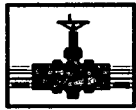


AP - 052

**QUARTERLY
MONITORING
REPORT**

7/31/2008



**PLAINS
PIPELINE**

RECEIVED

2008 AUG 1 PM 12 24

July 31, 2008

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline, L. P. C. S. Cayler Release Site
NMOCD Reference # AP-052
Unit Letter B of Section 6, Township 17 South, Range 37 East
Lea County, New Mexico

Dear Mr. Hansen,

Plains Pipeline, L. P. is pleased to submit the attached 2008 Status Letter and Second Quarter 2008 Summary, dated July 28, 2008, for the C. S. Cayler release site located in Section 6 of Township 17 South, and Range 37 East of Lea County, New Mexico. This document summarizes the status of recent site activities.

Should you have any questions or comments, please contact me at (505) 441-0965.

Sincerely,

Camille Bryant
Remediation Coordinator
Plains Pipeline

CC: Larry Johnson, NMOCD, Hobbs Office

Enclosure



RECEIVED
2008 AUG 1 PM 12:24

July 28, 2008

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Mr. Edward Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2008 Status Letter and Second Quarter 2008 Summary
Plains Pipeline, L.P. C.S. Cayler (Plains SRS#2002-10250)
NMOCD Reference # AP-052 (OLD 1R-0382)
UL-B (NW¼ of the NE¼) of Section 6, T17S, R37E
Latitude: 32° 52' 2.45"N and Longitude: 103° 17' 17.73"W
Landowner: Robert C. Rice
Lea County, New Mexico

Dear Mr. Hansen:

Talon/LPE, on behalf of Plains Pipeline, L.P. (Plains), is submitting this letter to summarize the status of recent site activities conducted at the above referenced site.

In a letter from Mr. Edward Hansen dated May 8, 2008, the NMOCD approved the backfill of the excavation as proposed. On June 4, 2008, a 20-mil liner was installed on the floor of the excavation. Six inch thick layers of imported sand were placed both beneath and on top of the 20-mil polyethylene liner, to protect it from punctures or tears during backfill activities.

Following the liner installation, the stockpiled rock was placed in the excavation, followed by the remediated soils. Subsequent to backfilling activities, the surface was restored to original grade.

As of July 17, 2008, 45 barrels of recovered crude oil have been reintroduced into the Plains pipeline system (since January 1, 2008). Skimmer pumps are operating in monitor wells MW-2, MW-3, MW-4, MW-5, and MW-7. The current skimmer network consists of bladder pumps combined with a 24" traveling float skimmer attachments in each well. The skimmers systems are powered by an electric Ingersoll Rand air compressor. The skimmer pumps are adjustable via C100 solar powered controllers. The recovered PSH and water is accumulated onsite in a 1,500 gallon poly tank. The recovered fluids are evacuated from the poly tank via vacuum truck, and are subsequently reintroduced into the Plains pipeline system. Since January 1, 2008, the monthly recovery for this site has been approximately 7 barrels per month.

The first Quarter 2008 groundwater sampling event occurred on March 12, 2008. During the sampling event, monitor wells MW-6, MW-9 through MW-17 were sampled and groundwater samples from each monitor well were submitted for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using SW-846 Method 8021B. Groundwater monitor wells MW-2 through MW-5, MW-7, and MW-8 were not sampled due to the presence of phase separated

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hydrocarbons (PSH). Monitor well MW-1 was not sampled because the well was dry. Analytical results for the first quarter sampling event are summarized in Table 2 and Figure 3. A groundwater gradient map is presented in Figure 2.

Analytical results from the March 12, 2008, sampling event indicate that BTEX constituents were detected above the laboratory reporting limits in monitor wells MW-6, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15, MW-16, and MW-17. Benzene concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of 0.010 mg/L in monitor wells MW-6 (0.138 mg/L), MW-10 (0.179 mg/L), MW-13 (0.021 mg/L), and MW-16 (0.165 mg/L). All BTEX constituents exceeded NMWQCC groundwater standards in monitor well MW-12 (benzene 31.5 mg/L, toluene 1.12 mg/L, ethylbenzene 0.875 mg/L, and xylenes 1.090 mg/L).

On March 18, 2008, Talon/LPE installed delineation monitor well MW-18 to the southeast of the site. The most recent sampling event was conducted on June 19, 2008, determining the dissolved phase concentration of Benzene in this well to be 0.0024 mg/L.

The second Quarter 2008 groundwater sampling event occurred on June 19, 2008. During the sampling event, monitor wells MW-6, MW-9 through MW-18 were sampled and groundwater samples from each monitor well were submitted for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using SW-846 Method 8021B. Groundwater monitor wells MW-2 through MW-5, MW-7, and MW-8 were not sampled due to the presence of phase separated hydrocarbons (PSH). Monitor well MW-1 was not sampled because the well was dry. During the sampling event, general chemistry and metal parameters were sampled from monitor well MW-18. Analytical results for the second quarter sampling event are summarized in Table 2 and Figure 3. A groundwater gradient map is presented in Figure 4.

Analytical results from the June 19, 2008, sampling event indicate that BTEX constituents were detected above the laboratory reporting limits in monitor wells MW-6, MW-9, MW-10, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, and MW-18. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in monitor wells MW-6 (0.198 mg/L), MW-9 (0.01240 mg/L), MW-13 (0.0179 mg/L), and MW-16 (0.129 mg/L). General chemistry and metal concentrations from monitor well MW-18 contained total iron (1.34 mg/L), fluoride (2.26 mg/L), and total barium (0.176 mg/L) exceeding the NMWQCC groundwater standards. All BTEX constituents exceeded NMWQCC groundwater standards in monitor well MW-12 (benzene 30.7 mg/L, toluene 4.95 mg/L, ethylbenzene 1.27 mg/L, and xylenes 1.99 mg/L).

A comparison of the first two quarterly groundwater sampling events conducted in 2008, depicts a relatively stable dissolved-phase plume. Of the 6 wells containing benzene concentrations above the NMWQCC groundwater standards, 4 exhibited decreased concentrations during the second quarter. Twenty four hours prior to each quarterly event the skimmer pumps are temporarily removed allowing the wells to stabilize. In comparing the gauging data gathered during these 2 events, the free-phase plume has decreased in the upgradient wells



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(MW-8, MW-3, and MW-7) and increased in the downgradient wells (MW-4 and MW-5). Overall, the free-phase plume appears to have decreased in thickness across the site (see Figure 3 and Figure 5).

In response to the NMOCDC's request to control the free phase plume, a more aggressive remediation approach has been proposed for this site. In addition to the skimmer systems, a network of total fluids pumps is being evaluated which would remove both product and water from the subsurface. The advantage of total fluid removal versus skimmer systems is that by removing total fluids, the water level is depressed in the area surrounding the well, creating an artificial gradient and enabling the capture/removal of additional product. Additionally, product migration is inhibited. However, by removing total fluids, large volumes of water are produced which require disposal. To dispose of the purged water, Plains has secured access to a deep-well injection facility that is located approximately 1 mile to the west of the site. If deemed necessary, and once right-of-way agreements are finalized, a 2-inch poly line will be installed from the site to the disposal facility.

On May 21, 2008, Talon/LPE conducted a pump test to determine the feasibility of implementing a multi-well total fluid recovery network. Basic data was gathered during this test which included: groundwater recovery rates and time vs. drawdown. During the test, a pneumatic total fluids pump was installed in MW-3, and pressure transducers were placed in MW-3 and MW-4. In addition, MW-2, MW-4, and MW-5, MW-8, and MW-9 were manually gauged periodically throughout the test.

During the test, it was determined that groundwater recovery rates were below 1 gallon per minute (gpm). In addition, no drawdown was observed in the surrounding wells, resulting in the termination of the test at 9.5 hours. Since drawdown did not occur in the surrounding wells, a time versus drawdown graph was not created. The average recovery rate for the final 8 hours of the test was 0.44 gpm. Three plausible explanations for not pumping 1 gpm or greater include 1) the well was experiencing excessive well losses, thus decreasing actual drawdown in the formation, 2) a no flow boundary condition exists in the vicinity of the pumping well, and/or 3) the formation does not meet the initial expectations for water recovery rates.

In an attempt to determine if the low recovery rate was a result of poor well performance or a low producing formation, Talon/LPE conducted a short, 30 minute, test on June 10, 2008. Talon/LPE selected a newer well, MW-18, to serve as the pumping well. Well MW-18 is a 2" diameter well, and a 2" pneumatic pump was utilized to perform the test. The purpose of the test was to collect flow rate data for comparison to the first test. With a similar level of drawdown, well MW-18 produced approximately 0.11 gpm. Talon/LPE has made the following conclusion from the pump tests:

- 1) Without conducting additional tests, Talon/LPE would conclude the shallow aquifer zone is a lower permeable zone than originally anticipated or the geologic formation is more complex and contains no flow boundaries.



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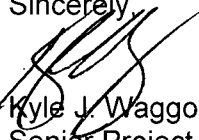
- 2) The time to develop an acceptable groundwater capture zone is likely greater than 24 hours.
- 3) The effective capture zone radius is estimated to be 40-50 feet.
- 4) New recovery wells with a deeper completion to facilitate additional drawdown may produce 1 gpm per well.

Based upon these conclusions, Talon/LPE recommends the following:

- 1) Replace MW-1 (dry) with a 4" recovery well with the appropriate completion construction necessary to facilitate acceptable drawdown levels (i.e. 15' water column in well).
- 2) Install a total fluid pump in the new recovery well to run in conjunction with the current skimmer system.
- 3) Review data and evaluate the feasibility of additional recovery wells.
- 4) Install poly line to the disposal well (dependent on recovery rates).

Talon/LPE requests concurrence from the NMOCD on the above recommendations. If you have any questions or require additional information, please contact me at (432) 522-2133 or Mrs. Camille Bryant at (505) 441-0965.

Sincerely,


Kyle J. Waggoner
Senior Project Manager

Enclosures

APPENDIX A

Drawings

Figure 1 – Site Plan

Figure 2 – Groundwater Gradient Map (3/12/08)

Figure 3 – PSH Thickness & Groundwater Concentration Map (3/12/08)

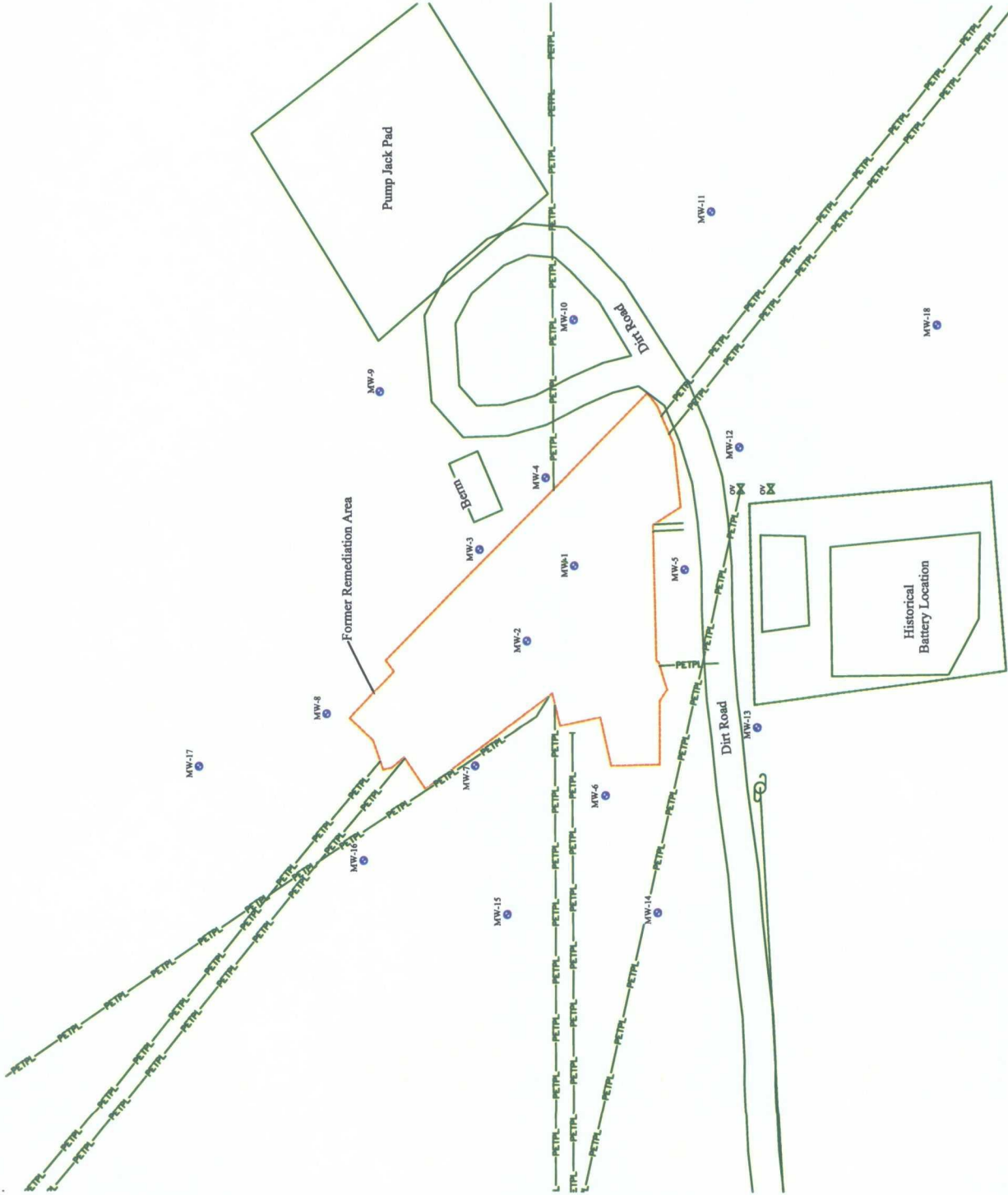
Figure 4 – Groundwater Gradient Map (6/19/08)

Figure 5 – PSH Thickness & Groundwater Concentration Map (6/19/08)



0 50 100
Scale in Feet

- Legend**
- Monitor Well
 - Pipeline
 - Valve
 - Fence line



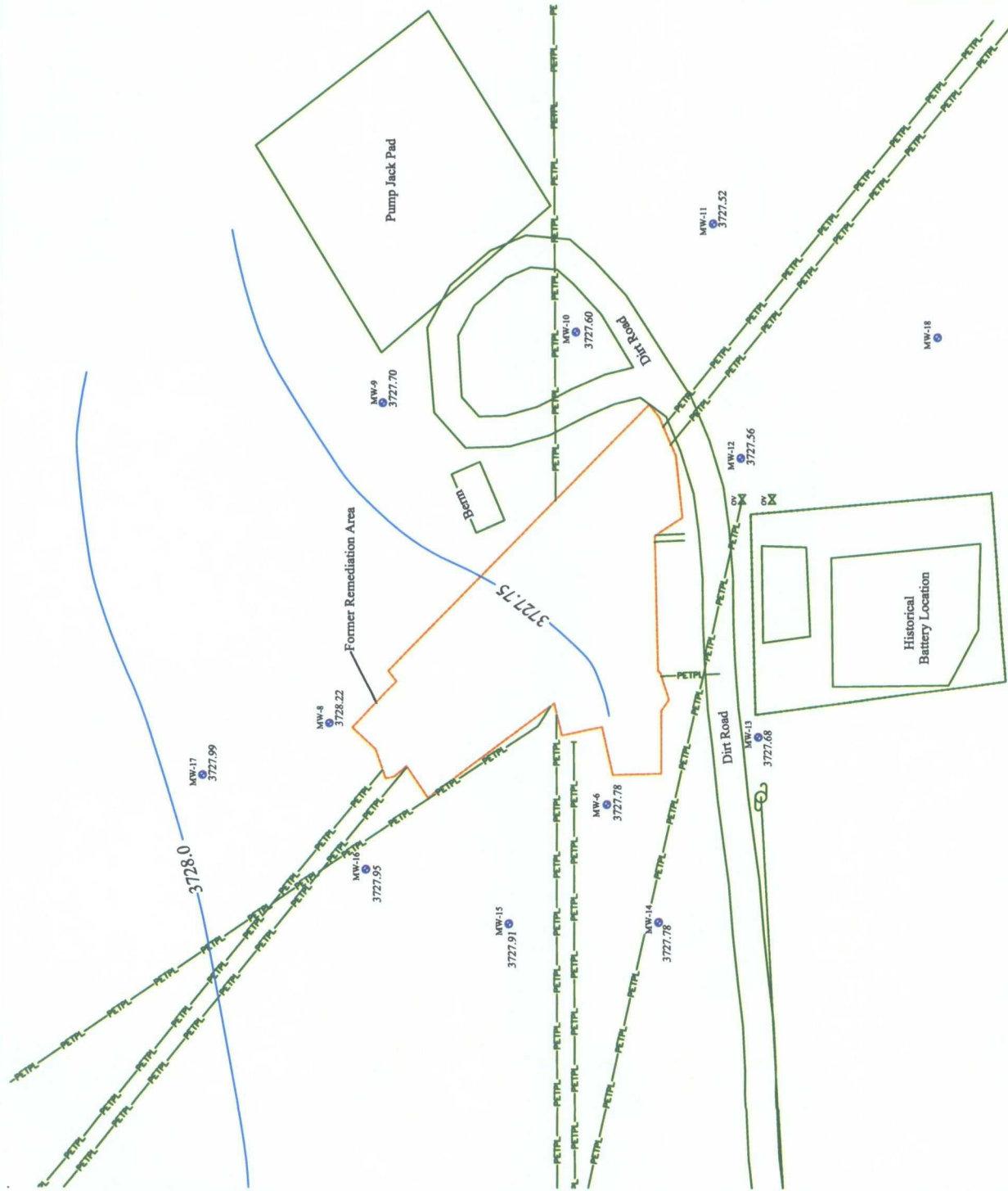
C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 1 - Site Plan

Date: 07/29/2008
Scale: 1" = 100'
Drawn By: SJA





0 50 100
Scale in Feet



- Legend**
- Monitor Well
 - Pipeline
 - Valve
 - Fence line
 - Groundwater Elevation Contour Line
 - Groundwater Contour Elevation
 - Groundwater Flow Direction
 - Data Not Used

Note: Only wells without PSH were used to contour the groundwater flow direction



Date: 07/29/2008

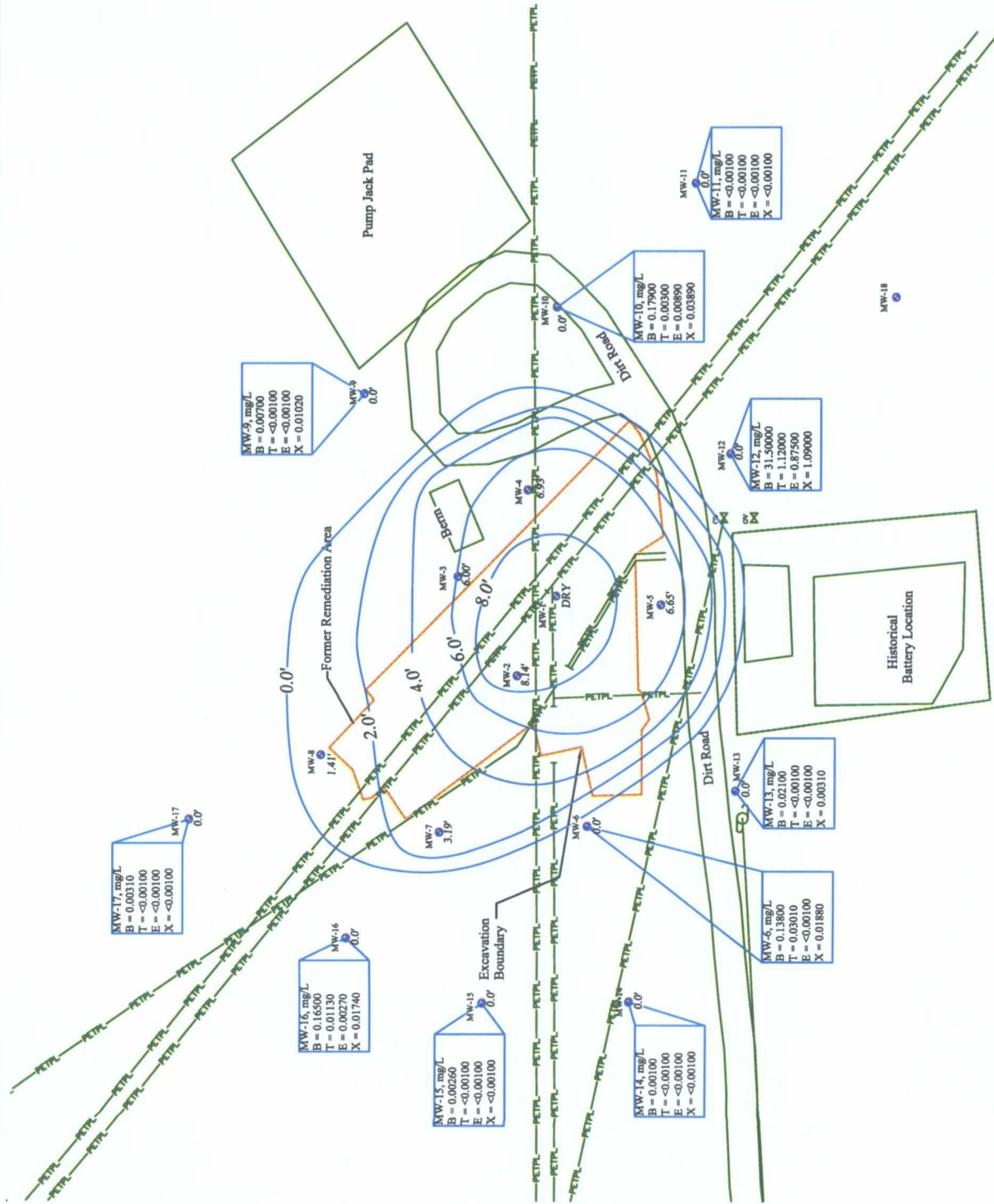
Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2 - Groundwater Gradient Map, (03/12/2008)



0 50 100
Scale in Feet



Date: 07/30/2008

Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)

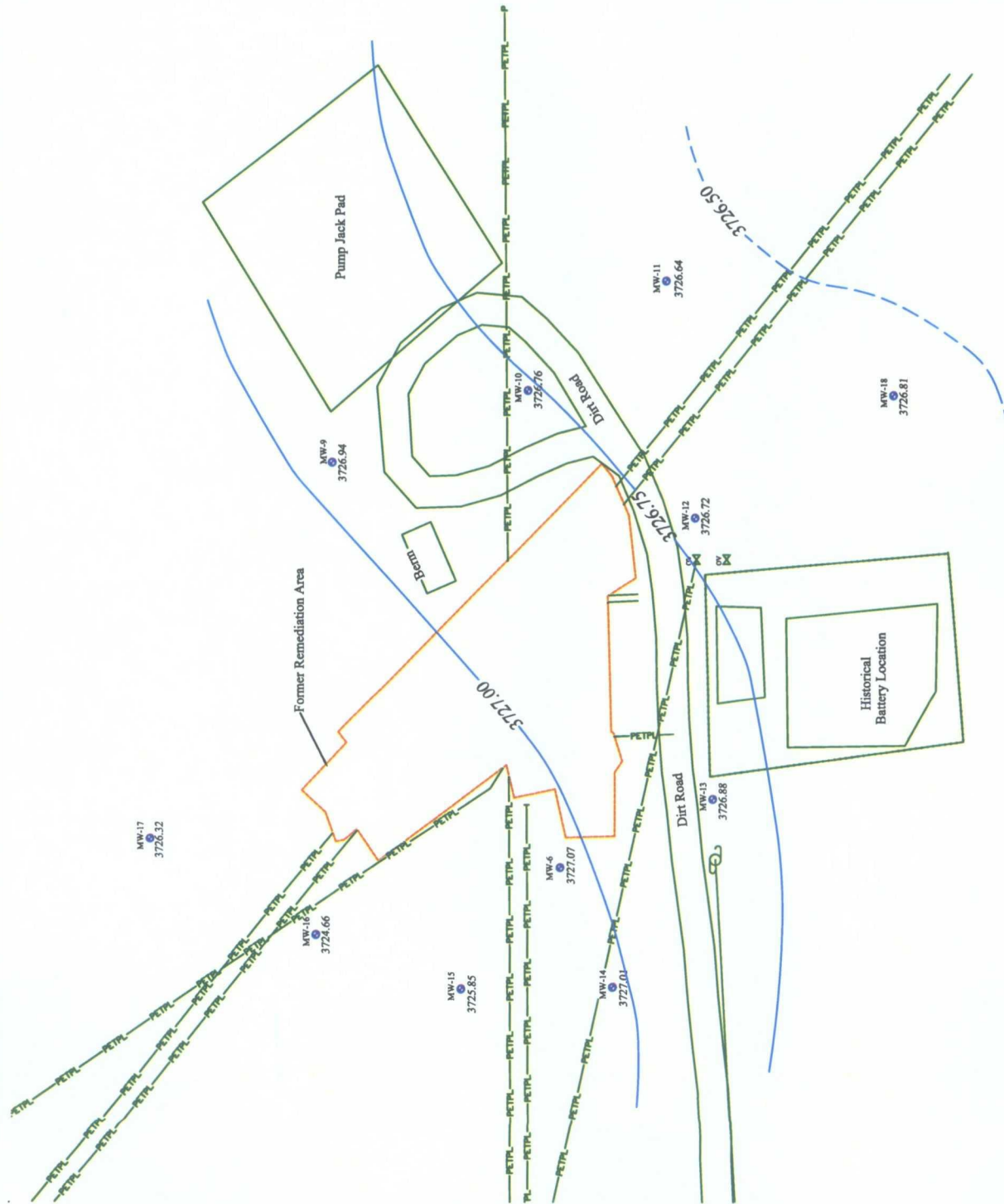
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 3 - PSH Plume & Groundwater Concentration Map, (03/12/2008)



0 50 100
Scale in Feet



Note: Only wells without PSH were used to contour the groundwater flow direction



Date: 07/30/2008

Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)

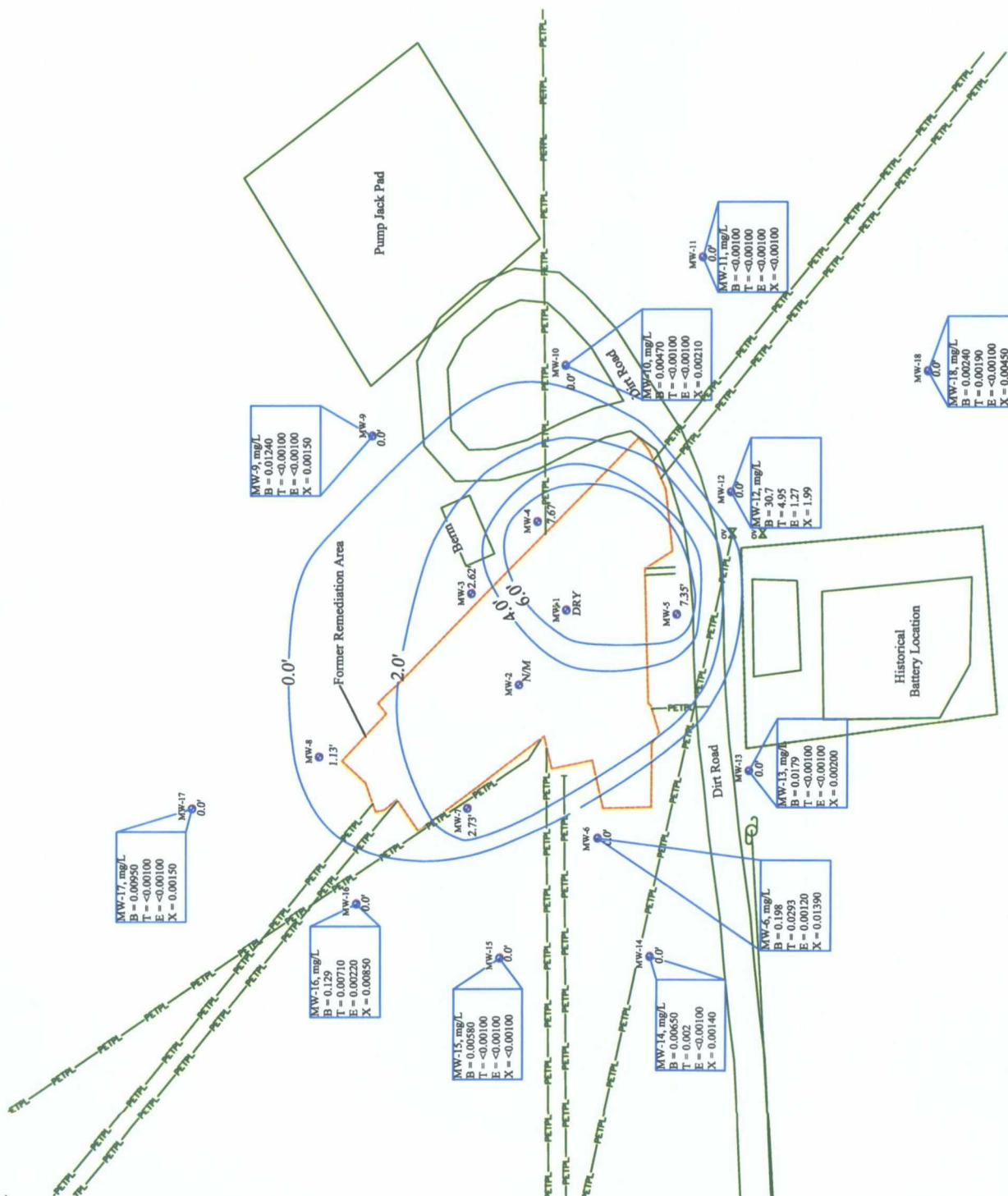
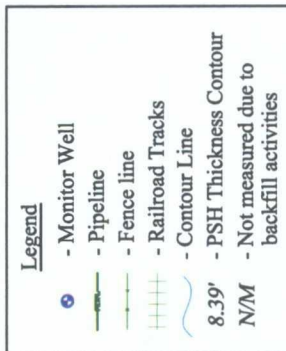
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 4 - Groundwater Gradient Map, (06/19/2008)



0 50 100
Scale in Feet



C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOC REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 5 - PSH Plume & Groundwater Concentration Map, (06/19/2008)

Date: 07/30/2008
Scale: 1" = 100'
Drawn By: SJA



APPENDIX B

Tables

Table 1 – Groundwater Elevations and Phase Separated Hydrocarbon Thickness

Table 2 – Summary of Groundwater Analytical Results

Table 3 – General Chemistry and Metals in Groundwater

Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SR# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-1	10/17/02	WELL INSTALLED 17-Oct-02				
	3/7/03	3,803.97	72.28	84.20	3,730.50	11.92
	3/11/03		72.30	84.19	3,730.48	11.89
	3/17/03		72.33	84.25	3,730.45	11.92
	3/22/03		72.35	84.24	3,730.43	11.89
	5/6/03		71.55	83.11	3,731.26	11.56
	5/7/03		71.58	83.05	3,731.24	11.47
	5/8/03		71.55	83.03	3,731.27	11.48
	5/9/03		71.53	83.00	3,731.29	11.47
	5/15/03		71.57	83.01	3,731.26	11.44
	5/16/03		71.59	82.90	3,731.25	11.31
	5/28/03		71.65	82.50	3,731.24	10.85
	6/11/03		71.75	82.57	3,731.14	10.82
	8/14/03		63.45	73.41	3,739.52	9.96
	1/2/04		64.31	73.63	3,738.73	9.32
	4/12/04		64.74	73.74	3,738.33	9.00
	6/1/04		64.87	73.52	3,738.24	8.65
	6/21/04		65.04	73.49	3,738.09	8.45
	7/14/04		67.52	75.92	3,735.61	8.40
	10/17/04		68.38	73.28	3,735.10	4.90
	10/29/04		68.53	73.45	3,734.95	4.92
	3/31/05		68.23	73.00	3,735.26	4.77
	4/25/05		68.56	72.68	3,735.00	4.12
	5/31/05		68.57	72.61	3,735.00	4.04
	6/29/05		68.88	73.72	3,734.61	4.84
	9/15/05		69.79	73.63	3,733.80	3.84
	11/14/05		70.44	73.26	3,733.25	2.82
	1/23/06		70.72	73.80	3,732.94	3.08
	3/1/06		70.41	73.59	3,733.24	3.18
	5/25/06		71.05	73.20	3,732.71	2.15
	8/14/06		72.46	73.76	3,731.38	1.30
	11/29/06		73.31	73.69	3,730.62	0.38
	1/11/07		73.31	73.69	3,730.62	0.38
	2/8/07		73.38	73.73	3,730.56	0.35
	4/3/07		73.86	82.21	3,729.28	8.35
	4/11/07		74.06	82.27	3,729.09	8.21
	4/17/07		74.21	82.63	3,728.92	8.42
	5/14/07		74.06	82.00	3,729.12	7.94
	6/26/07		73.80	NA	NA	NA
	6/28/07		DRY			
	9/14/07		DRY			
	9/26/07		DRY			
	10/5/07		DRY			
	10/9/07		DRY			
	10/19/07		DRY			
	10/24/07		DRY			
	10/31/07		DRY			
	11/28/07		DRY			
	12/3/07		DRY			
	1/3/08		DRY			
1/8/08		DRY				
1/14/08		DRY				
1/23/08		DRY				
1/28/08		DRY				
2/11/08		DRY				
3/12/08		DRY				
3/26/08		DRY				
4/1/08		DRY				



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-2	5/28/04	WELL INSTALLED 28-May-04				
	6/1/04	3,803.93	67.17	77.76	3,735.70	10.59
	6/21/04		67.27	77.93	3,735.59	10.66
	7/14/04		67.38	78.09	3,735.48	10.71
	10/16/04		68.79	74.04	3,734.62	5.25
	10/29/04		67.97	77.70	3,734.99	9.73
	3/31/05		68.23	78.50	3,734.67	10.27
	4/25/05		68.37	77.03	3,734.69	8.66
	5/31/05		68.46	76.97	3,734.62	8.51
	6/29/05		69.09	76.12	3,734.14	7.03
	9/15/05		69.75	79.14	3,733.24	9.39
	11/14/05		70.66	78.44	3,732.49	7.78
	1/23/06		70.95	78.27	3,732.25	7.32
	3/1/06		70.53	77.41	3,732.71	6.88
	5/25/06		72.19	75.49	3,731.41	3.30
	8/14/06		73.08	78.31	3,730.33	5.23
	11/29/06		74.09	78.20	3,729.43	4.11
	12/12/06		74.53	77.57	3,729.10	3.04
	1/11/07		74.22	78.81	3,729.25	4.59
	2/8/07		75.11	75.18	3,728.81	0.07
	4/3/07		73.95	82.11	3,729.16	8.16
	4/11/07		74.02	82.30	3,729.08	8.28
	4/17/07		74.02	82.41	3,729.07	8.39
	5/14/07		74.03	82.55	3,729.05	8.52
	6/26/07		74.20	82.64	3,728.89	8.44
	6/28/07		74.36	82.48	3,728.76	8.12
	8/13/07		74.71	81.91	3,728.50	7.20
	8/17/07		75.66	79.30	3,727.91	3.64
	8/21/07		NA	76.19	NA	NA
	8/28/07		75.84	78.91	3,727.78	3.07
	9/14/07		75.63	79.29	3,727.93	3.66
	9/26/07		74.88	82.41	3,728.30	7.53
	10/5/07		74.85	82.70	3,728.30	7.85
	10/8/07		74.87	82.71	3,728.28	7.84
	10/19/07		74.87	82.96	3,728.25	8.09
	10/24/07		74.87	83.04	3,728.24	8.17
	10/31/07		74.88	83.11	3,728.23	8.23
	11/12/07		74.82	83.19	3,728.27	8.37
	11/28/07		74.89	83.27	3,728.20	8.38
	12/3/07		74.83	83.20	3,728.26	8.37
	1/3/08		75.32	83.50	3,727.79	8.18
	1/8/08		74.76	82.25	3,728.42	7.49
	1/14/08		75.49	83.23	3,727.67	7.74
	1/23/08		75.45	83.43	3,727.68	7.98
	1/28/08		75.38	83.47	3,727.74	8.09
	2/11/08		74.94	83.02	3,728.18	8.08
	3/12/08		75.40	83.54	3,727.72	8.14
	3/26/08		75.14	83.99	3,727.91	8.85
	4/1/08		76.19	83.34	3,727.03	7.15
	4/11/08		76.73	80.62	3,726.81	3.89
	4/15/08		76.33	79.08	3,727.33	2.75
	4/22/08		75.66	79.07	3,727.93	3.41
	4/28/08		76.00	83.17	3,727.21	7.17
	5/6/08		75.68	79.12	3,727.91	3.44
	5/16/08		75.40	83.02	3,727.77	7.62
	5/22/08		75.61	82.32	3,727.65	6.71
	7/25/08		79.90	87.72		7.82



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-3	5/31/04	WELL INSTALLED 31-May-04				
	6/21/04	3,810.20	75.51	75.51	3,734.69	
	7/14/04		74.39	81.31	3,735.12	6.92
	8/26/04		74.75	84.31	3,734.49	9.56
	10/16/04		75.53	77.55	3,734.47	2.02
	10/29/04		75.45	79.00	3,734.40	3.55
	3/31/05		74.65	83.60	3,734.66	8.95
	4/25/05		74.81	82.74	3,734.60	7.93
	5/31/05		75.00	82.16	3,734.48	7.16
	6/29/05		75.83	80.44	3,733.91	4.61
	9/15/05		76.09	85.47	3,733.17	9.38
	11/14/05		77.81	81.11	3,732.06	3.30
	1/23/06		77.78	81.74	3,732.02	3.96
	3/1/06		77.43	81.49	3,732.36	4.06
	5/25/06		78.49	81.15	3,731.44	2.66
	8/14/06		79.51	84.36	3,730.21	4.85
	1/11/07		80.78	84.05	3,729.09	3.27
	2/8/07		83.65	83.66	3,726.55	0.01
	4/3/07		80.25	88.51	3,729.12	8.26
	4/11/07		80.69	88.97	3,728.68	8.28
	4/17/07		80.38	88.78	3,728.98	8.40
	5/14/07		80.43	89.56	3,728.86	9.13
	6/26/07		81.74	89.12	3,727.72	7.38
	6/28/07		80.69	89.05	3,728.67	8.36
	8/13/07		81.08	89.43	3,728.29	8.35
	8/17/07		82.05	83.50	3,728.01	1.45
	8/21/07		82.65	82.68	3,727.55	0.03
	8/28/07		81.51	88.44	3,728.00	6.93
	9/14/07		81.42	86.89	3,728.23	5.47
	9/26/07		81.22	88.92	3,728.21	7.70
	10/5/07		81.14	88.99	3,728.28	7.85
	10/8/07		81.14	89.00	3,728.27	7.86
	10/19/07		81.23	89.39	3,728.15	8.16
	10/24/07		81.24	89.35	3,728.15	8.11
	10/31/07		81.24	89.47	3,728.14	8.23
	11/12/07		81.25	89.39	3,728.14	8.14
	11/28/07		81.26	89.44	3,728.12	8.18
	12/3/07		81.26	89.36	3,728.13	8.10
	1/3/08		81.17	89.41	3,728.21	8.24
	1/8/08		81.11	89.05	3,728.30	7.94
	1/14/08		81.62	88.39	3,727.90	6.77
	1/23/08		80.84	87.89	3,728.66	7.05
	1/28/08		80.31	88.20	3,729.10	7.89
	2/11/08		81.92	88.49	3,727.62	6.57
	3/12/08		81.43	87.43	3,728.17	6.00
	3/26/08		80.57	88.54	3,728.83	7.97
	4/1/08		82.06	87.81	3,727.57	5.75
	4/11/08		81.90	87.81	3,727.71	5.91
	4/15/08		82.04	87.85	3,727.58	5.81
	4/22/08		82.01	87.90	3,727.60	5.89
	4/28/08		82.11	87.24	3,727.58	5.13
	5/6/08		82.00	87.94	3,727.61	5.94
	5/16/08		82.24	88.07	3,727.38	5.83
	5/22/08		82.94	89.22	3,726.63	6.28
	6/19/08		83.09	85.71	3,726.85	2.62
	7/25/08		83.35	88.33	3,726.35	4.98



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-4	6/1/04	WELL INSTALLED 01-Jun-04				
	6/21/04	3,810.70	76.04	76.04	3,734.66	
	7/14/04		74.51	83.91	3,735.25	9.40
	8/26/04		74.21	83.61	3,735.55	9.40
	10/16/04		75.77	80.56	3,734.45	4.79
	10/17/04		75.76	80.96	3,734.42	5.20
	10/29/04		75.56	81.42	3,734.55	5.86
	3/31/05		73.51	81.95	3,736.35	8.44
	4/25/05		75.53	82.62	3,734.46	7.09
	5/31/05		75.55	82.86	3,734.42	7.31
	6/29/05		75.96	83.51	3,733.99	7.55
	9/15/05		76.71	86.23	3,733.04	9.52
	11/14/05		77.64	85.38	3,732.29	7.74
	1/23/06		77.79	84.93	3,732.20	7.14
	3/1/06		77.48	84.12	3,732.56	6.64
	5/25/06		78.28	85.22	3,731.73	6.94
	8/14/06		79.78	86.67	3,730.23	6.89
	11/29/06		80.29	85.15	3,729.92	4.86
	12/12/06		81.71	86.01	3,728.56	4.30
	1/11/07		80.03	82.77	3,730.40	2.74
	2/8/07		81.28	82.70	3,729.28	1.42
	4/3/07		80.78	89.44	3,729.05	8.66
	4/11/07		80.85	89.55	3,728.98	8.70
	4/17/07		80.92	89.05	3,728.97	8.13
	5/14/07		80.96	89.68	3,728.87	8.72
	6/26/07		81.41	89.82	3,728.45	8.41
	6/28/07		81.28	89.71	3,728.58	8.43
	8/13/07		81.76	89.92	3,728.12	8.16
	8/17/07		80.36	87.55	3,729.62	7.19
	8/21/07		82.01	89.41	3,727.95	7.40
	8/28/07		NA	79.50	NA	NA
	9/14/07		81.76	89.85	3,728.13	8.09
	9/26/07		81.73	88.89	3,728.25	7.16
	10/5/07		81.66	89.80	3,728.23	8.14
	10/8/07		81.65	89.78	3,728.24	8.13
	10/19/07		81.80	90.05	3,728.08	8.25
	10/24/07		81.80	89.99	3,728.08	8.19
	10/31/07		81.82	90.07	3,728.06	8.25
	11/12/07		82.02	89.84	3,727.90	7.82
	11/28/07		81.93	89.82	3,727.98	7.89
	12/3/07		81.91	89.72	3,728.01	7.81
	1/3/08		81.66	89.19	3,728.29	7.53
	1/8/08		81.70	89.31	3,728.24	7.61
	1/14/08		81.98	88.87	3,728.03	6.89
	1/23/08		82.17	87.76	3,727.97	5.59
	1/28/08		81.77	89.17	3,728.19	7.40
	2/11/08		81.29	88.75	3,728.66	7.46
	3/12/08		81.86	88.79	3,728.15	6.93
	3/26/08		82.67	86.36	3,727.66	3.69
	4/1/08		82.56	88.83	3,727.51	6.27
	4/11/08		82.49	88.94	3,727.57	6.45
	4/15/08		82.31	89.90	3,727.63	7.59
	4/22/08		82.36	89.26	3,727.65	6.90
	5/6/08		83.98	90.27	3,726.09	6.29
	5/16/08		82.89	90.01	3,727.10	7.12
	5/22/08		82.39	90.19	3,727.53	7.80
	6/19/08		82.78	90.45	3,727.15	7.67
	7/25/08		83.71	91.11	3,726.25	7.40



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-5	6/5/04	WELL INSTALLED 05-Jun-04				
	6/21/04	3,809.05	--	74.42	3,734.63	ND
	7/14/04	--	--	74.53	3,734.52	ND
	10/29/04	--	--	75.00	3,734.05	ND
	11/19/04	--	--	75.10	3,733.95	ND
	3/31/05	--	--	75.18	3,733.87	ND
	4/25/05	--	--	75.19	3,733.86	ND
	5/12/05	--	--	75.22	3,733.83	ND
	5/31/05	--	--	75.25	3,733.80	ND
	6/29/05	--	--	75.67	3,733.38	ND
	8/22/05	--	--	76.64	3,732.41	ND
	9/15/05	--	--	76.75	3,732.30	ND
	11/14/05	--	--	77.39	3,731.66	ND
	1/23/06	--	77.21	79.19	3,731.64	1.98
	3/1/06	--	76.59	79.18	3,732.20	2.59
	5/25/06	--	77.41	79.93	3,731.39	2.52
	8/14/06	--	78.99	80.63	3,729.90	1.64
	11/29/06	--	78.91	85.95	3,729.44	7.04
	1/11/07	--	78.85	86.30	3,729.46	7.45
	2/8/07	--	78.82	86.29	3,729.48	7.47
	2/20/07	--	79.22	85.66	3,729.19	6.44
	3/6/07	--	79.15	86.07	3,729.21	6.92
	3/14/07	--	78.68	85.60	3,729.68	6.92
	3/27/07	--	79.64	86.03	3,728.77	6.39
	3/29/07	--	79.36	86.25	3,729.00	6.89
	4/3/07	--	79.38	86.71	3,728.94	7.33
	4/11/07	--	79.91	87.02	3,728.43	7.11
	4/17/07	--	79.52	88.90	3,728.59	9.38
	5/24/07	--	79.54	86.90	3,728.77	7.36
	6/26/07	--	79.94	87.32	3,728.37	7.38
	6/28/07	--	79.84	87.25	3,728.47	7.41
	8/13/07	--	80.26	81.66	3,728.65	1.40
	8/21/07	--	80.39	87.63	3,727.94	7.24
	8/28/07	--	80.49	87.64	3,727.85	7.15
	9/14/07	--	80.32	87.59	3,728.00	7.27
	9/26/07	--	81.72	87.66	3,726.74	5.94
	10/5/07	--	80.22	87.51	3,728.10	7.29
	10/8/07	--	80.20	87.52	3,728.12	7.32
	10/19/07	--	80.44	87.66	3,727.89	7.22
	10/24/07	--	80.36	87.73	3,727.95	7.37
	10/31/07	--	80.37	87.85	3,727.93	7.48
	11/12/07	--	80.36	87.51	3,727.98	7.15
	12/28/07	--	80.83	87.61	3,727.54	6.78
	12/3/07	--	80.34	87.35	3,728.01	7.01
	1/3/08	--	80.17	86.72	3,728.23	6.55
	1/8/08	--	80.17	86.85	3,728.21	6.68
	1/14/08	--	80.32	86.74	3,728.09	6.42
	1/23/08	--	82.34	85.78	3,726.37	3.44
	1/28/08	--	80.25	87.03	3,728.12	6.78
	2/11/08	--	80.26	86.34	3,728.18	6.08
	3/12/08	--	80.28	86.93	3,728.11	6.65
	3/26/08	--	81.23	84.33	3,727.51	3.10
	4/1/08	--	81.38	84.40	3,727.37	3.02
	4/11/08	--	81.79	83.35	3,727.10	1.56
	4/15/08	--	81.77	83.38	3,727.12	1.61
	4/22/08	--	81.50	82.54	3,727.45	1.04
	4/28/08	--	81.87	82.13	3,727.15	0.26
	5/6/08	--	81.51	82.56	3,727.44	1.05
	5/16/08	--	82.15	82.56	3,726.86	0.41
	5/22/08	--	81.92	83.49	3,726.97	1.57
	6/19/08	--	81.24	88.59	3,727.08	7.35
	7/25/08	--	81.76	88.92	3,726.57	7.16

Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SR# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-6	10/21/04	WELL INSTALLED 21-Oct-04				
	10/27/04	3,809.17		75.13	3,734.04	
	10/29/04			75.13	3,734.04	
	11/19/04			75.23	3,733.94	
	3/31/05			75.33	3,733.84	
	4/25/05			75.27	3,733.90	
	5/12/05			75.30	3,733.87	
	5/31/05			75.33	3,733.84	
	6/29/05			75.68	3,733.49	
	8/22/05			76.63	3,732.54	
	9/15/05			76.80	3,732.37	
	11/14/05			77.41	3,731.76	
	1/23/06			77.60	3,731.57	
	3/1/06			77.01	3,732.16	
	5/25/06			77.92	3,731.25	
	8/14/06			79.18	3,729.99	
	11/29/06			80.12	3,729.05	
	12/12/06			80.19	3,728.98	
	1/11/07			80.20	3,728.97	
	2/8/07			79.99	3,729.18	
	2/20/07			80.36	3,728.81	
	3/6/07			80.40	3,728.77	
	3/14/07			79.92	3,729.25	
	3/27/07			80.62	3,728.55	
	3/29/07			80.34	3,728.83	
	4/3/07			80.68	3,728.49	
	4/11/07			81.03	3,728.14	
	4/17/07			80.82	3,728.35	
	6/13/07			80.88	3,728.29	
	6/26/07			81.04	3,728.13	
	9/14/07			81.62	3,727.55	
	10/19/07			81.64	3,727.53	
	12/3/07			81.56	3,727.61	
	1/8/08			81.78	3,727.39	
	1/28/08			81.39	3,727.78	
	3/12/08			81.39	3,727.78	
	4/22/08			84.48	3,724.69	
	6/19/08			82.10	3,727.07	

Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-7	10/21/04	WELL INSTALLED 21-Oct-04				
	10/27/04	3,809.95	75.82	76.05	3,734.11	0.23
	10/29/04		75.82	76.05	3,734.11	0.23
	11/19/04		75.21	79.14	3,734.35	3.93
	3/31/05		75.22	79.18	3,734.33	3.96
	4/25/05		74.37	82.84	3,734.73	8.47
	5/31/05		75.41	78.75	3,734.21	3.34
	6/29/05		74.86	83.31	3,734.25	8.45
	9/15/05		75.92	83.58	3,733.26	7.66
	11/14/05		76.75	83.17	3,732.56	6.42
	1/23/06		77.16	83.54	3,732.15	6.38
	3/1/06		76.71	82.60	3,732.65	5.89
	5/25/06		77.71	79.37	3,732.07	1.66
	8/14/06		78.61	83.34	3,730.87	4.73
	11/29/06		79.51	83.15	3,730.08	3.64
	12/12/06		79.95	83.00	3,729.70	3.05
	1/11/07		79.77	84.41	3,729.72	4.64
	2/8/07		79.63	84.15	3,729.87	4.52
	4/3/07		80.09	84.18	3,729.45	4.09
	4/11/07		80.73	84.91	3,728.80	4.18
	4/17/07		80.74	84.96	3,728.79	4.22
	5/14/07		80.30	84.42	3,729.24	4.12
	6/26/07		80.70	82.68	3,729.05	1.98
	6/28/07		80.52	83.66	3,729.12	3.14
	8/13/07		81.22	83.66	3,728.49	2.44
	8/21/07		81.37	83.44	3,728.37	2.07
	9/14/07		81.01	84.25	3,728.62	3.24
	9/26/07		80.97	84.30	3,728.65	3.33
	10/5/07		80.92	84.33	3,728.69	3.41
	10/8/07		80.92	84.32	3,728.69	3.40
	10/19/07		81.04	84.30	3,728.58	3.26
	10/24/07		81.05	84.30	3,728.58	3.25
	10/31/07		81.08	84.34	3,728.54	3.26
	11/12/07		81.02	84.35	3,728.60	3.33
	11/28/07		80.89	NA	NA	3.46**
	12/3/07		80.98	NA	NA	3.43**
	1/3/08		79.83	NA	NA	4.56**
	1/8/08		80.92	84.40*	NA	3.48
	1/14/08		81.34	84.37*	NA	3.03
	3/12/08		81.20	84.39*	NA	3.19
	3/26/08		81.54	84.45*	NA	2.91
	4/11/07		81.40	84.49	3,728.24	3.09
	4/15/07		82.67	83.16	3,727.23	0.49
	4/22/07		82.66	82.81	3,727.28	0.15
	4/28/07		82.75	83.14	3,727.16	0.39
	5/6/07		82.39	83.29	3,727.47	0.90
	5/16/07		83.03	83.26	3,726.90	0.23
	5/22/08		81.76	83.84	3,727.98	2.08
	6/19/08		81.91	84.64	3,727.77	2.73
	7/25/08		82.67	84.87	3,727.06	2.20



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-8	10/20/04	WELL INSTALLED 20-Oct-04				
	10/27/04	3,810.29	--	76.20	3,734.09	ND
	10/29/04	--	--	76.20	3,734.09	ND
	11/19/04	--	--	76.26	3,734.03	ND
	3/31/05	--	--	76.30	3,733.99	ND
	4/25/05	--	--	76.29	3,734.00	ND
	5/12/05	--	--	76.32	3,733.97	ND
	5/31/05	--	--	76.34	3,733.95	ND
	6/29/05	--	--	76.62	3,733.67	ND
	8/22/05	--	77.42	78.08	3,732.80	0.66
	11/14/05	--	78.16	79.40	3,732.01	1.24
	1/23/06	--	78.25	80.13	3,731.85	1.88
	3/1/06	--	77.60	80.55	3,732.40	2.95
	5/25/06	--	78.43	81.31	3,731.57	2.88
	8/14/06	--	79.63	82.84	3,730.34	3.21
	11/29/06	--	80.50	83.79	3,729.46	3.29
	12/12/06	--	80.59	83.90	3,729.37	3.31
	1/11/07	--	80.63	83.88	3,729.34	3.25
	2/8/07	--	80.66	83.94	3,729.30	3.28
	2/20/07	--	80.81	84.07	3,729.15	3.26
	3/6/07	--	80.88	84.11	3,729.09	3.23
	3/14/07	--	80.09	83.26	3,729.88	3.17
	3/27/07	--	80.13	83.24	3,729.85	3.11
	4/3/07	--	81.10	83.04	3,729.00	1.94
	4/11/07	--	81.59	83.49	3,728.51	1.90
	4/17/07	--	81.61	83.51	3,728.49	1.90
	5/24/07	--	81.33	NA	NA	1.77**
	6/26/07	--	81.62	NA	NA	1.48**
	6/28/07	--	81.52	NA	NA	1.58**
	8/13/07	--	81.86	NA	NA	2.1**
	8/21/07	--	81.96	NA	NA	1.79**
	8/28/07	--	82.02	NA	NA	1.73**
	9/14/07	--	82.35	82.36	3,727.94	0.01
	9/26/07	--	81.99	83.03	3,728.20	1.04
	10/5/07	--	81.97	84.33	3,728.08	2.36
	10/8/07	--	81.96	83.63	3,728.16	1.67
	10/19/07	--	82.04	82.41	3,728.21	0.37
	11/12/07	--	82.04	82.43	3,728.21	0.39
	11/28/07	--	82.04	NA	NA	0.46**
	12/3/07	--	82.11	NA	NA	0.48**
	1/3/08	--	81.84	NA	NA	0.61**
	1/8/08	--	81.85	82.56	3,728.37	0.71
	1/14/08	--	82.13	83.33	3,728.04	1.20
	1/23/08	--	82.12	83.09	3,728.07	0.97
	1/28/08	--	82.04	83.30	3,728.12	1.26
	2/11/08	--	81.97	83.34	3,728.18	1.37
	3/12/08	--	81.93	83.34	3,728.22	1.41
	4/1/08	--	81.95	83.34	3,728.20	1.39
	4/11/08	--	82.37	83.94	3,727.76	1.57
	4/15/08	--	82.36	83.45	3,727.82	1.09
	4/22/08	--	82.33	83.48	3,727.85	1.15
	4/28/08	--	82.32	83.46	3,727.86	1.14
	5/6/08	--	82.67	82.82	3,727.61	0.15
	5/16/08	--	82.47	83.46	3,727.72	0.99
	6/19/08	--	82.61	NA	NA	1.13**



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Caylor
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-9	10/19/04	WELL INSTALLED 19-Oct-04				
	10/27/04	3,809.81		75.85	3,733.96	
	10/29/04			75.85	3,733.96	
	11/19/04			75.91	3,733.90	
	3/31/05			76.97	3,732.84	
	4/25/05			75.91	3,733.90	
	5/12/05			75.96	3,733.85	
	5/31/05			75.99	3,733.82	
	6/29/05			76.34	3,733.47	
	8/22/05			77.31	3,732.50	
	9/15/05			77.48	3,732.33	
	11/14/05			78.15	3,731.66	
	1/23/06			78.33	3,731.48	
	3/1/06			77.78	3,732.03	
	5/25/06			78.67	3,731.14	
	8/14/06			79.90	3,729.91	
	11/29/06			80.87	3,728.94	
	12/12/06			80.93	3,728.88	
	1/11/07			90.94	3,718.87	
	2/8/07			80.70	3,729.11	
	2/20/07			81.09	3,728.72	
	3/6/07			81.15	3,728.66	
	3/14/07			80.65	3,729.16	
	3/27/07			81.34	3,728.47	
	3/29/07			81.11	3,728.70	
	4/3/07			81.12	3,728.69	
	4/11/07			81.50	3,728.31	
	4/17/07			81.60	3,728.21	
	5/21/07			81.61	3,728.20	
	6/13/07			81.65	3,728.16	
	6/26/07			81.78	3,728.03	
	9/14/07			82.33	3,727.48	
	10/19/07			82.37	3,727.44	
	12/3/07			82.30	3,727.51	
	1/8/08			82.10	3,727.71	
	1/28/08			82.12	3,727.69	
	3/12/08			82.11	3,727.70	
	4/22/08			82.54	3,727.27	
	5/16/08			82.66	3,727.15	
	6/19/08			82.87	3,726.94	



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-10	10/20/04	WELL INSTALLED 20-Oct-04				
	10/27/04	3,809.64		75.76	3,733.88	
	10/29/04			75.76	3,733.88	
	11/19/04			75.84	3,733.80	
	3/31/05			75.87	3,733.77	
	4/25/05			75.85	3,733.79	
	5/12/05			75.96	3,733.68	
	5/31/05			75.91	3,733.73	
	6/29/05			76.30	3,733.34	
	8/22/05			77.32	3,732.32	
	9/15/05			77.46	3,732.18	
	11/14/05			78.08	3,731.56	
	1/23/06			78.22	3,731.42	
	3/1/06			77.58	3,732.06	
	5/25/06			78.66	3,730.98	
	8/14/06			79.96	3,729.68	
	11/29/06			80.84	3,728.80	
	12/12/06			80.91	3,728.73	
	1/11/07			80.84	3,728.80	
	2/8/07			80.59	3,729.05	
	2/20/07			81.00	3,728.64	
	3/6/07			81.08	3,728.56	
	3/14/07			80.52	3,729.12	
	3/27/07			81.33	3,728.31	
	3/29/07			81.07	3,728.57	
	4/3/07			81.37	3,728.27	
	4/11/07			81.46	3,728.18	
	4/17/07			81.53	3,728.11	
	5/24/07			81.54	3,728.10	
	6/13/07			81.59	3,728.05	
	6/26/07			81.78	3,727.86	
	9/14/07			82.30	3,727.34	
	10/19/07			82.33	3,727.31	
	12/3/07			85.26	3,724.38	
	1/8/08			82.01	3,727.63	
	1/28/08			82.02	3,727.62	
	3/12/08			82.04	3,727.60	
	4/22/08			82.51	3,727.13	
	5/16/08			82.64	3,727.00	
	6/19/08			82.88	3,726.76	



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Caylor
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-11	2/21/06	WELL INSTALLED 2/21/06				
	3/1/06	3,808.95		76.95	3,732.00	
	5/25/06			78.06	3,730.89	
	8/14/06			79.57	3,729.38	
	11/29/06			80.26	3,728.69	
	12/12/06			80.27	3,728.68	
	1/11/07			80.19	3,728.76	
	2/8/07			79.91	3,729.04	
	2/20/07			80.35	3,728.60	
	3/6/07			80.42	3,728.53	
	3/14/07			80.01	3,728.94	
	3/27/09			80.43	3,728.52	
	3/29/09			80.46	3,728.49	
	4/3/07			80.96	3,727.99	
	4/11/07			80.86	3,728.09	
	4/17/07			80.94	3,728.01	
	5/24/07			80.89	3,728.06	
	6/13/07			81.08	3,727.87	
	6/26/07			81.19	3,727.76	
	9/14/07			81.68	3,727.27	
	10/19/07			81.76	3,727.19	
	12/3/07			81.60	3,727.35	
	1/8/08			81.35	3,727.60	
	1/28/08			81.36	3,727.59	
	3/12/08			81.43	3,727.52	
	4/22/08			81.91	3,727.04	
	5/16/08			82.07	3,726.88	
	6/19/08			82.31	3,726.64	
MW-12	2/23/06	WELL INSTALLED 2/23/06				
	3/1/06	3,809.63		77.60	3,732.03	
	5/25/06			78.68	3,730.95	
	8/14/06			79.99	3,729.64	
	11/29/06			80.86	3,728.77	
	12/12/06			80.90	3,728.73	
	1/11/07			80.81	3,728.82	
	2/8/07			80.55	3,729.08	
	2/20/07			80.96	3,728.67	
	3/6/07			81.04	3,728.59	
	3/14/07			81.15	3,728.48	
	3/27/07			81.31	3,728.32	
	3/29/07			81.15	3,728.48	
	4/3/07			81.35	3,728.28	
	4/11/07			81.87	3,727.76	
	4/17/07			81.50	3,728.13	
	5/24/07			81.45	3,728.18	
	6/26/07			81.79	3,727.84	
	9/14/07			82.29	3,727.34	
	10/19/07			82.36	3,727.27	
	12/3/07			82.20	3,727.43	
	1/8/08			81.99	3,727.64	
	1/28/08			81.98	3,727.65	
	3/12/08			82.07	3,727.56	
	4/22/08			82.52	3,727.11	
	5/16/08			82.07	3,727.56	
	6/19/08			82.91	3,726.72	



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-13	2/22/06	WELL INSTALLED 2/22/06				
	3/1/06	3,809.42		77.33	3,732.09	
	5/25/06			78.35	3,731.07	
	8/14/06			79.59	3,729.83	
	11/29/06			80.51	3,728.91	
	12/12/06			80.68	3,728.74	
	1/11/07			80.48	3,728.94	
	2/8/07			80.25	3,729.17	
	2/20/07			80.86	3,728.56	
	3/6/07			80.71	3,728.71	
	3/14/07			80.82	3,728.60	
	3/27/07			79.97	3,729.45	
	3/29/07			80.70	3,728.72	
	4/3/07			81.02	3,728.40	
	4/11/07			81.62	3,727.80	
	4/17/07			81.17	3,728.25	
	5/24/07			81.19	3,728.23	
	6/26/07			81.42	3,728.00	
	9/14/07			81.99	3,727.43	
	10/19/07			82.02	3,727.40	
	12/3/07			81.91	3,727.51	
	1/8/08			81.71	3,727.71	
	1/28/08			81.71	3,727.71	
	3/12/08			81.74	3,727.68	
	4/22/08			82.17	3,727.25	
	5/16/08			82.31	3,727.11	
	6/19/08			82.54	3,726.88	
MW-14	2/21/06	WELL INSTALLED 2/21/06				
	3/1/06	3,809.46		77.31	3,732.15	
	5/25/06			78.29	3,731.17	
	8/14/06			79.41	3,730.05	
	11/29/06			80.37	3,729.09	
	12/12/06			80.51	3,728.95	
	1/11/07			80.53	3,728.93	
	2/8/07			80.20	3,729.26	
	2/20/07			80.61	3,728.85	
	3/6/07			80.65	3,728.81	
	3/14/07			80.02	3,729.44	
	3/27/07			80.85	3,728.61	
	3/29/07			80.59	3,728.87	
	4/3/07			80.91	3,728.55	
	4/11/07			80.59	3,728.87	
	4/17/07			81.04	3,728.42	
	5/24/07			81.10	3,728.36	
	6/26/07			81.28	3,728.18	
	9/14/07			81.88	3,727.58	
	10/19/07			81.89	3,727.57	
	12/3/07			81.78	3,727.68	
	1/8/08			81.66	3,727.80	
	1/28/08			81.68	3,727.78	
	3/12/08			81.68	3,727.78	
	4/22/08			82.11	3,727.31	
	5/16/08			82.19	3,727.23	
	6/19/08			82.41	3,727.01	



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-15	2/22/06		WELL INSTALLED 2/22/06			
	3/1/06	3,810.77		78.50	3,732.27	
	5/25/06			79.41	3,731.36	
	8/14/06			80.54	3,730.23	
	11/29/06			81.54	3,729.23	
	12/12/06			81.63	3,729.14	
	1/11/07			81.67	3,729.10	
	2/8/07			81.43	3,729.34	
	2/20/07			81.81	3,728.96	
	3/6/07			81.85	3,728.92	
	3/14/07			81.16	3,729.61	
	3/27/07			82.07	3,728.70	
	3/29/07			81.40	3,729.37	
	4/3/07			82.11	3,728.66	
	4/11/07			82.70	3,728.07	
	4/17/07			82.24	3,728.53	
	5/24/07			82.30	3,728.47	
	6/26/07			82.48	3,728.29	
	9/14/07			83.05	3,727.72	
	10/19/07			83.06	3,727.71	
	12/3/07			83.02	3,727.75	
	1/8/08			82.89	3,727.88	
	1/28/08			82.81	3,727.96	
	3/12/08			82.86	3,727.91	
	4/22/08			83.23	3,726.19	
	5/16/08			83.31	3,726.11	
	6/19/08			83.57	3,725.85	
MW-16	2/23/06		WELL INSTALLED 2/23/06			
	3/1/06	3,812.02		79.72	3,732.30	
	5/25/06			80.58	3,731.44	
	8/14/06			81.71	3,730.31	
	11/29/06			82.74	3,729.28	
	12/12/06			82.84	3,729.18	
	1/11/07			82.90	3,729.12	
	2/8/07			82.66	3,729.36	
	2/20/07			83.06	3,728.96	
	3/6/07			83.07	3,728.95	
	3/14/07			82.69	3,729.33	
	3/27/07			83.27	3,728.75	
	3/29/07			83.01	3,729.01	
	4/3/07			83.33	3,728.69	
	4/11/07			84.02	3,728.00	
	4/17/07			83.44	3,728.58	
	5/24/07			83.55	3,728.47	
	6/26/07			83.69	3,728.33	
	9/14/07			84.25	3,727.77	
	10/19/07			84.28	3,727.74	
	12/3/07			84.24	3,727.78	
	1/8/08			84.10	3,727.92	
	1/28/08			84.09	3,727.93	
	3/12/08			84.07	3,727.95	
	4/22/08			80.09	3,729.33	
	5/16/08			85.55	3,723.87	
	6/19/08			84.76	3,724.66	



Table 1
Groundwater Elevations and
Phase Separated Hydrocarbon (PSH) Thicknesses
Plains Pipeline, L.P.
C. S. Cayler
NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, NM SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-17	2/23/06	WELL INSTALLED 2/23/06				
	3/1/06	3,810.40		78.07	3,732.33	
	5/25/06			78.92	3,731.48	
	8/14/06			80.02	3,730.38	
	11/29/06			81.10	3,729.30	
	12/12/06			81.20	3,729.20	
	1/11/07			81.25	3,729.15	
	2/8/07			81.06	3,729.34	
	2/20/07			81.45	3,728.95	
	3/6/07			81.48	3,728.92	
	3/14/07			80.89	3,729.51	
	3/27/07			81.65	3,728.75	
	3/29/07			81.40	3,729.00	
	4/3/07			81.70	3,728.70	
	4/11/07			82.11	3,728.29	
	4/17/07			81.83	3,728.57	
	5/22/07			81.92	3,728.48	
	6/26/07			82.06	3,728.34	
	9/14/07			82.59	3,727.81	
	10/19/07			82.60	3,727.80	
	12/3/07			82.56	3,727.84	
	1/8/08			82.48	3,727.92	
	1/28/08			82.47	3,727.93	
	3/12/08			82.41	3,727.99	
	4/22/08			80.42	3,729.00	
	5/16/08			82.89	3,726.53	
	6/19/08			83.10	3,726.32	
MW-18	3/18/08	WELL INSTALLED 3/18/08				
	3/25/08	3,809.09		82.07	3,728.33	
	4/22/08			80.09	3,729.33	
	5/16/08			85.55	3,723.87	
	4/22/08			82.19	3,727.23	
	5/16/08			82.36	3,727.06	
	6/19/08			82.61	3,726.81	

Top of casing elevations referenced to groundwater monitoring well MW-3, which was assigned an elevation of 3,760 feet amsl.

* Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness)).

** Estimated Product Thickness using Total Depth of Well as the Depth to Water.

-- = Not Detected

BTOC = Below Top of Casing



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
HOBBS JUNCTION MAINLINE
NMOCD REF. # AP-054
LEA COUNTY, NEW MEXICO - SRS# 2003-00017
Talon/LPE Project Number PLAINS047SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethyl benzene	Xylene	Total BTEX
MW-1	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-2	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-3	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-4	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-5	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-6	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-7	03/11/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	Not scheduled to sample 2nd quarter				
MW-8	03/11/08	0.0054	<0.001	<0.001	<0.001	0.0054
	06/20/08	Not scheduled to sample 2nd quarter				
MW-9	03/11/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	Not scheduled to sample 2nd quarter				
MW-10	03/11/08	1.69	<0.005	0.105	0.0122	1.810
	06/20/08	3.250	<0.200	0.272	<0.200	3.522



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
HOBBS JUNCTION MAINLINE
NMOCD REF. # AP-054
LEA COUNTY, NEW MEXICO - SRS# 2003-00017
Talon/LPE Project Number PLAINS047SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethyl benzene	Xylene	Total BTEX
MW-11	03/11/08	24.7	1.19	1.66	1.330	28.9
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-12	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-13	03/11/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	Not scheduled to sample 2nd quarter				
MW-14	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-15	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-16	03/11/08	0.0124	<0.001	<0.001	<0.001	0.0124
	06/20/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-17	03/11/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
	06/20/08	Not sampled Due to Presence of Phase Separated Hydrocarbons				
MW-18	03/11/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	0.0029	<0.00100	<0.00100	<0.00100	0.0029
MW-19	03/11/08	<0.005	<0.005	<0.005	<0.005	<0.005
	06/20/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-20	03/11/08	38.9	<0.2	2.170	1.240	42.30
	06/20/08	30.7	<0.200	1.61	0.278	32.59



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
HOBBS JUNCTION MAINLINE
NMOCD REF. # AP-054
LEA COUNTY, NEW MEXICO - SRS# 2003-00017
Talon/LPE Project Number PLAINS047SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethyl benzene	Xylene	Total BTEX
MW-21	03/11/08	<0.005	<0.005	<0.005	<0.005	<0.005
	06/20/08	0.0511	<0.00100	<0.00100	<0.00100	0.0511
MW-22	03/11/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	0.00450	<0.00100	<0.00100	<0.00100	<0.00100
MW-23	03/25/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-24	03/25/08	<0.001	<0.001	<0.001	<0.001	<0.001
	06/20/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
NMWQCC Remedial Limits		0.010	0.750	0.750	0.620	

¹ **Bolded** values are in excess of the NMWQCC Remediation Thresholds



Table 3
Summary of General Chemistry and Metals Groundwater Analytical Results
Plains Pipeline, L.P.
CS Cayler
NMOCD REF. # AP-052 (Old 1R-0382)
Lea County, New Mexico - SRS# 2002-10250
Talon/LPE Project Number PLAINS044SPL

Parameter	Sample Date	MW-18	Units	NMWQCC MCL
Total Aluminum	06/19/08	2.53	mg/L	5.0
Hydroxide Alkalinity	06/19/08	<1.00	mg/L	
Carbonate Alkalinity	06/19/08	<1.00	mg/L	
Bicarbonate Alkalinity	06/19/08	376	mg/L	
Total Alkalinity	06/19/08	376	mg/L	
Total Boron	06/19/08	0.265	mg/L	0.75
Dissolved Calcium	06/19/08	87.8	mg/L	
Dissolved Potassium	06/19/08	4.16	mg/L	
Dissolved Magnesium	06/19/08	11.0	mg/L	
Dissolved Sodium	06/19/08	96.5	mg/L	
Total Cobalt	06/19/08	<0.00200	mg/L	0.05
Total Copper	06/19/08	<0.00500	mg/L	1.0
Total Iron	06/19/08	1.34	mg/L	1.0
Chloride	06/19/08	45.5	mg/L	250
Fluoride	06/19/08	2.26	mg/L	1.6
Nitrate - N	06/19/08	2.07	mg/L	
PO4 - P	06/19/08	<2.50	mg/L	600
Sulfate	06/19/08	48.9	mg/L	0.2
Total Manganese	06/19/08	0.0430	mg/L	1.0
Total Molybdenum	06/19/08	<0.0100	mg/L	0.2
Total Nickel	06/19/08	<0.00500	mg/L	0.05
Total Silver	06/19/08	<0.00500	mg/L	0.1
Total Arsenic	06/19/08	<0.00500	mg/L	1.0
Total Barium	06/19/08	0.176	mg/L	0.1
Total Cadmium	06/19/08	<0.00100	mg/L	0.05
Total Chromium	06/19/08	<0.00100	mg/L	0.002
Total Mercury	06/19/08	<0.000200	mg/L	0.05
Total Lead	06/19/08	<0.00500	mg/L	0.05
Total Selenium	06/19/08	<0.0100	mg/L	10.0
Total Zinc	06/19/08	0.0330	mg/L	10.0

APPENDIX C

Laboratory Analytical Data Sheets and Chain of Custody Documentation



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: June 27, 2008

Work Order: 8062018



Project Location: Lovington, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

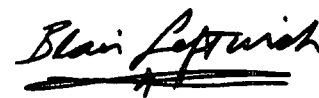
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
164182	MW-6	water	2008-06-19	14:55	2008-06-20
164183	MW-9	water	2008-06-19	14:34	2008-06-20
164184	MW-10	water	2008-06-19	14:31	2008-06-20
164185	MW-11	water	2008-06-19	14:27	2008-06-20
164186	MW-12	water	2008-06-19	14:45	2008-06-20
164187	MW-13	water	2008-06-19	14:50	2008-06-20
164188	MW-14	water	2008-06-19	14:57	2008-06-20
164189	MW-15	water	2008-06-19	15:05	2008-06-20
164190	MW-16	water	2008-06-19	15:07	2008-06-20
164191	MW-17	water	2008-06-19	14:40	2008-06-20
164192	MW-18	water	2008-06-19	14:18	2008-06-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 37 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX

El Paso - NELAP T104704221-08-TX

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-06-20 and assigned to work order 8062018. Samples for work order 8062018 were received intact without headspace and at a temperature of 4.0 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Ag, Total	S 6010B
Alkalinity	SM 2320B
Al, Total	S 6010B
As, Total	S 6010B
Ba, Total	S 6010B
BTEX	S 8021B
B, Total	S 6010B
Ca, Dissolved	S 6010B
Cd, Total	S 6010B
Chloride (IC)	E 300.0
Co, Total	S 6010B
Cr, Total	S 6010B
Cu, Total	S 6010B
Fe, Total	S 6010B
Fluoride (IC)	E 300.0
Hg, Total	S 7470A
K, Dissolved	S 6010B
Mg, Dissolved	S 6010B
Mn, Total	S 6010B
Mo, Total	S 6010B
Na, Dissolved	S 6010B
Ni, Total	S 6010B
NO3 (IC)	E 300.0
Pb, Total	S 6010B
PO4 (IC)	E 300.0
Se, Total	S 6010B
SO4 (IC)	E 300.0
Zn, Total	S 6010B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8062018 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 164182 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.198	mg/L	1	0.00100
Toluene		0.0293	mg/L	1	0.00100
Ethylbenzene		0.00120	mg/L	1	0.00100
Xylene		0.0139	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0789	mg/L	1	0.100	79	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0792	mg/L	1	0.100	79	52 - 124.1

Sample: 164183 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0124	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00150	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0769	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0769	mg/L	1	0.100	77	52 - 124.1

Sample: 164184 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00470	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00210	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0774	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0784	mg/L	1	0.100	78	52 - 124.1

Sample: 164185 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0775	mg/L	1	0.100	78	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0805	mg/L	1	0.100	80	52 - 124.1

Sample: 164186 - MW-12

Laboratory: Midland
Analysis: BTEX
QC Batch: 49700
Prep Batch: 42680

Analytical Method: S 8021B
Date Analyzed: 2008-06-24
Sample Preparation: 2008-06-24

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		30.7	mg/L	200	0.00100
Toluene		4.95	mg/L	200	0.00100
Ethylbenzene		1.27	mg/L	200	0.00100
Xylene		1.99	mg/L	200	0.00100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.2	mg/L	200	20.0	96	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		19.2	mg/L	200	20.0	96	52 - 124.1

Sample: 164187 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 49700
Prep Batch: 42680

Analytical Method: S 8021B
Date Analyzed: 2008-06-24
Sample Preparation: 2008-06-24

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0179	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00200	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0964	mg/L	1	0.100	96	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0969	mg/L	1	0.100	97	52 - 124.1

Sample: 164188 - MW-14

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00650	mg/L	1	0.00100
Toluene		0.00150	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00140	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0747	mg/L	1	0.100	75	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0751	mg/L	1	0.100	75	52 - 124.1

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Sample: 164189 - MW-15

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00850	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0772	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0769	mg/L	1	0.100	77	52 - 124.1

Sample: 164190 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.129	mg/L	1	0.00100
Toluene		0.00710	mg/L	1	0.00100
Ethylbenzene		0.00220	mg/L	1	0.00100
Xylene		0.00850	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0747	mg/L	1	0.100	75	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0753	mg/L	1	0.100	75	52 - 124.1

Sample: 164191 - MW-17

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Report Date: June 27, 2008
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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00950	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00150	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0759	mg/L	1	0.100	76	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0758	mg/L	1	0.100	76	52 - 124.1

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Al, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Aluminum		2.53	mg/L	1	0.0500

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: Alkalinity
QC Batch: 49670
Prep Batch: 42658

Analytical Method: SM 2320B
Date Analyzed: 2008-06-23
Sample Preparation: 2008-06-23

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		376	mg/L as CaCo3	1	4.00
Total Alkalinity		376	mg/L as CaCo3	1	4.00

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: B, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

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Parameter	Flag	RL Result	Units	Dilution	RL
Total Boron		0.265	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

Prep Method: S 5030B
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00240	mg/L	1	0.00100
Toluene		0.00190	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00450	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0743	mg/L	1	0.100	74	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0748	mg/L	1	0.100	75	52 - 124.1

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Cations
QC Batch: 49789
Prep Batch: 42734

Analytical Method: S 6010B
Date Analyzed: 2008-06-26
Sample Preparation: 2008-06-26

Prep Method: S 3005A
Analyzed By: TP
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium	<i>B</i>	87.8	mg/L	1	1.00
Dissolved Potassium		4.16	mg/L	1	1.00
Dissolved Magnesium		11.0	mg/L	1	1.00
Dissolved Sodium		96.5	mg/L	1	1.00

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Co, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

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Parameter	Flag	RL Result	Units	Dilution	RL
Total Cobalt		<0.00200	mg/L	1	0.00200

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 Sample Preparation: 2008-06-25 Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Copper		<0.00500	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 Sample Preparation: 2008-06-25 Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		1.34	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 49570 Date Analyzed: 2008-06-20 Analyzed By: AR
Prep Batch: 42571 Sample Preparation: 2008-06-20 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		45.5	mg/L	5	0.500
Fluoride		2.26	mg/L	5	0.200
Nitrate-N		2.07	mg/L	5	0.200
PO4-P		<2.50	mg/L	5	0.500
Sulfate		48.9	mg/L	5	0.500

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Sample: 164192 - MW-18

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Mn, Total	Date Analyzed:	2008-06-25	Analyzed By:	RR
QC Batch:	49710	Sample Preparation:	2008-06-25	Prepared By:	KV
Prep Batch:	42662				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.0430	mg/L	1	0.00250

Sample: 164192 - MW-18

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Mo, Total	Date Analyzed:	2008-06-25	Analyzed By:	RR
QC Batch:	49710	Sample Preparation:	2008-06-25	Prepared By:	KV
Prep Batch:	42662				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Molybdenum		<0.0100	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Ni, Total	Date Analyzed:	2008-06-25	Analyzed By:	RR
QC Batch:	49710	Sample Preparation:	2008-06-25	Prepared By:	KV
Prep Batch:	42662				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Nickel		<0.00500	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Total 8 Metals	Date Analyzed:	2008-06-25	Analyzed By:	RR
QC Batch:	49710	Sample Preparation:	2008-06-25	Prepared By:	KV
Prep Batch:	42662				
Laboratory:	Lubbock	Analytical Method:	S 7470A	Prep Method:	N/A
Analysis:	Total 8 Metals	Date Analyzed:	2008-06-26	Analyzed By:	TP
QC Batch:	49781	Sample Preparation:	2008-06-26	Prepared By:	TP
Prep Batch:	42727				

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Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.00500	mg/L	1	0.00500
Total Arsenic		<0.00500	mg/L	1	0.00500
Total Barium		0.176	mg/L	1	0.00100
Total Cadmium		<0.00100	mg/L	1	0.00100
Total Chromium		<0.00100	mg/L	1	0.00100
Total Mercury		<0.000200	mg/L	1	0.000200
Total Lead		<0.00500	mg/L	1	0.00500
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Zn, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		0.0330	mg/L	1	0.00700

Method Blank (1) QC Batch: 49570

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.16	mg/L	0.5
Fluoride		0.617	mg/L	0.2
Nitrate-N		<0.0106	mg/L	0.2
PO4-P		<0.0618	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Method Blank (1) QC Batch: 49663

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

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Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000200	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000300	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0762	mg/L	1	0.100	76	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0772	mg/L	1	0.100	77	37.1 - 130.9

Method Blank (1) QC Batch: 49670

QC Batch: 49670
Prep Batch: 42658

Date Analyzed: 2008-06-23
QC Preparation: 2008-06-23

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 49700

QC Batch: 49700
Prep Batch: 42680

Date Analyzed: 2008-06-24
QC Preparation: 2008-06-24

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000200	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000300	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0993	mg/L	1	0.100	99	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0984	mg/L	1	0.100	98	37.1 - 130.9

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Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Aluminum		<0.0228	mg/L	0.05

Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Boron		<0.00440	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Cobalt		<0.00220	mg/L	0.002

Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Copper		<0.00140	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Parameter	Flag	MDL Result	Units	RL
Total Iron		<0.00690	mg/L	0.01

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Manganese		<0.000600	mg/L	0.0025

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Molybdenum		<0.00790	mg/L	0.01

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Nickel		<0.00190	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Zinc		<0.00710	mg/L	0.007

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Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.00210	mg/L	0.005
Total Arsenic		<0.00430	mg/L	0.005
Total Barium		<0.00170	mg/L	0.001
Total Cadmium		<0.00140	mg/L	0.001
Total Chromium		<0.000900	mg/L	0.001
Total Lead		<0.00320	mg/L	0.005
Total Selenium		<0.0131	mg/L	0.01

Method Blank (1) QC Batch: 49781

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.0000251	mg/L	0.0002

Method Blank (1) QC Batch: 49789

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.175	mg/L	1
Dissolved Potassium		1.18	mg/L	1
Dissolved Magnesium		0.195	mg/L	1
Dissolved Sodium		0.385	mg/L	1

Duplicates (1)

QC Batch: 49670
Prep Batch: 42658

Date Analyzed: 2008-06-23
QC Preparation: 2008-06-23

Analyzed By: AR
Prepared By: AR

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Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	46.0	<1.00	mg/L as CaCo3	1	200	20
Bicarbonate Alkalinity	170	238	mg/L as CaCo3	1	33	20
Total Alkalinity	216	238	mg/L as CaCo3	1	10	20

Laboratory Control Spike (LCS-1)

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.1	mg/L	1	12.5	<0.0181	97	90 - 110
Fluoride	2.24	mg/L	1	2.50	<0.0119	90	90 - 110
Nitrate-N	2.40	mg/L	1	2.50	<0.0106	96	90 - 110
PO4-P	11.8	mg/L	1	12.5	<0.0618	94	90 - 110
Sulfate	12.2	mg/L	1	12.5	<0.0485	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.5	mg/L	1	12.5	<0.0181	100	90 - 110	3	
Fluoride	2.24	mg/L	1	2.50	<0.0119	90	90 - 110	0	
Nitrate-N	2.44	mg/L	1	2.50	<0.0106	98	90 - 110	2	
PO4-P	11.8	mg/L	1	12.5	<0.0618	94	90 - 110	0	
Sulfate	12.2	mg/L	1	12.5	<0.0485	98	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0863	mg/L	1	0.100	<0.000200	86	71.7 - 120.5
Toluene	0.0854	mg/L	1	0.100	<0.000200	85	75.4 - 118.8
Ethylbenzene	0.0853	mg/L	1	0.100	<0.000200	85	73.5 - 118
Xylene	0.256	mg/L	1	0.300	<0.000300	85	72.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0883	mg/L	1	0.100	<0.000200	88	71.7 - 120.5	2	20
Toluene	0.0873	mg/L	1	0.100	<0.000200	87	75.4 - 118.8	2	20
Ethylbenzene	0.0861	mg/L	1	0.100	<0.000200	86	73.5 - 118	1	20
Xylene	0.259	mg/L	1	0.300	<0.000300	86	72.9 - 118.2	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0772	0.0763	mg/L	1	0.100	77	76	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0785	0.0776	mg/L	1	0.100	78	78	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 49700
Prep Batch: 42680

Date Analyzed: 2008-06-24
QC Preparation: 2008-06-24

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.000200	102	71.7 - 120.5
Toluene	0.0995	mg/L	1	0.100	<0.000200	100	75.4 - 118.8
Ethylbenzene	0.0948	mg/L	1	0.100	<0.000200	95	73.5 - 118
Xylene	0.285	mg/L	1	0.300	<0.000300	95	72.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.101	mg/L	1	0.100	<0.000200	101	71.7 - 120.5	1	20
Toluene	0.101	mg/L	1	0.100	<0.000200	101	75.4 - 118.8	2	20
Ethylbenzene	0.101	mg/L	1	0.100	<0.000200	101	73.5 - 118	6	20
Xylene	0.302	mg/L	1	0.300	<0.000300	101	72.9 - 118.2	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0986	0.101	mg/L	1	0.100	99	101	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0986	0.101	mg/L	1	0.100	99	101	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.878	mg/L	1	1.00	<0.0228	88	85 - 106

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.871	mg/L	1	1.00	<0.0228	87	85 - 106	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron	0.0510	mg/L	1	0.0500	<0.00440	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Boron	0.0510	mg/L	1	0.0500	<0.00440	102	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.235	mg/L	1	0.250	<0.00220	94	88.6 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.234	mg/L	1	0.250	<0.00220	94	88.6 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.116	mg/L	1	0.125	<0.00140	93	85.6 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.115	mg/L	1	0.125	<0.00140	92	85.6 - 113	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.515	mg/L	1	0.500	<0.00690	103	86.9 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.507	mg/L	1	0.500	<0.00690	101	86.9 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.235	mg/L	1	0.250	<0.000600	94	85.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.239	mg/L	1	0.250	<0.000600	96	85.4 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.521	mg/L	1	0.500	<0.00790	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.530	mg/L	1	0.500	<0.00790	106	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.253	mg/L	1	0.250	<0.00190	101	86.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.255	mg/L	1	0.250	<0.00190	102	86.4 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.262	mg/L	1	0.250	<0.00710	105	85 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.267	mg/L	1	0.250	<0.00710	107	85 - 113	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.118	mg/L	1	0.125	<0.00210	94	86.7 - 113
Total Arsenic	0.461	mg/L	1	0.500	<0.00430	92	85 - 112
Total Barium	0.994	mg/L	1	1.00	<0.00170	99	86.9 - 115
Total Cadmium	0.266	mg/L	1	0.250	<0.00140	106	85.2 - 115
Total Chromium	0.102	mg/L	1	0.100	<0.000900	102	86 - 115
Total Lead	0.499	mg/L	1	0.500	<0.00320	100	87.9 - 112
Total Selenium	0.445	mg/L	1	0.500	<0.0131	89	85 - 109

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.119	mg/L	1	0.125	<0.00210	95	86.7 - 113	1	20
Total Arsenic	0.478	mg/L	1	0.500	<0.00430	96	85 - 112	4	20
Total Barium	1.00	mg/L	1	1.00	<0.00170	100	86.9 - 115	1	20
Total Cadmium	0.267	mg/L	1	0.250	<0.00140	107	85.2 - 115	0	20
Total Chromium	0.104	mg/L	1	0.100	<0.000900	104	86 - 115	2	20
Total Lead	0.501	mg/L	1	0.500	<0.00320	100	87.9 - 112	0	20
Total Selenium	0.445	mg/L	1	0.500	<0.0131	89	85 - 109	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000999	mg/L	1	0.00100	<0.0000251	100	89.6 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000983	mg/L	1	0.00100	<0.0000251	98	89.6 - 111	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	49.6	mg/L	1	50.0	<0.175	99	89.5 - 114
Dissolved Potassium	48.6	mg/L	1	50.0	1.18	95	87.9 - 115
Dissolved Magnesium	49.4	mg/L	1	50.0	0.195	98	85.7 - 112
Dissolved Sodium	48.3	mg/L	1	50.0	0.385	96	90 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	49.6	mg/L	1	50.0	<0.175	99	89.5 - 114	0	20
Dissolved Potassium	49.8	mg/L	1	50.0	1.18	97	87.9 - 115	2	20
Dissolved Magnesium	49.4	mg/L	1	50.0	0.195	98	85.7 - 112	0	20
Dissolved Sodium	49.1	mg/L	1	50.0	0.385	97	90 - 114	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164192

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	109	mg/L	5	62.5	45.46	102	90 - 110
Fluoride	14.0	mg/L	5	12.5	2.255	94	90 - 110
Nitrate-N	13.6	mg/L	5	12.5	2.0743	92	90 - 110
PO4-P	66.0	mg/L	5	62.5	<0.309	106	90 - 110
Sulfate	110	mg/L	5	62.5	48.8775	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	109	mg/L	5	62.5	45.46	102	90 - 110	0	
Fluoride	13.9	mg/L	5	12.5	2.255	93	90 - 110	1	
Nitrate-N	13.7	mg/L	5	12.5	2.0743	93	90 - 110	1	
PO4-P	66.7	mg/L	5	62.5	<0.309	107	90 - 110	1	
Sulfate	110	mg/L	5	62.5	48.8775	98	90 - 110	0	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 164025

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.656	mg/L	5	0.500	0.2589	79	10 - 160.8
Toluene	0.392	mg/L	5	0.500	<0.00100	78	10 - 160.7
Ethylbenzene	0.469	mg/L	5	0.500	0.0761	78	10 - 158.3
Xylene	1.24	mg/L	5	1.50	0.0721	78	10 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.657	mg/L	5	0.500	0.2589	80	10 - 160.8	0	20
Toluene	0.393	mg/L	5	0.500	<0.00100	79	10 - 160.7	0	20
Ethylbenzene	0.470	mg/L	5	0.500	0.0761	79	10 - 158.3	0	20
Xylene	1.24	mg/L	5	1.50	0.0721	78	10 - 158	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.388	0.391	mg/L	5	0.5	78	78	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	0.404	0.409	mg/L	5	0.5	81	82	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 164186

QC Batch: 49700
Prep Batch: 42680

Date Analyzed: 2008-06-24
QC Preparation: 2008-06-24

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	48.8	mg/L	200	20.0	30.6712	91	10 - 160.8
Toluene	23.0	mg/L	200	20.0	4.9516	90	10 - 160.7
Ethylbenzene	19.2	mg/L	200	20.0	1.2699	90	10 - 158.3
Xylene	55.9	mg/L	200	60.0	1.9903	90	10 - 158

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	47.5	mg/L	200	20.0	30.6712	84	10 - 160.8	3	20
Toluene	22.5	mg/L	200	20.0	4.9516	88	10 - 160.7	2	20
Ethylbenzene	18.9	mg/L	200	20.0	1.2699	88	10 - 158.3	2	20
Xylene	55.0	mg/L	200	60.0	1.9903	88	10 - 158	2	20

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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	19.1	19.3	mg/L	200	20	96	96	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	19.4	19.5	mg/L	200	20	97	98	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.946	mg/L	1	1.00	<0.0228	95	75 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.951	mg/L	1	1.00	<0.0228	95	75 - 117	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron	0.0540	mg/L	1	0.0500	<0.00440	108	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Boron	0.0550	mg/L	1	0.0500	<0.00440	110	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.252	mg/L	1	0.250	<0.00220	101	75 - 116

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.252	mg/L	1	0.250	<0.00220	101	75 - 116	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.121	mg/L	1	0.125	<0.00140	97	81 - 112

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.129	mg/L	1	0.125	<0.00140	103	81 - 112	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.455	mg/L	1	0.500	<0.00690	91	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.485	mg/L	1	0.500	<0.00690	97	75 - 125	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.234	mg/L	1	0.250	<0.000600	94	75 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.233	mg/L	1	0.250	<0.000600	93	75 - 111	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.498	mg/L	1	0.500	<0.00790	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.501	mg/L	1	0.500	<0.00790	100	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.253	mg/L	1	0.250	<0.00190	101	75 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.251	mg/L	1	0.250	<0.00190	100	75 - 121	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.251	mg/L	1	0.250	<0.00710	100	76.9 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.252	mg/L	1	0.250	<0.00710	101	76.9 - 111	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.119	mg/L	1	0.125	<0.00210	95	76.1 - 115
Total Arsenic	0.469	mg/L	1	0.500	<0.00430	94	81.6 - 116
Total Barium	1.04	mg/L	1	1.00	0.048	99	75 - 123
Total Cadmium	0.252	mg/L	1	0.250	<0.00140	101	75 - 115
Total Chromium	0.0990	mg/L	1	0.100	<0.000900	99	75 - 125
Total Lead	0.480	mg/L	1	0.500	<0.00320	96	82.6 - 114
Total Selenium	0.441	mg/L	1	0.500	<0.0131	88	75 - 106

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.120	mg/L	1	0.125	<0.00210	96	76.1 - 115	1	20
Total Arsenic	0.469	mg/L	1	0.500	<0.00430	94	81.6 - 116	0	20
Total Barium	1.03	mg/L	1	1.00	0.048	98	75 - 123	1	20
Total Cadmium	0.251	mg/L	1	0.250	<0.00140	100	75 - 115	0	20
Total Chromium	0.0980	mg/L	1	0.100	<0.000900	98	75 - 125	1	20
Total Lead	0.486	mg/L	1	0.500	<0.00320	97	82.6 - 114	1	20
Total Selenium	0.430	mg/L	1	0.500	<0.0131	86	75 - 106	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

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matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000994	mg/L	1	0.00100	<0.0000251	99	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.00101	mg/L	1	0.00100	<0.0000251	101	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164329

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	156	mg/L	1	50.0	107	98	75 - 125
Dissolved Potassium	52.6	mg/L	1	50.0	5.01	95	79.4 - 125
Dissolved Magnesium	65.7	mg/L	1	50.0	19.1	93	75 - 119
Dissolved Sodium	108	mg/L	1	50.0	61.3	93	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	158	mg/L	1	50.0	107	102	75 - 125	1	20
Dissolved Potassium	53.7	mg/L	1	50.0	5.01	97	79.4 - 125	2	20
Dissolved Magnesium	66.4	mg/L	1	50.0	19.1	95	75 - 119	1	20
Dissolved Sodium	108	mg/L	1	50.0	61.3	93	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 49570

Date Analyzed: 2008-06-20

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.2	90	90 - 110	2008-06-20
Fluoride		mg/L	2.50	2.44	98	90 - 110	2008-06-20
Nitrate-N		mg/L	2.50	2.61	104	90 - 110	2008-06-20

continued ...

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standard continued ...

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
PO4-P		mg/L	12.5	11.2	90	90 - 110	2008-06-20
Sulfate		mg/L	12.5	12.3	98	90 - 110	2008-06-20

Standard (CCV-1)

QC Batch: 49570

Date Analyzed: 2008-06-20

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2008-06-20
Fluoride		mg/L	2.50	2.25	90	90 - 110	2008-06-20
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2008-06-20
PO4-P		mg/L	12.5	11.8	94	90 - 110	2008-06-20
Sulfate		mg/L	12.5	12.2	98	90 - 110	2008-06-20

Standard (ICV-1)

QC Batch: 49663

Date Analyzed: 2008-06-22

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0954	95	85 - 115	2008-06-22
Toluene		mg/L	0.100	0.0947	95	85 - 115	2008-06-22
Ethylbenzene		mg/L	0.100	0.0951	95	85 - 115	2008-06-22
Xylene		mg/L	0.300	0.285	95	85 - 115	2008-06-22

Standard (CCV-1)

QC Batch: 49663

Date Analyzed: 2008-06-22

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2008-06-22
Toluene		mg/L	0.100	0.0917	92	85 - 115	2008-06-22
Ethylbenzene		mg/L	0.100	0.0916	92	85 - 115	2008-06-22
Xylene		mg/L	0.300	0.276	92	85 - 115	2008-06-22

Standard (ICV-1)

QC Batch: 49670

Date Analyzed: 2008-06-23

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-06-23
Carbonate Alkalinity		mg/L as CaCo3	0.00	196		0 - 200	2008-06-23
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	56.0		0 - 200	2008-06-23
Total Alkalinity		mg/L as CaCo3	250	252	101	90 - 110	2008-06-23

Standard (CCV-1)

QC Batch: 49670

Date Analyzed: 2008-06-23

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-06-23
Carbonate Alkalinity		mg/L as CaCo3	0.00	194		0 - 200	2008-06-23
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	61.0		0 - 200	2008-06-23
Total Alkalinity		mg/L as CaCo3	250	255	102	90 - 110	2008-06-23

Standard (CCV-1)

QC Batch: 49700

Date Analyzed: 2008-06-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0983	98	85 - 115	2008-06-24
Toluene		mg/L	0.100	0.0980	98	85 - 115	2008-06-24
Ethylbenzene		mg/L	0.100	0.0981	98	85 - 115	2008-06-24
Xylene		mg/L	0.300	0.294	98	85 - 115	2008-06-24

Standard (CCV-2)

QC Batch: 49700

Date Analyzed: 2008-06-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2008-06-24
Toluene		mg/L	0.100	0.103	103	85 - 115	2008-06-24
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2008-06-24

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standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.311	104	85 - 115	2008-06-24

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.975	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	0.991	99	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.997	100	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.973	97	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.989	99	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.04	104	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.02	102	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.03	103	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	0.975	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.127	102	90 - 110	2008-06-25
Total Arsenic		mg/L	1.00	1.00	100	90 - 110	2008-06-25
Total Barium		mg/L	1.00	0.978	98	90 - 110	2008-06-25
Total Cadmium		mg/L	1.00	0.993	99	90 - 110	2008-06-25
Total Chromium		mg/L	1.00	0.988	99	90 - 110	2008-06-25
Total Lead		mg/L	1.00	1.01	101	90 - 110	2008-06-25
Total Selenium		mg/L	1.00	0.999	100	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.977	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	0.991	99	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.985	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.981	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.979	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.04	104	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.978	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.02	102	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	0.974	97	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.129	103	90 - 110	2008-06-25
Total Arsenic		mg/L	1.00	0.996	100	90 - 110	2008-06-25
Total Barium		mg/L	1.00	0.989	99	90 - 110	2008-06-25
Total Cadmium		mg/L	1.00	0.978	98	90 - 110	2008-06-25
Total Chromium		mg/L	1.00	0.975	98	90 - 110	2008-06-25
Total Lead		mg/L	1.00	0.996	100	90 - 110	2008-06-25
Total Selenium		mg/L	1.00	0.983	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49781

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000959	96	90 - 110	2008-06-26

Standard (CCV-1)

QC Batch: 49781

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000993	99	80 - 120	2008-06-26

Standard (ICV-1)

QC Batch: 49789

Date Analyzed: 2008-06-26

Analyzed By: TP

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.9	100	90 - 110	2008-06-26
Dissolved Potassium		mg/L	50.0	49.8	100	90 - 110	2008-06-26
Dissolved Magnesium		mg/L	50.0	49.8	100	90 - 110	2008-06-26
Dissolved Sodium		mg/L	50.0	49.3	99	90 - 110	2008-06-26

Standard (CCV-1)

QC Batch: 49789

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	47.1	94	90 - 110	2008-06-26
Dissolved Potassium		mg/L	50.0	48.3	97	90 - 110	2008-06-26
Dissolved Magnesium		mg/L	50.0	47.1	94	90 - 110	2008-06-26
Dissolved Sodium		mg/L	50.0	46.6	93	90 - 110	2008-06-26

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LAB Order ID # 8062018

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Company Name: Teton/PE Address: 2901 Rankin Hwy. Contact Person: Shara Smith Email: Ssmith@tetonpe.com Invoice to: (If different from above) Project #: PLAIN30445PL 58#2002-10250 Project Location (including state): Lovington, NM. Supplier Signature: Carl Vessels, Lance Reynolds		Phone #: (432) 522-2153 Fax #: E-mail: Ssmith@tetonpe.com Project Name: C.S. Caylor Supplier Signature: Carl Vessels, Lance Reynolds												
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				DATE	TIME	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH			ICE
182	MW-6	2	VDA	X				X					6/19/08	1455
183	MW-9	2	VDA	X				X					6/19/08	1434
184	MW-10	2	VDA	X				X					6/19/08	1431
185	MW-11	2	VDA	X				X					6/19/08	1427
186	MW-12	2	VDA	X				X					6/19/08	1445
187	MW-13	2	VDA	X				X					6/19/08	1450
188	MW-14	2	VDA	X				X					6/19/08	1457
189	MW-15	2	VDA	X				X					6/19/08	1505
190	MW-16	2	VDA	X				X					6/19/08	1507
191	MW-17	2	VDA	X				X					6/19/08	1440
192	MW-18	4	VDA	X				X					6/19/08	1418
Relinquished by: Teton/PE 6/20/08 0900		Time:	Date:	Received by: [Signature]		Time:	Date:	Company:		Temp °C:	REMARKS: BTEX, IC, Alkalinity - Midland Mutual: Cations - Lubbock			
Relinquished by: [Signature]		Time:	Date:	Received by: [Signature]		Time:	Date:	Company:		Temp °C:	LAB USE ONLY			
Relinquished by: [Signature]		Time:	Date:	Received by: [Signature]		Time:	Date:	Company:		Temp °C:	LAB USE ONLY			

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