From Science to Solutions™

December 8, 2006

Sarah Wilke, Managing Director
On the Boards
100 West Roy Street
Seattle, WA 98119

Subject: Monitoring Well Installation and Sampling at U-Park Lot, West Roy Street & First Avenue West, Seattle, Washington

Dear Ms. Wilke:

Science Applications International Corporation (SAIC), on behalf of Chevron Environmental Management Company (Chevron), is submitting this letter-report summarizing the installation of groundwater monitoring wells, soil vapor sampling points, and sampling activities at the above referenced property.

BACKGROUND

Chevron facility #211577 was a former Texaco Service Station located at 631 Queen Anne Avenue in Seattle, Washington (Figure 1). This station was decommissioned in the early 1990s, and the Manhattan Express is currently operating on this property. An active environmental remediation system was installed in 1993 to capture and remove petroleum contamination from the soil by removing soil vapor. Chevron/SAIC recently upgraded and expanded this system to also remove groundwater, in an effort to improve cleanup efficiency.

Previous investigations detected petroleum hydrocarbons in the soil and groundwater beneath the Manhattan Express parking lot and extending westerly and southwesterly to First Avenue West. Sampling results from recently installed monitoring wells indicate that petroleum hydrocarbons in groundwater may have traveled almost as far as Second Avenue West. A portion of this groundwater "plume" lies below the U-Park lot at the southwest corner of First Avenue West and West Roy Street, which is owned by On the Boards.

As a result of the above findings, an access agreement between On the Boards and ChevronTexaco was signed in April 2005. The environmental investigation conducted by SAIC on the U-Park lot took place between July 2005 and August 2006. Soil, groundwater, and soil vapor samples were collected from subsurface borings placed near the southern and western

edges of the U-Park lot (Figure 1). This report summarizes results of this investigation and is being provided in response to requirements in the access agreement.

SCOPE OF WORK

SAIC's scope of work for the environmental investigations conducted on your property included:

- Locating underground utilities near the boring locations
- Clearing each boring location to a minimum depth of eight feet using a vacuum truck and compressed air (air-knife)
- Drilling soil borings using a hollow-stem auger drill rig
- Collecting, logging, field screening, and selecting soil samples from each boring for analysis of gasoline-range hydrocarbons, diesel-range hydrocarbons, oil-range hydrocarbons, lead, and the mono-aromatic compounds benzene, toluene, ethylbenzene, and xylenes (BTEX)
- Completion of three of the five borings as groundwater monitoring wells
- Completion of two of the five borings as multi-level soil vapor sampling points
- Developing each monitoring well for efficient use, surveying well casing elevations, and measuring the depth to groundwater
- Collecting groundwater samples from each well for analysis of gasoline-range hydrocarbons, diesel-range hydrocarbons, oil-range hydrocarbons, BTEX compounds, and methyl tertiary butyl ether (MTBE)
- Collecting soil vapor samples from each vapor sampling point and from one surface (ambient air) location for analysis of volatile organic compounds.

SOIL BORINGS

All subsurface soil borings drilled on the U-Park lot were first drilled using an air-knife to a depth of about 8 feet. Soil borings MW-32, MW-33, MW-35, and NV-2 were then advanced past 8 feet using an auger drill rig to final depths of between 21 and 41 feet below ground surface. Soil boring NV-1 was only drilled with an air-knife to a total depth of 9 feet.

During the air-knife process, soil samples were collected with a hand auger. Soil samples were collected during the drilling process. Samples were collected using a split-spoon core sampler within the hollow-stem auger. All of the soil samples were logged by an SAIC geologist in accordance with standard lithologic logging procedures (ASTM D2488) and screened for the presence of organic chemical vapors. Subsurface soil boring logs were produced to document findings from drilling activities and are included as Attachment A of this report. These logs

include soil descriptions, organic chemical vapor measurements (in parts per million), moisture content, blow counts (soil density), soil type designations, and well construction diagrams.

GROUNDWATER MONITORING WELL CONSTRUCTION

Three groundwater monitoring wells (MW-32, MW-33, and MW-35) were constructed on the U-Park lot in accordance with Washington State standards for well construction (Chapter 173-160 WAC). These wells were extended to maximum depths that range from 36 to 41 feet below ground surface. Groundwater enters each well only within the screened interval of the PVC well casing (see boring logs in Attachment A). Filter pack sand was placed around the well screen, and bentonite clay pellets were placed directly above the filter pack sand to act as a seal to the surface. The wells were finished with a concrete surface seal and a flush traffic-grade steel well vault. When the wells are no longer needed for monitoring or testing, they will be formally decommissioned per state standards.

SOIL VAPOR SAMPLING POINT CONSTRUCTION

Two multi-level subsurface soil vapor sampling points (NV-1 and NV-2) were installed along the southern edge of the U-Park lot, each constructed in accordance with Washington State standards (Chapter 173-160 WAC) and internal Chevron guidelines. Soil vapor point NV-1 contains two soil vapor sampling devices set at different depths: 5 and 8.5 feet below ground surface. Three soil vapor sampling devices were set in NV-2 at depths of 5, 10, and 15 feet below ground surface. Both vapor point locations were completed at the surface similar to the groundwater wells.

SUBSURFACE CONDITIONS

The upper 5 to 10 feet below the U-Park lot contained gravelly sand fill with large rocks and various debris such as brick, concrete, wood, and glass. Ranging from these depths down to 32 feet deep at MW-32 and to 39 feet at MW-35 is a thick layer of sand with variable amounts of silt. Below these depths at each monitoring well location is a hard clayey silt. Groundwater depth was found to increase from about 11 feet deep along the eastern edge of the property to about 31 feet deep on the western edge. Groundwater generally flows across the property from northeast to southwest (Figure 2). The southern portion of the U-Park lot is therefore considered to be "down-gradient" from the former Texaco service station. This means that groundwater traveling from the former station eventually reaches the southern part of the U-Park lot; but groundwater under the northern portion of the lot apparently originates from northeast of the lot, across Roy Street.

Laboratory analytical results from the soil samples collected at the U-Park lot are summarized in Table 1. Diesel- or oil-range petroleum hydrocarbons were detected in only two of the soil samples collected, but at concentrations well below the state regulatory limits (Model Toxics Control Act [MTCA] Cleanup Levels). One lead sample was detected slightly above regulatory

limits. Both the oil-range hydrocarbons and lead detections are likely the result of small leaks from vehicles in the lot, as well as contaminated storm-water runoff, which infiltrated the unpaved surface of the U-Park lot and percolated into the deeper soil.

GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected four times between July 2005 and August 2006 from monitoring wells MW-32 and MW-33, and three times between November 2005 and August 2006 from well MW-35 (installed in November 2005). A low-flow bladder pump or peristaltic pump was used to collect groundwater samples.

Results from these sampling events indicate that gasoline- and diesel-range petroleum hydrocarbons and benzene are present at concentrations above the regulatory limits in groundwater within wells MW-32 and MW-33. Benzene concentrations above regulatory limits were found to be present in all three groundwater wells (Table 2). These concentrations of petroleum hydrocarbon constituents are likely the result of contaminated groundwater migrating down-gradient (west and southwest) from the former Texaco station. Varying groundwater concentrations through time found in all three wells probably result from two factors: seasonal changes, with higher concentrations during the summer months when the water table is lower; and because newly installed wells often show initial high concentrations.

SOIL VAPOR ANALYTICAL RESULTS

Soil vapor samples were collected in August 2005 and April 2006 from each of the sampling devices installed in vapor points NV-1 and NV-2. Samples were collected using certified Summa canisters with duplicate samples. An ambient outdoor sample was collected at a location halfway between NV-1 and NV-2.

Soil vapor results of volatile hydrocarbons are presented in Table 3. It is important to note that state regulatory limits are defined only for indoor and ambient outdoor air, but there are no direct limits defined for soil vapor. In Table 3, the MTCA cleanup levels are listed only for comparison and initial screening purposes. Concentrations of compounds in soil vapor are considered to be relatively low. The most important chemical of concern, benzene, was measured at lower concentrations in all soil vapor points than in outdoor ambient air samples. Soil vapor concentrations vary greatly depending on outside influences such as barometric pressure, rainfall, and wind. Therefore the fluctuation between sample concentration collected in 2005 and 2006 is be expected.

Leak-detection methodology utilized isopropyl alcohol (2-propanol), which was placed onsite near sampling activities. Elevated 2-propanol concentrations would thus indicate a leak in the sampling device. Although sampling activities on April 2006 were found to have an increase in 2-propanol concentrations, the results are not significant because the amounts are a relatively small percentage of the entire sample and are not a cause of concern.

SUMMARY AND CONCLUSIONS

Three groundwater monitoring wells and two multi-level soil vapor sampling points were installed in 2005 on the U-Park lot. Previous soil sampling and groundwater monitoring at locations situated up-gradient (east) of the U-Park lot confirm the presence of gasoline- and diesel-range hydrocarbon contamination at concentrations exceeding the state regulatory limits. Results from sampling activities conducted at the U-Park lot between July 2005 and August 2006 indicate that soil and soil vapor appear to be relatively free of petroleum constituents. However, groundwater concentrations along the southern portion of the lot exceed state MTCA limits, as a result of past releases from the former Texaco station, which then migrated down-gradient within the aquifer. The groundwater plume appears to extend north to beyond well MW-35. Because the water table (top of the aquifer) lies at about 11 to 31 feet deep at the U-Park lot, any petroleum contamination in soil that is more shallow likely originated via leaks from vehicles at the lot.

Any future groundwater and soil vapor sampling results will be provided to you as they become available. SAIC and Chevron appreciate your cooperation and patience as we continue to move forward with the environmental cleanup activities. As I mentioned recently, SAIC will soon be transferring management on this project. Should you have any questions regarding this report, please contact the new project manager, Charles Olmsted, at (303) 931-0338 or by e-mail at olmstedc@saic.com.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Thomas Dubé

Thomas Dubé
Current Project Manager

Attachment: Drilling boring logs

cc: B. Hunter, Chevron EMC
C. Olmsted, SAIC

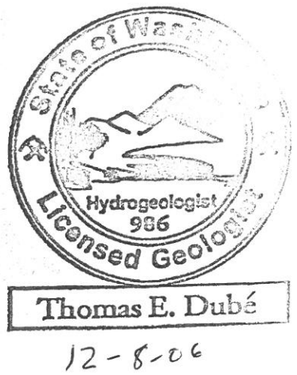


Table 1
Soil Analytical Results
U-Park Lot at W Roy Street & First Avenue W
Seattle, Washington

Sample ID	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline-Range Hydrocarbons (mg/kg)	Diesel-Range Hydrocarbons (mg/kg)	Heavy-Oil-Range Hydrocarbons (mg/kg)	Total Lead (mg/kg)
SB-32	7/5/05	10	0.0006 U	0.001 U	0.001 U	0.001 U	1.0 U	3.4 U	**13**	**17.6**
SB-33	7/6/05	25	0.0005 U	0.001 U	0.001 U	0.001 U	1.1 U	**4.3**	10 U	--
SB-35	11/22/05	27.5	0.005 U	0.005 U	0.005 U	0.02 U	1.0 U	3.0 U	10 U	**1.54**
MTCA Method A Cleanup Levels:			*0.03*	*7*	*6*	*9*	*30/100*	*2000*	*2000*	*15*

Notes:
-- = Not Analyzed.
U = Analyte not detected at or above the laboratory method detection limit listed
Bold values = Concentrations detected above the Laboratory Reporting Limit
Shaded/bold values = Concentrations detected above the MTCA Method A cleanup levels
bgs = below ground surface to top of soil sample
BTEX compounds analyzed by EPA Method 8021B or 8260 B
Gasoline-Range Hydrocarbons analyzed by Ecology Method NWTPH-Gx
Diesel- and Oil-Range Hydrocarbons analyzed by Ecology Method NWTPH-Dx extended, with Silica Gel Cleanup
Lead analyzed by EPA Method 7421 Modified
mg/kg = milligrams per killigram (parts per million)

Table 2
Groundwater Analytical Results
U-Park Lot at W Roy Street & First Avenue W
Seattle, Washington

Sample ID	Sample Date	Depth To Water (ft)	Groundwater Elevation (relative ft)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	Gasoline-Range Hydrocarbons (µg/l)	Diesel-Range Hydrocarbons (µg/l)	Heavy-Oil-Range Hydrocarbons (µg/l)	(MTBE) (µg/l)
MW-32	7/28/05	11.43	90.01	**2,300**	**540**	**630**	**2,600**	**17,000**	**1,200**	250 U	2.0 U
	11/9/05	11.81	89.63	**200**	**29**	**5.4**	**130**	**580**	80 U	100 U	--
	4/17/06	11.12	90.32	**47**	**2**	**4**	**9**	**70**	81 U	100 U	--
	8/8/06	12.86	88.58	**1,500**	**130**	**210**	**730**	**4,000**	**400**	**140**	--
MW-33	7/28/05	28.33	72.03	**4,800**	**200**	**93**	**170**	**2,200**	**630**	250 U	4.0
	11/9/05	28.50	71.86	**2,500**	**180**	**110**	**170**	**1,900**	**340**	100 U	--
	4/17/06	27.95	72.41	**4,000**	**140**	**93**	**170**	**1,900**	**250**	110 U	--
	8/9/06	28.65	71.71	**4,100**	**220**	**180**	**290**	**3,000**	**490**	98 U	--
MW-35	11/28/05	30.54	69.98	**30**	0.5 U	0.5 U	**1.0**	**250**	**280**	**180**	--
	4/17/06	30.41	70.11	**100**	**1.3**	**1.0**	**3.9**	**370**	**270**	100 U	--
	8/9/06	30.75	70.77	**150**	**3.1**	**1.9**	**5.8**	**780**	**300**	**230**	--
MTCA Method A Cleanup Levels:				*5*	*1,000*	*700*	*1,000*	*800*	*500*	*500*	*20*

Notes:
-- = Not Analyzed
U = Analyte not detected at or above the laboratory method detection limit listed
Bold = Concentrations detected above the Laboratory Reporting Limit
Shaded/bold values = Concentrations detected above the MTCA Method A cleanup levels
bgs = below ground surface
BTEX compounds and MTBE analyzed by EPA Method 8021B or 8260B
Gasoline-Range Hydrocarbons analyzed by Ecology Method NWTPH-Gx
Diesel- and Oil-Range Hydrocarbons analyzed by Ecology Method NWTPH-Dx extended, with Silica Gel Cleanup
µg/l = micrograms per liter (parts per billion)

Table 3
Soil Vapor Analytical Results
U-Park Lot at W Roy Street & First Avenue W
Seattle, Washington

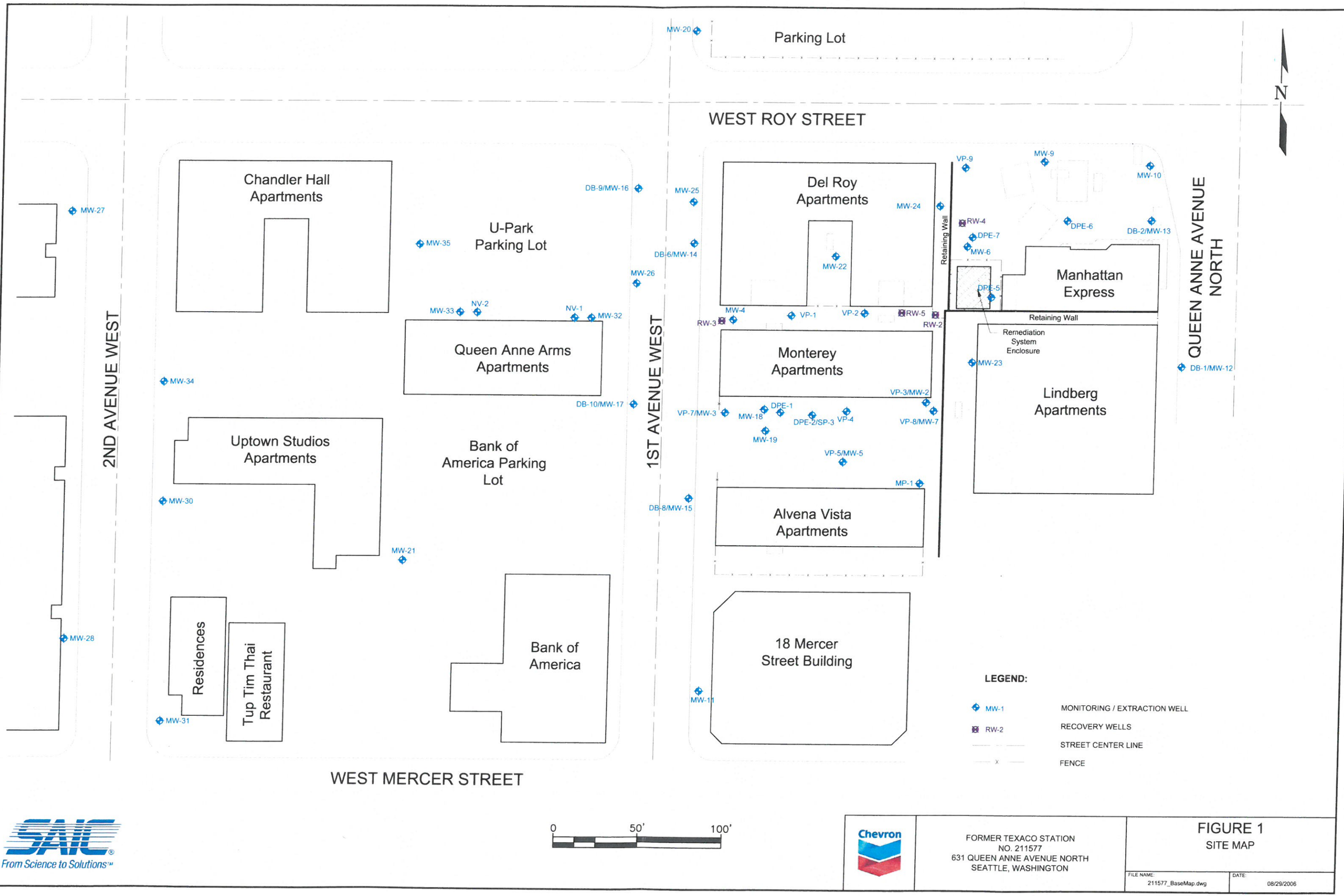
Location:	NV-1		NV-1		NV-1		NV-2		NV-2		NV-2	NV-2		NV-2		NV-2	MTCA
Sample-Depth:	NV-1-5		NV-1-8		NV-1-8 (Dup)		NV-2-5		NV-2-10		NV-2-10 (L Dup)	NV-2-15		NV-2-15 (Dup)		NV-2-15 (L Dup)	Method B CULs
Date:	8/12/05	4/7/06	8/12/05	4/7/06	8/12/05	4/7/06	8/12/05	4/7/06	8/12/05	4/7/06	4/7/06	8/12/05	4/7/06	8/12/05	4/7/06	8/12/05	Ambient Air
Units:	µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	µg/m³		µg/m³		µg/m³	µg/m³
Freon 12	**1.4**	**1.5**	**0.96**	**0.95**	**1.1**	**1.1**	**0.98**	12 U	**1.2**	9.7 U	5.8 U	**1.5**	**6.5**	**1.2**	**6.2**	**0.68**	--
Chloromethane	**0.50**	**0.40**	**0.38**	**0.48**	**0.36**	**0.54**	**0.28**	5.0 U	**0.64**	4.1 U	2.4 U	**0.27**	1.8 U	0.27 U	1.6 U	0.27 U	1.4
Freon 11	**1.9**	**1.5**	**2.4**	**1.7**	**2.5**	**1.9**	**2.8**	13 U	**3.6**	11 U	6.6 U	**3.4**	4.8 U	**3.4**	**12**	**3.3**	--
Chloroform	**2.9**	0.58 U	**1.5**	0.63 U	**1.9**	0.62 U	**2.6**	12 U	0.63 U	9.6 U	5.8 U	0.63 U	4.2 U	0.63 U	3.9 U	0.63 U	0.11
1,1,1-Trichloroethane	0.71 U	0.65 U	0.71 U	0.70 U	0.71 U	0.69 U	0.70 U	13 U	**1.1**	11 U	6.4 U	**1.2**	4.7 U	**1.2**	**5.3**	**1.2**	4,800
Carbon Tetrachloride	0.82 U	0.76 U	**0.83**	0.81 U	**0.86**	0.79 U	0.81 U	15 U	**1.1**	12 U	7.4 U	**1.6**	5.4 U	**1.7**	5.0 U	**1.5**	0.17
Benzene	0.42 U	0.38 U	0.42 U	0.41 U	0.42 U	0.40 U	0.41 U	7.7 U	0.41 U	6.3 U	3.8 U	**0.49**	2.7 U	**0.74**	2.6 U	**0.82**	0.32
Trichloroethene (TCE)	0.70 U	0.64 U	0.70 U	0.69 U	**0.84**	0.68 U	0.69 U	13 U	0.69 U	10 U	6.3 U	0.69 U	4.6 U	0.69 U	4.3 U	0.69 U	0.022
Toluene	**34**	**0.63**	**41**	**1.4**	**40**	**1.6**	**8.3**	9.0 U	**11**	7.4 U	4.4 U	**16**	3.2 U	**17**	**10**	**16**	2200
Tetrachloroethene (PCE)	**2.0**	0.81 U	0.89 U	0.88 U	**5.7**	0.85 U	**1.6**	16 U	**0.99**	13 U	8.0 U	**1.5**	5.8 U	**1.7**	5.4 U	**1.6**	0.42
Ethylbenzene	**0.69**	0.52 U	0.57 U	0.56 U	0.57 U	0.55 U	0.56 U	10 U	0.56 U	8.6 U	5.1 U	0.56 U	3.7 U	0.56 U	3.5 U	0.56 U	4,600
m,p-Xylene	**3.4**	0.52 U	**1.4**	0.56 U	**1.3**	0.55 U	0.56 U	10 U	0.56 U	8.6 U	5.1 U	**0.75**	3.7 U	**0.95**	3.5 U	**0.92**	46
o-Xylene	**0.97**	0.52 U	0.57 U	0.56 U	0.57 U	0.55 U	0.56 U	10 U	0.56 U	8.6 U	5.1 U	0.56 U	3.7 U	0.56 U	3.5 U	0.56 U	46
Acetone	**7.4**	**53**	**5.7**	**76**	**8.1**	**60**	**12**	**1800**	**10**	**230**	**250**	**17**	**540**	**12**	**450**	**12**	--
Carbon Disulfide	**15**	1.9 U	**6.9**	2.0 U	**6.7**	2.0 U	**36**	37 U	**52**	31 U	18 U	**10**	13 U	**9.6**	12 U	**7.7**	320
2-Propanol [1]	**2.1**	**1500 E**	**56**	**1800 E**	**41**	**1700 E**	1.6 U	**4200 E**	**1.6**	**3300 E**	**3800 E**	**1.7**	10 U	**120**	**1600 E**	**120**	--
2-Butanone (MEK)	**9.9**	1.8 U	**12**	**3.7**	**12**	1.8 U	**7.8**	35 U	**9.0**	29 U	17 U	**11**	13 U	**10**	12 U	**10**	--
Hexane	2.3 U	2.1 U	2.3 U	2.3 U	2.3 U	2.2 U	**2.3**	42 U	**5.7**	35 U	21 U	**3.5**	15 U	**3.6**	14 U	**3.4**	--
Cyclohexane	2.2 U	2.1 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	41 U	**3.9**	34 U	20 U	2.2 U	15 U	2.2 U	14 U	2.2 U	--
Ethanol	**2.2**	**2.4**	**2.6**	**2.6**	**1.7**	**1.8**	**2.0**	23 U	**1.8**	18 U	**12**	**3.1**	8.1 U	**4.4**	**24**	**4.2**	--
Heptane	2.7 U	2.4 U	2.7 U	2.6 U	2.7 U	2.6 U	2.6 U	49 U	2.6 U	40 U	24 U	2.6 U	18 U	2.6 U	16 U	**2.7**	--
1,2,4-Trimethylbenzene	0.64 U	0.59 U	0.64 U	**0.67**	0.64 U	0.62 U	0.63 U	12 U	0.63 U	9.7 U	5.8 U	0.63 U	4.2 U	0.63 U	3.9 U	0.63 U	2.7
Bromomethane	0.51 U	0.47 U	0.51 U	**0.68**	0.51 U	0.49 U	0.50 U	9.3 U	0.50 U	7.6 U	4.6 U	0.50 U	3.3 U	0.50 U	3.1 U	0.50 U	2.3
1,3-Butadiene	1.4 U	1.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	26 U	1.4 U	22 U	13 U	1.4 U	**11**	1.4 U	8.8 U	1.4 U	--
Oxygen (%)	18	21	16	18	16	18	16	18	11	15	NA	6.7	3.7	6.7	8.4	6.7	--
Carbon Dioxide (%)	2.5	1.4	3.4	2.5	3.4	2.4	5.5	3.4	4.6	3.8	NA	5.4	5.0	5.4	3.7	5.4	--

Notes:
Volatile Organic Compounds analyzed by Modified EPA Method TO-15
Oxygen and Carbon Dioxide analyzed by ASTM D-1946
Container Type: 6-Liter Summa Canister (SIM Certified)
-- = CUL not established
Bold = Concentration detected above the Laboratory Reporting Limit
Shaded/bold cells = Concentration detected above the MTCA Method B CUL for ambient air, for comparison purposes only
1 = 2-Propanol (Isopropyl Alcohol) was used as a leak test compound, and its presence at elevated concentrations may represent atmospheric sample dilution
2 = CUL derived using equation 750-2 from WAC 173-340-750(3)
E = Exceeds instrument calibration range
U = Laboratory Reporting Limit
NA = Not analyzed
Dup = Field Duplicate Sample
L Dup = Laboratory Duplicate Sample
µg/m³ = micrograms per cubic meter

Table 4
Ambient Air Analytical Results
U-Park Lot at W Roy Street & First Avenue W
Seattle, Washington

Sample:	AMBIENT AIR		LAB BLANK		MTCA Method B CULs Ambient Air
Location:	Southern U-Park Lot				
Date:	8/12/05	4/7/06	8/12/05	4/7/06	
Units:	µg/m³		µg/m³		µg/m³
Freon 12	**2.8**	**2.0**	0.49 U	0.49 U	--
Chloromethane	**0.94**	**1.2**	0.21 U	0.21 U	1.4
Freon 11	**1.5**	**1.6**	0.56 U	0.56 U	--
Chloroform	0.68 U	0.65 U	0.49 U	0.49 U	0.11
1,1,1-Trichloroethane	0.76 U	0.73 U	0.54 U	0.54 U	4,800
Carbon Tetrachloride	0.87 U	0.84 U	0.63 U	0.63 U	0.17
Benzene	**1.5**	**1.7**	0.32 U	0.32 U	0.32
Trichloroethene (TCE)	0.75 U	0.72 U	0.54 U	0.54 U	0.022
Toluene	**4.1**	**3.7**	0.38 U	0.38 U	2200
Tetrachloroethene (PCE)	0.94 U	0.91 U	0.68 U	0.68 U	0.42
Ethylbenzene	0.60 U	**0.69**	0.43 U	0.43 U	4,600
m,p-Xylene	**1.6**	**2.5**	0.43 U	0.43 U	46
o-Xylene	0.60 U	**1.0**	0.43 U	0.43 U	46
Acetone	**19**	**16**	1.2 U	1.2 U	--
Carbon Disulfide	2.2 U	2.1 U	1.6 U	1.6 U	320
2-Propanol	**8.4**	1.6 U	1.2 U	1.2 U	--
2-Butanone (MEK)	**3.6**	**3.5**	1.5 U	1.5 U	--
Hexane	2.4 U	2.4 U	1.8 U	1.8 U	--
Cyclohexane	2.4 U	2.3 U	1.7 U	1.7 U	--
Ethanol	**11**	**6.6**	0.94 U	0.94 U	--
Heptane	2.8 U	2.7 U	2.0 U	2.0 U	--
1,2,4-Trimethylbenzene	0.68 U	**0.91**	0.49 U	0.49 U	2.7
Bromomethane	0.54 U	0.52 U	0.39 U	0.39 U	2.3
1,3-Butadiene	1.5 U	1.5 U	1.1 U	1.1 U	--
Oxygen (%)	20	22.0	0.10 U	0.10 U	--
Carbon Dioxide (%)	0.036	0.040	0.010 U	0.010 U	--

Notes:
Volatile Organic Compounds analyzed by Modified EPA Method TO-15
Oxygen and Carbon Dioxide analyzed by ASTM D-1946
Container Type: 6-Liter Summa Canister (SIM Certified)
-- = CUL not established
Bold = Concentration detected above the Laboratory Reporting Limit
Shaded/bold cells = Concentration detected above the MTCA Method B CUL for ambient air
1 = CUL derived using equation 750-2 from WAC 173-340-750(3)
U = Laboratory Reporting Limit
µg/m³ = micrograms per cubic meter



SAIC From Science to Solutions™

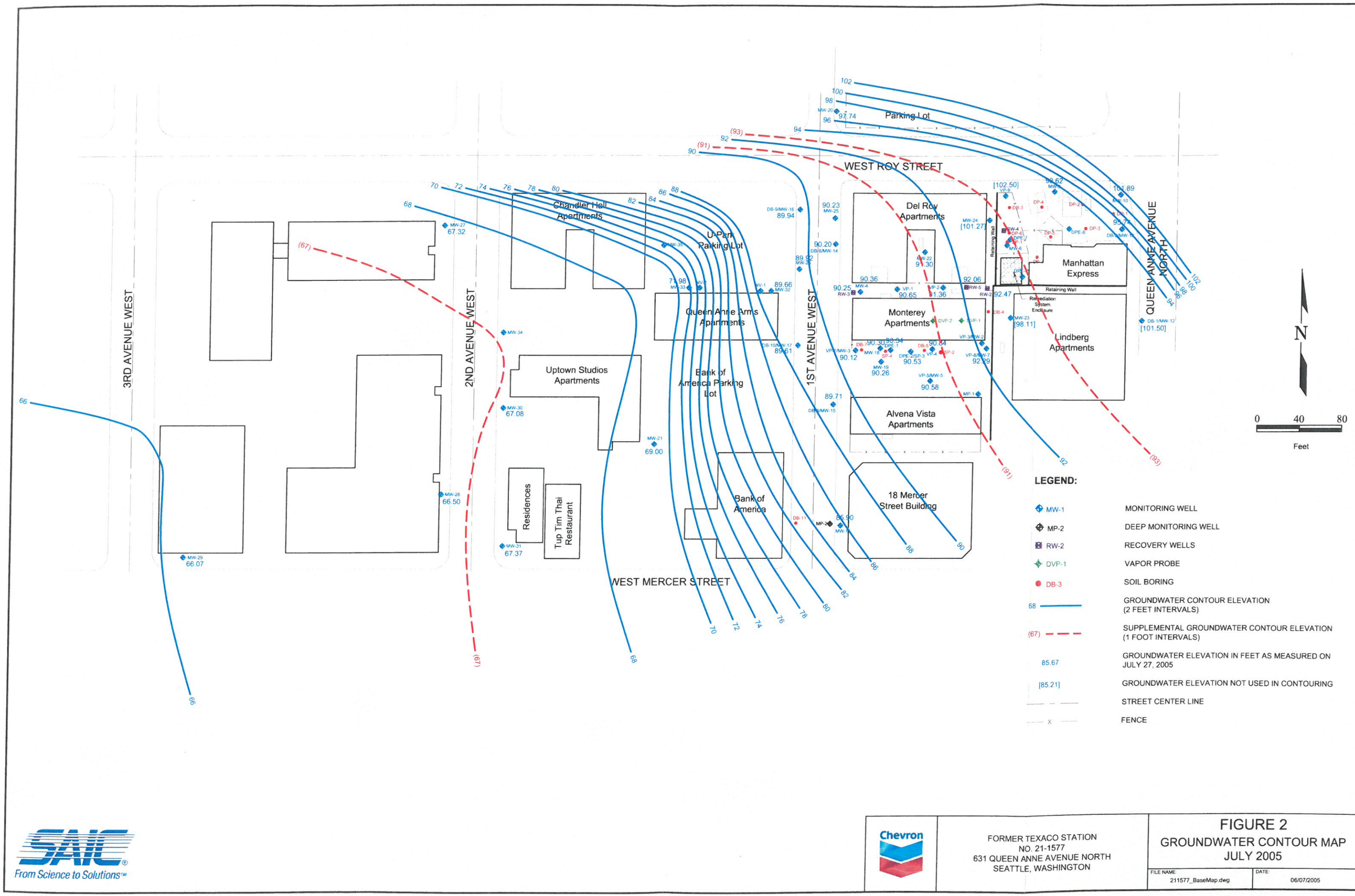
Chevron

FORMER TEXACO STATION
NO. 211577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 1
SITE MAP

FILE NAME: 211577_BaseMap.dwg

DATE: 08/29/2006



SAIC From Science to Solutions™

Chevron

FORMER TEXACO STATION
NO. 21-1577
631 QUEEN ANNE AVENUE NORTH
SEATTLE, WASHINGTON

FIGURE 2
GROUNDWATER CONTOUR MAP JULY 2005

FILE NAME: 211577_BaseMap.dwg
DATE: 06/07/2005

BORING LOG

From Science to Solutions™

Well No: MW-32
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005

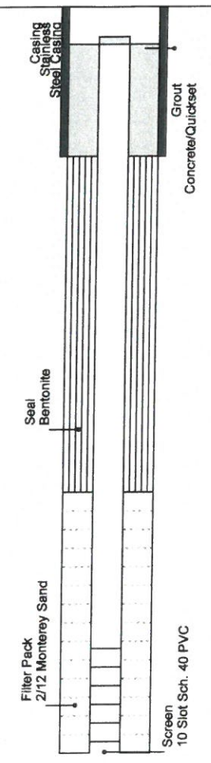
Well Diameter: 2 in
Well Depth: 28.6 ft
Well Screen: 8.6-28.6 ft 10 Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.96 msl

Total Depth: 36.5 ft
GW Depth: 11.19 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	0	Damp		0	SW		Airknife to 8 feet bgs. Brown, gravelly SAND with 20% gravel up to 1.5-inches in diameter and less than 5% silt; no odor; no sheen.
	5	Damp		6	ML		Gray to brown, SILT with moderate plasticity and 10 to 20% fine to coarse sand; no odor; no sheen.
		Damp			ML/SM		Brown, sandy SILT with medium to coarse-grained sand.
	10						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-32
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005

Well Diameter: 2 in
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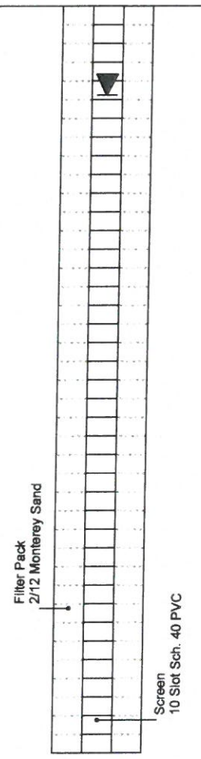
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.96 msl

Total Depth: 36.5 ft
GW Depth: 11.19 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	10	Damp			ML/SM		Brown, sandy SILT with medium to coarse-grained sand.
		Moist	50/5"	0			Brown, poorly sorted, dense, medium to coarse SAND with 10 to 20% silt; no odor; no sheen.
		Wet	50/2	0			Same as above; no odor; no sheen.
	15	Wet	50/6"	9.9	SM		Brown with gray coloration, dense, silty SAND; slight HC odor; no sheen.
		Wet	50/6"	56.6			Same as above with gray coloration and 10% silt; no odor; no sheen.
		Wet					Same as above; no odor; no sheen.
	20						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-32
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005

Well Diameter: 2 in
Well Depth: 28.6 ft
Well Screen: 8.6-28.6 ft 10 Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.96 msl

Total Depth: 36.5 ft
GW Depth: 11.19 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	20	Wet	50/6"				Same as above; no odor; no sheen.
		Wet	50/4"	125.0			Same as above; slight HC odor; no sheen.
	25	Wet	100/4"	70	SM		Gray, medium to coarse-grained, silty SAND with 10% silt and an interbedded silt lense with low plasticity; no odor; no sheen.
		Wet	75/6"	51.6			Gray, very dense, medium to coarse silty SAND with 20% gravel and 25% light brown silt clasts throughout the sample; no odor; no sheen.
		Wet					Gray very dense, medium to coarse SAND with 15% gravel and small clasts of brown silt in lower 4-inches; no odor; no sheen.
	30						

Well Construction

Filter Pack
2/12 Monterey Sand

Screen
10 Slot Sch. 40 PVC

Backfill

BORING LOG

From Science to Solutions™

Well No: MW-32
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005

Well Diameter: 2 in
Well Depth: 28.6 ft
Well Screen: 8.6-28.6 ft 10 Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.96 msl

Total Depth: 36.5 ft
GW Depth: 11.19 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description	Well Construction
	30	Wet	50/4"	36.7	SW		Gray very dense, medium to coarse SAND with 15% gravel and small clasts of brown silt in lower 4-inches; no odor; no sheen.	
	35	Wet	16/50	34.8	ML		Gray, hard, SILT with low to moderate plasticity; no odor; no sheen.	Backfill
	36.5							

BORING LOG

SAIC® From Science to Solutions™

Well No: MW-33
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005 - 07/06/2005

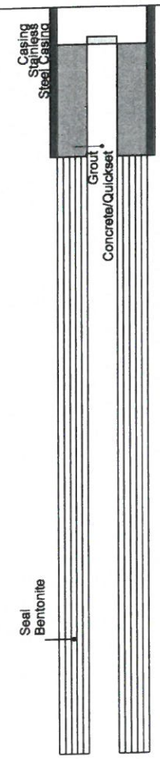
Well Diameter: 2 in
Well Depth: 34.6 ft
Well Screen: 24.6-34.6 10-Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.18 msl

Total Depth: 35.5 ft
GW Depth: 28.21 ft

Recov.	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	0						
		Moist			SP		Airknifed to 8 ft bgs. Brown, loose, fine SAND with 10% gravel and less than 5% silt; no odor; no sheen.
	5						
		Moist			SP-SM		Brown, dense, fine to medium SAND with 20% gravel and 15% silt; no odor; no sheen.
	10						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-33
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005 - 07/06/2005

Well Diameter: 2 in
Well Depth: 34.6 ft
Well Screen: 24.6-34.6 10-Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.18 msl

Total Depth: 35.5 ft
GW Depth: 28.21 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description	Well Construction
	10	Moist	50	0	SP-SM		Brown, dense, fine to medium SAND with 20% gravel and 15% silt; no odor; no sheen.	Seal Bentonite
		Moist	50/4"	0	SP		Brown, very dense, fine to medium, SAND with 5% gravel and no silt; no odor; no sheen.	
	15	Moist	50/4"	0.8			Same as above; no odor; no sheen.	
		Moist	50/5"	1.2			Same as above; no odor; no sheen.	
		Moist					Same as above; brown to light brown; no odor; no sheen.	
	20							

BORING LOG

From Science to Solutions™

Well No: MW-33
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005 - 07/06/2005

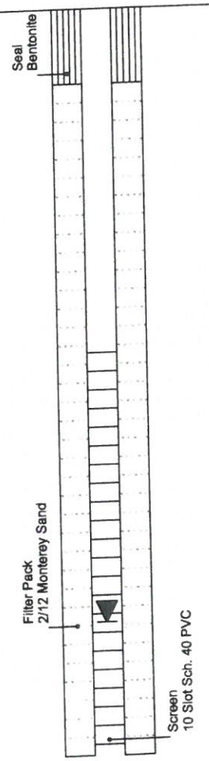
Well Diameter: 2 in
Well Depth: 34.6 ft
Well Screen: 24.6-34.6 10-Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.18 msl

Total Depth: 35.5 ft
GW Depth: 28.21 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	20	Moist	50/5"	1.7			Same as above, brown to light brown, no odor; no sheen.
		Moist	50/5"	2.5	SP		Same as above, no odor; no sheen.
	25	Moist	50	0			Same as above, no odor, no sheen.
		Wet	50	3.4	SM		Brown to gray, dense, fine silty SAND with 20% silt, no gravel; no odor; no gravel.
		Wet			SM/ML		Gray, dense, to hard, fine silty SAND to sandy SILT with 40% silt; no odor; no sheen.
	30						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-33
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 07/05/2005 - 07/06/2005

Well Diameter: 2 in
Well Depth: 34.6 ft
Well Screen: 24.6-34.6 10-Slot
Filter Pack: 2/12 Monterey Sand

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.18 msl

Total Depth: 35.5 ft
GW Depth: 28.21 ft

Recov.	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description	Well Construction
	30							
			50	11.2				
		Wet			SM/ML		Gray, dense to hard, fine silty SAND to sandy SILT with 40% silt; no odor; no sheen.	
	35	Moist	50/4	101.3	ML		Gray, hard, SILT with moderate plasticity; no odor; no sheen.	
	35.5							

Filter Pack 2/12 Monterey Sand
Screen 10 Slot Sch. 40 PVC
Backfill

BORING LOG

SAIC® From Science to Solutions™

Well No: MW-35
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 11/21/2005 - 11/22/2005

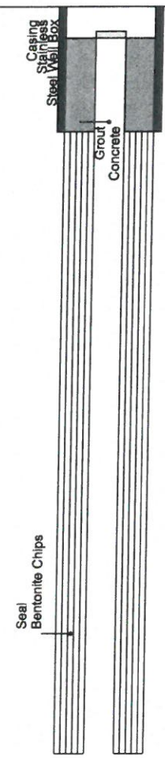
Well Diameter: 2 in
Well Depth: 40 ft
Well Screen: 22-37 ft 10-Slot
Filter Pack: 16/30 Colorado Snd

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.39 msl

Total Depth: 41.0 ft
GW Depth: 29.0 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	0						
		Moist			SP		Silty, gravelly SAND with large cobles and concrete (FILL). Airknifed to 10 feet bgs.
	5						
					SW		Same as above; except larger cobbles.
	10	Moist	15/17/21		SP		Brown, fine to medium SAND with less than 5% silt, no gravel; no odor; no sheen.
	12						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-35
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 11/21/2005 - 11/22/2005

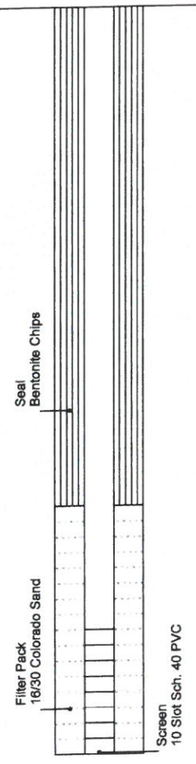
Well Diameter: 2 in
Well Depth: 40 ft
Well Screen: 22-37 ft 10-Slot
Filter Pack: 16/30 Colorado Snd

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.39 msl

Total Depth: 41.0 ft
GW Depth: 29.0 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	12	Moist					Brown, fine to medium SAND with less than 5% silt, no gravel; no odor; no sheen.
	15	Moist	15/18/23		SP		Light brown, fine to medium SAND with 5% silt and finer sand; no gravel; no odor; no sheen.
		Moist	15/29/50				Same as above except with finer-grained sand; no odor; no sheen.
	20	Moist	17/33/50				Same as above; no odor; no sheen.
		Moist	16/30/50		SP-SM		Light brown, fine-grained SAND with 10% silt; no gravel; no odor; no sheen.
	24						

Well Construction



BORING LOG

SAIC® From Science to Solutions™

Well No: MW-35
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 11/21/2005 - 11/22/2005

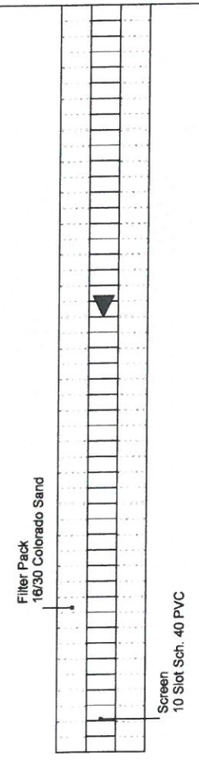
Well Diameter: 2 in
Well Depth: 40 ft
Well Screen: 22-37 ft 10-Slot
Filter Pack: 16/30 Colorado Snd

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.39 msl

Total Depth: 41.0 ft
GW Depth: 29.0 ft

Recov	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description
	24	Moist					Light brown, fine-grained SAND with 10% silt; no gravel; no odor; no sheen.
	25	Moist	30/50		SP-SM		Same as above except a 1-inch silt later interbedded at bottom 25.75 ft bgs; no odor; no sheen.
		Moist	27/50				Light brown, fine to medium SAND with less than 5% silt; no odor; no sheen.
	30	Wet	29/50		SP		Same as above; no odor; no sheen. (Wet to Saturated)
		Sat.	34/50				Brown to gray, fine to coarse SAND with no silt and no gravel; no odor.
	35	Wet	16/50		SM		Light brownish gray, fine, silty SAND with 15% silt; no odor; no sheen
	36						

Well Construction



BORING LOG

From Science to Solutions™

Well No: MW-35
Chevron Site No: 211577
Site Location: 631 Queen Anne Ave N, Seattle WA
Date: 11/21/2005 - 11/22/2005

Well Diameter: 2 in
Well Depth: 40 ft
Well Screen: 22-37 ft 10-Slot
Filter Pack: 16/30 Colorado Snd

Driller: Cascade Drilling, Inc.
Drilling Method: Hollow Stem
Consultant: Gabriel Cisneros (SAIC, Bothell)
Well Casing: Sch 40 PVC Elevation (TOC): 133.39 msl

Total Depth: 41.0 ft
GW Depth: 29.0 ft

Recov.	Depth Ft	Moist.	Blow Cnt	PPM	Soil Code	Soil Pattern	Soil Description	Well Construction
	36	Wet	16/50		SM		Light brownish gray fine silty SAND with 15% silt; no odor; no sheen	Screen 10 Slot Sch. 40 PVC
		Wet	16/35/50				Gray, fine silty SAND with 30% silt; no odor; no sheen.	Filter Pack 16/30 Colorado Sand
	40	Moist	32/50		ML/CL		Gray, stiff, clayey SILT with moderate plasticity.	
	41.0							

SOIL BORING LOG

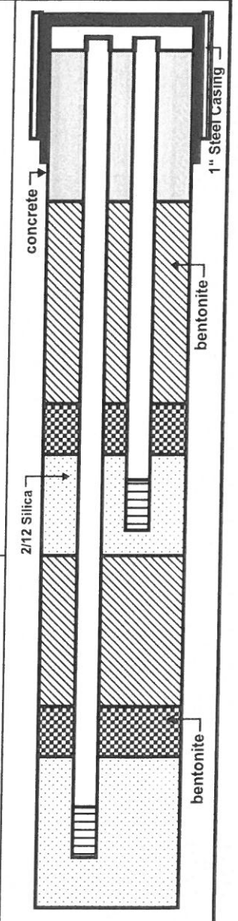
BORING No: **NV-1**

PAGE 1 of 1

ROJECT: 21-1577	DRILLER: Cascade Drilling, Inc.	WELL DIAMETER: 10-inch
CATION: Queen Anne, Seattle, WA	DRILL METHOD: Air Knife	WELL DEPTH: 9.0 feet
IENT: ChevronTexaco	SAMPLE METHOD: Hand Auger	WELL CASING: 1/4-inch outside diameter nylon tubing
TE: 07/06/05	HOLE DIAMETER: 10-inch max.	WELL SCREEN: 5.0-5.5 ft & 8.0-8.5 ft
GGED BY: G. Cisneros, S. Kline	HOLE DEPTH: 9.0 feet	FILTER PACK: 2/12 Monterey Sand
		GROUND ELEVATION: 134.33 msl

Analytical Sample Number	PID (ppm)	BLOWS/6"	Water Level	Sample Recovery	Sample Interval	DEPTH (ft.)	SOIL TYPE	LITHOLOGY / DESCRIPTION
	0.0					1–5	SP-SM	Brown, dense, fine to medium SAND with 15% gravel and 10% silt; no odor, no sheen
	0.0					6–9	SM	Brown to gray, dense, fine to medium SAND with 5% gravel and 15% silt; no odor, no sheen

Well Completion Details



ES: Soil vapor sampling devices consist of a 3/8-inch diameter by six-inch-long fine mesh stainless-steel screen with the lower open end of the device sealed. The r end of each sampler contains a barb type fitting, to which ¼-inch outside diameter nylon tubing is attached which runs to the surface of the well for sample collection.

SOIL BORING LOG

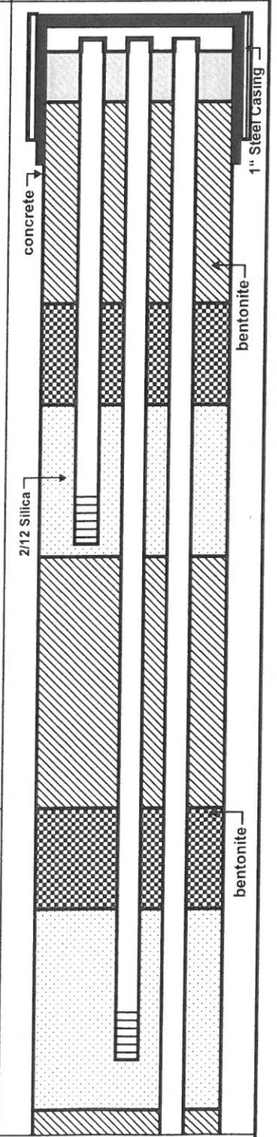
BORING No: **NV-2**

PAGE 1 of 1

IECT: 21-1577	DRILLER: Cascade Drilling, Inc.	WELL DIAMETER: 10-inch
ATION: Queen Anne, Seattle, WA	DRILL METHOD: Air Knife/Hollow Stem	WELL DEPTH: 15.5 feet
NT: ChevronTexaco	SAMPLE METHOD: Hand Auger/Split Spoon	WELL CASING: 1/4-inch outside diameter nylon tubing
.: 07/06/05	HOLE DIAMETER: 10-inch max.	WELL SCREEN: 5.0-5.5 ft, 10.0-10.5 & 15.0-15.5 ft
GED BY: G. Cisneros, S. Kline	HOLE DEPTH: 21.0 feet	FILTER PACK: 2/12 Monterey Sand
		GROUND ELEVATION: 133.60 msl

Analytical Sample Number	PID (ppm)	BLOWS/6"	Water Level	Sample Recovery	Sample Interval	DEPTH (ft.)	SOIL TYPE	LITHOLOGY / DESCRIPTION
						1		
						2		
						3		
						4	SP-SM	Airknifed to 8 feet bgs. Brown, dense, fine to coarse SAND with 5% gravel and 10% silt; no odor, no sheen.
	4.7					5		
						6		
						7		
						8		
	0.8					9	SM	Brown, fine to coarse silty SAND with 20% gravel up to 1 inch in diameter.
						10		
	0.2	50				11	SP-SM	Same as above with decreasing gravel content and interbedded silt layers 1- to 2-inches in thickness.

Well Completion Details



3: Soil vapor sampling devices consist of a 3/8-inch diameter by six-inch-long fine mesh stainless-steel screen with the lower open end of the device sealed. The upper end
sampler contains a barb type fitting, to which ¼-inch outside diameter nylon tubing is attached which runs to the surface of the well for sample collection.

SOIL BORING LOG

BORING No: **NV-2**

PAGE 2 of 2

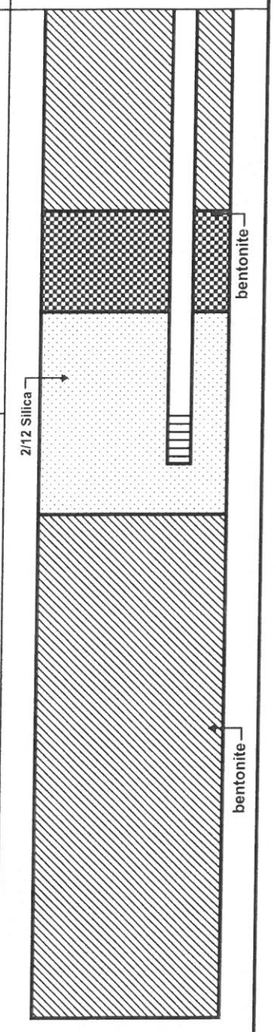
JECT: 21-1577
ATION: Queen Anne, Seattle, WA
NT: ChevronTexaco
E: 07/06/05
GED BY: G. Cisneros, S. Kline

DRILLER: Cascade Drilling, Inc.
DRILL METHOD: Air Knife/Hollow Stem
SAMPLE METHOD: Hand Auger/Split Spoon
HOLE DIAMETER: 10-inch max.
HOLE DEPTH: 21.0 feet

WELL DIAMETER: 10-inch
WELL DEPTH: 15.5 feet
WELL CASING: 1/4-inch outside diameter nylon tubing
WELL SCREEN: 5.0-5.5 ft, 10.0-10.5 & 15.0-15.5 ft
FILTER PACK: 2/12 Monterey Sand
GROUND ELEVATION: 133.60 msl

nalytical Sample lumber	PID (ppm)	BLOWS/6"	Water Level	Sample Recovery	Sample Interval	DEPTH (ft.)	SOIL TYPE	LITHOLOGY / DESCRIPTION
						12		
						13	SP-SM	Same as above with decreasing gravel content and interbeded silt layers 1- to 2-inches in thickness.
						14		
						15		
	0.1	50				16		
						17		
						18	SP-SM	Brown, dense, medium to coarse SAND with 5% gravel and 10% silt; no odor, no sheen.
						19		
	1.2	50				20		
						21		
						22		

Well Completion Details



:S: Soil vapor sampling devices consist of a 3/8-inch diameter by six-inch-long fine mesh stainless-steel screen with the lower open end of the device sealed. The upper end
h sampler contains a barb type fitting, to which ¼-inch outside diameter nylon tubing is attached which runs to the surface of the well for sample collection.