6 (2)	004	12/22/2000 14:45	Water	L312849
Subcontract - Nitrate			300/352.1	01/02/2001 17:00
Subcontract - Sulfate			300/375.4	01/02/2001 17:00
MW-13 (2)	005	12/22/2000 16:50	Water	L312850
Subcontract - Nitrate			300/352.1	01/02/2001 17:00
Subcontract - Sulfate			300/375.4	01/02/2001 17:00

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Chris Rowley Time: 12/26/00	Signature Time	Signature Time
Printed Name: C Rowley Date	Printed Name Date	Printed Name Date
Company: ChromaLab	Company	Company
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Greg Mayer Time: 11:30	Signature Time	Signature Time
Printed Name: Greg Mayer Date: 12/26/00	Printed Name Date	Printed Name Date
Company: GED	Company	Company

56574

Innovative Technical Solutions, Inc.
1330 Broadway, Suite 1625
Oakland, California 94612
(510) 286-8888 (Tel), (510) 286-8889 (Fax)

2000-12-0450

CHAIN-OF-CUSTODY

PROJECT NAME: 2662 FRUITVALE AVENUE
PROJECT NUMBER: 97-037 03
SITE LOCATION: 2662 FRUITVALE AVENUE, OAKLAND, CA

LABORATORY NAME: CHROMALAB, INC.
ADDRESS: 1220 QUARRY LANE, PLEASANTON, CA
CONTACT/PHONE NO.: SURINDER SIDHU (925) 484-1919

DATE: 12/22/00
PAGE: 1 of 1

SAMPLE I.D.	SAMPLE DEPTH (FEET)	DATE	TIME	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	SAMPLE MATRIX	PRESERVATIVE	ANALYSIS: TPHg/BTEX (3X40ML w/ HCl)	Total Fe (1X250ML POLY w/ HNO_3)	Soluble Fe (Filtered) (1X250ML POLY)	Sulfate (1X500 ML POLY)	Nitrate (IN SAME 40 ML BOTTLE as sulfate)	SPECIAL INSTRUCTIONS/COMMENTS	TOTAL NUMBER OF ANALYSES
MW-F2	≈15	12/22/00	1210	6		WATER		x	x	x	x	x		6
MW-F4	≈14	"	1725	"		"		x	x	x	x	x		6
MW-F5	≈20	"	1555	"		"		x	x	x	x	x		6
MW-F6	≈15	"	1445	"		"		x	x	x	x	x		6
MW-13	≈15	"	1650	"		"		x	x	x	x	x		6
TOTAL NUMBER OF CONTAINERS					TOTAL TESTS			5	5	5	5	5		

SAMPLED BY: C.C./A.J.
SIGNATURE: Art Jensen

SPECIAL INSTRUCTIONS/COMMENTS: Please provide sample results to Jeff Hess (jhess@itsi.com) at (925) 256-8898 x104

5.4°C

RELINQUISHED BY: Art Jensen (ITSI) Art Jensen
Printed Name Signature
ITSI 12/22/00 @1835
Company Date and Time

RECEIVED BY: D. HARRINGTON Denise Harrington
Printed Name Signature
Chromalab 12/22/00 @1835
Company Date and Time

RELINQUISHED BY: _____ _____
Printed Name Signature
_____ _____
Company Date and Time

RECEIVED BY: _____ _____
Printed Name Signature
_____ _____
Company Date and Time

RELINQUISHED BY: _____ _____
Printed Name Signature
_____ _____
Company Date and Time

RECEIVED BY: _____ _____
Printed Name Signature
_____ _____
Company Date and Time

SEND RESULTS TO: Standard TAT

CHROMALAB, INC.
Environmental Service (SDB)

Sample Receipt Checklist

Client Name: ITSI Date Time Received: 12/22/00 (Date) @ 1835 (Time)

Reference/Suom #: 56574/5000-12-0450 Received by: Denise Harrington

Checklist completed by: Denise Harrington (Signature) 12/22/00 (Date) Reviewed By: _____ (Initial/Date)

Matrix: ☐ Soil ☒ Water ☐ Other _____ Carrier name: (Client) - C/L - art

Shipping container cooler in good condition?	Yes ✓	No ___	Not Present ___
Custody seals intact on shipping container/cooler?	Yes ___	No ___	Not Present ✓
Custody seals intact on sample bottles?	Yes ___	No ___	Not Present ✓
Chain of custody present?	Yes ✓	No ___	
Chain of custody signed when relinquished and received?	Yes ✓	No ___	
Chain of custody agrees with sample labels?	Yes ✓	No ___	
Samples in proper container/bottle?	Yes ✓	No ___	
Sample containers intact?	Yes ✓	No ___	
Sufficient sample volume for indicated test?	Yes ✓	No ___	
All samples received within holding time?	Yes ✓	No ___	
Container/Temp Blank temperature in compliance?	Temp: 5.7 °C Yes ✓	No ___	
Water - VOA vials have zero headspace?	No VOA vials submitted ___	Yes ✓	No ___

see below

Water - pH acceptable upon receipt? ☐ Yes ☐ No ☐ Checked by Voa chemist

☐ pH adjusted- Preservative used:
☐ HNO_3 ☐ HCl ☐ H_2SO_4 ☐ NaOH ☐ ZnOAc Lot#(s _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: ① All "Soluble Fe" portions field-filtered, with the exception of MW-F5 which was filtered upon receipt @ lab;
② all metals portions pH checked & adjusted in lab (there was a little confusion in field);
③ Split made for NO3-preserved w/H2SO4 - for all samples. - DSH 12/22/00