Conor Pacific

EFW

Transmittal

To: Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Environmental
Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

From: Katrin Schliewen

Date: November 13, 2000

Proj. No.: BNC 103

Copies	Description	Sent by:
1	Second Quarter 2000 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California	☒ *Regular Mail* ☐ *FedEx* ☐ *Courier* ☐ *Other*

Comments:

00 NOV 14 PM 4:28
CHABOT-LAS POSITAS
PROTECTION

cc:

Copies	Name & Address	Sent by:
2	Mr. Balaji Angle, Angle's AM-PM Mini Mart	☒ *Regular Mail*
1	Ms. Eva Chu, Alameda County Env. Health Services	☐ *FedEx*
1	Mr. Matt Katen, Alameda County Zone 7	☐ *Courier*
1	Regional Water Quality Control Board, LUFT	☐ *Other*

- Can discontinue sampling of MW-4, MW-9
- Repair well MW-6
- Purge 3 volumes in MS:MW1 next qtr to see if globules diminish or disappear.

THIRD QUARTER 2000
GROUNDWATER MONITORING RESULTS
B&C Gas Mini Mart
Livermore, California

Prepared by

Conor Pacific
2650 East Bayshore Road
Palo Alto, California 94303

November 2000

Project BNC 103

Conor Pacific | EFW

November 13, 2000
Project No. BNC103

Mr. Balaji Angle
Angle Enterprises
5131 Shattuck Avenue
Oakland, California 94609

Re: Third Quarter 2000 Groundwater Monitoring Results, B&C Gas Mini Mart, 2008 First Street, Livermore, California (Station ID 1689)

Dear Mr. Angle:

Conor Pacific has compiled third quarter 2000 groundwater monitoring results for B&C Gas Mini Mart (B&C), 2008 First Street, Livermore, California (Figure 1). This report includes third quarter 2000 groundwater elevation data, groundwater sampling methods, and results of groundwater chemical analyses. The third quarter is an annual sampling event where a total of sixteen on- and off-site monitoring wells are scheduled to be sampled. During the third quarter 2000 sampling event, fourteen of the sixteen wells were sampled.

SITE INFORMATION

Site Name & Contact

Mr. Balaji Angle
B&C Gas Mini Mart
2008 First Street
Livermore, California 94550
(510) 654-3461

Site Description

The B&C property is located on the northeast corner of First and South L Streets in Livermore, California, and currently serves as a gasoline station and mini market and is called Valley Gas. From at least 1988 until 1994, Desert Petroleum (DP) owned and operated the site. In January 1994, DP sold the site to the current owner, Mr. Balaji Angle. The following site description has been compiled from reports on file with Alameda County Environmental Health Services (ACEHS) and information provided by the site owner.

The site is located in the Livermore Valley groundwater basin, an area of sedimentary deposition containing braided channel systems with complex interfingering. Subsurface

investigations conducted to the west of the B&C site have found an upper unconfined water-bearing zone consisting primarily of gravels with sand and clay. A low-permeability clayey unit is found at depths of approximately 75 to 110 feet below ground surface (bgs). Below the clayey unit, the top of a lower, semi-confined aquifer is found at depths ranging from 110 to 145 feet bgs.[1]

Subsurface work conducted in the B&C area has found predominantly sandy clay, silty sand, silty gravel, and sandy gravel. Over the last eleven years, static water levels have ranged from 68.7 feet bgs (January 1992) to 17.0 feet bgs (February 1997). The groundwater flow generally ranges from west of north during the summer and fall months, to north of west during the winter and spring months. Table 1 presents historical site groundwater elevations.[2] Table 2 summarizes all B&C monitoring well constructions.

Previous Work Performed at Site

A preliminary site assessment was conducted in September 1988. Three soil borings were completed; one of which was converted to a monitoring well (MW-1). In March 1994, a 280-gallon waste oil underground storage tank (UST) and 25 cubic yards of soil were removed as part of closing the auto repair shop at the station. Three months later in June, wells MW-2, MW-3, and MW-4 were installed (Figure 2).[3]

In August 1994, free product was encountered in well MW-2, and product removal commenced twice a month. By the end of January 1995, no measurable thickness of product remained, only sheen could be detected.[4] In March 1995, a release was reported to have occurred from the union between a tank subpump and product line. The quantity of the release is unknown.

One gasoline UST at the B&C site failed an integrity test in September 1995. The tank was immediately taken out of commission and ACEHS was notified. In July 1996, further source removal was conducted. Two more gasoline USTs were removed, and new double-walled fiberglass USTs and fiberglass piping with automated leak detection were installed. Other remedial activities included the removal of two hydraulic lifts and approximately 700 cubic yards of impacted soil. Also, one 1,000-gallon UST discovered during excavation activities was closed in place with approval from ACEHS and the Livermore Fire Department by grouting with a cement sand slurry. In October 1995, two additional monitoring wells (off-site well MW-5 and well MW-6) were installed for the B&C site (Figure 2).

---

[1] H⁺GCL, Inc. Deep Groundwater Conduit Study, Livermore Arcade Shopping Center, First Street and South P Street, Livermore, California. December 6, 1993.

[2] Groundwater elevation and flow direction data from Remediation Service Int'l quarterly reports.

[3] Remediation Service Int'l. Soil & Groundwater Investigation Report for 2008 First Street, Livermore, California. July 22, 1994.

[4] Product thickness information from Remediation Service, Int'l field records, "Free Product Removal Logs."

Nine downgradient wells (MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, D-1, and D-2) were installed during June and July 1999 to define the downgradient and lateral extent of the plume and provide long-term monitoring locations (Figure 2).[5] Two of the wells, D-1 and D-2, are installed in the semi-confined aquifer below the aquitard. The other wells are installed in the upper water-bearing zone. Table 1 summarizes the well construction details for all on-site and off-site wells installed to date.

The primary constituents of concern are total petroleum hydrocarbons as gasoline (TPH-G); the aromatic compounds benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX); and methyl tertiary-butyl ether (MTBE). Since 1994, concentrations of TPH-G in groundwater have generally decreased.

Interim Remedial Action at Well MW-5

Floating product was first observed in well MW-5 on July 30, 1998 (Table 2). The well is screened from 15 feet to 40 feet bgs, and the depth to groundwater has historically ranged from 18 to 33 feet bgs, well within the screened interval of the well. Due to the presence of floating free product in well MW-5, interim remedial actions were taken to remove the floating product from the well. A passive bailer or absorbent sock was selected to remove product from well MW-5 based on well access, the thickness of the product, and the rate at which the product enters the well as it is removed.

Over the time period monitored, the absorbent socks have removed sufficient product to reduce the free product thickness to a sheen or less. In April 1999, the absorbent sock was raised above the water table. In December 1999, 0.07 feet of free product was measured in well MW-5 and the absorbent sock was replaced in the well. No free product has been measured in MW-5 since and groundwater samples have been collected.

GROUNDWATER SAMPLING AND ANALYSIS

Third quarter activities are reviewed below. Groundwater sampling methods and results are presented and a discussion of historical analytical trends for site monitoring wells is included.

Free Product

During the third quarter 2000 sampling event, Conor Pacific checked for free product in all site wells. Of the wells which previously have been reported to contain free product (Wells MW-2, MW-5, and MW-6), none contained a measurable thickness of product this quarter. Off-site well (MS)MW-1, located approximately 800 feet downgradient from the B&C site on the Mill Springs Park property, was also checked for product (Figure 2). (MS)MW-1 did not contain a measurable thickness of product although small

[5] Einarson, Fowler & Watson, November 5, 1999, Report of Downgradient Investigation, B&C Gas Mini Mart, 2008 First Street, Livermore, California.

globules of light brown product were observed in the bailer during purging. No sample was collected from (MS)MW-1 during this quarter.

Groundwater Elevations

On September 12, 2000, Conor Pacific measured the depth to water in all groundwater monitoring wells. Water levels were measured to the nearest 0.01 foot using a float-activated product probe, according to Conor Pacific's standard measuring protocol,[6] and were recorded on a water level data sheet (Appendix A). Groundwater elevations are calculated by subtracting depth-to-water measurements from the top of well casing elevations, surveyed to Livermore City datum, mean sea level (MSL).

Table 2 summarizes available groundwater elevations from August 1990 to September 2000. A comparison of well screen elevations (Table 1) and third quarter measurements shows that the water levels were above the well screens in wells MW-1, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and (MS)MW-1. The water level in these wells intercepted the well screen interval at the time of groundwater sampling. A groundwater contour map, based on September 2000 measurements, is shown in Figure 2. Third quarter groundwater elevations are generally three to four feet lower than the second quarter 2000. Groundwater flow was generally due west during third quarter 2000 with hydraulic gradient is approximately 0.013 foot per foot. The flow direction and gradient are in accordance with previous results.

A vertically downward gradient was observed between the upper water-bearing zone (MW-11 and MW-12) and the semi-confined aquifer (D-1 and D-2), similar to, although less significant, than in previous quarters. This may be the result of the effects of slower recharge to the deeper, semi-confined aquifer compared with more rapid recharge to the upper water-bearing zone.

Sampling Methods

Conor Pacific sampled 14 monitoring wells on September 12-13, 2000, following Conor Pacific's standard protocol. The third quarter is a regular annual sampling event, generally during which 16 monitoring wells are sampled, when possible. On-site well MW-6 was not sampled this quarter because the water level was below an obstruction at 28.7 feet below ground surface (bgs). Off-site well (MS)MW-1 was not sampled this quarter due to the presence of free product globules observed during well purging. Wells were purged using either a submersible pump or a polyvinyl chloride (PVC) bailer. Samples were collected from each well using a disposable PVC bailer. Field measurements of temperature, pH, dissolved oxygen, turbidity, and electrical conductivity were taken and recorded on water sample field data sheets (Appendix A). All purge water was contained in 55-gallon drums and stored on-site pending proper disposal. Purge water with low hydrocarbon concentrations is pumped to the sanitary

[6] Einarson, Fowler & Watson. Third Quarter 1998 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California, Appendix A. September 10, 1998.

sewer under City of Livermore Groundwater Discharge Permit # 1514. All samples were properly stored on the day of sampling. Chain-of-custody documentation accompanied the samples through collection and delivery to the analytical laboratory.

Analytical Program

All groundwater analyses were performed by Sequoia Analytical of Petaluma, California, a state-certified laboratory. All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by U.S. Environmental Protection Agency (EPA) Method 8015M and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) by EPA Method 8020M. At the request of the ACEHS, the groundwater sample collected from MW-5 was also analyzed by EPA Method 8260B for seven oxygenates including MTBE. Laboratory analyses occurred within specified holding times and within laboratory quality control standards. The certified analytical report is located in Appendix A.

Analytical Results

Over the last seven years of monitoring at the site, concentrations of benzene have steadily decreased in all site wells. Analysis of site groundwater samples for MTBE began in June 1995. Since then, concentrations of MTBE have decreased significantly. However, during the third quarter 2000, hydrocarbon concentrations in wells MW-1, MW-2, MW-3, and MW-5 were generally higher this quarter than during the previous three quarters, closely resembling values measured in third quarter 1999. This probably reflects seasonal changes in water levels where the highest concentrations are measured when the water levels are at their lowest. Table 3 presents a historical summary of groundwater analytical results from the B&C site. Third quarter 2000 analytical results for benzene and MTBE are also presented on Figure 3.

Site Wells

Four of the five wells located on the B&C Gas Mini Mart property were sampled during the third quarter 2000. Well MW-6 was not sampled due to an obstruction at approximately 28.7 feet bgs in the well. Hydrocarbon concentrations measured in the groundwater sample collected from MW-1 are significantly higher this quarter than they were in March 2000, but similar to results from the June 1999 sampling event. During this quarter, TPH-G was detected at 1,500 micrograms per liter (µg/L), BTEX compounds were detected at 105, 50.7, 46.5, and 157 µg/L, respectively. The concentration of MTBE was measured at 45.4 µg/L, higher than in March 2000 but lower than in June 1999.

The groundwater sample collected from MW-2 resulted in hydrocarbon concentrations similar in magnitude or slightly higher than those measured in September and December 1999, except for toluene. The toluene concentration of 926 µg/L measured during third quarter 2000 is the highest since November 1998.

Hydrocarbon concentrations measured in MW-3 during third quarter 2000 are not significantly higher than the previous results obtained in first quarter 2000, with the exception of benzene and MTBE. The concentration of benzene during this quarter was 37.3 µg/L compared to the March 2000 result of 4.56 µg/L, and MTBE was detected at 160 µg/L, the highest concentration since March 1999.

No hydrocarbons were detected in the groundwater sample collected from well MW-4, which agrees with historical results.

Check Spelling
Purged

Downgradient Wells

Ten of the eleven downgradient wells were sampled during third quarter. Off-site well (MS)MW-1 was not sampled due to the presence of product in the bailer during well purging. In general, hydrocarbon concentrations in groundwater samples collected from these wells during the third quarter 2000 were significantly higher than during the previous sampling event. Concentrations resemble results from the third and fourth quarters 1999. This again suggests a relationship between concentrations and water levels, namely that during drier months when water levels drop, hydrocarbon concentrations are less diluted and relatively higher.

Well MW-5, located 75 feet downgradient of the site, was sampled this quarter since no free product was measured in the well. The concentration of TPH-G was almost twice as high this quarter as in second quarter 2000. The concentrations of the BTEX compounds were somewhat higher than they were during second quarter 2000, although that of total xylenes was significantly higher this quarter. Hydrocarbon concentrations this quarter are within the range of values measured during the past two years. The concentration of MTBE in the groundwater sample collected during third quarter 2000 is somewhat higher this quarter after having reached a historical low concentration in second quarter 2000. The MTBE result reported in Table 3 (243 µg/L) was obtained using EPA Method 8260B for oxygenates and differed by more than 40% from the MTBE concentration obtained from EPA Method 8020 (510 µg/L), as noted in the certified analytical report. No other oxygenates analyzed were detected in the groundwater sample collected from well MW-5.

Well MW-7, located on the Mill Springs Park Apartments property approximately 550 feet downgradient from the site, had lower concentrations for TPH-G, ethylbenzene, and MTBE during this quarter when compared to results from second quarter 2000. The concentration of total xylenes was somewhat higher this quarter, although still the second lowest concentration detected to date. MTBE was detected at 3.77 µg/L, a historical low concentration.

Well MW-8, located on Railroad Avenue at the Bank of America building contained only a low concentration of MTBE (14.3 µg/L) during this quarter, higher than was detected during the last two sampling periods (4.65 µg/L and 5.56 µg/L in the first and second quarters, respectively).

Well MW-13, located on Railroad Avenue east of the Bank of America, contained benzene (6.01 µg/L) and MTBE (77.4 µg/L). The concentration of benzene measured this quarter was slightly lower than last quarter, while the concentration of MTBE is almost twice of that measured during second quarter 2000 (38.8 µg/L).

Well (MS)MW-1, located approximately 800 feet downgradient from the B&C site, was not sampled during third quarter 2000 since free product was observed in the PVC bailer during well purging.

No TPH-G, BTEX compounds, or MTBE were detected in downgradient wells MW-9, MW-10, MW-11, MW-12, D-1 and D-2. These results are consistent with historical results from these wells.

SUMMARY

The third quarter 2000 was an annual sampling event where all on- and off-site wells are sampled, when possible. Fourteen of the sixteen monitoring wells were sampled this quarter. The third quarter 2000 groundwater monitoring results are consistent with previous monitoring results. Hydrocarbon concentrations were generally similar or higher to results from the second quarter. These results confirm a trend where the highest hydrocarbon concentrations are measured when the water levels are at their lowest, during relatively drier months of the year. The furthest downgradient detection of a hydrocarbon is MTBE detected at 14.3 µg/L in well MW-8, approximately 1,200 feet from the site. This generally is consistent with results during 1999 and 2000.

FUTURE WORK

Following a Conor Pacific recommendation made in the Second Quarter 2000 report,[7] the ACEHS has requested that a minimum of two additional groundwater monitoring wells be installed to better delineate the north-northwestern lateral extent of the plume.[8] An addendum to a September 1998 Einarson, Fowler and Watson workplan for additional wells will be submitted once a deadline is set with the Alameda County Environmental Health Services.[9]

Fourth quarter 2000 groundwater monitoring currently is scheduled for December 2000.

---

[7] Conor Pacific/EFW. Second Quarter 2000 Groundwater Monitoring Results, B&C Gas Mini Mart, Livermore, California, August 25, 2000.

[8] Alameda County Environmental Health Services. Additional Groundwater Monitoring Wells at 2008 1st Street, Livermore, California, September 11, 2000.

[9] Einarson, Fowler & Watson. Workplan for Additional Downgradient Investigation, B&C Gas Mini Mart, 2008 First Street, Livermore, California. September 8, 1998.

If you have any questions regarding this report, please call us at (650) 843-3828.

Sincerely,
Conor Pacific

Katrin Schliewen
Project Hydrogeologist

Mark Smolley, RG 4650
Senior Geologist

Attachments:

Tables

Table 1 - Summary of Groundwater Elevations
Table 2 - Monitoring Well Constructions
Table 3 - Historical Groundwater Analytical Results

Figures

Figure 1 - Site Location
Figure 2 - Well Locations and Groundwater Contours (September 2000)
Figure 3 - Groundwater Chemistry (September 2000)

Appendices

Appendix A - Water Sample Field Data Sheets and Certified Analytical Reports

cc: Eva Chu, Alameda County Environmental Health Services
Mr. Matt Katen, Alameda Co. Flood Control and Water Cons. District Zone 7
Regional Water Quality Control Board, San Francisco Bay Region LUFT
State Water Resources Control Board, UST Fund

Table 1
Monitoring Well Constructions
B&C Gas Mini Mart
Livermore, California

Well No.	Drilling Method	Date Installed	T.D. Boring (ft.-bgs)	T.D. Well (ft.-bgs)	Borehole Diameter (inches)	Casing Material (PVC)	Casing Diameter (inches)	Screen Size (inches)	Sand Pack Material	Screened Interval (ft.-bgs)	Sand Pack Interval (ft.-bgs)
MW-1	HSA	Sep-88	77	77	8	PVC	2	0.020	#3 sand	27 - 77	25 - 77
MW-2	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-3	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-4	HSA	Jun-94	60	60	10	PVC	4	0.020	#2/20 sand	30 - 60	27 - 60
MW-5	HSA	Oct-95	42	40	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40
MW-6	HSA	Oct-95	42	40	10	PVC	4	0.020	#2 sand	15 - 40	12 - 40
MW-7	HSA	Jun-99	62	49	8	PVC	2	0.020	#3 sand	29-49	27-51
MW-8	HSA	Jun-99	62	54	8	PVC	2	0.020	#3 sand	34-54	32-54
MW-9	HSA	Jun-99	45	45	8	PVC	2	0.020	#3 sand	25-45	23-45
MW-10	HSA	Jun-99	55	53.5	8	PVC	2	0.020	#3 sand	33.5-53.5	23-55
MW-11	HSA	Jun-99	50	49	8	PVC	2	0.020	#3 sand	29-49	27-49
MW-12	HSA	Jun-99	45	43.5	8	PVC	2	0.020	#3 sand	23.5-43.5	21-45
MW-13	HSA	Jul-99	55	55	8	PVC	2	0.020	#3 sand	35-55	32-55
D-1	HSA	Jun-99	125	125	8	PVC	2	0.020	#3 sand	110-125	104-125
D-2	HSA	Jun-99	115	114	8	PVC	2	0.020	#3 sand	99-114	94-114
(MS)MW-1	HSA	Apr-89	62	60	NA	PVC	2	NA	NA	30-60	NA

HSA Hollow-Stem Auger
T.D. Total Depth
ft.-bgs feet below ground surface
NA Not available
Well construction information for wells MW-2 through MW-6 collected from Remediation Service Int'l boring logs.

Table 2
Summary of Groundwater Elevations
B & C Gas Mini Mart
Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-1	487.00	09/22/88	60.50	426.50		
		08/02/90	43.10	443.90		
		10/10/91	66.39	420.61		
		01/08/92	68.72	418.28		
		05/11/93	34.76	452 24		
		09/21/93	38.70	448.30		
		05/22/94	33.57	453.43		
	484.07	06/19/94	37.51	446.56		
		08/25/94	43.27	440.80		
		11/22/94	40.58	443.49		
		03/13/95	28.06	456.01		
		06/01/95	21.76	462.31		
		02/29/96	18.86	465.21		
		Feb-97	NM	NM		
		07/30/98	25.90	458.17		
		11/05/98	33 23	450.84		
		03/23/99	25.49	458.58		
		06/08/99	27.78	456.29		
		09/27/99	30.65	453.42		
		12/20/99	32.99	451.08		
		03/21/00	23.95	460.12		
		06/21/00	26.55	457.52		
		09/12/00	29.58	454.49		
MW-2	483.86	06/19/94	38.15	445.71		
		08/25/94	44.13	-	43.47	0.66
		11/22/94	40.96	-	40.92	0.04
		03/09/95	29.28	-	28.47	0.81
		03/13/95	28.71	-	28.29	0 42
		06/01/95	22.61	461.25		
		02/29/96	20.05	463.81		
		Feb-97	18.30	465.56		
		07/30/98	25.75	-	25.74	0.01
		11/05/98	33.31	450.55		
		03/23/99	25.51	458.35		
		06/08/99	27.54	456.32		
		09/27/99	30.73	453.13		
		12/20/99	33.02	450.84		
		03/21/00	24.13	459.73		
		06/21/00	26.26	457.60		
		09/12/00	29.40	454.46		
MW-3	484.24	06/19/94	37.15	447.09		
		08/25/94	42.31	441.93		
		11/22/94	40.07	444.17		
		03/13/95	27.94	456.30		
		06/01/95	21.31	462 93		
		02/29/96	18.78	465.46		
		Feb-97	16.97	467.27		
		07/30/98	24.88	459.36		
		11/05/98	32.09	452.15		
		03/23/99	24.49	459.75		
		06/08/99	26.77	457.47		
		09/27/99	29.52	454.72		
		12/20/99	31.85	452.39		
		03/21/00	22.95	461.29		
		06/21/00	25.60	458.64		
		09/12/00	28.40	455.84		

Table 2
Summary of Groundwater Elevations
B & C Gas Mini Mart
Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-4	485.04	06/19/94	37.49	447.55		
		08/25/94	42.25	442.79		
		11/22/94	40.59	444.45		
		03/13/95	28.00	457.04		
		06/01/95	21.51	463.53		
		02/29/96	18.42	466.62		
		Feb-97	17.47	467.57		
		07/30/98	25.47	459.57		
		11/05/98	32.67	452.37		
		03/23/99	25.09	459.95		
		06/08/99	27.43	457.61		
		09/27/99	30.16	454.88		
		12/20/99	32.52	452.52		
		03/21/00	23.43	461.61		
		06/21/00	26.14	458.90		
		09/12/00	29.03	456.01		
MW-5	481.97	02/29/96	19.35	462.62		
		Feb-97	18.19	463.78		
		07/30/98	25.25	456.72	25.24	0.01
		11/05/98	32.70	449.27	32.48	0.22
		03/23/99	25.15	456.82		
		06/08/99	27.27	454.70		
		09/27/99	30.00	451.97		
		12/20/99	32.30	449.67	32.23	0.07
		03/21/00	23.55	458.42		
		06/21/00	26.04	455.93		
		09/12/00	28.90	453.07		
MW-6	483.93	02/29/96	20.32	463.61		
		Feb-97	18.92	465.01		
		07/30/98	25.59	458.34	25.58	0.01
		11/05/98	NM >28.4	NM		
		03/23/99	25.43	458.50		
		06/08/99	27.43	456.50		
		09/27/99	NM >28.6	NM		
		12/20/99	NM >28.7	NM		
		03/21/00	24.02 *	459.91		
		06/21/00	26.04 *	457.89		
		09/12/00	NM >28.7	NM		
MW-7	478.14	7/12/99	28.37	449.77		
		09/27/99	30.20	447.94		
		12/20/99	32.44	445.70		
		03/21/00	24.18	453.96		
		06/21/00	26.70	451.44		
		09/12/00	29.28	448.86		
MW-8	473.23	7/12/99	34.29	438.94		
		09/27/99	37.11	436.12		
		12/20/99	39.79	433.44		
		03/21/00	29.10	444.13		
		06/21/00	31.90	441.33		
		09/12/00	35.75	437.48		
MW-9	477.08	7/12/99	30.71	446.37		
		09/27/99	32.61	444.47		
		12/20/99	34.99	442.09		
		03/21/00	26.75	450.33		
		06/21/00	29.28	447.80		
		09/12/00	31.65	445 43		

Table 2
Summary of Groundwater Elevations
B & C Gas Mini Mart
Livermore, California

Well Number	Top-of-Casing Elevation (feet, MSL)	Date Measured	Depth to Water (feet)	Groundwater Elevation (feet, MSL)	Depth to Free product (feet)	Product Thickness (feet)
MW-10	471.42	7/12/99	34.60	436.82		
		09/27/99	37.62	433.80		
		12/20/99	40.04	431.38		
		03/21/00	29.50	441.92		
		06/21/00	32.19	439.23		
		09/12/00	36.19	435.23		
MW-11	464.93	7/12/99	31.00	433.93		
		09/27/99	33.83	431.10		
		12/20/99	35.91	429.02		
		03/21/00	26.41	438.52		
		06/21/00	28.79	436.14		
		09/12/00	32.56	432.37		
MW-12	458.34	7/12/99	25.50	432.84		
		09/27/99	28.28	430.06		
		12/20/99	30.26	428.08		
		03/21/00	20.70	437 64		
		06/21/00	23.11	435.23		
		09/12/00	27.04	431.30		
MW-13	474.79	7/12/99	30.65	444.14		
		09/27/99	32.74	442.05		
		12/20/99	34.98	439.81		
		03/21/00	26.03	448.76		
		06/21/00	28.74	446.05		
		09/12/00	31.62	443.17		
D-1	464.70	7/12/99	30.67	434.03		
		09/27/99	35.32	429.38		
		12/20/99	36.32	428.38		
		03/21/00	27.84	436.86		
		06/21/00	30.40	434.30		
		09/12/00	34.11	430.59		
D-2	457.61	7/12/99	25.72	431.89		
		09/27/99	28.44	429.17		
		12/20/99	29.40	428.21		
		03/21/00	20.91	436.70		
		06/21/00	23.56	434.05		
		09/12/00	27.23	430.38		
(MS)MW-1	477.79	07/30/98	30.37	447.42	30.35	0.02
		11/05/98	38.01	439.78	(1)	
		03/23/99	29.44	448.35	(1)	
		06/08/99	31.70	446.09	(1)	
		09/27/99	34.38	443.41		
		12/20/99	37.36	440.43		
		03/21/00	28.22	449.57		
		06/21/00	30.95	446.84		
		09/12/00	33.54	444.25		

Notes:
Data prior to 1998 from RSI quarterly reports. February 1997 date unknown.
MSL = mean sea level
NM = not measured
MS = Mill Springs Park
(1) - free product visible in purge or sample water
* Obstruction in well MW-6 at approximately 28.6 feet below top of casing, or as indicated by ">"

Table 3
Historical Groundwater Analytical Results
B&C Gas Mini Mart
Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-1	Aug-90	24,000	1,300	1,300	400	2,700	NA
	Oct-91	2,000	430	170	100	290	NA
	Jan-92	1,000	200	120	30	150	NA
	May-93	960	66	8	41	90	NA
	Sep-93	1,900	311	118	34	112	NA
	May-94	10,000	690	1,100	340	1,200	NA
	Aug-94	13,000	290	690	120	670	NA
	Nov-94	19,000	400	770	230	130	NA
	Mar-95	6,000	900	100	980	740	NA
	Jun-95	2,400	210	380	53	280	13,000
	Sep-95	7,800	69	1,300	220	1,200	2,000
	Feb-96	120	4.2	1.4	4.7	5 6	14
	Feb-97	NS*	NS*	NS*	NS*	NS*	NS*
	Jul-98	1,400	26	110	57	243	5
	Nov-98	6,000	230	330	240	1,060	<100
	Mar-99	6,600	280	420	240	990	60
	Jun-99	1,630	70	52	55	138	67
	Dec-99	NS	NS	NS	NS	NS	NS
	Mar-00	300	17 6	14.2	9.89	40.7	7.84
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	1,500	105	50.7	46.5	157	45 4
MW-2	Jun-94	290,000	18,000	36,000	4,600	26,000	NA
	Aug-94	NS**	NS**	NS**	NS**	NS**	NA
	Nov-94	NS**	NS**	NS**	NS**	NS**	NA
	Mar-95	NS**	NS**	NS**	NS**	NS**	NA
	Jun-95	25,000	2,300	3,400	720	3,100	16,000
	Sep-95	NS**	NS**	NS**	NS**	NS**	NS**
	Feb-96	57,000	2,500	650	3,700	3,100	6,500
	Feb-97	20,000	860	1,500	480	1,000	1,300
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	40,000	2,400	2,500	2,100	7,200	1,200
	Mar-99	22,000	780	880	780	1,730	300
	Jun-99	11,200	352	454	540	639	343
	Sep-99	18,000	992	331	901	2,140	225
	Dec-99	19,200	1,340	818	1,050	2,130	579
	Mar-00	6,340	281	184	233	348	90.2
	Jun-00	5,820	128	94.4	155	161	67 8
	Sep-00	18,100	981	926	1,080	2,630	239
MW-3	Jun-94	11,000	640	580	270	790	NA
	Aug-94	41,000	1,600	2,300	330	1,800	NA
	Nov-94	18,000	8,000	10,000	900	5,000	NA
	Mar-95	44,000	1,600	1,300	5,000	6,600	NA
	Jun-95	15,000	600	1,900	490	2,600	4,200
	Sep-95	8,000	710	1,100	180	870	2,700
	Feb-96	13,000	260	200	200	1,100	1,500
	Feb-97	11,000	260	550	170	600	900
	Jul-98	25,000	330	1,200	490	1,860	300
	Nov-98	26,000	400	2,100	820	3,600	300
	Mar-99	6,900	100	160	110	265	220
	Jun-99	1,210	5.4	9 0	6 9	4.3	53 3
	Dec-99	NS	NS	NS	NS	NS	NS
	Mar-00	465	4.56	1 87	6.20	7.45	15 5
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	488	37.3	5.64	7 25	15.9	160

Table 3
Historical Groundwater Analytical Results
B&C Gas Mini Mart
Livermore, California

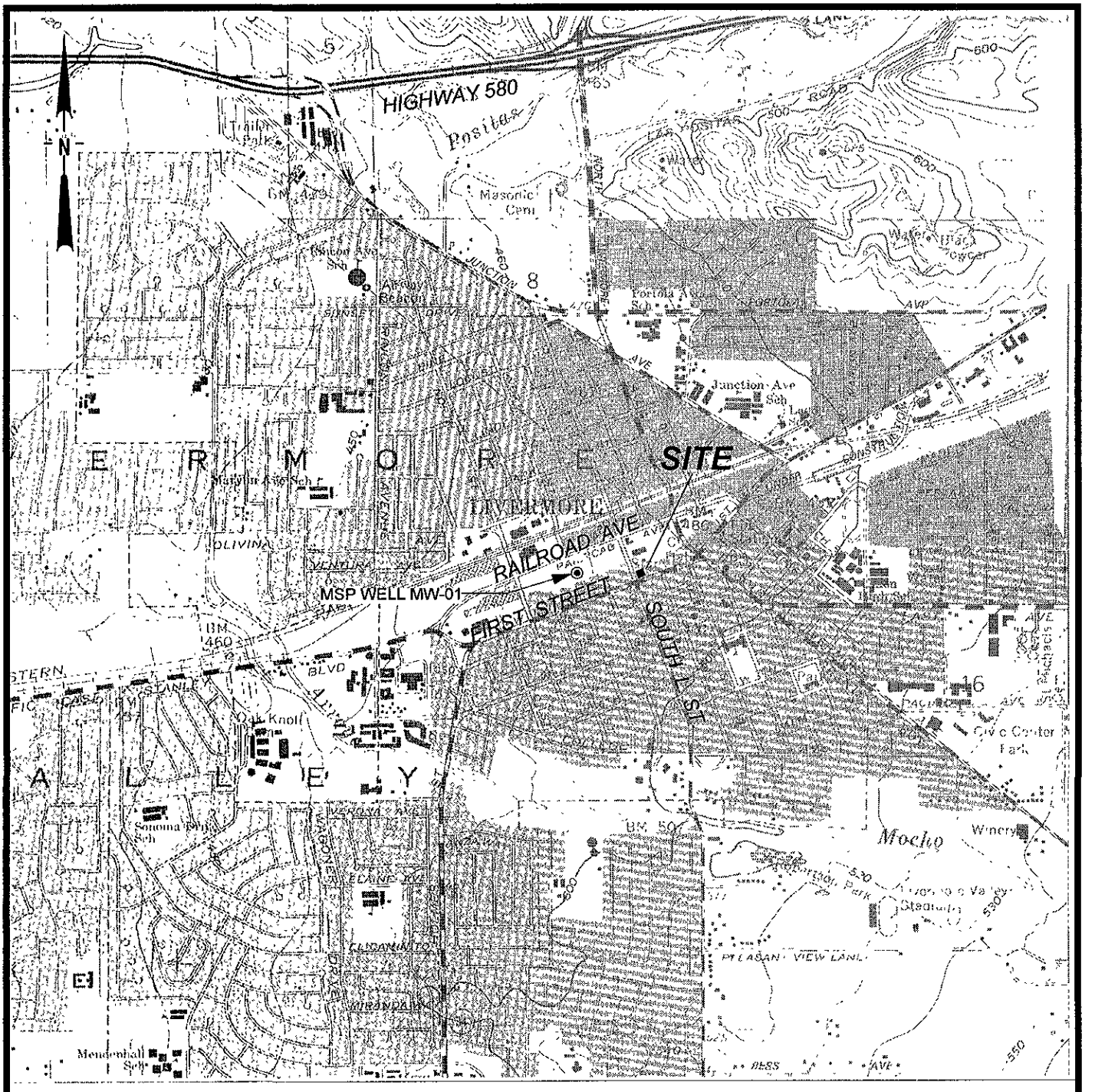
Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-4	Jun-94	810	12	25	<0.5	22	NA
	Aug-94	850	37	51	9.5	35	NA
	Nov-94	1,700	110	110	5.8	58	NA
	Mar-95	1,300	180	8	52	77	NA
	Jun-95	ND	3	1	ND	1	ND
	Sep-95	<50	0 7	<0.5	<0.5	<0 5	<2.5
	Feb-96	87	<0.5	<0.5	<0.5	<0.5	<0.5
	Feb-97	<50	<0.5	<0.5	<0.5	<0.5	2.9
	Jul-98	<50	<0.4	0.6	<0.3	0.8	<5
	Nov-98	<50	0.7	<0.3	<0.3	<0.8	27
	Mar-99	<50	<0.4	<0.3	<0.3	<0.8	<5
	Jun-99	<50	<0.5	<0.5	<0.5	<0.5	<2
	Dec-99	NS	NS	NS	NS	NS	NS
	Mar-00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	<50	<0.5	<0.5	<0.5	<0 5	<2.5
MW-5	Oct-95	120,000	16,000	26,000	3,100	15,000	39,000
	Feb-96	47,000	3,400	4,200	860	4,100	20,000
	Feb-97	28,000	1,300	1,500	480	1,000	2,200
	Jul-98	*47,000*	*1,400*	*4,000*	*2,000*	*8,500*	*600*
	Nov-98	NS**	NS**	NS**	NS**	NS**	NS**
	Mar-99	36,000	1,500	2,400	1,500	5,500	900
	Jun-99	34,500	722	1,980	1,720	7,170	765
	Sep-99	49,100	540	2,500	1,730	8,040	255
	Dec-99	NS**	NS**	NS**	NS**	NS**	NS**
	Mar-00	10,700	217	300	332	1,480	160
	Jun-00	23,000	537	533	1,040	2,590	131***
	Sep-00	41,300	780	551	1,140	3,390	243***
MW-6	Oct-95	110,000	9,900	22,000	3,200	17,000	47,000
	Feb-96	23,000	2,000	460	2,900	2,600	6,300
	Feb-97	12,000	450	780	200	590	790
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	NS*	NS*	NS*	NS*	NS*	NS*
	Mar-99	5,700	240	260	120	440	150
	Jun-99	7,610	259	334	283	567	275
	Dec-99	NS	NS	NS	NS	NS	NS
	Mar-00	10,100	276	170	200	673	159
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	NS	NS	NS	NS	NS	NS
MW-7	Jul-99	5,090	31.9	4.8	60	219	43 6
	Sep-99	2,160	2.8	8.2	5.9	27.3	14.0
	Dec-99	2,630	<2.5	<2.5	13.8	44.9	26.3
	Mar-00	624	<0.5	<0.5	<0.5	1.61	3 87
	Jun-00	435	<0.5	<0 5	0.875	1.28	4.87
	Sep-00	327	<0.5	<0.5	0.602	1.56	3.77
MW-8	Jun-99	<50	<0.5	<0.5	<0 5	<0.5	88.5
	Sep-99	<50	<0 5	<0.5	<0.5	<0 5	52
	Dec-99	<50	<0.5	<0.5	<0.5	<0 5	47 3
	Mar-00	<50	<0.5	<0 5	<0.5	<0 5	4.65
	Jun-00	<50	<0.5	<0.5	<0.5	<0 5	5 56
	Sep-00	<50	<0.5	<0.5	<0.5	<0.5	14.3
MW-9	Jun-99	<50	<0.5	<0.5	<0.5	<0.5	<2
	Dec-99	NS	NS	NS	NS	NS	NS
	Mar-00	<50	<0.5	<0.5	<0 5	<0.5	<2.5
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	<50	<0.5	<0.5	<0.5	<0 5	<2.5

Table 3
Historical Groundwater Analytical Results
B&C Gas Mini Mart
Livermore, California

Well No.	Sample Date	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
MW-10	Jun-99	<50	<0.5	<0.5	<0.5	<0.5	<2
	Sep-99	<50	<0.5	<0.5	<0 5	<0 5	<2.5
	Dec-99	<50	<0.5	<0.5	<0.5	<0.5	46.5
	Mar-00	52.7	<0.5	<0.5	<0 5	<0.5	<2.5
	Jun-00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Sep-00	<50	<0.5	<0 5	<0.5	<0.5	<2.5
MW-11	Jun-99	91	0.7	2.0	1.1	2.6	<2
	Sep-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Dec-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Mar-00	<50	<0.5	<0.5	<0.5	<0.5	<2 5
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	<50	<0 5	<0.5	<0.5	<0.5	<2.5
MW-12	Jun-99	<50	<0.5	<0 5	<0.5	<0.5	<2
	Sep-99	<50	<0.5	<0 5	<0.5	<0.5	<2.5
	Dec-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Mar-00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Jun-00	<50	<0.5	<0.5	<0.5	<0.5	<2 5
	Sep-00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
MW-13	Jul-99	214	42.8	<0.5	4.5	<0.5	332
	Sep-99	<100	5.8	<1	<1	<1	160
	Dec-99	71	6.7	<0.5	1 4	<0.5	132
	Mar-00	<50	2.32	<0.5	<0.5	<0 5	53.5
	Jun-00	<50	7.83	<0.5	0.732	<0.5	38.8
	Sep-00	<50	6.01	<0.5	<0.5	<0.5	77.4
D-1	Jun-99	<50	<0.5	<0.5	<0.5	<0.5	<2
	Sep-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Dec-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Mar-00	<50	<0.5	<0.5	<0 5	<0 5	<2.5
	Jun-00	NS	NS	NS	NS	NS	NS
	Sep-00	<50	<0.5	<0.5	<0.5	<0.5	<2.5
D-2	Jun-99	<50	<0.5	<0.5	<0.5	<0 5	<2
	Sep-99	<50	<0 5	<0.5	<0 5	<0.5	<2.5
	Dec-99	<50	<0.5	<0.5	<0.5	<0.5	<2.5
	Mar-00	<50	<0.5	<0.5	<0.5	<0 5	<2.5
	Jun-00	<50	<0.5	<0.5	<0 5	<0 5	<2.5
	Sep-00	<50	<0 5	<0.5	<0.5	<0.5	<2.5
(MS)MW-1	Aug-95	11,000	190	260	110	900	210
	Jul-98	NS**	NS**	NS**	NS**	NS**	NS**
	Nov-98	10,000	260	120	500	1,100	200
	Mar-99	NS**	NS**	NS**	NS**	NS**	NS**
	Jun-99	NS**	NS**	NS**	NS**	NS**	NS**
	Dec-99	661	9.7	3.5	21.7	31.1	7 2
	Mar-00	NS**	NS**	NS**	NS**	NS**	NS**
	Jun-00	NS**	NS**	NS**	NS**	NS**	NS**
	Sep-00	NS**	NS**	NS**	NS**	NS**	NS**

ug/l = micrograms per liter
TPH-G = total petroleum hydrocarbons as gasoline
MTBE = methyl tertiary-butyl ether
MS = Mill Springs Park

NA= not analyzed NS= not sampled
* = well inaccessible ** = free product hydrocarbon present
*** = analytical result from EPA method 8260B
ND = not detected above reporting limit, limit not available
< = less than method reporting limit

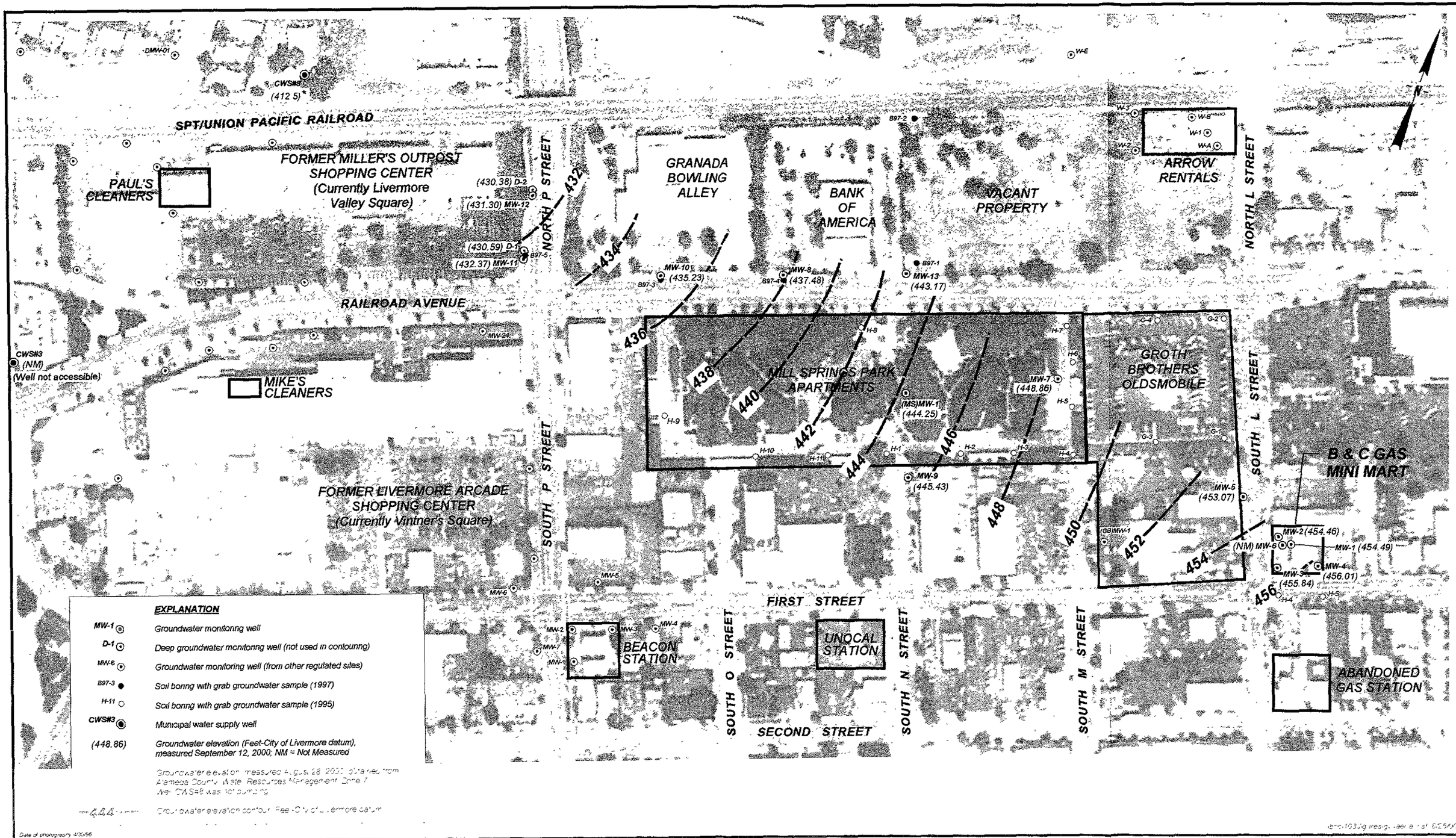


Base map: USGS 7.5' topography, Livermore, California (1961; photorevised 1980)

SCALE: 0 2,000 4,000 FEET

I/BNC/103/FIGURES/SITELOC.DSF 4/22/99

Conor Pacific EFW	GROUNDWATER MONITORING B & C GAS MINI MART LIVERMORE, CALIFORINA SITE LOCATION MAP	FIGURE 1 PROJECT NO. BNC103



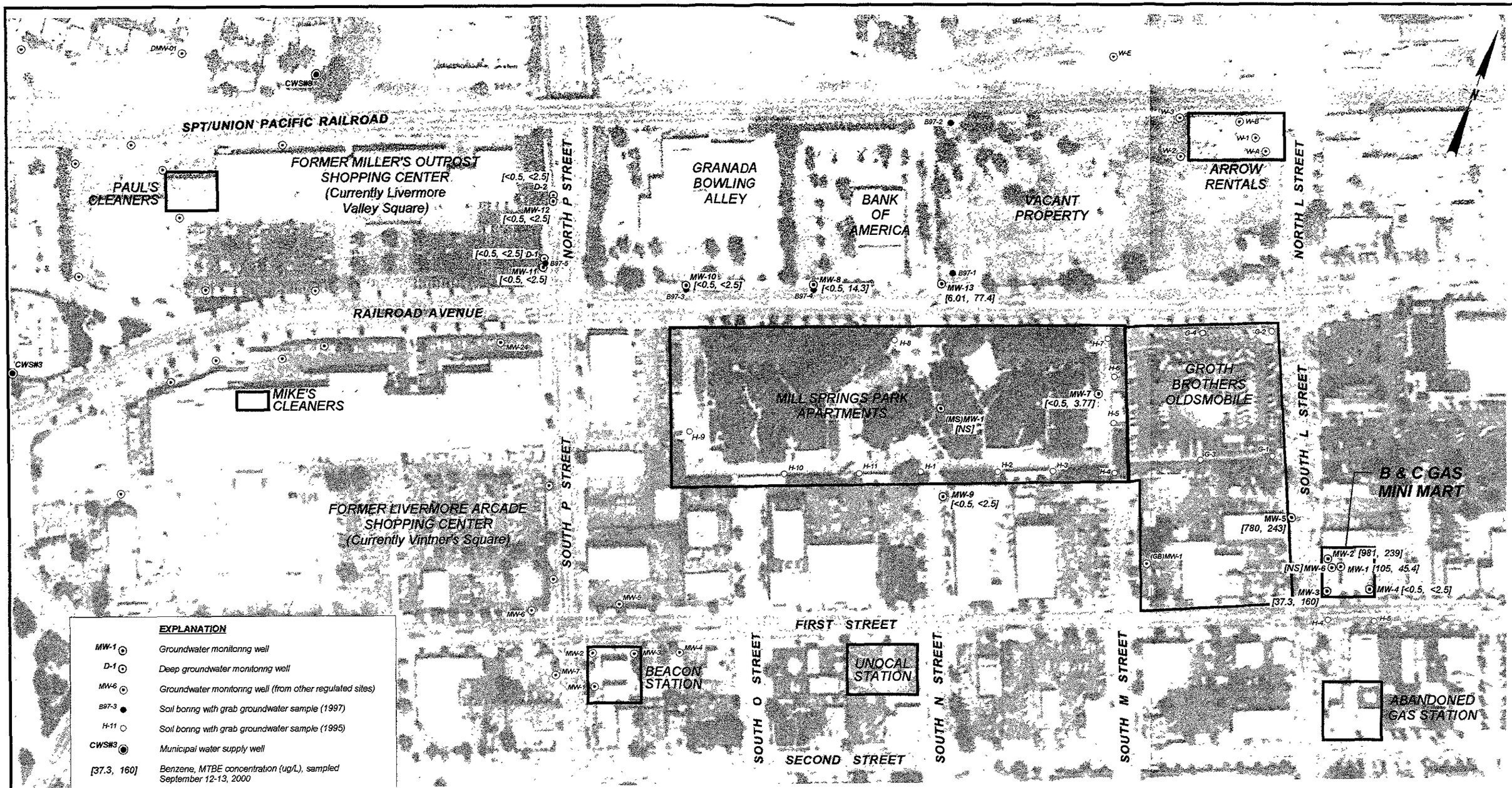
SCALE 0 200 400 FEET
(APPROXIMATE)

GROUNDWATER MONITORING
B & C GAS MINI MART
LIVERMORE, CALIFORNIA

WELL LOCATIONS AND GROUNDWATER CONTOURS (SEPTEMBER 2000)

FIGURE
2

PROJECT NO
BNC103



SCALE 0 200 400 FEET
(APPROXIMATE)

GROUNDWATER MONITORING
B & C GAS MINI MART
LIVERMORE, CALIFORNIA

GROUNDWATER CHEMISTRY (SEPTEMBER 2000)

FIGURE
3
PROJECT NO
BNC103

WATER LEVEL DATA SHEET

Conor Pacific/EFW

Project: B&C Gas Mini Mart

Project No.: BNC103

Date(s): 9/12/00

Name: RPaine

Weather: Sunny, warm Sounder #: 350', ICECK

Well	Date	DTPP (TOC)	DTW (TOC)	Total Depth	Meas By	Comments
MW-1	9/12/00	—	29.58	75.3	MP	
MW-2		—	29.40	56.1		
MW-3		—	28.40	57.6		sheenpresent
MW-4		—	29.03	60.0		
MW-5		—	29.90	39.7		15/16", 3
MW-6		—	(dry to 28.7)			obstructed at 28.7'
MW-7		—	29.20	49.3		9/16"
MW-8		—	35.75	53.1		
MW-9		—	31.65	44.0		
MW-10		—	36.19	53.8		
MW-11		—	32.56	48.9		
MW-12		—	27.04	43.3		
MW-13		—	31.62	54.2		
D-1		—	34.11	124.2		
D-2		—	27.23	111.6		
MS MW01		—	33.54	NM		

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Minimart
SAMPLE ID: MW-1
PROJECT NO: DNC 103
SAMPLED BY: DDANAS
CLIENT: B&C Gas Minimart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 75.65
Depth to Water (ft): 29.38
Height of Water Column (ft): 46.27
Volume in Casing (gal): 7.9
Calculated Purge (volumes / gal.): ~~23.7~~ 1x 7.9
Actual Pre-Sampling Purge (gal): 8.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump ~~X~~ Dedicated____ Other ~~S.S. Bail~~
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
16:47	2.8	21.6	963	~~8.04~~	brown	cloudy		
16:07	5.6	20.9	955	7.85	brown	"		
17:18	8.4	20.4	959	7.30	brown	"		
				7.26				

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer Tbg
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
17:22	21.0	961	7.34	1.84	brown	999	

Sheen: None Odor: slight Hydrocarbons Sample Date: 9/13/00

Field Measurement Devices: Horiba X Omega ____ QuickCheck ____ D.O. Test Kit ____
REMARKS: 1 Casing Volume Purge.

SIGNATURE: Dana Davis **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: D+C Gas Minimart
SAMPLE ID: MW-2
PROJECT NO: DNC 103
SAMPLED BY: DDANKS
CLIENT: B+C Gas Minimart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 56.07
Depth to Water (ft): 29.29
Height of Water Column (ft): 33.22
Volume in Casing (gal): 21.9
Calculated Purge (volumes / gal.): ~~63.7~~ 3 x 21.9
Actual Pre-Sampling Purge (gal): 22 gallons

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump 51FT Dedicated____ Other____
Purge Water Containment: Drums
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
15:48	67	22.2	940	7.25	clear	moderate		
15:51	14	21.7	950	7.24	clear	moderate		
15:56	20	21.6	950	7.25	clear	moderate		

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer 51FT
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump ____ Dedicated____ Other ~~60/60~~

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
16:13	22.5	950	7.23	1.51	clear	322	

Sheen: none Odor: slight hydrocarbons Sample Date: 9/13/00

Field Measurement Devices: Horiba X Omega ____ QuickCheck ____ D.O. Test Kit ____
REMARKS: Casing volume purge.

SIGNATURE: Dan Danks **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: BEC Gas Minimart
SAMPLE ID: MW-3 MW-3
PROJECT NO: BNC 103
SAMPLED BY: D Daly
CLIENT: BNC Minimart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 57.7
Volume in Casing (gal): 19.4
Depth to Water (ft): 28.295
Calculated Purge (volumes / gal.): ~~58.2~~ 19.4
Height of Water Column (ft): 29.40
Actual Pre-Sampling Purge (gal): 21

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump X Dedicated____ Other ES-60
Purge Water Containment: drummed (51')
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
14:33	7	21.6	940	7.18	light brown	moderate		
14:37	14	21.1	929	7.25	"	"		
14:41	20	21.1	933	7.24	"	"		

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (51')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
14:52	22.8	937	7.29	2.90	light brown	158	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba X Omega ____ QuickCheck ____ D.O. Test Kit ____
REMARKS: 1 Casing Volume Purge.

SIGNATURE: David Daly **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: BNC Gas Mini Mart
SAMPLE ID: MW-4
PROJECT NO: BNC 103
SAMPLED BY: David Danks DDa
CLIENT: BNC Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 60.0
Volume in Casing (gal): 20.5
Depth to Water (ft): 28.97
Calculated Purge (volumes / gal.): ~~3/20.5~~ 61.5
Height of Water Column (ft): 31.03
Actual Pre-Sampling Purge (gal): 62.0

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump SSK Dedicated ____ Other ESGO
Purge Water Containment: DRUM
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
12:37	21	21.6	~~0.95~~950	6.65	light yellow	low		
12:50	42	20.5	970	7.10	"	"		
13:04	62	20.6	970	7.19	"	"		

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ~~SSBA~~ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer SSK
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump X Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
13:20	23.1	980	7.22	5.45	Lt Yellow Brown	86	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba X Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS:

Calibrate Horiba 11:50, 9/13/00 pH 7.00; 4.00, EC 1,2060, turb 10, DO auto T: 25.5

SIGNATURE: David Danks **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas mini mart
SAMPLE ID: MW-5
PROJECT NO: BNC103
SAMPLED BY: RPark
CLIENT: B&C Gas mini Mart
REGULATORY AGENCY:

SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ✓ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 39.7	Volume in Casing (gal): 7.2
Depth to Water (ft): 28.88	Calculated Purge (volumes / gal.): 7.2
Height of Water Column (ft): 10.82	Actual Pre-Sampling Purge (gal): 7.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer ✓ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: Drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1627	2.5	21.8	1000	6.99	lt gray	moderate		sheen present
1629	5.0	21.1	1010	7.01	↓	↓		↓
1631	7.5	20.7	1010	7.04	↓	↓		↓

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (35')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1637	21.2	1020	7.11	1.31	lt gray	551	

Sheen: moderate Odor: strong Sample Date: 9/13/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: 1 Casing volume purge.

SIGNATURE: [signature] **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Minimart
SAMPLE ID: MW-6
PROJECT NO: BNC103
SAMPLED BY: RPaul
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ✓ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 26.7 / obstructed
Depth to Water (ft): (dry)
Height of Water Column (ft): ____
Volume in Casing (gal): ____
Calculated Purge (volumes / gal.): ____
Actual Pre-Sampling Purge (gal): ____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: ____ Odor: ____ Sample Date: ____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: Well obstructed above DTW, making well dry. No samples collected.

SIGNATURE: ____ **DATE:** 9/12/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-7
PROJECT NO: BNC103
SAMPLED BY: BPaine
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:

SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 49.3
Depth to Water (ft): 29.18
Height of Water Column (ft): 20.12
Volume in Casing (gal): 3.5
Calculated Purge (volumes / gal.): 10.3
Actual Pre-Sampling Purge (gal): 10.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer ✓ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1540	3.5	20.0	980	7.10	lt.brown	high		
1552	7.0	20.0	980	7.11	↓	↓		
1556	10.5	19.8	990	7.10				

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (44')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1602	20.0	990	7.09	3.07	lt.brown	>999	

Sheen: none Odor: light/moderate Sample Date: 9/13/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-8
PROJECT NO: BNC103
SAMPLED BY: RVM
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 53.1	Volume in Casing (gal): 3.0
Depth to Water (ft): 35.73	Calculated Purge (volumes / gal.): 8.9
Height of Water Column (ft): 17.37	Actual Pre-Sampling Purge (gal): 9.0

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer ✓ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1049	3.0	20.1	970	6.94	lt brown	high		
1052	6.0	19.8	980	6.95	↓	↓		
1056	9.0	19.6	m ~~1010~~ 980	6.99				

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (40')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1102	20.3	990	6.99	1.36	lt brown	>999	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-9
PROJECT NO: BNC103
SAMPLED BY: RPW
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 44.0
Depth to Water (ft): 31.54
Height of Water Column (ft): 12.46
Volume in Casing (gal): 2.2
Calculated Purge (volumes / gal.): 6.4
Actual Pre-Sampling Purge (gal): 6.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer ✓ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1431	2.5	21.4	960	6.98	lt. brown	high		
1434	4.5	20.6	970	7.00	↓			
1436	6.5	20.2	980	7.00				

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (39')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1442	20.6	990	6.98	3.45	lt. brown	>999	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: ____ DATE: 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-10
PROJECT NO: BNC103
SAMPLED BY: RPW
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater Y Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 Y 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 53.8	Volume in Casing (gal): 3.1
Depth to Water (ft): 36.09	Calculated Purge (volumes / gal.): 9.1
Height of Water Column (ft): 17.71	Actual Pre-Sampling Purge (gal): 9.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer Y Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1515	3.5	20.9	940	6.87	H.brown	high		
1520	6.5	20.0	950	6.88	↓	↓		
1524	9.5	19.5	881	6.88	↓	↓		

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (49')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1532	20.2	960	6.83	1.79	H.brown	>999	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba Y Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart — SAMPLE ID: MW-11
PROJECT NO: BNC103 — SAMPLED BY: Rame
CLIENT: B&C Gas Mini Mart — REGULATORY AGENCY: _____
SAMPLE TYPE: Groundwater l Surface Water _____ Leachate _____ Treatment System _____ Other _____
CASING DIAMETER (OD-inches): 3/4 ___ 1 ___ 2 l 4 ___ 4.5 ___ 6 ___ 8 ___ Other ___
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 48.9	Volume in Casing (gal): 2.8
Depth to Water (ft): 32.56	Calculated Purge (volumes / gal.): 8.4
Height of Water Column (ft): 16.34	Actual Pre-Sampling Purge (gal): 8.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer l Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1526	3.0	20.8	880	7.04	brown	high		
1530	6.0	20.5	892	6.98	lt. brown	↓		
1534	8.5	20.3	893	7.04	↓	↓		

Purge Date: 9/12/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer (44')
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1541	20.7	~~20~~960	7.06	3.14	H brown	>999	

Sheen: none Odor: none Sample Date: 9/12/00

Field Measurement Devices: Horiba l Omega _____ QuickCheck _____ D.O. Test Kit _____

REMARKS: _____

SIGNATURE: _____ **DATE:** 9/12/00

M:\FORMS\SAMPLING\WTRSMPL2000.DOC

11 of 16

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-12
PROJECT NO: BNC103
SAMPLED BY: R Pace
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater 4 Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 4 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): ~~##~~ 43.3
Volume in Casing (gal): 2.8
Depth to Water (ft): 27.04
Calculated Purge (volumes / gal.): 8.3
Height of Water Column (ft): 16.26
Actual Pre-Sampling Purge (gal): 8.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1415	3.0	20.8	930	6.89	lt.brown	high		
1419	6.0	20.3	950	6.91	↓	↓		
1422	8.5	20.0	892	6.93	↓	↓		

Purge Date: 9/12/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (38')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1429	20.5	960	6.95	4.07	lt.brown	>999	

Sheen: none Odor: none Sample Date: ~~##~~ 9/12/00

Field Measurement Devices: Horiba 4 Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS:

Calibrated w/tr 730, 9/12/00: pH: 7.01, 10.02; EC: 0, 2060, tw 5.0; DO: auto; T: 23.1°C

SIGNATURE: [signature] **DATE:** 9/12/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW-13
PROJECT NO: BNC103
SAMPLED BY: RPM
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 54.2
Volume in Casing (gal): 3.9
Depth to Water (ft): 31.59
Calculated Purge (volumes / gal.): 11.6
Height of Water Column (ft): 22.61
Actual Pre-Sampling Purge (gal): 12.0

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer ✓ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1014	4.0	20.1	980	7.03	lt. brown	moderate		
1018	8.0	19.7	1000	7.04	↓	high		
1023	12.0	19.5	1000	7.05	↓	↓		

Purge Date: 9/13/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (49')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1030	19.7	1010	7.10	1.90	lt. brown	>999	

Sheen: none Odor: none Sample Date: 9/13/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS:

Calibrated water 955, 9/13/00: pH: 7.00, 4.00, EC: 0, 2000, Turb: 0, DO: auto, T: 24.6°C

SIGNATURE: _____ **DATE:** 9/13/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MW DAR D-1
PROJECT NO: BNC103
SAMPLED BY: RPUMC
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:

SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 124.2	Volume in Casing (gal): 15.4
Depth to Water (ft): 34.11	Calculated Purge (volumes / gal.): 46.0
Height of Water Column (ft): 90.09	Actual Pre-Sampling Purge (gal): 46.0

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump (110') Dedicated____ Other____
Purge Water Containment: Drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1553	15.5	20.6	990	7.36	H.Brown	high		
1600	31.0	20.3	990	7.39	↓	↓		
1606	46.0	20.2	990	7.40	↓	moderate		

Purge Date: 9/12/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (119') ~~(110')~~
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1616	20.6	990	7.40	4.04	H.Brown	>999	

Sheen: none Odor: none Sample Date: 9/12/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 9/12/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart — SAMPLE ID: D-2
PROJECT NO: BNC103 — SAMPLED BY: RPark
CLIENT: B&C Gas Mini Mart — REGULATORY AGENCY:
SAMPLE TYPE: Groundwater ✓ Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 111.6	Volume in Casing (gal): 14.4
Depth to Water (ft): DBR 27.23	Calculated Purge (volumes / gal.): 43.1
Height of Water Column (ft): 84.37	Actual Pre-Sampling Purge (gal): 43.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump (95') Dedicated____ Other____
Purge Water Containment: Drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1443	14.5	20.4	990	7.32	Lt. brown	moderate		
1448	29.0	20.2	1000	7.34	↓	↓		
1454	43.5	20.0	990	7.33	↓	low		

Purge Date: 9/12/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer (105')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1504	20.1	1000	7.36	5.39	Lt. brown	79.1	

Sheen: none Odor: none Sample Date: 9/12/00

Field Measurement Devices: Horiba ✓ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 9/12/00

Conor Pacific

EFW

WATER SAMPLE FIELD DATA

LOCATION: B&C Gas Mini Mart
SAMPLE ID: MS MW01
PROJECT NO: BNC103
SAMPLED BY: R Pauk
CLIENT: B&C Gas Mini Mart
REGULATORY AGENCY:
SAMPLE TYPE: Groundwater 4 Surface Water ____ Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 4 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 59.5	Volume in Casing (gal): 4.5
Depth to Water (ft): 33.54	Calculated Purge (volumes / gal.): 13.3
Height of Water Column (ft): 25.96	Actual Pre-Sampling Purge (gal): 0.5

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: drummed
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1750	0.5						H brown product globules present	

Purge Date: 9/12/00

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: ____ Odor: ____ Sample Date: ____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____

REMARKS: No measureable product at start of purge. Small H brown product globules present in 2nd bailer full. End purge. No Samples collected.

SIGNATURE: [signature] **DATE:** 9/12/00

M:\FORMS\SAMPLING\WTRSMPL2000.DOC

Textile

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

September 26 , 2000

Katrin Schliewen
Conor Pacific / EFW
2650 East Bayshore Rd.
Palo Alto, CA 94303
RE: B&C Gas Mini Mart

Enclosed are the results of analyses for samples received by the laboratory on 09/14/00 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Portis

Michelle M. Portis
Project Manager

CA ELAP Certificate Number 2374

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	P009330-01	Water	09/13/00 17:22	09/14/00 14:00
MW-2	P009330-02	Water	09/13/00 16:13	09/14/00 14:00
MW-3	P009330-03	Water	09/13/00 14:52	09/14/00 14:00
MW-4	P009330-04	Water	09/13/00 13:20	09/14/00 14:00
MW-5	P009330-05	Water	09/13/00 16:37	09/14/00 14:00
MW-7	P009330-06	Water	09/13/00 16:02	09/14/00 14:00
MW-8	P009330-07	Water	09/13/00 11:02	09/14/00 14:00
MW-9	P009330-08	Water	09/13/00 14:42	09/14/00 14:00
MW-10	P009330-09	Water	09/13/00 15:32	09/14/00 14:00
MW-11	P009330-10	Water	09/12/00 15:41	09/14/00 14:00
MW-12	P009330-11	Water	09/12/00 14:29	09/14/00 14:00
D-1	P009330-12	Water	09/12/00 16:16	09/14/00 14:00
D-2	P009330-13	Water	09/12/00 15:04	09/14/00 14:00
MW-13	P009330-14	Water	09/13/00 10:30	09/14/00 14:00

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P009330-01) Water Sampled: 09/13/00 17:22 Received: 09/14/00 14:00									
Gasoline	**1500**	250	ug/l	5	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	**105**	2.50	"	"	"	"	"	"	
Toluene	**50.7**	2.50	"	"	"	"	"	"	
Ethylbenzene	**46.5**	2.50	"	"	"	"	"	"	
Xylenes (total)	**157**	2.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**45.4**	12.5	"	"	"	"	"	"	QR-04
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.7 %*	*65-135*		"	"	"	"	
MW-2 (P009330-02) Water Sampled: 09/13/00 16:13 Received: 09/14/00 14:00									
Gasoline	**18100**	1000	ug/l	20	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	**981**	10.0	"	"	"	"	"	"	
Toluene	**926**	10.0	"	"	"	"	"	"	
Ethylbenzene	**1080**	10.0	"	"	"	"	"	"	
Xylenes (total)	**2630**	10 0	"	"	"	"	"	"	
Methyl tert-butyl ether	**239**	50.0	"	"	"	"	"	"	QR-04
Surrogate: a,a,a-Trifluorotoluene		*107 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.0 %*	*65-135*		"	"	"	"	
MW-3 (P009330-03) Water Sampled: 09/13/00 14:52 Received: 09/14/00 14:00									
Gasoline	**488**	100	ug/l	2	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	**37.3**	1.00	"	"	"	"	"	"	
Toluene	**5.64**	1.00	"	"	"	"	"	"	
Ethylbenzene	**7.25**	1.00	"	"	"	"	"	"	
Xylenes (total)	**15.9**	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**160**	5.00	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.7 %*	*65-135*		"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (P009330-04) Water Sampled: 09/13/00 13:20 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.0 %*	*65-135*		"	"	"	"	
MW-5 (P009330-05) Water Sampled: 09/13/00 16:37 Received: 09/14/00 14:00									
Gasoline	**41300**	1000	ug/l	20	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	**780**	10.0	"	"	"	"	"	"	
Toluene	**551**	10.0	"	"	"	"	"	"	
Ethylbenzene	**1140**	10.0	"	"	"	"	"	"	
Xylenes (total)	**3390**	10.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**510**	50.0	"	"	"	"	"	"	QR-04
Surrogate: a,a,a-Trifluorotoluene		*113 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.7 %*	*65-135*		"	"	"	"	
MW-7 (P009330-06) Water Sampled: 09/13/00 16:02 Received: 09/14/00 14:00									
Gasoline	**327**	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	**0.602**	0.500	"	"	"	"	"	"	
Xylenes (total)	**1.56**	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.77**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*65-135*		"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (P009330-07) Water Sampled: 09/13/00 11:02 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**14.3**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.7 %*	*65-135*		"	"	"	"	
MW-9 (P009330-08) Water Sampled: 09/13/00 14:42 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*115 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*65-135*		"	"	"	"	
MW-10 (P009330-09) Water Sampled: 09/13/00 15:32 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*111 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.3 %*	*65-135*		"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-11 (P009330-10) Water Sampled: 09/12/00 15:41 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.3 %*	*65-135*		"	"	"	"	
MW-12 (P009330-11) Water Sampled: 09/12/00 14:29 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.7 %*	*65-135*		"	"	"	"	
D-1 (P009330-12) Water Sampled: 09/12/00 16:16 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.7 %*	*65-135*		"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
D-2 (P009330-13) Water Sampled: 09/12/00 15:04 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.0 %*	*65-135*		"	"	"	"	
MW-13 (P009330-14) Water Sampled: 09/13/00 10:30 Received: 09/14/00 14:00									
Gasoline	ND	50.0	ug/l	1	0090366	09/19/00	09/19/00	EPA 8015M/8020M	
Benzene	**6.01**	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**77.4**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*65-135*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.7 %*	*65-135*		"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (P009330-05) Water Sampled: 09/13/00 16:37 Received: 09/14/00 14:00									**R-05**
Tert-amyl methyl ether	ND	100	ug/l	100	0090478	09/22/00	09/22/00	EPA 8260B	
Tert-butyl alcohol	ND	2000	"	"	"	"	"	"	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	50.0	"	"	"	"	"	"	
Ethanol	ND	10000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**243**	50.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.8 %*		*88-118*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90.4 %*		*81-130*	"	"	"	"	
Surrogate: Toluene-d8		*92.2 %*		*84-115*	"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090366 - EPA 5030 waters										
Blank (0090366-BLK1)				Prepared & Analyzed: 09/19/00						
Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*333*		"	*300*		*111*	*65-135*			
Surrogate: 4-Bromofluorobenzene	*266*		"	*300*		*88.7*	*65-135*			
LCS (0090366-BS1)				Prepared & Analyzed: 09/19/00						
Gasoline	906	50.0	ug/l	1000		90.6	65-135			
Surrogate: 4-Bromofluorobenzene	*279*		"	*300*		*93.0*	*65-135*			
Matrix Spike (0090366-MS1)		**Source: P009330-06**		Prepared & Analyzed: 09/19/00						
Gasoline	1190	50.0	ug/l	1000	327	86.3	65-135			
Surrogate: 4-Bromofluorobenzene	*274*		"	*300*		*91.3*	*65-135*			
Matrix Spike Dup (0090366-MSD1)		**Source: P009330-06**		Prepared & Analyzed: 09/19/00						
Gasoline	1190	50.0	ug/l	1000	327	86.3	65-135	0	20	
Surrogate: 4-Bromofluorobenzene	*277*		"	*300*		*92.3*	*65-135*			

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090478 - EPA 5030 waters										
Blank (0090478-BLK1)				Prepared & Analyzed: 09/21/00						
Tert-amyl methyl ether	ND	1.00	ug/l							
Tert-butyl alcohol	ND	20.0	"							
Di-isopropyl ether	ND	1.00	"							
1,2-Dibromoethane (EDB)	ND	0.500	"							
1,2-Dichloroethane	ND	0.500	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	1.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Surrogate: Dibromofluoromethane	*4.76*		"	*5.00*		*95.2*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*4.52*		"	*5.00*		*90.4*	*81-130*			
Surrogate: Toluene-d8	*4.80*		"	*5.00*		*96.0*	*84-115*			
Blank (0090478-BLK2)				Prepared & Analyzed: 09/22/00						
Tert-amyl methyl ether	ND	1.00	ug/l							
Tert-butyl alcohol	ND	20.0	"							
Di-isopropyl ether	ND	1.00	"							
1,2-Dibromoethane (EDB)	ND	0.500	"							
1,2-Dichloroethane	ND	0.500	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	1.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Surrogate: Dibromofluoromethane	*4.94*		"	*5.00*		*98.8*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*4.64*		"	*5.00*		*92.8*	*81-130*			
Surrogate: Toluene-d8	*4.84*		"	*5.00*		*96.8*	*84-115*			
LCS (0090478-BS1)				Prepared & Analyzed: 09/21/00						
Methyl tert-butyl ether	4.35	0.500	ug/l	5.00		87.0	72.7-119			
Surrogate: Dibromofluoromethane	*4.95*		"	*5.00*		*99.0*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*4.48*		"	*5.00*		*89.6*	*81-130*			
Surrogate: Toluene-d8	*4.61*		"	*5.00*		*92.2*	*84-115*			

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090478 - EPA 5030 waters										
LCS (0090478-BS2)				Prepared & Analyzed: 09/22/00						
Methyl tert-butyl ether	5.12	0.500	ug/l	5.00		102	72.7-119			
Surrogate: Dibromofluoromethane	*5.16*		"	*5.00*		*103*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*5.11*		"	*5.00*		*102*	*81-130*			
Surrogate: Toluene-d8	*4.73*		"	*5.00*		*94.6*	*84-115*			
Matrix Spike (0090478-MS1)		**Source: P009301-01**		Prepared: 09/21/00		Analyzed: 09/22/00				
Methyl tert-butyl ether	4.51	0.500	ug/l	5.00	ND	90.2	72.7-119			
Surrogate: Dibromofluoromethane	*5.02*		"	*5.00*		*100*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*4.79*		"	*5.00*		*95.8*	*81-130*			
Surrogate: Toluene-d8	*4.61*		"	*5.00*		*92.2*	*84-115*			
Matrix Spike Dup (0090478-MSD1)		**Source: P009301-01**		Prepared: 09/21/00		Analyzed: 09/22/00				
Methyl tert-butyl ether	4.52	0.500	ug/l	5.00	ND	90.4	72.7-119	0.221	20	
Surrogate: Dibromofluoromethane	*5.11*		"	*5.00*		*102*	*88-118*			
Surrogate: 1,2-Dichloroethane-d4	*4.85*		"	*5.00*		*97.0*	*81-130*			
Surrogate: Toluene-d8	*4.83*		"	*5.00*		*96 6*	*84-115*			

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Conor Pacific / EFW	Project: B&C Gas Mini Mart	
2650 East Bayshore Rd.	Project Number: BNC103	**Reported:**
Palo Alto CA, 94303	Project Manager: Katrin Schliewen	09/26/00 12:03

Notes and Definitions

QR-04	Results between the primary and confirmation columns varied by greater than 40% RPD.
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

EINARSON FOWLER & WATSON

CHAIN OF CUSTODY

Page 1 of 1

PO # .

CONTRACT LABORATORY: Sequoia-Petaluma TURN-AROUND TIME: Standard

Project No.	Site Name
BNC103	B&C Gas Mini Mart

Sampler(s): (printed) RPark/DDanks (signature)

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Information Type/Volume	Qnty	Filt	Prsrv.	Analyses: TPH gas BTEX, MTBE	Analyses: Oxy 7 by 8260	Remarks
										VOA 40	VOA 40	
										HCl	HCl	
MW-1		9/13/00	1722	water	/	A009330-01	3	N		3		
MW-2			1613			02	3			3		COOLER CUSTODY SEALS INTACT ☐
MW-3			1452			03	3			3		
MW-4			1320			04	3			3		NOT INTACT ☐
MW-5			1637			~~05~~ 08	~~3~~ 3 VOA			3	3	COOLER TEMPERATURE 6 °C
MW-6		no sample					/					
MW-7		9/13/00	1602			06	3			3		
MW-8			1102			07	3			3		
MW-9			1442			08	3			3		
MW-10			1532			09	3			3		
MW-11		9/12/00	1541			10	3			3		
MW-12			1429			11	3			3		
D-1			1616			12	3			3		
D-2			1504			13	3			3		
MSMW01		no sample					/					
MW-13		9/13/00	1030			14	3			3		

Relinquished by: (signature)	Received by: (signature)	Date/Time:
		9/14/00 822
Relinquished by: (signature)	Received by: (signature)	Date/Time:
		9/14 1205
Relinquished by: (signature)	Received by: (signature)	Date/Time:
		9/14 1400

Send Results To:
Attn: Katrin Schlewen
EINARSON, FOWLER & WATSON
2650 East Bayshore Road
Palo Alto, CA 94303
Phone (650) 843-3828
Fax (650) 843-3815