AP - 8

ANNUAL MONITORING REPORT

YEAR(S): 2005

ARCADIS

Infrastructure, buildings, environment, communications

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Wayne Price
New Mexico Oil Conservation Division
1220 So. Saint Francis Drive
Santa Fe, New Mexico 87505

Certified Mail

Subject:
Rice Operating Company Junction I-9, Hobbs, New Mexico
2005 Annual Report Submittal

Date:
21 September 2005

Contact:
Sharon Hall

Phone:
432 687-5400

Email:
shall@arcadis-us.com

Our ref:
MT000643.0001

Dear Mr. Price,

On behalf of Rice Operating Company, ARCADIS G&M respectfully submits this Annual report due October 15 for the Junction I-9 site located in Hobbs, New Mexico. The report details the Stage 2 Abatement activities and results.

If you have any questions or require additional information please do hesitate to call me at (432) 687-5400 or Carolyn Haynes at (505) 393-9174.

Sincerely,

ARCADIS G&M, Inc.

Sharon E. Hall

Sharon E. Hall
Site Evaluation Department Manager

Copies:
Kristin Farris Pope- Rice Operating Company
Chris Williams-NMOCD Hobbs

Attachment:
Report

ARCADIS

Sharon E. Hall
Site Evaluation Department Manager

Junction I-9 2005 Annual Report
Rice Operating Company
Hobbs, New Mexico

Prepared for:
Rice Operating Company

Prepared by:
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Our Ref.:
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Date:
September 19, 2005

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1. Introduction

The subject site is a former pipeline connection point on the Rice Operating Company (ROC) Hobbs Salt Water Disposal System. The abandoned pipeline transported produced water from oil and gas leases to a permitted well for disposal by subsurface injection. The site is located in southwest Hobbs, New Mexico approximately 0.6 miles south of the intersection of Grimes Street and Stanolind Road (Section 9, T19S-R38E, Lea County) (Figure 1).

2. Site History

A pipeline leak was discovered and repaired at the subject site on June 5, 1998. Notification of an accidental release was submitted to the New Mexico Oil Conservation Division (NMOCD) District I Office located in Hobbs, New Mexico. A Stage I Abatement Plan was submitted to the NMOCD on January 19, 1999. Interim abatement site activities including assessment of impacts to soil and groundwater and excavation of impacted soil were conducted from August 24, 1998 to September 2, 1999. Recovery of phase-separated hydrocarbons (PSH) from groundwater has been conducted from January 18 to May 7, 1999. A total of four monitor wells, one recovery well and nine boreholes was installed at the subject site. A Stage 1 Abatement Plan report detailing the results of the Stage 1 Abatement investigation was submitted to the NMOCD on September 10, 1999.

A Stage 2 Abatement Plan Proposal was submitted to the NMOCD on January 10, 2000. Following requests for additional information from the NMOCD, three Revised Stage 2 Abatement Plan proposals were submitted. (December 13, 2000, March 31, 2001 and December 13, 2001). A final Stage 2 Abatement Plan Proposal revision was requested by ROC on April 5, 2004 and approved by the NMOCD on June 4, 2004. Copies of the plan, revisions and NMOCD approvals are on file at the NMOCD office in Santa Fe. The approved Stage 2 Abatement Plan Proposal is as follows:

- Sampling monitor wells 1, 3, 4 and the McNeil well quarterly for four quarters and analyzing for benzene, toluene, ethylbenzene and xylenes (BTEX), general quality and New Mexico Water Quality Control Commission (WQCC) metals. Based on sample results for four quarters, the sampling frequency will be reviewed and may be revised.

- Sampling will be discontinued when eight quarters of sample results indicate that BTEX concentrations are below WQCC Title 20, Chapter 6, Part 2 standards.

- Excavation of soils in the area with detectable hydrocarbons in groundwater until the soil associated with the PSH is removed. When groundwater is encountered, excavation will be discontinued just below that depth.

- Installation of a 12-15" compacted clay layer that meets or exceeds 95% of a Proctor Test ASTM-D-98 and permeability equal to or less than 1×10^{-7} cm/sec over the area excavated to groundwater. The liner will extend 10 feet in all directions beyond the excavated area.

- Following backfilling, installation of a 12-15" compacted clay layer that meets or exceeds 95% of a Proctor Test ASTM-D-98 and permeability equal to or less than 1×10^{-7} cm/sec over the entire excavated area at a depth of 6-7 feet below ground surface (bgs).

- Excavation of soils exceeding total petroleum hydrocarbon (TPH), BTEX, benzene and chloride concentrations of 100 milligrams per kilogram (mg/kg), 50 mg/kg, 10 mg/kg and 250 mg/kg, respectively.

- Backfilling of blended soils not exceeding TPH, BTEX, benzene and chloride concentrations of 100 mg/kg, 50 mg/kg, 10 mg/kg and 1,099 mg/kg, respectively.

- Grading of the site to prevent ponding of rainwater.

A Stage 2 Abatement Report was submitted to the NMOCD on July 14, 2004 and approved by the NMOCD on August 17, 2004. The NMOCD requested an annual report, in the same format as the Stage 2 Abatement Report, be submitted by October 15 each year until approval is given for no further monitoring. The Stage 2 Abatement Report approval is included in Appendix A.

3. Geology and Hydrogeology

The Ogallala Formation is the principal source of groundwater in the subject area. Depth to groundwater in Lea County ranges from approximately 12 to approximately 300 feet bgs. The Ogallala consists of predominantly coarse fluvial conglomerate and sandstone and fine-grained Eolian siltstone and clay. Where present in the subject area, the Ogallala unconformably overlies Triassic redbeds. The regional and site groundwater gradient is to the south/southeast.

Depth to groundwater at the subject site is approximately 36 feet bgs. Groundwater elevations measured in the monitor wells at the subject site are shown in Table 1.

Table 1
GROUNDWATER ELEVATIONS
Junction I-9 Site
HOBBS, NEW MEXICO

MONITORING WELL	TOP OF CASING (feet)*	DATE	DEPTH TO GROUNDWATER (feet)*	WATER ELEVATION (feet)*
MW-1	3595.37	01/12/99	31.75	3563.62
MW-1	3595.37	01/16/99	32.04	3563.33
MW-1	3595.37	08/31/99	29.03	3566.34
MW-1	3595.37	03/02/04	36.78	3558.59
MW-1	3595.37	09/02/04	34.91	3560.46
MW-1	3595.37	06/28/05	30.76	3564.61
MW-1	3595.37	09/02/05	32.24	3563.13
MW-2	3595.58	01/12/99	31.82	3563.76
MW-2	3595.58	01/16/99	32.04	3563.54
MW-2	3595.58	08/31/99	28.89	3566.69
MW-2	3595.58	03/02/04	Dry	-
MW-3	3595.62	01/12/99	30.58	3565.04
MW-3	3595.62	01/06/99	31.85	3563.77
MW-3	3595.62	08/31/99	26.24	3569.38
MW-3	3595.62	03/02/04	35.58	3560.04
MW-3	3595.62	09/02/04	33.20	3562.42

MONITORING WELL	TOP OF CASING (feet)*	DATE	DEPTH TO GROUNDWATER (feet)*	WATER ELEVATION (feet)*
MW-3	3595.62	06/28/05	28.99	3566.63
MW-3	3595.62	09/02/05	30.41	3565.21
MW-4	3595.15	09/02/99	28.98	3566.17
MW-4	3595.15	03/02/04	36.80	3558.35
MW-4	3595.15	09/02/04	35.01	3560.14
MW-4	3595.15	06/28/05	30.88	3564.27
MW-4	3595.15	09/02/05	32.38	3562.77
McNeil Well	---	09/02/04	37.82	---
McNeil Well	---	06/28/05	34.02	---
McNeil Well	---	09/02/05	35.21	---

*Based on survey data provided by Rice Operating Company. Used surveyed benchmark = top of casing on MW-3.

4. Stage 2 Abatement Field Activities

Stage 2 Abatement field activities were conducted between September 15, 2000 and October 3, 2000 and between September 26, 2003 and February 4, 2004. Stage 2 Abatement field activities included sampling of three monitoring wells and an agricultural well, excavation of impacted soils, installation of an upper and lower liner and backfilling and grading of the site. All field activities were performed in accordance with the Stage 2 Abatement Plan Proposal and revisions as approved by the NMOCD.

4.1 Soil Excavation

Stage 2 excavation activities were performed at the site between September 15, 2000 and October 3, 2000 and between September 26, 2003 and February 4, 2004. Excavation activities were continued in the area where hydrocarbons were detected on the groundwater until the soil associated with the PSH was removed. Soil in this area was excavated to 30-32' bgs. When groundwater was encountered, excavation was discontinued just below that depth in order to maintain safe and practical excavation of soils. PSH was recovered with absorbent material where possible. Soil excavation continued until no visible staining of the soils occurred, and no photoionization detecter (PID) detections were observed. Soil samples were collected to confirm that

impacted soils had been removed and that TPH, BTEX, benzene and chloride concentrations did not exceed the concentrations as approved for the Stage 2 Abatement Plan. Confirmation sample results and PID readings are shown in Table 2. The area of excavation is shown in Figure 2.

A 12-15" compacted clay layer was installed according to NMOCD clay layer specifications (meet or exceed 95% of a Proctor Test ASTM-D-698 with permeability equal to or less than 1 x 10^{-7} cm/sec) over the area excavated to the groundwater interface in order to inhibit downward migration of constituents and to protect the exposed groundwater interface. Once the excavation was backfilled, an additional compacted clay layer was installed (to NMOCD specifications) approximately 6-7 feet bgs over the entire excavation in order to inhibit downward migration of potential constituents in soils below the compacted clay layer. Liner design specifications were submitted to the OCD on March 30, 2001.

Approximately 11,000 loose cubic yards of impacted soils were disposed at an NMOCD-approved facility during initial Stage 2 Abatement activities. All remaining excavated soils, between 70,000 and 80,000 cubic yards, were blended with overburden/replacement soils and returned to the excavation as backfill. TPH, BTEX, benzene and chloride concentrations in the blended backfill material did not exceed the concentrations as approved for the Stage 2 Abatement Plan.

Following excavation, the site was graded to prevent ponding of water and seeded with a blend of native vegetation.

4.2 Sampling of Monitor Wells

A total of four monitor wells and one recovery well were installed in the subject area. An additional existing well referred to as the McNeil well has been added to the monitor well sampling program. Monitor well MW-2 is dry and, therefore, is not included in the monitoring program. The recovery well was removed during excavation activities. Well locations are shown in Figure 2.

Groundwater samples were collected from MW-1, MW-2 and MW-3 on January 16, 1999 and analyzed for volatile organics (VOCs), semi-volatile organics (SVOCs), general chemistry and metals using USEPA Methods 8260, 8270C, 325.3, 4500, 150.1, 120.1, 375.4, 160.1, and 6010B.

MW-1 and MW-2 were resampled on July 7, 1999 to determine if BTEX concentrations were representative of downgradient aquifer conditions. The groundwater samples were submitted for analysis for BTEX using USEPA Method 8021B.

MW-4 was sampled on September 2, 1999 and analyzed for VOCs, SVOCs, general chemistry and metals using USEPA Methods 8260, 8270C, 325.3, 4500, 150.1, 120.1, 375.4, 160.1 and 6010B.

MW-1, MW-3, MW-4 and the McNeil well were sampled on March 2, 2004 and analyzed for VOCs, gasoline range organics, diesel range organics and total hydrocarbon, general chemistry and metals using USEPA Methods 8260B, 8015M, 310.2M, 340.1, 325.3, 4500, 150.1, 120.1, 375.4, 160.1 and 7470A and 6010B. Laboratory analyses for March 2, 2004 sampling event are in Appendix B of the Junction I-9, 2004 Annual Report. Groundwater analytical results are summarized in Table 3 of this report.

Benzene was detected in the samples collected from MW-1 and MW-2 on January 16, 1999 and July 7, 1999 at a concentration of 0.008 milligrams per liter (mg/L), 0.017 mg/L, 0.262 mg/L and 0.289 mg/L, respectively. Toluene was detected in the samples collected from MW-1 on July 7, 1999 at a concentration of 0.01 mg/L. Ethylbenzene was detected in the samples collected from MW-1 and MW-2 on January 16, 1999 and July 7, 1999 at a concentration of 0.032 mg/L/ 0.007 mg/L and 0.286 mg/L / 0.061 mg/L, respectively. Xylenes were detected in the samples collected from MW-1 and MW-2 on January 16, 1999 and July 7, 1999 at a concentration of 0.012 mg/L / 0.012 mg/L and 0.131 mg/L / 0.008 mg/L, respectively. 1,2,4-trimethylbenzene was detected in the January 1999 sample collected from MW-1 at a concentration of 0.007 mg/L. No other analyzed organic compounds were detected.

Naturally-occurring inorganic analytes (metals, chlorides, pH, sulfate, TDS, calcium, potassium, bicarbonate, manganese and sodium) were detected in the groundwater samples collected from MW-1, MW-2, MW-3 and MW-4.

No hydrocarbons (TPH or BTEX) were detected in any of the wells during the March 2004 groundwater sampling event. Metals analysis indicates a decrease in metals concentrations since the July and September 1999 sampling events. Aluminum and lead were detected at concentrations in excess of WQCC standards; however, the concentrations of these compounds, have decreased since the wells were last sampled. Boron, which had not previously been analyzed, was detected at a concentration in

excess of the WQCC standard. Total dissolved solids and sodium were detected at concentrations above the WQCC standard, and chlorides were detected above the WQCC standard in one well, MW-3.

A quarterly groundwater sampling event was performed on September 2, 2004 following final approval of the Stage 2 Abatement workplan and Stage 2 Abatement report. No hydrocarbons were detected in any of the groundwater samples. Chloride concentrations were below New Mexico standard of 250 mg/L in all of the wells. Naturally occurring inorganic compounds including barium, iron and manganese were detected at concentrations in excess of WQCC standards.

No free product is evidenced at the site. During excavation activities, the site was excavated to groundwater in the source area. No product was evidenced in the excavation.

Quarterly groundwater sampling was performed on December 20, 2004, March 21, 2005, June 28, 2005 and September 2, 2005. Samples were collected from MW-1, MW-3, MW-4 and the McNeil well and analyzed for BTEX, chloride and WQCC metals using USEPA Methods 8021B, 300.0, 7470A and 6010B for all four sampling events. Additionally, major anions and cations were analyzed for the June and September 2005 samples using USEPA Methods 310.2M, 300.0 and 160.1. Laboratory analyses for the four quarterly sampling events are included in Appendix B.

Benzene, toluene, ethylbenzene or Total xylenes (BTEX) were not detected in any of the wells during the last four quarterly groundwater sampling events. Chloride concentrations remained below New Mexico's standard of 250 mg/L in all wells for each sampling event. Naturally occurring inorganic compounds including iron and manganese were detected at concentrations in excess of the WQCC standards. Iron was detected in MW-1 for June and September 2005 and in MW-3 for March and September 2005. Manganese was detected in MW-1 for June 2005 and in MW-3 for September 2005. Metals analysis indicates a decrease in metals concentrations since the July and September 1999 sampling. Aluminum was detected at a concentration in excess of the WQCC standards for MW-3 in September 2005 only. Boron was detected at concentrations in excess of the WQCC standard; however, the results have remained consistent with the September 2004 event. Total dissolved solids were detected at concentrations above the WQCC standard, but chlorides were below the WQCC standard in all wells for these four quarters.

5. Conclusions

Soils exceeding TPH, BTEX, benzene and chloride concentrations of 100 mg/kg, 50 mg/kg, 10 mg/kg and 250 mg/kg, respectively, have been excavated and two clay liners installed as described in this report. Backfill material (blended soils) concentrations did not exceed TPH, BTEX, benzene and chloride concentrations of 100 mg/kg, 50 mg/kg, 10 mg/kg and 1,099 mg/kg, respectively. The site has been graded to prevent ponding of rainwater.

No hydrocarbons (TPH or BTEX) were detected in any of the wells during the March 2004 groundwater sampling event. Metals analysis indicates a decrease in metals concentrations since the July and September 1999 sampling. Aluminum and lead were detected at concentrations in excess of WQCC standards; however, the concentrations of these compounds have decreased since the wells were last sampled. Boron, not previously analyzed, was detected at a concentration in excess of the WQCC standard. Total dissolved solids and sodium were detected at a concentration above the WQCC standard, and chlorides were detected above the WQCC standard in one well, MW-3.

A quarterly groundwater sampling event was performed on September 2, 2004 following final approval of the Stage 2 Abatement workplan and Stage 2 Abatement report. No hydrocarbons were detected in any of the groundwater samples. Chloride concentrations were below New Mexico standard of 250 mg/L in all of the wells. Naturally occurring inorganic compounds including barium, iron and manganese were detected at concentrations in excess of WQCC standards.

No free product is evidenced at the site. During excavation activities the site was excavated to groundwater in the source area. No measurable product was evidenced in the excavation.

Four quarterly groundwater sampling events were performed on December 20, 2004, March 21, 2005, June 28, 2005 and September 2, 2005 as compliance with the Stage 2 Abatement workplan. No hydrocarbons were detected in any of the groundwater samples. Chloride concentrations were below New Mexico standard of 250 mg/L in all of the well for each sampling event. Naturally occurring inorganic compounds are showing a return to concentrations below the WQCC standards.

ROC has continued the groundwater sampling of Monitor Well-1, -3, -4 and the McNeil well for four quarters since the 2004 Annual Report. The samples were

analyzed for BTEX, general water quality and WQCC metals. Based on sample results for the last four quarters the sampling frequency will be reviewed and may be revised.

Sampling will be discontinued when a total of eight quarters (three additional quarters) of sample results indicate that BTEX concentrations are below WQCC Title 20, Chapter 6, Part 2 standards.

6. References

Groundwater Handbook, United States Environmental Protection Agency, Office of Research and Development, Center for Environmental Research Information; 1992.

Hydrology and Hydrochemistry of the Ogallala Aquifer, Southern High Plains, Texas Panhandle and Eastern New Mexico; Report Number 177; Bureau of Economic Geology; 1988.

Hydrogeochemistry and Water Resources of the Lower Dockum Group in the Texas Panhandle and Eastern New Mexico; Report Number 161; Bureau of Economic Geology; 1986.

New Mexico Water Quality Control Commission, Title 20 Chapter 6, Part 2, Subpart I.

Junction I-9 Release Site, Stage 1 Abatement Report (Site Assessment Investigation); ARCADIS Geraghty and Miller; September 10, 1999

Junction I-9 Stage 2 Abatement Report; ARCADIS Geraghty and Miller; July 2004

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Table 2
Soil Analytical Results

Date	Lab Number	Comment	Lab GRO	Lab DRO	Lab CL	Field PID	Field Cl	Benzene	Toluene	Ethyl Benzene	Total Xylenes
2/5/2004	H8435	Surface 5pt Comp	<10	<10	144			N/A	N/A	N/A	N/A
1/29/2004	H8420	1st 5' lift after clay liner @ 8' S. 1/2	<10	<10	112	NW 4.0	104	N/A	N/A	N/A	N/A
"						NE 4.8		N/A	N/A	N/A	N/A
"						Center 3.6		N/A	N/A	N/A	N/A
"						SW 6.0		N/A	N/A	N/A	N/A
"						SE 5.3		N/A	N/A	N/A	N/A
1/26/2004	H8407	1st 5' lift after clay liner @ 8' N. 1/2	<10	<10	176	3.4	183	N/A	N/A	N/A	N/A
"						2.9		N/A	N/A	N/A	N/A
"						2.7		N/A	N/A	N/A	N/A
"						2.2		N/A	N/A	N/A	N/A
"						2.3		N/A	N/A	N/A	N/A
1/12/2004	H8347	N 1/2 4th 5' lift	<10	<10	128	NE 3.3	126	N/A	N/A	N/A	N/A
"						NW 6.9		N/A	N/A	N/A	N/A
"						Center 3.6		N/A	N/A	N/A	N/A
"						SE 4.8		N/A	N/A	N/A	N/A
"						SW 2.0		N/A	N/A	N/A	N/A
1/6/2004	H8331	S 1/2 4th 5' lift	<10	<10	96	SE 13.8	105	N/A	N/A	N/A	N/A
"						NE 1.4		N/A	N/A	N/A	N/A
"						Center 4.5		N/A	N/A	N/A	N/A
"						NW 3.5		N/A	N/A	N/A	N/A
"						SW 9.3		N/A	N/A	N/A	N/A
12/30/2003	H8307	N. 3rd 5' lift comp	<10	<10	80	SE 5.3	129	N/A	N/A	N/A	N/A
"						NE 5.8		N/A	N/A	N/A	N/A
"						Center 10.3		N/A	N/A	N/A	N/A
"						SW 15.0		N/A	N/A	N/A	N/A
"						NW 3.3		N/A	N/A	N/A	N/A
12/23/2003	H8289	S. 3rd 5' lift by MW #1	<10	<10	80	NW 3.4	101	N/A	N/A	N/A	N/A
"						NE 3.3		N/A	N/A	N/A	N/A
"						Center 10.9		N/A	N/A	N/A	N/A
"						SE 3.6		N/A	N/A	N/A	N/A
"						SW 37.2		N/A	N/A	N/A	N/A
12/17/2003	H8265	S. 2nd 5' lift by MW #1	<10	34.2	96	NE 4.8	156	N/A	N/A	N/A	N/A

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Table 2
Soil Analytical Results

Date	Lab Number	Comment	Lab GRO	Lab DRO	Lab CL	Field PID	Field Cl	Benzene	Toluene	Ethyl Benzene	Total Xylenes
"						NW 5.2		N/A	N/A	N/A	N/A
"						Center 9.3		N/A	N/A	N/A	N/A
"						SE 6.3		N/A	N/A	N/A	N/A
"						SW 3.0		N/A	N/A	N/A	N/A
12/11/2003	H8246	S. 1st 5' lift 4th clay liner	<10	<10	128	3.2	101	N/A	N/A	N/A	N/A
"						3.5		N/A	N/A	N/A	N/A
"						3.8		N/A	N/A	N/A	N/A
"						3.7		N/A	N/A	N/A	N/A
"						1.9		N/A	N/A	N/A	N/A
12/9/2003	H8236	2nd lift 3rd clay liner	<10	<10	176	2.1	82	N/A	N/A	N/A	N/A
12/5/2003	H8230-1	S. wall 2pt comp	<10	<10	144			N/A	N/A	N/A	N/A
"	H8230-2	S. end @ GW @ 36'	<10	<10	80			N/A	N/A	N/A	N/A
"	H8230-3	5pt comp S. end bttm	<10	<10	96			N/A	N/A	N/A	N/A
12/4/2003	H8223-1	E. wall 5pt comp N. 1/2	<10	<10	80	1.1	115	N/A	N/A	N/A	N/A
"						0.5		N/A	N/A	N/A	N/A
"						0.4		N/A	N/A	N/A	N/A
"						0.6		N/A	N/A	N/A	N/A
"						1.3		N/A	N/A	N/A	N/A
12/4/2003	H8223-2	E. wall 5pt comp S. 1/2	<10	<10	112	4.4	95	N/A	N/A	N/A	N/A
"						0.5		N/A	N/A	N/A	N/A
"						1.1		N/A	N/A	N/A	N/A
"						0.5		N/A	N/A	N/A	N/A
"						1.3		N/A	N/A	N/A	N/A
12/2/2003	H8214	5pt comp 3rd liner 1st 5' lilft	<10	<10	160	34.5	180	N/A	N/A	N/A	N/A
11/21/2003	H8202-1	4pt comp @ GW 36'	<10	<10	112	1.7	105	N/A	N/A	N/A	N/A
"	H8202-2	5pt base comp @ 30'	<10	<10	144	1.8	177	N/A	N/A	N/A	N/A
11/6/2003	*H8148*	*GW backfill S. end*	<10	<10	96			N/A	N/A	N/A	N/A
10/31/2003	H8133-1	S. wall comp E. end	<10	<10	32	2.5	110	N/A	N/A	N/A	N/A
"	H8133-2	S. wall comp W. end	<10	<10	16	2.6	105	N/A	N/A	N/A	N/A
10/30/2003	H8129	S. @ GW 36'	<10	<10	48	6.1	203.44	N/A	N/A	N/A	N/A
10/24/2003	H8113	Water table backfill	<10	<10	160	0.2		N/A	N/A	N/A	N/A
10/21/2003	H8102-1	7pt comp @ GW 36'	<10	28.8	80			<0.005	<0.005	<0.005	<0.015

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Table 2
Soil Analytical Results

Date	Lab Number	Comment	Lab GRO	Lab DRO	Lab CL	Field PID	Field Cl	Benzene	Toluene	Ethyl Benzene	Total Xylenes
"	H8102-2	W. wall S. 1/2 5pt comp	<10	16.7	96			<0.005	<0.005	<0.005	<0.015
"	H8102-3	W. wall N. 1/2 5pt comp	<10	<10	64			<0.005	<0.005	<0.005	<0.015
10/1/2003	H8053-1	Btm #1	<10	<10	64	1.3	200	<0.005	<0.005	<0.005	<0.015
"	H8053-2	Btm #2	<10	<10	64	1	234	<0.005	<0.005	<0.005	<0.015
"	H8053-3	Btm #3	<10	<10	253	2.5	366	<0.005	<0.005	<0.005	<0.015
"	H8053-4	Btm #4	<10	<10	448	2.3	680	<0.005	<0.005	<0.005	<0.015
"	H8053-5	Btm #5	<10	<10	112	0.7	231	<0.005	<0.005	<0.005	<0.015
	Lab ID	ELOT									
11/26/2003	0308006-01	N. wall E. 1/2 comp	<10	<10	<20			N/A	N/A	N/A	N/A
"	0308006-02	N. wall W. 1/2 comp	<10	<10	21.3			N/A	N/A	N/A	N/A
10/6/2003	0307653-01	1st lift #1	<10	26.4	35.4	1.3	185.55	N/A	N/A	N/A	N/A
"	0307653-02	1st lift #2	<10	<10	53.2	2	147.46	N/A	N/A	N/A	N/A
"	0307653-03	1st lift #3	<10	<10	35.4	0.7	360.89	N/A	N/A	N/A	N/A
"	0307653-04	1st lift #4	<10	12.1	35.4	1.5	153.76	N/A	N/A	N/A	N/A
"	0307653-05	1st lift #5	<10	18.9	35.4	1.7	154.46	N/A	N/A	N/A	N/A
"	0307653-06	W. wall bttm #6	<10	11.6	106	18.1	176.45	N/A	N/A	N/A	N/A
"	0307653-07	W. wall bttm #7	<10	<10	<20	1.6	162.35	N/A	N/A	N/A	N/A
"	0307653-08	W. wall bttm #8	<10	<10	<20	6.6	114.96	N/A	N/A	N/A	N/A
"	0307653-09	W. wall bttm #9	71.4	401	1770	96	2044.36	N/A	N/A	N/A	N/A

ARCADIS

TABLE 3
GROUNDWATER ANALYTICAL RESULTS

Well Name	MW-1								MW-2		MW-3							MW-4							McNeil Well						B-3	B-4
Date Sampled	1/16/99	7/7/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	1/16/99	7/7/99	1/16/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	9/2/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	10/21/98	10/21/98
Compound Name	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L	(mg/L)	(mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
VOCs																																
Benzene	0.008	0.262	ND	ND	ND	ND	ND	ND	0.017	0.289	ND	ND	J[0.00067	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.2	0.618
Bromobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-butylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-butylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-butylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorodibromomethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-dichloroethene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
[illegible]ichloropropane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
[illegible]ichloropropane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	0.032	0.286	ND	ND	ND	ND	ND	ND	0.007	0.061	ND	ND	J[0.00041	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31	0.182
Hexachlorobutadiene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-isopropytoluene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-propylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ND	0.01	ND	ND	ND	ND	ND	ND	ND	<0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.050	0.331
1,2,3-Trichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	0.007	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes, total	0.012	0.131	ND	ND	ND	ND	ND	ND	0.012	0.008	ND	ND	J(0.00099	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.78	0.226
Acetone	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl acetate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3
GROUNDWATER ANALYTICAL RESULTS

Well Name	MW-1								MW-2		MW-3							MW-4							McNeil Well						B-3	B-4
Date Sampled	1/16/99	7/7/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	1/16/99	7/7/99	1/16/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	9/2/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	10/21/98	10/21/98
Compound Name	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L	(mg/L)	(mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
1,2-Dichloroethene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloethylvinylether	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-dichloropropene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs																																
Acenaphthene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenylphenyl	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butybenzylphthalate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
di-n-butyl phthalate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-chloroethyl)ether	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4[redacted]trophenylphenyl	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C[redacted]ne	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopehtadi	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

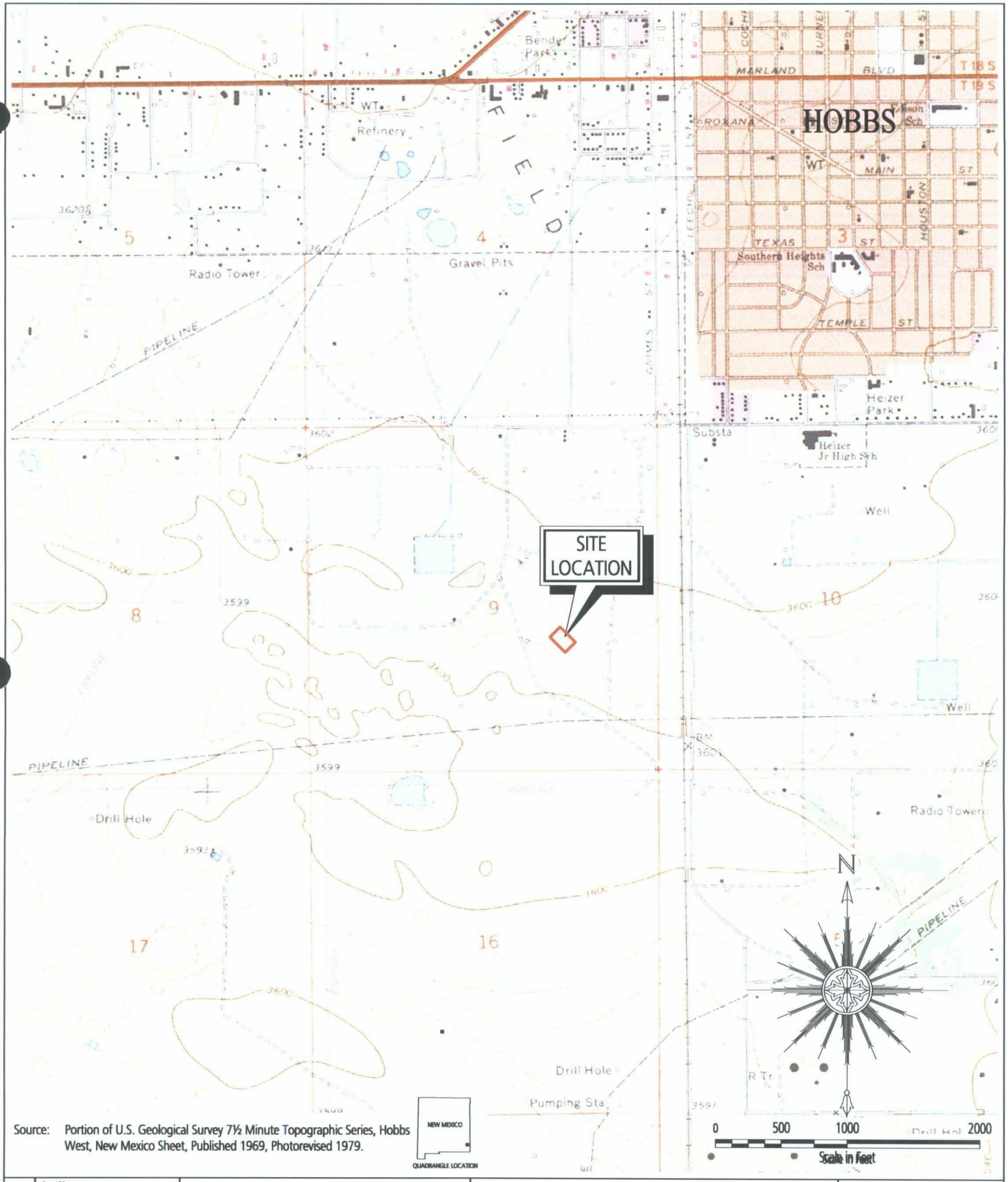
TABLE 3
GROUNDWATER ANALYTICAL RESULTS

Well Name	MW-1								MW-2		MW-3							MW-4							McNeil Well						B-3	B-4
Date Sampled	1/16/99	7/7/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	1/16/99	7/7/99	1/16/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	9/2/99	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	3/2/04	9/2/04	12/20/04	3/21/05	6/28/05	9/2/05	10/21/98	10/21/98
Compound Name	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L	(mg/L)	(mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
4-Nitroaniline	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-nitroso-di-n-	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gasoline Range C6-	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Diesel Range >C12-	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
TPH C6-C35	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
General Chemistry																																
Resistivity	0.74	NA	NA	NA	NA	NA	NA	NA	0.58	NA	0.53	NA	NA	NA	NA	NA	NA	0.0009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Specific Gravity	0.982	NA	NA	NA	NA	NA	NA	NA	0.985	NA	0.996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	128	NA	195	186	70.9	128	145	73	230	NA	195	319	142	160	131	148	146	100	164	160	142	154	129	129	81.5	93.1	93.1	84.6	89.3	76.8	230	2400
Carbonate ($CaCO_3$)	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Bicarbonate ($CaCO_3$)	332	NA	478	NA	NA	NA	NA	NA	322	NA	370	380	NA	NA	NA	NA	NA	220	264	NA	NA	NA	NA	NA	185	NA	NA	NA	NA	NA	NA	NA
Hydroxide Alkalinity	NA	NA	ND	NA	NA	NA	393	416	NA	NA	NA	ND	NA	NA	NA	372	354	NA	ND	NA	NA	NA	348	355	ND	NA	NA	NA	192	192	NA	NA
pH	7.29	NA	7.22	NA	NA	NA	NA	NA	7.51	NA	7.51	6.99	NA	NA	NA	NA	NA	NA	7.03	NA	NA	NA	NA	NA	7.52	NA	NA	NA	NA	NA	NA	NA
Sulfate	318	NA	440	NA	NA	NA	516	309	372	NA	483	499	NA	NA	NA	344	321	180	367	NA	NA	NA	290	239	69.2	NA	NA	NA	67.4	47.3	NA	NA
Total Dissolved Solids	890	NA	1720	NA	NA	NA	1310	1160	1190	NA	1340	1320	NA	NA	NA	1170	1260	770	1040	NA	NA	NA	991	1050	468	NA	NA	NA	467	502	1710	5460
Calcium	727	NA	72.8	NA	NA	NA	94.9	121	578	NA	1255	94.4	NA	NA	NA	70.9	129	93	100	NA	NA	NA	141	138	25.9	NA	NA	NA	24.5	28.9	NA	NA
Potassium	3	NA	4.45	NA	NA	NA	5.23	3.48	30	NA	8	2.7	NA	NA	NA	3.66	2.70	2.4	1.85	NA	NA	NA	2.78	2.18	2.95	NA	NA	NA	3.92	3.34	NA	NA
Sodium	144	NA	244	NA	NA	NA	213	131	171	NA	310	200	NA	NA	NA	263	301	124	129	NA	NA	NA	157	148	104	NA	NA	NA	115	136	NA	NA
Specific Conductance	NA	NA	1870	NA	NA	NA	NA	NA	NA	NA	NA	1740	NA	NA	NA	NA	NA	NA	1380	NA	NA	NA	NA	NA	724	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	NA	1.57	NA	NA	NA	NA	NA	NA	NA	NA	1.91	NA	NA	NA	NA	NA	NA	1.89	NA	NA	NA	NA	NA	1.03	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	NA	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	0.2	NA	NA	NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA
Metals																																
Aluminum	12.3	NA	7	NA	0.220	0.295	0.611	1.20	16.5	NA	32.7	15.7	NA	0.263	3.83	0.730	6.16	3.1	1.14	NA	0.588	0.675	0.489	1.03	0.0491	NA	ND	0.0208	0.0547	0.0832	NA	NA
Arsenic	0.019	NA	ND	0.0213	0.0117	0.0160	ND	0.0251	0.025	NA	0.028	0.0127	0.0413	0.0190	0.0245	0.0265	0.0291	0.03	ND	ND	0.0134	0.0166	ND	0.0105	0.0467	0.0622	0.0645	0.645	0.0593	0.0741	NA	NA
Barium	0.87	NA	0.446	0.903	0.101	0.0736	0.0834	0.106	0.97	NA	3.91	1.87	4.35	0.0442	0.359	0.112	0.595	0.11	0.0932	0.128	0.101	0.0662	0.0809	0.0995	0.0543	0.0587	0.0560	0.0539	0.0576	0.0627	NA	NA
Boron	NA	NA	1.38	NA	0.891	1.02	1.05	0.934	NA	NA	NA	0.999	NA	1.29	1.17	1.02	1.05	NA	0.592	NA	0.740	0.869	0.684	0.765	0.127	NA	0.162	0.105	0.148	0.170	NA	NA
Cadmium	ND	NA	ND	0.0024	ND	0.00170	0.00140	0.00120	ND	NA	ND	ND	0.0031	ND	0.00530	ND	0.00200	ND	0.0134	ND	0.00150	0.00310	0.00150	0.00130	ND	0.0011	0.00100	0.00120	0.00130	ND	NA	NA
Cobalt	ND	NA	J[0.0008]	NA	0.00540	0.00440	0.0309	0.0128	ND	NA	ND	0.0047	NA	0.00880	ND	ND	0.00570	ND	ND	NA	0.00470	ND	0.00240	ND	ND	NA	ND	ND	ND	J[0.000900]	NA	NA
Chromium	ND	NA	J[0.0024]	0.0193	ND	ND	ND	ND	0.02	NA	0.03	0.0139	0.0484	ND	ND	ND	0.00520	ND	ND	ND	ND	ND	ND	ND	ND	J[0.00350	ND	ND	ND	ND	NA	NA
Copper	0.02	NA	0.0044	0.0538	0.0104	0.0725	0.00910	0.0187	0.02	NA	0.02	ND	0.0183	0.00700	J[0.00170]	ND	0.0126	0.03	ND	0.0084	0.00680	ND	0.00230	0.00840	ND	0.0117	0.00820	ND	0.00320	ND	NA	NA
Iron	9.34	NA	5.58	9.72	0.361	0.326	1.41	1.56	11.6	NA	26.4	13.8	25.4	0.451	2.86	0.353	5.03	2.4	1.06	1.53	0.375	0.439	0.219	0.679	0.0609	0.0485	0.00740	0.0234	0.0156	J[0.00110]	NA	NA
Lead	0.005	NA	ND	ND	ND	ND	ND	ND	0.007	NA	0.013	ND	ND	ND	ND	ND	ND	0.008	ND	ND	ND	ND	ND	J[0.0107]	ND	ND	ND	J[0.00690	ND	ND	NA	NA
Mercury	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	NA	ND	0.00112	ND	ND	ND	NA	NA	ND	0.00112	ND	0.00202	NA	NA	ND	ND	NA	NA
Magnesium	NA	NA	28.1	NA	NA	NA	38.1	39.7	NA	NA	NA	38.8	NA	NA	NA	27.5	30.4	NA	31.2	NA	NA	NA	33.4	34.8	3.93	NA	NA	NA	3.48	4.91	NA	NA
Manganese	0.214	NA	0.0741	0.234	0.0361	NA	0.312	0.172	0.288	NA	0.535	0.458	0.775	0.0669	NA	0.131	0.222	0.03	0.0524	0.0642	0.0866	NA	0.0399	0.0662	0.0221	0.0181	0.00110	NA	ND	0.00470	NA	NA
Molybdenum	ND	NA	ND	NA	0.00300	ND	ND	0.00240	ND	NA	0.03	ND	NA	0.00280	ND	ND	0.00530	0.02	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	J[0.00180]	NA	NA
Nickel	0.02	NA	ND	NA	0.0210	J[0.00540]	0.0134	0.0204	ND	NA	0.05	ND	NA	0.0420	ND	ND	0.0136	0.1	ND	NA	0.0141	ND	ND	0.00600	ND	NA	0.0450	ND	ND	J[0.00140]	NA	NA
Selenium	ND	NA	ND	ND	ND	ND	ND	0.00560	ND	NA	ND	ND	ND	0.0338	0.0174	0.0450	0.0175	0.02	ND	ND	ND	ND	0.0118	0.0132	ND	ND	ND	ND	ND	ND	NA	NA
Silver	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	J[0.00240	ND	ND	NA	NA
Zinc	0.05	NA	0.098	0.0533	0.00390	0.0141	0.0137	0.0414	0.04	NA	0.04	0.0342	0.186	0.00450	0.00990	0.00470	0.0383	0.04	0.0863	0.0547	0.0318	0.00330	0.0299	0.0324	0.0331	0.0857	0.0270	0.0249	0.0267	0.0280	NA	NA

All results are reported in milligrams per liter (mg/L)

NA - Not analyzed

ND - Analyte Not detected at or above the reporting limit.



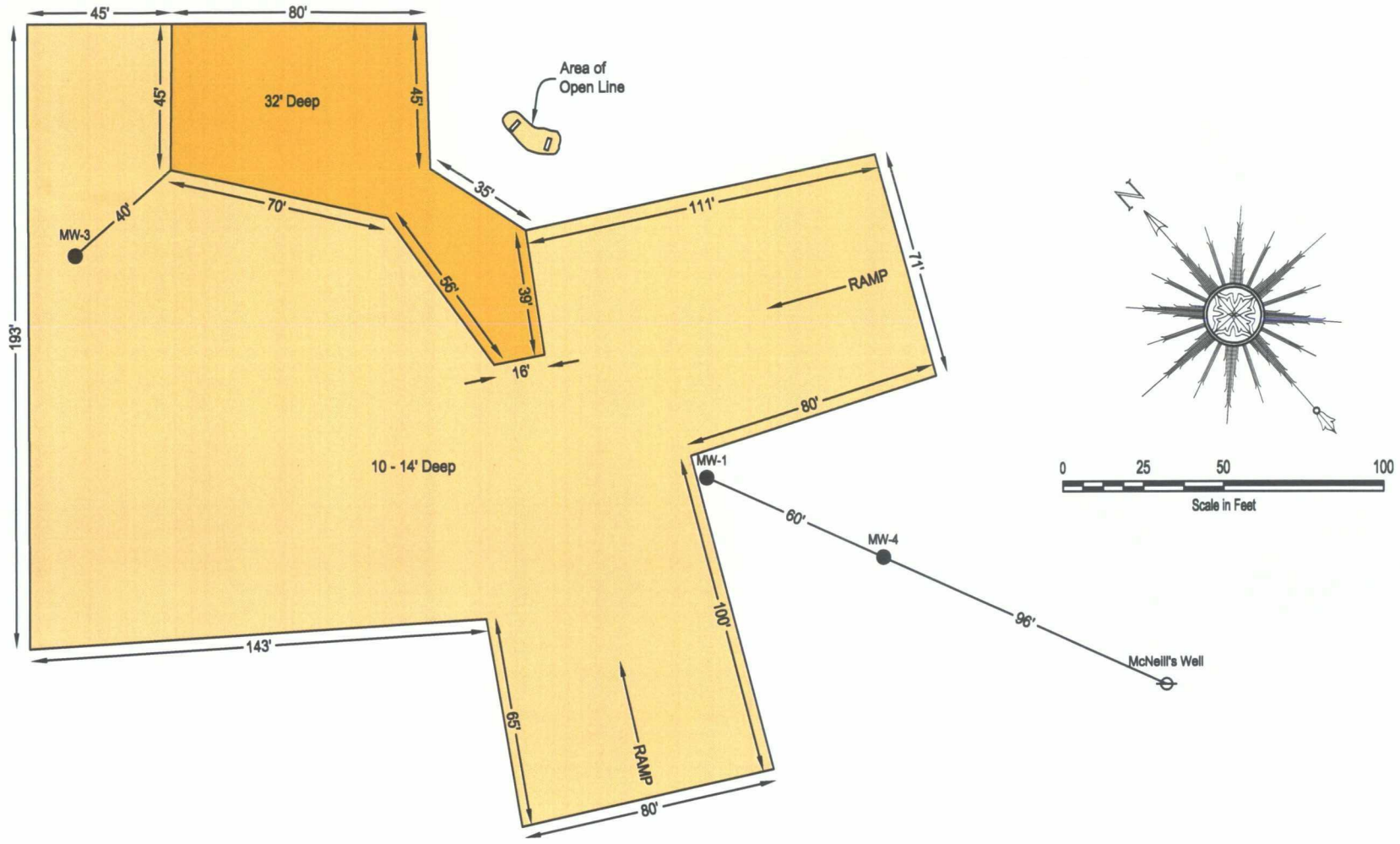
Source: Portion of U.S. Geological Survey 7½ Minute Topographic Series, Hobbs West, New Mexico Sheet, Published 1969, Photorevised 1979.

NEW MEXICO
QUADRANGLE LOCATION

Area Manager: A. Schmidt Project Manager: S. Hall Task Manager: K. Lowrie Technical Review: D. Gann	ARCADIS 1004 North Big Spring Street Suite 300 Midland, TX 79701-3383 Tel: 432-687-5400 Fax: 432-687-5401 www.arcadis-us.com	Rice Operating Company Junction I-9 2005 Annual Report Site Location Map Lea County, New Mexico	Project Number: MT000643.0001 Drawing Date: 29 August 2005 Figure: 1

31-014-00740

8/30/05 09:06 HCLARK G:\AUTOCAD\DWG\RICE OPERATING\MT000643.0001\MT643110.DWG



● EXISTING MONITOR WELL LOCATIONS

Source: Compiled from field sketch with measurements provided by client. All distances are approximate. Arcadis Geraghty & Miller does not warrant the accuracy of this sketch.

SITE LOCATION

Area Manager	A. Schmidt
Project Manager	S. Hall
Task Manager	K. Lowrie
Technical Review	K. Lowrie

ARCADIS
1004 North Big Spring Street
Suite 300
Midland, TX 79701-3383
Tel: 432-687-5400 Fax: 432-687-5401
www.arcadis-us.com

Rice Operating Company
Junction I-9 2005 Annual Report

Extent and Depth of Excavation and Monitor Well Locations

Lea County, New Mexico

Project Number	MT000643.0001
Drawing Date	29 August 2005
Figure	2

ARCADIS

Appendix A

Stage 2 Abatement Report Approval

Hall, Sharon E.

From: Price, Wayne [WPrice@state.nm.us]
Sent: Tuesday, August 17, 2004 4:00 PM
To: Carolyn Doran Haynes (E-mail)
Cc: Hall, Sharon E.; Sheeley, Paul; Johnson, Larry
Subject: Rice I-9 AP#8

The OCD is in receipt of the Stage 2 letter and Abatement Report dated July 14, 2004. OCD hereby approves of the closure activities of the excavated area. In addition, OCD approves of the long term groundwater monitoring plan. Please submit an annual report due on October 15 of each year. The report will follow the same outline as the Stage 2 Abatement report. Please plot constituents of concern and include conclusions and recommendations.

Please be advised that NMOCD approval of this plan does not relieve (Rice Operating Company) of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Rice Operating Company) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

ARCADIS

Appendix B

Groundwater Analytical Results
December 2004-September 2005

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Sharon Hall

ARCADIS

1004 N. Big Spring Street

Midland, TX 79701

Project: I-9 SWD

Project Number: I-9 SWD

Location: Rice Operating/ Hobbs

Lab Order Number: 4L22009

Report Date: 01/03/05

ARCADIS	Project: I-9 SWD	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: I-9 SWD	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	01/03/05 17:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4	4L22009-01	Water	12/20/04 13:30	12/21/04 18:00
MW-1	4L22009-02	Water	12/20/04 14:35	12/21/04 18:00
MW-3	4L22009-03	Water	12/20/04 15:30	12/21/04 18:00
McNeill Well	4L22009-04	Water	12/20/04 16:30	12/21/04 18:00
Trip Blank	4L22009-05	Water	12/20/04 00:00	12/21/04 18:00

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (4L22009-01) Water									
Benzene	ND	0.00100	mg/L	1	EL43006	12/29/04	12/29/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.7 %*	*80-120*		"	"	"	"	
MW-1 (4L22009-02) Water									
Benzene	ND	0.00100	mg/L	1	EL43006	12/29/04	12/29/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*80-120*		"	"	"	"	
MW-3 (4L22009-03) Water									
Benzene	ND	0.00100	mg/L	1	EL43006	12/29/04	12/29/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.1 %*	*80-120*		"	"	"	"	
McNeill Well (4L22009-04) Water									
Benzene	ND	0.00100	mg/L	1	EL43007	12/29/04	12/30/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*101 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.4 %*	*80-120*		"	"	"	"	

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ARCADIS	Project: I-9 SWD	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: I-9 SWD	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	01/03/05 17:49

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (4L22009-05) Water									
Benzene	ND	0.00100	mg/L	1	EL43007	12/29/04	12/30/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.1 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.7 %*	*80-120*		"	"	"	"	

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1004 N. Big Spring Street	Project Number: I-9 SWD	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	01/03/05 17:49

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (4L22009-01) Water									
Chloride	**142**	5.00	mg/L	1	EL42908	12/29/04	12/29/04	EPA 325.3M	
MW-1 (4L22009-02) Water									
Chloride	**70.9**	5.00	mg/L	1	EL42908	12/29/04	12/29/04	EPA 325.3M	
MW-3 (4L22009-03) Water									
Chloride	**160**	5.00	mg/L	1	EL42908	12/29/04	12/29/04	EPA 325.3M	
McNeill Well (4L22009-04) Water									
Chloride	**93.1**	5.00	mg/L	1	EL42908	12/29/04	12/29/04	EPA 325.3M	

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Midland TX, 79701	Project Manager: Sharon Hall	01/03/05 17:49

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (4L22009-01) Water									
Aluminum	**0.588**	0.0150	mg/L	1	EL43003	12/28/04	12/30/04	EPA 6010B	
Arsenic	**0.0134**	0.00800	"	"	"	"	"	"	
Barium	**0.101**	0.00100	"	"	"	"	"	"	
Boron	**0.740**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00150**	0.00100	"	"	"	"	"	"	
Chromium	**ND**	0.00500	"	"	"	"	"	"	
Cobalt	**0.00470**	0.00200	"	"	"	"	"	"	
Copper	**0.00680**	0.00200	"	"	"	"	"	"	
Iron	**0.375**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Manganese	**0.0866**	0.00100	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	**0.0141**	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0318**	0.00100	"	"	"	"	"	"	
MW-1 (4L22009-02) Water									
Aluminum	**0.220**	0.0150	mg/L	1	EL43003	12/28/04	12/30/04	EPA 6010B	
Arsenic	**0.0117**	0.00800	"	"	"	"	"	"	
Barium	**0.101**	0.00100	"	"	"	"	"	"	
Boron	**0.891**	0.00500	"	"	"	"	"	"	
Cadmium	**ND**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.00540**	0.00200	"	"	"	"	"	"	
Copper	**0.0104**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**0.361**	0.00200	"	"	"	"	"	"	
Manganese	**0.0361**	0.00100	"	"	"	"	"	"	
Molybdenum	**0.00300**	0.00200	"	"	"	"	"	"	
Nickel	**0.0210**	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.00390**	0.00100	"	"	"	"	"	"	

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Total Metals by EPA / Standard Methods

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (4L22009-03) Water									
Aluminum	**0.263**	0.0150	mg/L	1	EL43003	12/28/04	12/30/04	EPA 6010B	
Arsenic	**0.0190**	0.00800	"	"	"	"	"	"	
Barium	**0.0442**	0.00100	"	"	"	"	"	"	
Boron	**1.29**	0.00500	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.00880**	0.00200	"	"	"	"	"	"	
Copper	**0.00700**	0.00200	"	"	"	"	"	"	
Iron	**0.451**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Manganese	**0.0669**	0.00100	"	"	"	"	"	"	
Molybdenum	**0.00280**	0.00200	"	"	"	"	"	"	
Nickel	**0.0420**	0.00600	"	"	"	"	"	"	
Selenium	**0.0338**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.00450**	0.00100	"	"	"	"	"	"	
McNeill Well (4L22009-04) Water									
Aluminum	ND	0.0150	mg/L	1	EL43003	12/28/04	12/30/04	EPA 6010B	
Arsenic	**0.0645**	0.00800	"	"	"	"	"	"	
Barium	**0.0560**	0.00100	"	"	"	"	"	"	
Boron	**0.162**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00100**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	**0.00820**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**0.00740**	0.00200	"	"	"	"	"	"	
Manganese	**0.00110**	0.00100	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	**0.0450**	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0270**	0.00100	"	"	"	"	"	"	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43006 - EPA 5030C (GC)										
Blank (EL43006-BLK1)				Prepared & Analyzed: 12/29/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*100*		*ug/l*	*100*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*91.9*		"	*100*		*91.9*	*80-120*			
LCS (EL43006-BS1)				Prepared & Analyzed: 12/29/04						
Benzene	86.8		ug/l	100		86.8	80-120			
Toluene	85.1		"	100		85.1	80-120			
Ethylbenzene	86.6		"	100		86.6	80-120			
Xylene (p/m)	191		"	200		95.5	80-120			
Xylene (o)	92.9		"	100		92.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.1*		"	*100*		*95.1*	*80-120*			
Calibration Check (EL43006-CCV1)				Prepared & Analyzed: 12/29/04						
Benzene	89.5		ug/l	100		89.5	80-120			
Toluene	89.6		"	100		89.6	80-120			
Ethylbenzene	91.8		"	100		91.8	80-120			
Xylene (p/m)	201		"	200		100	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*115*		"	*100*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.0*		"	*100*		*95.0*	*80-120*			
Matrix Spike (EL43006-MS1)	**Source: 4L22001-05**			Prepared & Analyzed: 12/29/04						
Benzene	90.0		ug/l	100	ND	90.0	80-120			
Toluene	91.6		"	100	ND	91.6	80-120			
Ethylbenzene	91.4		"	100	ND	91.4	80-120			
Xylene (p/m)	201		"	200	ND	100	80-120			
Xylene (o)	95.8		"	100	ND	95.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*118*		"	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*102*		"	*100*		*102*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43006 - EPA 5030C (GC)										
Matrix Spike Dup (EL43006-MSD1)	**Source: 4L22001-05**			Prepared & Analyzed: 12/29/04						
Benzene	93.0		ug/l	100	ND	93.0	80-120	3.28	20	
Toluene	94.6		"	100	ND	94.6	80-120	3.22	20	
Ethylbenzene	92.4		"	100	ND	92.4	80-120	1.09	20	
Xylene (p/m)	201		"	200	ND	100	80-120	0.00	20	
Xylene (o)	95.6		"	100	ND	95.6	80-120	0.209	20	
Surrogate: a,a,a-Trifluorotoluene	*118*		"	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*102*		"	*100*		*102*	*80-120*			
Batch EL43007 - EPA 5030C (GC)										
Blank (EL43007-BLK1)				Prepared: 12/29/04 Analyzed: 12/30/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*90.9*		*ug/l*	*100*		*90.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*80.2*		"	*100*		*80.2*	*80-120*			
LCS (EL43007-BS1)				Prepared: 12/29/04 Analyzed: 12/30/04						
Benzene	87.9		ug/l	100		87.9	80-120			
Toluene	88.5		"	100		88.5	80-120			
Ethylbenzene	97.5		"	100		97.5	80-120			
Xylene (p/m)	219		"	200		110	80-120			
Xylene (o)	111		"	100		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	*109*		"	*100*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*119*		"	*100*		*119*	*80-120*			

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Organics by GC - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43007 - EPA 5030C (GC)										
Calibration Check (EL43007-CCV1)				Prepared: 12/29/04 Analyzed: 12/30/04						
Benzene	87.8		ug/l	100		87.8	80-120			
Toluene	89.0		"	100		89.0	80-120			
Ethylbenzene	95.3		"	100		95.3	80-120			
Xylene (p/m)	213		"	200		106	80-120			
Xylene (o)	104		"	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*113*		"	*100*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*116*		"	*100*		*116*	*80-120*			
Matrix Spike (EL43007-MS1)		**Source: 4L22009-05**		Prepared: 12/29/04 Analyzed: 12/30/04						
Benzene	88.6		ug/l	100	ND	88.6	80-120			
Toluene	85.4		"	100	ND	85.4	80-120			
Ethylbenzene	87.9		"	100	ND	87.9	80-120			
Xylene (p/m)	186		"	200	ND	93.0	80-120			
Xylene (o)	94.2		"	100	ND	94.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*107*		"	*100*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*119*		"	*100*		*119*	*80-120*			
Matrix Spike Dup (EL43007-MSD1)		**Source: 4L22009-05**		Prepared: 12/29/04 Analyzed: 12/30/04						
Benzene	92.9		ug/l	100	ND	92.9	80-120	4.74	20	
Toluene	86.0		"	100	ND	86.0	80-120	0.700	20	
Ethylbenzene	87.2		"	100	ND	87.2	80-120	0.800	20	
Xylene (p/m)	164		"	200	ND	82.0	80-120	12.6	20	
Xylene (o)	86.7		"	100	ND	86.7	80-120	8.29	20	
Surrogate: a,a,a-Trifluorotoluene	*112*		"	*100*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		"	*100*		*117*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL42908 - General Preparation (WetChem)										
Blank (EL42908-BLK1)				Prepared & Analyzed: 12/29/04						
Chloride	ND	5.00	mg/L							
Matrix Spike (EL42908-MS1)	**Source: 4L21010-01**			Prepared & Analyzed: 12/29/04						
Chloride	390	5.00	mg/L	250	155	94.0	80-120			
Matrix Spike Dup (EL42908-MSD1)	**Source: 4L21010-01**			Prepared & Analyzed: 12/29/04						
Chloride	394	5.00	mg/L	250	155	95.6	80-120	1.02	20	
Reference (EL42908-SRM1)				Prepared & Analyzed: 12/29/04						
Chloride	4960		mg/L	5000		99.2	80-120			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL42202 - EPA 3005A										
Blank (EL42202-BLK1)				Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	ND	0.00100	mg/L							
LCS (EL42202-BS1)				Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	0.220	0.00100	mg/L	0.200		110	85-115			
LCS Dup (EL42202-BSD1)				Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	0.219	0.00100	mg/L	0.200		110	85-115	0.456	20	
Calibration Check (EL42202-CCV1)				Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	1.04		mg/L	1.00		104	90-110			
Matrix Spike (EL42202-MS1)		Source: 4L22009-01RE1		Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	1.85	0.00100	mg/L	0.200	1.64	105	75-125			
Matrix Spike Dup (EL42202-MSD1)		Source: 4L22009-01RE1		Prepared: 12/28/04 Analyzed: 12/29/04						
Strontium	1.81	0.00100	mg/L	0.200	1.64	85.0	75-125	2.19	20	
Batch EL43003 - EPA 3005A										
Blank (EL43003-BLK1)				Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	ND	0.0150	mg/L							
Arsenic	ND	0.00800	"							
Barium	ND	0.00100	"							
Boron	ND	0.00500	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00500	"							
Cobalt	ND	0.00200	"							
Copper	ND	0.00200	"							
Iron	ND	0.00200	"							
Lead	ND	0.0110	"							
Manganese	ND	0.00100	"							
Molybdenum	ND	0.00200	"							
Nickel	ND	0.00600	"							
Selenium	ND	0.00400	"							
Silver	ND	0.00500	"							
Zinc	ND	0.00100	"							

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43003 - EPA 3005A										
LCS (EL43003-BS1)				Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	1.53	0.0150	mg/L	1.50		102	85-115			
Arsenic	0.854	0.00800	"	0.800		107	85-115			
Barium	0.218	0.00100	"	0.200		109	85-115			
Boron	0.553	0.00500	"	0.500		111	85-115			
Cadmium	0.215	0.00100	"	0.200		108	85-115			
Chromium	0.219	0.00500	"	0.200		110	85-115			
Cobalt	0.230	0.00200	"	0.200		115	85-115			
Copper	0.205	0.00200	"	0.200		102	85-115			
Iron	0.208	0.00200	"	0.200		104	85-115			
Lead	1.15	0.0110	"	1.10		105	85-115			
Manganese	0.215	0.00100	"	0.200		108	85-115			
Molybdenum	0.207	0.00200	"	0.200		104	85-115			
Nickel	0.646	0.00600	"	0.600		108	85-115			
Selenium	0.420	0.00400	"	0.400		105	85-115			
Silver	0.107	0.00500	"	0.100		107	85-115			
Zinc	0.224	0.00100	"	0.200		112	85-115			
LCS Dup (EL43003-BSD1)				Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	1.54	0.0150	mg/L	1.50		103	85-115	0.651	20	
Arsenic	0.847	0.00800	"	0.800		106	85-115	0.823	20	
Barium	0.218	0.00100	"	0.200		109	85-115	0.00	20	
Boron	0.553	0.00500	"	0.500		111	85-115	0.00	20	
Cadmium	0.212	0.00100	"	0.200		106	85-115	1.41	20	
Chromium	0.215	0.00500	"	0.200		108	85-115	1.84	20	
Cobalt	0.226	0.00200	"	0.200		113	85-115	1.75	20	
Copper	0.203	0.00200	"	0.200		102	85-115	0.980	20	
Iron	0.208	0.00200	"	0.200		104	85-115	0.00	20	
Lead	1.14	0.0110	"	1.10		104	85-115	0.873	20	
Manganese	0.215	0.00100	"	0.200		108	85-115	0.00	20	
Molybdenum	0.205	0.00200	"	0.200		102	85-115	0.971	20	
Nickel	0.681	0.00600	"	0.600		114	85-115	5.28	20	
Selenium	0.417	0.00400	"	0.400		104	85-115	0.717	20	
Silver	0.0932	0.00500	"	0.100		93.2	85-115	13.8	20	
Zinc	0.222	0.00100	"	0.200		111	85-115	0.897	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43003 - EPA 3005A										
Calibration Check (EL43003-CCV1)				Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	0.977		mg/L	1.00		97.7	90-110			
Arsenic	1.04		"	1.00		104	90-110			
Barium	1.02		"	1.00		102	90-110			
Boron	0.952		"	1.00		95.2	90-110			
Cadmium	1.00		"	1.00		100	90-110			
Chromium	1.01		"	1.00		101	90-110			
Cobalt	1.02		"	1.00		102	90-110			
Copper	0.983		"	1.00		98.3	90-110			
Lead	0.948		"	1.00		94.8	90-110			
Iron	0.982		"	1.00		98.2	90-110			
Manganese	0.972		"	1.00		97.2	90-110			
Molybdenum	0.980		"	1.00		98.0	90-110			
Nickel	1.07		"	1.00		107	90-110			
Selenium	0.997		"	1.00		99.7	90-110			
Silver	0.476		"	0.500		95.2	90-110			
Zinc	1.03		"	1.00		103	90-110			
Matrix Spike (EL43003-MS1)		**Source: 4L22009-01**		Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	1.96	0.0150	mg/L	1.50	0.588	91.5	75-125			
Arsenic	0.872	0.00800	"	0.800	0.0134	107	75-125			
Barium	0.318	0.00100	"	0.200	0.101	108	75-125			
Boron	1.14	0.00500	"	0.500	0.740	80.0	75-125			
Cadmium	0.198	0.00100	"	0.200	0.00150	98.2	75-125			
Chromium	0.206	0.00500	"	0.200	ND	103	75-125			
Cobalt	0.203	0.00200	"	0.200	0.00470	99.2	75-125			
Copper	0.234	0.00200	"	0.200	0.00680	114	75-125			
Iron	0.541	0.00200	"	0.200	0.375	83.0	75-125			
Lead	1.11	0.0110	"	1.10	ND	101	75-125			
Manganese	0.285	0.00100	"	0.200	0.0866	99.2	75-125			
Molybdenum	0.202	0.00200	"	0.200	ND	101	75-125			
Nickel	0.685	0.00600	"	0.600	0.0141	112	75-125			
Selenium	0.431	0.00400	"	0.400	ND	108	75-125			
Silver	0.0951	0.00500	"	0.100	ND	95.1	75-125			
Zinc	0.250	0.00100	"	0.200	0.0318	109	75-125			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43003 - EPA 3005A										
Matrix Spike Dup (EL43003-MSD1)	**Source: 4L22009-01**			Prepared: 12/28/04 Analyzed: 12/30/04						
Aluminum	1.99	0.0150	mg/L	1.50	0.588	93.5	75-125	1.52	20	
Arsenic	0.888	0.00800	"	0.800	0.0134	109	75-125	1.82	20	
Barium	0.298	0.00100	"	0.200	0.101	98.5	75-125	6.49	20	
Boron	1.13	0.00500	"	0.500	0.740	78.0	75-125	0.881	20	
Cadmium	0.200	0.00100	"	0.200	0.00150	99.2	75-125	1.01	20	
Chromium	0.207	0.00500	"	0.200	ND	104	75-125	0.484	20	
Cobalt	0.208	0.00200	"	0.200	0.00470	102	75-125	2.43	20	
Copper	0.231	0.00200	"	0.200	0.00680	112	75-125	1.29	20	
Iron	0.529	0.00200	"	0.200	0.375	77.0	75-125	2.24	20	
Lead	1.11	0.0110	"	1.10	ND	101	75-125	0.00	20	
Manganese	0.280	0.00100	"	0.200	0.0866	96.7	75-125	1.77	20	
Molybdenum	0.201	0.00200	"	0.200	ND	100	75-125	0.496	20	
Nickel	0.704	0.00600	"	0.600	0.0141	115	75-125	2.74	20	
Selenium	0.437	0.00400	"	0.400	ND	109	75-125	1.38	20	
Silver	0.0986	0.00500	"	0.100	ND	98.6	75-125	3.61	20	
Zinc	0.249	0.00100	"	0.200	0.0318	109	75-125	0.401	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 1/3/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O.# _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name I-9 SWD

Project Location Rice Operating / Hobbs

Laboratory Environmental Lab of Texas

Project Manager Kristin Farris Pope

Sampler(s)/Affiliation GC/ARCADIS

Sample ID/Location	Matrix	Date/TIME Sampled	Time Lab ID	ANALYSIS / METHOD / SIZE: (2) 40ml VOA BTEX & 218 HCl	(1) 250 ml plastic Chlorides Neat	(1)500 ml plastic WQCC (n) metals as per Guide HNO3				Remarks	Total
mw-4	L	12-20-04	1330	2	1	1				4L22009-01	4
mw-1	"	"	1435	2	1	1				-02	4
mw-3	"	"	1530	2	1	1				-03	4
McNeill Well	"	"	1630	2	1	1				-04	4
Trip Blank	L	12-20-04	—	2						-05	2

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 16 18

Relinquished by: [signature] SS6-34112	Organization: ARCADIS	Date 12/21/04	Time 1800	Seal Intact? Yes No (N/A)
Received by: Jeanne McMurray	Organization: Env. Lab of TX	Date 12/21/04	Time 1800	
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact? Yes No N/A
Received by: _____	Organization: _____	Date / /	Time _____	

Special Instructions/Remarks: _____

on ice 1.0°c

Delivery Method: ☒ In Person ☐ Common Carrier _____ (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Arcadis

Date/Time: 12-21-04 @ 1800

Order #: 4L22009

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	1.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765

RECEIVED
APR 19 2005
ARCADIS Geraghty & Miller

Analytical Report

Prepared for:

Sharon Hall
ARCADIS
1004 N. Big Spring Street
Midland, TX 79701

Project: MT 000643 0001
Project Number: MT 000643 0001
Location: Jct 1-9 SWD

Lab Order Number: 5C23004

Report Date: 04/07/05

ARCADIS	Project: MT 000643 0001	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: MT 000643 0001	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	04/07/05 16:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
McNiell Well	5C23004-01	Water	03/21/05 15:30	03/22/05 18:30
MW-1	5C23004-02	Water	03/21/05 16:10	03/22/05 18:30
MW-3	5C23004-03	Water	03/21/05 16:50	03/22/05 18:30
MW-4	5C23004-04	Water	03/21/05 17:30	03/22/05 18:30
Blank	5C23004-05	Water	03/21/05 00:00	03/22/05 18:30

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNiell Well (5C23004-01) Water									
Benzene	ND	0.00100	mg/L	1	EC52314	03/23/05	03/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.0 %*	*80-120*		"	"	"	"	
MW-1 (5C23004-02) Water									
Benzene	ND	0.00100	mg/L	1	EC52314	03/23/05	03/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*84.0 %*	*80-120*		"	"	"	"	
MW-3 (5C23004-03) Water									
Benzene	ND	0.00100	mg/L	1	EC52314	03/23/05	03/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.5 %*	*80-120*		"	"	"	"	
MW-4 (5C23004-04) Water									
Benzene	ND	0.00100	mg/L	1	EC52314	03/23/05	03/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*84.5 %*	*80-120*		"	"	"	"	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Blank (5C23004-05) Water									
Benzene	ND	0.00100	mg/L	1	EC52314	03/23/05	03/24/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.0 %*	*80-120*		"	"	"	"	

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNiell Well (5C23004-01) Water									
Chloride	**84.6**	2.50	mg/L	5	EC52513	03/24/05	03/24/05	EPA 300.0	
MW-1 (5C23004-02) Water									
Chloride	**128**	5.00	mg/L	10	EC52513	03/24/05	03/24/05	EPA 300.0	
MW-3 (5C23004-03) Water									
Chloride	**131**	5.00	mg/L	10	EC52513	03/24/05	03/24/05	EPA 300.0	
MW-4 (5C23004-04) Water									
Chloride	**154**	5.00	mg/L	10	EC52513	03/24/05	03/24/05	EPA 300.0	

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNiell Well (5C23004-01) Water									
Aluminum	**0.0208**	0.0150	mg/L	1	EC52512	03/24/05	04/04/05	EPA 6010B	
Arsenic	**0.0645**	0.00800	"	"	"	"	"	"	
Barium	**0.0539**	0.00100	"	"	"	"	"	"	
Boron	**0.105**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00120**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	**J [0.00690]**	0.0110	"	"	"	"	"	"	J
Iron	**0.0234**	0.00200	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	**J [0.00240]**	0.00500	"	"	"	"	"	"	J
Zinc	**0.0249**	0.00100	"	"	"	"	"	"	
[illegible]1 (5C23004-02) Water									
Aluminum	**0.295**	0.0150	mg/L	1	EC52512	03/24/05	04/04/05	EPA 6010B	
Arsenic	**0.0160**	0.00800	"	"	"	"	"	"	
Barium	**0.0736**	0.00100	"	"	"	"	"	"	
Boron	**1.02**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00170**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.00440**	0.00200	"	"	"	"	"	"	
Copper	**0.0725**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**0.326**	0.00200	"	"	"	"	"	"	
Molybdenum	**ND**	0.00200	"	"	"	"	"	"	
Nickel	**J [0.00540]**	0.00600	"	"	"	"	"	"	J
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0141**	0.00100	"	"	"	"	"	"	

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (5C23004-03) Water									
Aluminum	**3.83**	0.0150	mg/L	1	EC52512	03/24/05	04/04/05	EPA 6010B	
Arsenic	**0.0245**	0.00800	"	"	"	"	"	"	
Barium	**0.359**	0.00100	"	"	"	"	"	"	
Boron	**1.17**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00530**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	**J [0.00170]**	0.00200	"	"	"	"	"	"	J
Iron	**2.86**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	**0.0174**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.00990**	0.00100	"	"	"	"	"	"	
[redacted]4 (5C23004-04) Water									
Aluminum	**0.675**	0.0150	mg/L	1	EC52512	03/24/05	04/04/05	EPA 6010B	
Arsenic	**0.0166**	0.00800	"	"	"	"	"	"	
Barium	**0.0662**	0.00100	"	"	"	"	"	"	
Boron	**0.869**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00310**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Iron	**0.439**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.00330**	0.00100	"	"	"	"	"	"	

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52314 - EPA 5030C (GC)										
Blank (EC52314-BLK1)				Prepared & Analyzed: 03/23/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*20.3*		*ug/l*	*20.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*17.7*		"	*20.0*		*88.5*	*80-120*			
LCS (EC52314-BS1)				Prepared & Analyzed: 03/23/05						
Benzene	98.3		ug/l	100		98.3	80-120			
Toluene	103		"	100		103	80-120			
Ethylbenzene	107		"	100		107	80-120			
Xylene (p/m)	220		"	200		110	80-120			
Xylene (o)	108		"	100		108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*21.8*		"	*20.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.3*		"	*20.0*		*91.5*	*80-120*			
Dup (EC52314-BSD1)				Prepared & Analyzed: 03/23/05						
Benzene	98.1		ug/l	100		98.1	80-120	0.204	20	
Toluene	101		"	100		101	80-120	1.96	20	
Ethylbenzene	104		"	100		104	80-120	2.84	20	
Xylene (p/m)	212		"	200		106	80-120	3.70	20	
Xylene (o)	105		"	100		105	80-120	2.82	20	
Surrogate: a,a,a-Trifluorotoluene	*21.7*		"	*20.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*16.5*		"	*20.0*		*82.5*	*80-120*			
Calibration Check (EC52314-CCV1)				Prepared & Analyzed: 03/23/05						
Benzene	99.9		ug/l	100		99.9	80-120			
Toluene	101		"	100		101	80-120			
Ethylbenzene	104		"	100		104	80-120			
Xylene (p/m)	217		"	200		108	80-120			
Xylene (o)	107		"	100		107	80-120			
Surrogate: a,a,a-Trifluorotoluene	*23.1*		"	*20.0*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.2*		"	*20.0*		*91.0*	*80-120*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52314 - EPA 5030C (GC)										
Matrix Spike (EC52314-MS1)		**Source: 5C18010-04**		Prepared & Analyzed: 03/23/05						
Benzene	102		ug/l	100	ND	102	80-120			
Toluene	106		"	100	ND	106	80-120			
Ethylbenzene	112		"	100	ND	112	80-120			
Xylene (p/m)	221		"	200	ND	110	80-120			
Xylene (o)	112		"	100	ND	112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*22.4*		*"*	*20.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.6*		*"*	*20.0*		*113*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52513 - General Preparation (WetChem)										
Blank (EC52513-BLK1)				Prepared & Analyzed: 03/24/05						
Chloride	ND	0.500	mg/L							
Blank (EC52513-BLK2)				Prepared & Analyzed: 03/24/05						
Chloride	ND	0.500	mg/L							
LCS (EC52513-BS1)				Prepared & Analyzed: 03/24/05						
Chloride	10.4		mg/L	10.0		104	80-120			
LCS (EC52513-BS2)				Prepared & Analyzed: 03/24/05						
Chloride	10.5		mg/L	10.0		105	80-120			
Calibration Check (EC52513-CCV1)				Prepared & Analyzed: 03/24/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Calibration Check (EC52513-CCV2)				Prepared & Analyzed: 03/24/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Duplicate (EC52513-DUP1)		**Source: 5C23001-01**		Prepared & Analyzed: 03/24/05						
Chloride	216	5.00	mg/L		215			0.464	20	
Duplicate (EC52513-DUP2)		**Source: 5C23018-07**		Prepared & Analyzed: 03/24/05						
Chloride	1540	12.5	mg/L		1530			0.651	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52512 - EPA 3005A										
Blank (EC52512-BLK1)				Prepared: 03/24/05 Analyzed: 04/04/05						
Aluminum	ND	0.0150	mg/L							
Arsenic	ND	0.00800	"							
Barium	ND	0.00100	"							
Boron	ND	0.00500	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00500	"							
Cobalt	ND	0.00200	"							
Copper	ND	0.00200	"							
Iron	ND	0.00200	"							
Lead	ND	0.0110	"							
Manganese	ND	0.00100	"							
Molybdenum	ND	0.00200	"							
Nickel	ND	0.00600	"							
Selenium	ND	0.00400	"							
Silver	ND	0.00500	"							
Zinc	ND	0.00100	"							
LCS (EC52512-BS1)				Prepared: 03/24/05 Analyzed: 04/04/05						
Aluminum	1.61	0.0150	mg/L	1.50		107	85-115			
Arsenic	0.915	0.00800	"	0.800		114	85-115			
Barium	0.225	0.00100	"	0.200		112	85-115			
Boron	0.562	0.00500	"	0.500		112	85-115			
Cadmium	0.224	0.00100	"	0.200		112	85-115			
Chromium	0.209	0.00500	"	0.200		104	85-115			
Cobalt	0.221	0.00200	"	0.200		110	85-115			
Copper	0.203	0.00200	"	0.200		102	85-115			
Iron	0.206	0.00200	"	0.200		103	85-115			
Lead	1.19	0.0110	"	1.10		108	85-115			
Molybdenum	0.208	0.00200	"	0.200		104	85-115			
Nickel	0.643	0.00600	"	0.600		107	85-115			
Selenium	0.393	0.00400	"	0.400		98.2	85-115			
Silver	0.112	0.00500	"	0.100		112	85-115			
Zinc	0.183	0.00100	"	0.200		91.5	85-115			

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52512 - EPA 3005A										
LCS Dup (EC52512-BSD1)				Prepared: 03/24/05 Analyzed: 04/04/05						
Aluminum	1.53	0.0150	mg/L	1.50		102	85-115	5.10	20	
Arsenic	0.876	0.00800	"	0.800		110	85-115	4.36	20	
Barium	0.216	0.00100	"	0.200		108	85-115	4.08	20	
Boron	0.534	0.00500	"	0.500		107	85-115	5.11	20	
Cadmium	0.215	0.00100	"	0.200		108	85-115	4.10	20	
Chromium	0.205	0.00500	"	0.200		102	85-115	1.93	20	
Cobalt	0.214	0.00200	"	0.200		107	85-115	3.22	20	
Copper	0.191	0.00200	"	0.200		95.5	85-115	6.09	20	
Lead	1.17	0.0110	"	1.10		106	85-115	1.69	20	
Iron	0.197	0.00200	"	0.200		98.5	85-115	4.47	20	
Molybdenum	0.209	0.00200	"	0.200		104	85-115	0.480	20	
Nickel	0.606	0.00600	"	0.600		101	85-115	5.92	20	
Selenium	0.386	0.00400	"	0.400		96.5	85-115	1.80	20	
Silver	0.114	0.00500	"	0.100		114	85-115	1.77	20	
Zinc	0.194	0.00100	"	0.200		97.0	85-115	5.84	20	
Calibration Check (EC52512-CCV1)				Prepared: 03/24/05 Analyzed: 04/04/05						
Aluminum	0.918		mg/L	1.00		91.8	90-110			
Arsenic	0.996		"	1.00		99.6	90-110			
Barium	1.06		"	1.00		106	90-110			
Boron	0.976		"	1.00		97.6	90-110			
Cadmium	1.00		"	1.00		100	90-110			
Chromium	0.965		"	1.00		96.5	90-110			
Cobalt	0.926		"	1.00		92.6	90-110			
Copper	1.00		"	1.00		100	90-110			
Lead	0.968		"	1.00		96.8	90-110			
Iron	1.02		"	1.00		102	90-110			
Molybdenum	0.992		"	1.00		99.2	90-110			
Nickel	0.969		"	1.00		96.9	90-110			
Selenium	0.993		"	1.00		99.3	90-110			
Silver	0.509		"	0.500		102	90-110			
Zinc	1.09		"	1.00		109	90-110			

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52512 - EPA 3005A										
Matrix Spike (EC52512-MS1)	**Source: 5C23004-01**			Prepared: 03/24/05	Analyzed: 04/04/05					
Aluminum	1.47	0.0150	mg/L	1.50	0.0208	96.6	75-125			
Arsenic	0.880	0.00800	"	0.800	0.0645	102	75-125			
Barium	0.222	0.00100	"	0.200	0.0539	84.0	75-125			
Boron	0.546	0.00500	"	0.500	0.105	88.2	75-125			
Cadmium	0.216	0.00100	"	0.200	0.00120	107	75-125			
Chromium	0.193	0.00500	"	0.200	ND	96.5	75-125			
Cobalt	0.212	0.00200	"	0.200	ND	106	75-125			
Copper	0.209	0.00200	"	0.200	ND	104	75-125			
Iron	0.226	0.00200	"	0.200	0.0234	101	75-125			
Lead	1.20	0.0110	"	1.10	0.00690	108	75-125			
Molybdenum	0.209	0.00200	"	0.200	ND	104	75-125			
Nickel	0.642	0.00600	"	0.600	ND	107	75-125			
Selenium	0.358	0.00400	"	0.400	ND	89.5	75-125			
Silver	0.102	0.00500	"	0.100	0.00240	99.6	75-125			
Zinc	0.221	0.00100	"	0.200	0.0249	98.0	75-125			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 4-07-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: ARCADIS

Date/Time: 3/23/05 8:15

Order #: 5C23004

Initials: CH

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

_____

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name MT000643.0001
Project Location JCT I-9 SWD
Laboratory ENVR Labs of Texas
Project Manager Sharon Hall
Sampler(s)/Affiliation Gerald Carrillo

Sample ID/Location	Matrix	Date/Time Sampled	TIME ~~Lab ID~~	2-40 mL VOA BTEX 8021B HCL	1-Liter Plastic Chlorides NEAT	1-500 mL Plastic WQCL (m) metals HNO3				Remarks	Total
McNiell Well	L	3-21-05	1530	2	1	1				SC23004-01	4
mw-1	L		1610	2	1	1					4
mw-3	L		1650	2	1	1					4
mw-4	L		1730	2	1	1					4
Trip Blank	L	—	—	2							2

ANALYSIS / METHOD / SIZE

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers 16

Relinquished by: [signature] Organization: ARCADIS Date 3/22/05 Time 1830
Received by: [signature] Organization: Env Lab of TX Date 3/22/05 Time 1830
Seal Intact? (Yes) No N/A

Relinquished by: _____ Organization: _____ Date / / Time _____
Received by: _____ Organization: _____ Date / / Time _____
Seal Intact? Yes No N/A

Special Instructions/Remarks: 1.5 °C
Seals on containers + cooler
Email Kristin Pope

Delivery Method: ☐ In Person ☐ Common Carrier _____ SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Sharon Hall

ARCADIS

1004 N. Big Spring Street

Midland, TX 79701

Project: MT 000643 0001

Project Number: MT 000643 0001

Location: Rice Operating Junction I-9

Lab Order Number: 5F29012

Report Date: 07/08/05

ARCADIS	Project: MT 000643 0001	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: MT 000643 0001	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	07/08/05 15:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
McNeil Well	5F29012-01	Water	06/28/05 08:30	06/29/05 10:30
MW-1	5F29012-02	Water	06/28/05 10:50	06/29/05 10:30
MW-3	5F29012-03	Water	06/28/05 09:30	06/29/05 10:30
MW-4	5F29012-04	Water	06/28/05 09:35	06/29/05 10:30

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNeil Well (5F29012-01) Water									
Benzene	ND	0.00100	mg/L	1	EG50111	07/01/05	07/01/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.2 %*	*80-120*		"	"	"	"	
MW-1 (5F29012-02) Water									
Benzene	ND	0.00100	mg/L	1	EG50111	07/01/05	07/01/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.6 %*	*80-120*		"	"	"	"	
MW-3 (5F29012-03) Water									
Benzene	ND	0.00100	mg/L	1	EG50111	07/01/05	07/01/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.0 %*	*80-120*		"	"	"	"	
MW-4 (5F29012-04) Water									
Benzene	ND	0.00100	mg/L	1	EG50111	07/01/05	07/01/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.4 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.0 %*	*80-120*		"	"	"	"	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNeil Well (5F29012-01) Water									
Total Alkalinity	**192**	2.00	mg/L	1	EF53015	06/30/05	06/30/05	EPA 310.2M	
Chloride	**89.3**	2.50	"	5	EF53026	06/30/05	06/30/05	EPA 300.0	
Total Dissolved Solids	**467**	5.00	"	1	EF53006	06/30/05	07/01/05	EPA 160.1	
Sulfate	**67.4**	2.50	"	5	EF53026	06/30/05	06/30/05	EPA 300.0	
MW-1 (5F29012-02) Water									
Total Alkalinity	**393**	2.00	mg/L	1	EF53015	06/30/05	06/30/05	EPA 310.2M	
Chloride	**145**	10.0	"	20	EF53026	06/30/05	06/30/05	EPA 300.0	
Total Dissolved Solids	**1310**	5.00	"	1	EF53006	06/30/05	07/01/05	EPA 160.1	
Sulfate	**516**	10.0	"	20	EF53026	06/30/05	06/30/05	EPA 300.0	
MW-3 (5F29012-03) Water									
Total Alkalinity	**372**	2.00	mg/L	1	EF53015	06/30/05	06/30/05	EPA 310.2M	
Chloride	**148**	5.00	"	10	EF53026	06/30/05	06/30/05	EPA 300.0	
Total Dissolved Solids	**1170**	5.00	"	1	EF53006	06/30/05	07/01/05	EPA 160.1	
Sulfate	**344**	5.00	"	10	EF53026	06/30/05	06/30/05	EPA 300.0	
MW-4 (5F29012-04) Water									
Total Alkalinity	**348**	2.00	mg/L	1	EF53015	06/30/05	06/30/05	EPA 310.2M	
Chloride	**129**	5.00	"	10	EF53026	06/30/05	06/30/05	EPA 300.0	
Total Dissolved Solids	**991**	5.00	"	1	EF53006	06/30/05	07/01/05	EPA 160.1	
Sulfate	**290**	5.00	"	10	EF53026	06/30/05	06/30/05	EPA 300.0	

ARCADIS	Project: MT 000643 0001	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: MT 000643 0001	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	07/08/05 15:33

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
McNeil Well (5F29012-01) Water									
Calcium	**24.5**	0.100	mg/L	10	EG50510	07/05/05	07/05/05	EPA 6010B	
Magnesium	**3.48**	0.00100	"	1	"	"	"	"	
Potassium	**3.92**	0.0500	"	"	"	"	"	"	
Sodium	**115**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EG50807	07/08/05	07/08/05	EPA 7470A	
Aluminum	**0.0547**	0.0150	"	1	EG50102	06/30/05	07/01/05	EPA 6010B	
Arsenic	**0.0593**	0.00800	"	"	"	"	"	"	
Barium	**0.0576**	0.00100	"	"	"	"	"	"	
Boron	**0.148**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00130**	0.00100	"	"	"	"	"	"	
Chromium	**ND**	0.00500	"	"	"	"	"	"	
Cobalt	**ND**	0.00200	"	"	"	"	"	"	
Copper	**0.00320**	0.00200	"	"	"	"	"	"	
Iron	**0.0156**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Manganese	ND	0.00100	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	**ND**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0267**	0.00100	"	"	"	"	"	"	
MW-1 (5F29012-02) Water									
Calcium	**94.9**	0.100	mg/L	10	EG50510	07/05/05	07/05/05	EPA 6010B	
Magnesium	**38.1**	0.0100	"	"	"	"	"	"	
Potassium	**5.23**	0.0500	"	1	"	"	"	"	
Sodium	**213**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EG50807	07/08/05	07/08/05	EPA 7470A	
Aluminum	**0.611**	0.0150	"	1	EG50102	06/30/05	07/01/05	EPA 6010B	
Arsenic	ND	0.00800	"	"	"	"	"	"	
Barium	**0.0834**	0.00100	"	"	"	"	"	"	
Boron	**1.05**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00140**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.0309**	0.00200	"	"	"	"	"	"	
Copper	**0.00910**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**1.41**	0.00200	"	"	"	"	"	"	

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Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (5F29012-02) Water									
Manganese	**0.312**	0.00100	mg/L	1	EG50102	06/30/05	07/01/05	EPA 6010B	
Molybdenum	**ND**	0.00200	"	"	"	"	"	"	
Nickel	**0.0134**	0.00600	"	"	"	"	"	"	
Selenium	ND	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0137**	0.00100	"	"	"	"	"	"	
MW-3 (5F29012-03) Water									
Calcium	**70.9**	0.100	mg/L	10	EG50510	07/05/05	07/05/05	EPA 6010B	
Magnesium	**27.5**	0.0100	"	"	"	"	"	"	
Potassium	**3.66**	0.0500	"	1	"	"	"	"	
Sodium	**263**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EG50807	07/08/05	07/08/05	EPA 7470A	
Aluminum	**0.730**	0.0150	"	1	EG50102	06/30/05	07/01/05	EPA 6010B	
Arsenic	**0.0265**	0.00800	"	"	"	"	"	"	
Barium	**0.112**	0.00100	"	"	"	"	"	"	
Iron	**1.02**	0.00500	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**0.353**	0.00200	"	"	"	"	"	"	
Manganese	**0.131**	0.00100	"	"	"	"	"	"	
Molybdenum	**ND**	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	**0.0450**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.00470**	0.00100	"	"	"	"	"	"	

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Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (5F29012-04) Water									
Calcium	**141**	0.500	mg/L	50	EG50510	07/05/05	07/05/05	EPA 6010B	
Magnesium	**33.4**	0.0100	"	10	"	"	"	"	
Potassium	**2.78**	0.0500	"	1	"	"	"	"	
Sodium	**157**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EG50807	07/08/05	07/08/05	EPA 7470A	
Aluminum	**0.489**	0.0150	"	1	EG50102	06/30/05	07/01/05	EPA 6010B	
Arsenic	ND	0.00800	"	"	"	"	"	"	
Barium	**0.0809**	0.00100	"	"	"	"	"	"	
Boron	**0.684**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00150**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.00240**	0.00200	"	"	"	"	"	"	
Copper	**0.00230**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**0.219**	0.00200	"	"	"	"	"	"	
Manganese	**0.0399**	0.00100	"	"	"	"	"	"	
Molybdenum	ND	0.00200	"	"	"	"	"	"	
Nickel	ND	0.00600	"	"	"	"	"	"	
Selenium	**0.0118**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0299**	0.00100	"	"	"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50111 - EPA 5030C (GC)										
Blank (EG50111-BLK1)				Prepared & Analyzed: 07/01/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*92.1*		*ug/l*	*100*		*92.1*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*92.3*		*"*	*100*		*92.3*	*80-120*			
LCS (EG50111-BS1)				Prepared & Analyzed: 07/01/05						
Benzene	103		ug/l	100		103	80-120			
Toluene	93.6		"	100		93.6	80-120			
Ethylbenzene	97.1		"	100		97.1	80-120			
Xylene (p/m)	175		"	200		87.5	80-120			
Xylene (o)	89.6		"	100		89.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*116*		*"*	*100*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*115*		*"*	*100*		*115*	*80-120*			
Calibration Check (EG50111-CCV1)				Prepared: 07/01/05 Analyzed: 07/05/05						
Benzene	106		ug/l	100		106	80-120			
Toluene	93.4		"	100		93.4	80-120			
Ethylbenzene	95.5		"	100		95.5	80-120			
Xylene (p/m)	173		"	200		86.5	80-120			
Xylene (o)	91.6		"	100		91.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*107*		*"*	*100*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*119*		*"*	*100*		*119*	*80-120*			
Matrix Spike (EG50111-MS1)	**Source: 5F30001-01**			Prepared: 07/01/05 Analyzed: 07/02/05						
Benzene	91.6		ug/l	100	ND	91.6	80-120			
Toluene	81.3		"	100	ND	81.3	80-120			
Ethylbenzene	89.5		"	100	ND	89.5	80-120			
Xylene (p/m)	160		"	200	ND	80.0	80-120			
Xylene (o)	89.4		"	100	ND	89.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*95.5*		*"*	*100*		*95.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*120*		*"*	*100*		*120*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50111 - EPA 5030C (GC)										
Matrix Spike Dup (EG50111-MSD1)	**Source: 5F30001-01**			Prepared: 07/01/05 Analyzed: 07/05/05						
Benzene	85.2		ug/l	100	ND	85.2	80-120	7.24	20	
Toluene	83.8		"	100	ND	83.8	80-120	3.03	20	
Ethylbenzene	90.8		"	100	ND	90.8	80-120	1.44	20	
Xylene (p/m)	166		"	200	ND	83.0	80-120	3.68	20	
Xylene (o)	87.2		"	100	ND	87.2	80-120	2.49	20	
Surrogate: a,a,a-Trifluorotoluene	*88.0*		"	*100*		*88.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*113*		"	*100*		*113*	*80-120*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF53006 - Filtration Preparation										
Blank (EF53006-BLK1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EF53006-DUP1)		**Source: 5F29010-01**		Prepared: 06/30/05 Analyzed: 07/01/05						
Total Dissolved Solids	7110	10.0	mg/L		7230			1.67	20	
Batch EF53015 - General Preparation (WetChem)										
Blank (EF53015-BLK1)				Prepared & Analyzed: 06/30/05						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EF53015-DUP1)		**Source: 5F28001-01**		Prepared & Analyzed: 06/30/05						
Total Alkalinity	261	2.00	mg/L		260			0.384	20	
Reference (EF53015-SRM1)				Prepared & Analyzed: 06/30/05						
Bicarbonate Alkalinity	230		mg/L	200		115	80-120			
Batch EF53026 - General Preparation (WetChem)										
Blank (EF53026-BLK1)				Prepared & Analyzed: 06/30/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EF53026-BS1)				Prepared & Analyzed: 06/30/05						
Chloride	11.5		mg/L	10.0		115	80-120			
Sulfate	10.7		"	10.0		107	80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF53026 - General Preparation (WetChem)										
Calibration Check (EF53026-CCV1)				Prepared & Analyzed: 06/30/05						
Chloride	11.5		mg/L	10.0		115	80-120			
Sulfate	9.95		"	10.0		99.5	80-120			
Duplicate (EF53026-DUP1)		**Source: 5F29013-01**		Prepared & Analyzed: 06/30/05						
Chloride	87.8	2.50	mg/L		85.3			2.89	20	
Sulfate	75.3	2.50	"		73.5			2.42	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50102 - EPA 3005A										
Blank (EG50102-BLK1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Aluminum	ND	0.0150	mg/L							
Arsenic	ND	0.00800	"							
Barium	ND	0.00100	"							
Boron	ND	0.00500	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00500	"							
Cobalt	ND	0.00200	"							
Copper	ND	0.00200	"							
Lead	ND	0.0110	"							
Iron	ND	0.00200	"							
Manganese	ND	0.00100	"							
Molybdenum	ND	0.00200	"							
Nickel	ND	0.00600	"							
Selenium	ND	0.00400	"							
Silver	ND	0.00500	"							
Zinc	ND	0.00100	"							
LCS (EG50102-BS1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Aluminum	1.31	0.0150	mg/L	1.50		87.3	85-115			
Arsenic	0.811	0.00800	"	0.800		101	85-115			
Barium	0.197	0.00100	"	0.200		98.5	85-115			
Boron	1.00	0.00500	"	1.00		100	85-115			
Cadmium	0.187	0.00100	"	0.200		93.5	85-115			
Chromium	0.194	0.00500	"	0.200		97.0	85-115			
Cobalt	0.211	0.00200	"	0.200		106	85-115			
Copper	0.184	0.00200	"	0.200		92.0	85-115			
Lead	0.936	0.0110	"	1.10		85.1	85-115			
Iron	0.192	0.00200	"	0.200		96.0	85-115			
Manganese	0.188	0.00100	"	0.200		94.0	85-115			
Molybdenum	0.181	0.00200	"	0.200		90.5	85-115			
Nickel	0.542	0.00600	"	0.600		90.3	85-115			
Selenium	0.364	0.00400	"	0.400		91.0	85-115			
Silver	0.110	0.00500	"	0.100		110	85-115			
Zinc	0.211	0.00100	"	0.200		106	85-115			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50102 - EPA 3005A										
LCS Dup (EG50102-BSD1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Aluminum	1.62	0.0150	mg/L	1.50		108	85-115	21.2	20	
Arsenic	0.778	0.00800	"	0.800		97.2	85-115	4.15	20	
Barium	0.191	0.00100	"	0.200		95.5	85-115	3.09	20	
Boron	1.00	0.00500	"	1.00		100	85-115	0.00	20	
Cadmium	0.186	0.00100	"	0.200		93.0	85-115	0.536	20	
Chromium	0.180	0.00500	"	0.200		90.0	85-115	7.49	20	
Cobalt	0.211	0.00200	"	0.200		106	85-115	0.00	20	
Copper	0.176	0.00200	"	0.200		88.0	85-115	4.44	20	
Iron	0.188	0.00200	"	0.200		94.0	85-115	2.11	20	
Lead	1.18	0.0110	"	1.10		107	85-115	23.1	20	
Manganese	0.185	0.00100	"	0.200		92.5	85-115	1.61	20	
Molybdenum	0.172	0.00200	"	0.200		86.0	85-115	5.10	20	
Nickel	0.524	0.00600	"	0.600		87.3	85-115	3.38	20	
Selenium	0.365	0.00400	"	0.400		91.2	85-115	0.274	20	
Silver	0.0998	0.00500	"	0.100		99.8	85-115	9.72	20	
Zinc	0.205	0.00100	"	0.200		102	85-115	2.88	20	
Calibration Check (EG50102-CCV1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Aluminum	0.945		mg/L	1.00		94.5	90-110			
Arsenic	1.10		"	1.00		110	90-110			
Barium	1.09		"	1.00		109	90-110			
Boron	0.956		"	1.00		95.6	90-110			
Cadmium	1.08		"	1.00		108	90-110			
Chromium	1.06		"	1.00		106	90-110			
Cobalt	0.957		"	1.00		95.7	90-110			
Copper	1.04		"	1.00		104	90-110			
Lead	0.915		"	1.00		91.5	90-110			
Iron	0.950		"	1.00		95.0	90-110			
Manganese	0.962		"	1.00		96.2	90-110			
Molybdenum	1.03		"	1.00		103	90-110			
Nickel	0.909		"	1.00		90.9	90-110			
Selenium	0.929		"	1.00		92.9	90-110			
Silver	0.524		"	0.500		105	90-110			
Zinc	0.947		"	1.00		94.7	90-110			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50102 - EPA 3005A										
Matrix Spike (EG50102-MS1)	**Source: 5F16004-03**			Prepared: 06/30/05 Analyzed: 07/01/05						
Aluminum	1.79	0.0150	mg/L	1.50	0.454	89.1	75-125			
Arsenic	1.61	0.00800	"	0.800	0.657	119	75-125			
Barium	1.85	0.00100	"	0.200	1.67	90.0	75-125			
Boron	2.80	0.00500	"	1.00	1.73	107	75-125			
Cadmium	0.892	0.00100	"	0.200	0.667	112	75-125			
Chromium	0.476	0.00500	"	0.200	0.277	99.5	75-125			
Cobalt	0.719	0.00200	"	0.200	0.527	96.0	75-125			
Copper	0.419	0.00200	"	0.200	0.194	112	75-125			
Iron	1.20	0.00200	"	0.200	1.02	90.0	75-125			
Lead	2.11	0.0110	"	1.10	1.07	94.5	75-125			
Manganese	2.38	0.00100	"	0.200	2.18	100	75-125			
Molybdenum	0.556	0.00200	"	0.200	0.351	102	75-125			
Nickel	2.98	0.00600	"	0.600	2.38	100	75-125			
Selenium	1.94	0.00400	"	0.400	1.52	105	75-125			
Silver	0.359	0.00500	"	0.100	0.282	77.0	75-125			
Zinc	1.05	0.00100	"	0.200	0.835	108	75-125			
Batch EG50510 - 6010B/No Digestion										
Blank (EG50510-BLK1)				Prepared & Analyzed: 07/05/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EG50510-CCV1)				Prepared & Analyzed: 07/05/05						
Calcium	2.00		mg/L	2.00		100	85-115			
Magnesium	2.01		"	2.00		100	85-115			
Potassium	1.90		"	2.00		95.0	85-115			
Sodium	1.87		"	2.00		93.5	85-115			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG50510 - 6010B/No Digestion										
Duplicate (EG50510-DUP1)		**Source: 5F29010-01**		Prepared & Analyzed: 07/05/05						
Calcium	325	0.500	mg/L		322			0.927	20	
Magnesium	187	0.0500	"		186			0.536	20	
Potassium	53.3	0.500	"		55.5			4.04	20	
Sodium	1720	2.00	"		1730			0.580	20	
Batch EG50807 - EPA 7470A										
Blank (EG50807-BLK1)				Prepared & Analyzed: 07/08/05						
Mercury	ND	0.00100	mg/L							
LCS (EG50807-BS1)				Prepared & Analyzed: 07/08/05						
Mercury	0.00170	0.000500	mg/L	0.00200		85.0	85-115			
Calibration Check (EG50807-CCV1)				Prepared & Analyzed: 07/08/05						
Mercury	0.00103		mg/L	0.00100		103	90-110			
Matrix Spike (EG50807-MS1)		**Source: 5G01015-02**		Prepared & Analyzed: 07/08/05						
Mercury	0.00212	0.000500	mg/L		ND		75-125			
Matrix Spike Dup (EG50807-MSD1)		**Source: 5G01015-02**		Prepared & Analyzed: 07/08/05						
Mercury	0.00206	0.000500	mg/L		ND		75-125	2.87	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 7/8/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./P.O. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name MT000643.0001

Project Location Rice Operating Junction I-9

Laboratory Environmental Lab of Texas

Project Manager Sharon Hall

Sampler(s)/Affiliation ARCADIS/SG

SF29012

Sample ID/Location	Matrix	Date Sampled	Time	ANALYSIS / METHOD / SIZE: (2) 40 ml voa BTEX HCl	(1) liter plastic Major Anions/Cations, TDS Neat	(1) 250 ml plastic Chlorides Neat	(1) 500 ml plastic WQCC metals (17) HNO3			Remarks	Total
01 McNeil Well	L	6-28-05	0830	2	1	1	1				5
02 mw-1	L		1050	2	1	1	1				5
03 mw-3	L		0930	2	1	1	1				5
04 mw-4	L		0935	2	1	1	1				5

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers 20

Relinquished by: [signature]	Organization: ARCADIS	Date 6/29/05	Time 1030	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A
Relinquished by: Carri Kelly	Organization: FLOT	Date 6/29/05	Time 10:30	Seal Intact?
Received by: _____	Organization: _____	Date / /	Time _____	Yes No N/A

Special Instructions/Remarks:

-2.0 °C

Delivery Method: ☒ In Person ☐ Common Carrier _____ SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-0597

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: ARCADIS

Date/Time: 6/29/05 10:30

Order #: 5F29012

Initials: CR

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	-2.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

* No 250mL HDPE Neat → Liter HDPE Neat JMM 6-29-5

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Sharon Hall

ARCADIS

1004 N. Big Spring Street

Midland, TX 79701

Project: MT000643.0001

Project Number: MT000643.0001

Location: Rice Operating Junction I-9

Lab Order Number: 5I06002

Report Date: 09/13/05

ARCADIS 1004 N. Big Spring Street Midland TX, 79701	Project: MT000643.0001 Project Number: MT000643.0001 Project Manager: Sharon Hall	Fax: (432) 687-5401 **Reported:** 09/13/05 15:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
I-9 McNeil Well	5I06002-01	Water	09/02/05 13:59	09/02/05 16:53
I-9 MW-1	5I06002-02	Water	09/02/05 12:53	09/02/05 16:53
I-9 MW-3	5I06002-03	Water	09/02/05 12:13	09/02/05 16:53
I-9 MW-4	5I06002-04	Water	09/02/05 14:46	09/02/05 16:53

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
I-9 McNeil Well (5I06002-01) Water									
Benzene	ND	0.00100	mg/L	1	EI50705	09/07/05	09/07/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85.7 %*	*80-120*		"	"	"	"	
I-9 MW-1 (5I06002-02) Water									
Benzene	ND	0.00100	mg/L	1	EI50705	09/07/05	09/07/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.1 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*80-120*		"	"	"	"	
I-9 MW-3 (5I06002-03) Water									
Benzene	ND	0.00100	mg/L	1	EI50705	09/07/05	09/08/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*80.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.0 %*	*80-120*		"	"	"	"	
I-9 MW-4 (5I06002-04) Water									
Benzene	ND	0.00100	mg/L	1	EI50705	09/07/05	09/08/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.1 %*	*80-120*		"	"	"	"	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
I-9 McNeil Well (5I06002-01) Water									
Total Alkalinity	**192**	2.00	mg/L	1	EI51203	09/12/05	09/12/05	EPA 310.2M	
Chloride	**76.8**	2.50	"	5	EI51208	09/08/05	09/08/05	EPA 300.0	
Total Dissolved Solids	**502**	5.00	"	1	EI50901	09/07/05	09/08/05	EPA 160.1	
Sulfate	**47.3**	2.50	"	5	EI51208	09/08/05	09/08/05	EPA 300.0	
I-9 MW-1 (5I06002-02) Water									
Total Alkalinity	**416**	2.00	mg/L	1	EI51203	09/12/05	09/12/05	EPA 310.2M	
Chloride	**73.0**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	
Total Dissolved Solids	**1160**	5.00	"	1	EI50901	09/07/05	09/08/05	EPA 160.1	
Sulfate	**309**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	
I-9 MW-3 (5I06002-03) Water									
Total Alkalinity	**354**	2.00	mg/L	1	EI51203	09/12/05	09/12/05	EPA 310.2M	
Chloride	**146**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	
Total Dissolved Solids	**1260**	5.00	"	1	EI50901	09/07/05	09/08/05	EPA 160.1	
Sulfate	**321**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	
I-9 MW-4 (5I06002-04) Water									
Total Alkalinity	**355**	2.00	mg/L	1	EI51203	09/12/05	09/12/05	EPA 310.2M	
Chloride	**129**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	
Total Dissolved Solids	**1050**	5.00	"	1	EI50901	09/07/05	09/08/05	EPA 160.1	
Sulfate	**239**	5.00	"	10	EI51208	09/08/05	09/08/05	EPA 300.0	

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Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
I-9 McNeil Well (5I06002-01) Water									
Calcium	**28.9**	0.100	mg/L	10	EI50708	09/06/05	09/06/05	EPA 6010B	
Magnesium	**4.91**	0.00100	"	1	"	"	"	"	
Potassium	**3.34**	0.0500	"	"	"	"	"	"	
Sodium	**136**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EI50808	09/07/05	09/07/05	EPA 7470A	
Aluminum	**0.0832**	0.0150	"	1	EI50903	09/07/05	09/09/05	EPA 6010B	
Arsenic	**0.0741**	0.00800	"	"	"	"	"	"	
Barium	**0.0627**	0.00100	"	"	"	"	"	"	
Boron	**0.170**	0.00500	"	"	"	"	"	"	
Cadmium	**ND**	0.00100	"	"	"	"	"	"	
Chromium	**ND**	0.00500	"	"	"	"	"	"	
Cobalt	**J [0.000900]**	0.00200	"	"	"	"	"	"	J
Copper	ND	0.00200	"	"	"	"	"	"	
Iron	**J [0.00110]**	0.00200	"	"	"	"	"	"	J
Lead	ND	0.0110	"	"	"	"	"	"	
Manganese	**0.00470**	0.00100	"	"	"	"	"	"	
Molybdenum	**J [0.00180]**	0.00200	"	"	"	"	"	"	J
Nickel	**J [0.00140]**	0.00600	"	"	"	"	"	"	J
Selenium	**ND**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0280**	0.00100	"	"	"	"	"	"	
I-9 MW-1 (5I06002-02) Water									
Calcium	**121**	0.500	mg/L	50	EI50708	09/06/05	09/06/05	EPA 6010B	
Magnesium	**39.7**	0.0100	"	10	"	"	"	"	
Potassium	**3.48**	0.0500	"	1	"	"	"	"	
Sodium	**131**	0.500	"	50	"	"	"	"	
Mercury	ND	0.00100	"	2	EI50808	09/07/05	09/07/05	EPA 7470A	
Aluminum	**1.20**	0.0150	"	1	EI50903	09/07/05	09/09/05	EPA 6010B	
Arsenic	**0.0251**	0.00800	"	"	"	"	"	"	
Barium	**0.106**	0.00100	"	"	"	"	"	"	
Boron	**0.934**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00120**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	**0.0128**	0.00200	"	"	"	"	"	"	
Copper	**0.0187**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**1.56**	0.00200	"	"	"	"	"	"	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
I-9 MW-1 (5I06002-02) Water									
Manganese	**0.172**	0.00100	mg/L	1	EI50903	09/07/05	09/09/05	EPA 6010B	
Molybdenum	**0.00240**	0.00200	"	"	"	"	"	"	
Nickel	**0.0204**	0.00600	"	"	"	"	"	"	
Selenium	**0.00560**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0414**	0.00100	"	"	"	"	"	"	
I-9 MW-3 (5I06002-03) Water									
Calcium	**129**	0.500	mg/L	50	EI50708	09/06/05	09/06/05	EPA 6010B	
Magnesium	**30.4**	0.0100	"	10	"	"	"	"	
Potassium	**2.70**	0.0500	"	1	"	"	"	"	
Sodium	**301**	0.500	"	50	"	"	"	"	
Mercury	**0.00112**	0.00100	"	2	EI50808	09/07/05	09/07/05	EPA 7470A	
Aluminum	**6.16**	0.0150	"	1	EI50903	09/07/05	09/09/05	EPA 6010B	
Arsenic	**0.0291**	0.00800	"	"	"	"	"	"	
Barium	**0.595**	0.00100	"	"	"	"	"	"	
Boron	**1.05**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00200**	0.00100	"	"	"	"	"	"	
Chromium	**0.00520**	0.00500	"	"	"	"	"	"	
Cobalt	**0.00570**	0.00200	"	"	"	"	"	"	
Copper	**0.0126**	0.00200	"	"	"	"	"	"	
Lead	ND	0.0110	"	"	"	"	"	"	
Iron	**5.03**	0.00200	"	"	"	"	"	"	
Manganese	**0.222**	0.00100	"	"	"	"	"	"	
Molybdenum	**0.00530**	0.00200	"	"	"	"	"	"	
Nickel	**0.0136**	0.00600	"	"	"	"	"	"	
Selenium	**0.0175**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0383**	0.00100	"	"	"	"	"	"	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
I-9 MW-4 (5I06002-04) Water									
Calcium	**138**	0.500	mg/L	50	EI50708	09/06/05	09/06/05	EPA 6010B	
Magnesium	**34.8**	0.0100	"	10	"	"	"	"	
Potassium	**2.18**	0.0500	"	1	"	"	"	"	
Sodium	**148**	0.500	"	50	"	"	"	"	
Mercury	**0.00112**	0.00100	"	2	EI50808	09/07/05	09/07/05	EPA 7470A	
Aluminum	**1.03**	0.0150	"	1	EI50903	09/07/05	09/09/05	EPA 6010B	
Arsenic	**0.0105**	0.00800	"	"	"	"	"	"	
Barium	**0.0995**	0.00100	"	"	"	"	"	"	
Boron	**0.765**	0.00500	"	"	"	"	"	"	
Cadmium	**0.00130**	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00500	"	"	"	"	"	"	
Cobalt	ND	0.00200	"	"	"	"	"	"	
Copper	**0.00840**	0.00200	"	"	"	"	"	"	
Lead	**J [0.0107]**	0.0110	"	"	"	"	"	"	J
Iron	**0.679**	0.00200	"	"	"	"	"	"	
Manganese	**0.0662**	0.00100	"	"	"	"	"	"	
Molybdenum	**ND**	0.00200	"	"	"	"	"	"	
Nickel	**0.00600**	0.00600	"	"	"	"	"	"	
Selenium	**0.0132**	0.00400	"	"	"	"	"	"	
Silver	ND	0.00500	"	"	"	"	"	"	
Zinc	**0.0324**	0.00100	"	"	"	"	"	"	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50705 - EPA 5030C (GC)										
Blank (EI50705-BLK1)				Prepared: 09/07/05 Analyzed: 09/08/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*113*		*ug/l*	*100*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*91.4*		"	*100*		*91.4*	*80-120*			
LCS (EI50705-BS1)				Prepared & Analyzed: 09/07/05						
Benzene	101		ug/l	100		101	80-120			
Toluene	99.7		"	100		99.7	80-120			
Ethylbenzene	110		"	100		110	80-120			
Xylene (p/m)	207		"	200		104	80-120			
Xylene (o)	117		"	100		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	*96.6*		"	*100*		*96.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*107*		"	*100*		*107*	*80-120*			
Calibration Check (EI50705-CCV1)				Prepared: 09/07/05 Analyzed: 09/08/05						
Benzene	87.2		ug/l	100		87.2	80-120			
Toluene	84.2		"	100		84.2	80-120			
Ethylbenzene	91.8		"	100		91.8	80-120			
Xylene (p/m)	176		"	200		88.0	80-120			
Xylene (o)	99.1		"	100		99.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	*80.2*		"	*100*		*80.2*	*0-200*			
Surrogate: 4-Bromofluorobenzene	*84.0*		"	*100*		*84.0*	*0-200*			
Matrix Spike (EI50705-MS1)	**Source: 5I06013-07**			Prepared: 09/07/05 Analyzed: 09/08/05						
Benzene	117		ug/l	100	ND	117	80-120			
Toluene	112		"	100	ND	112	80-120			
Ethylbenzene	120		"	100	ND	120	80-120			
Xylene (p/m)	223		"	200	ND	112	80-120			
Xylene (o)	119		"	100	ND	119	80-120			
Surrogate: a,a,a-Trifluorotoluene	*111*		"	*100*		*111*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*106*		"	*100*		*106*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50705 - EPA 5030C (GC)										
Matrix Spike Dup (EI50705-MSD1)	**Source: 5I06013-07**			Prepared: 09/07/05 Analyzed: 09/08/05						
Benzene	105		ug/l	100	ND	105	80-120	10.8	20	
Toluene	100		"	100	ND	100	80-120	11.3	20	
Ethylbenzene	110		"	100	ND	110	80-120	8.70	20	
Xylene (p/m)	207		"	200	ND	104	80-120	7.41	20	
Xylene (o)	116		"	100	ND	116	80-120	2.55	20	
Surrogate: a,a,a-Trifluorotoluene	*99.3*		"	*100*		*99.3*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*94.5*		"	*100*		*94.5*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50901 - Filtration Preparation										
Blank (EI50901-BLK1)				Prepared: 09/07/05 Analyzed: 09/08/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EI50901-DUP1)		**Source: 5I06002-01**		Prepared: 09/07/05 Analyzed: 09/08/05						
Total Dissolved Solids	505	5.00	mg/L		502			0.596	5	
Batch EI51203 - General Preparation (WetChem)										
Blank (EI51203-BLK1)				Prepared & Analyzed: 09/12/05						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EI51203-DUP1)		**Source: 5I06002-01**		Prepared & Analyzed: 09/12/05						
Total Alkalinity	191	2.00	mg/L		192			0.522	20	
Reference (EI51203-SRM1)				Prepared & Analyzed: 09/12/05						
Bicarbonate Alkalinity	229		mg/L	200		114	80-120			
Batch EI51208 - General Preparation (WetChem)										
Blank (EI51208-BLK1)				Prepared & Analyzed: 09/08/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EI51208-BS1)				Prepared & Analyzed: 09/08/05						
Sulfate	8.79		mg/L	10.0		87.9	80-120			
Chloride	9.43		"	10.0		94.3	80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI51208 - General Preparation (WetChem)										
Calibration Check (EI51208-CCV1)				Prepared & Analyzed: 09/08/05						
Chloride	9.36		mg/L	10.0		93.6	80-120			
Sulfate	8.82		"	10.0		88.2	80-120			
Duplicate (EI51208-DUP1)		**Source: 5I06002-01**		Prepared & Analyzed: 09/08/05						
Sulfate	49.7	2.50	mg/L		47.3			4.95	20	
Chloride	79.9	2.50	"		76.8			3.96	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50708 - 6010B/No Digestion										
Blank (EI50708-BLK1)				Prepared & Analyzed: 09/06/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EI50708-CCV1)				Prepared & Analyzed: 09/06/05						
Calcium	2.14		mg/L	2.00		107	85-115			
Magnesium	2.19		"	2.00		110	85-115			
Potassium	1.77		"	2.00		88.5	85-115			
Sodium	1.86		"	2.00		93.0	85-115			
Duplicate (EI50708-DUP1)	**Source: 5H18012-01**			Prepared & Analyzed: 09/06/05						
Calcium	19.4	0.100	mg/L		19.8			2.04	20	
Magnesium	22.1	0.0100	"		23.2			4.86	20	
Potassium	22.4	0.500	"		23.3			3.94	20	
Sodium	51.3	0.100	"		51.0			0.587	20	
Batch EI50808 - EPA 7470A										
Blank (EI50808-BLK1)				Prepared & Analyzed: 09/07/05						
Mercury	ND	0.00100	mg/L							
LCS (EI50808-BS1)				Prepared & Analyzed: 09/07/05						
Mercury	0.000930	0.000500	mg/L	0.00100		93.0	85-115			
Calibration Check (EI50808-CCV1)				Prepared & Analyzed: 09/07/05						
Mercury	0.000990		mg/L	0.00100		99.0	90-110			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50808 - EPA 7470A										
Matrix Spike (EI50808-MS1)		**Source: 5I06002-01**		Prepared & Analyzed: 09/07/05						
Mercury	0.00109	0.000500	mg/L	0.00100	ND	109	75-125			
Matrix Spike Dup (EI50808-MSD1)		**Source: 5I06002-01**		Prepared & Analyzed: 09/07/05						
Mercury	0.00108	0.000500	mg/L	0.00100	ND	108	75-125	0.922	20	
Batch EI50903 - EPA 3005A										
Blank (EI50903-BLK1)				Prepared & Analyzed: 09/09/05						
Aluminum	ND	0.0150	mg/L							
Arsenic	ND	0.00800	"							
Barium	ND	0.00100	"							
Boron	ND	0.00500	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00500	"							
Cobalt	ND	0.00200	"							
Copper	ND	0.00200	"							
Iron	ND	0.00200	"							
Lead	ND	0.0110	"							
Manganese	ND	0.00100	"							
Molybdenum	ND	0.00200	"							
Nickel	ND	0.00600	"							
Selenium	ND	0.00400	"							
Silver	ND	0.00500	"							
Zinc	ND	0.00100	"							
LCS (EI50903-BS1)				Prepared & Analyzed: 09/09/05						
Aluminum	1.57	0.0150	mg/L	1.50		105	85-115			
Arsenic	0.784	0.00800	"	0.800		98.0	85-115			
Barium	0.216	0.00100	"	0.200		108	85-115			
Cadmium	0.214	0.00100	"	0.200		107	85-115			
Chromium	0.208	0.00500	"	0.200		104	85-115			
Cobalt	0.178	0.00200	"	0.200		89.0	85-115			
Copper	0.187	0.00200	"	0.200		93.5	85-115			
Iron	0.230	0.00200	"	0.200		115	85-115			
Lead	1.11	0.0110	"	1.10		101	85-115			
Manganese	0.223	0.00100	"	0.200		112	85-115			
Molybdenum	0.211	0.00200	"	0.200		106	85-115			
Nickel	0.607	0.00600	"	0.600		101	85-115			
Selenium	0.410	0.00400	"	0.400		102	85-115			
Silver	0.0903	0.00500	"	0.100		90.3	85-115			
Zinc	0.228	0.00100	"	0.200		114	85-115			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50903 - EPA 3005A										
LCS Dup (EI50903-BSD1)				Prepared & Analyzed: 09/09/05						
Aluminum	1.53	0.0150	mg/L	1.50		102	85-115	2.58	20	
Arsenic	0.792	0.00800	"	0.800		99.0	85-115	1.02	20	
Barium	0.213	0.00100	"	0.200		106	85-115	1.40	20	
Cadmium	0.214	0.00100	"	0.200		107	85-115	0.00	20	
Chromium	0.210	0.00500	"	0.200		105	85-115	0.957	20	
Cobalt	0.174	0.00200	"	0.200		87.0	85-115	2.27	20	
Copper	0.193	0.00200	"	0.200		96.5	85-115	3.16	20	
Iron	0.208	0.00200	"	0.200		104	85-115	10.0	20	
Lead	1.09	0.0110	"	1.10		99.1	85-115	1.82	20	
Manganese	0.207	0.00100	"	0.200		104	85-115	7.44	20	
Molybdenum	0.209	0.00200	"	0.200		104	85-115	0.952	20	
Nickel	0.617	0.00600	"	0.600		103	85-115	1.63	20	
Selenium	0.430	0.00400	"	0.400		108	85-115	4.76	20	
Silver	0.101	0.00500	"	0.100		101	85-115	11.2	20	
Zinc	0.224	0.00100	"	0.200		112	85-115	1.77	20	
LCS Dup (EI50903-BSD2)				Prepared & Analyzed: 09/09/05						
Boron	0.536	0.00500	mg/L	0.500		107	85-115		20	
Calibration Check (EI50903-CCV1)				Prepared & Analyzed: 09/09/05						
Aluminum	1.01		mg/L	1.00		101	90-110			
Arsenic	0.928		"	1.00		92.8	90-110			
Barium	1.05		"	1.00		105	90-110			
Boron	1.06		"	1.00		106	90-110			
Cadmium	1.04		"	1.00		104	90-110			
Chromium	1.09		"	1.00		109	90-110			
Cobalt	1.00		"	1.00		100	90-110			
Copper	1.01		"	1.00		101	90-110			
Lead	1.02		"	1.00		102	90-110			
Iron	1.04		"	1.00		104	90-110			
Manganese	1.04		"	1.00		104	90-110			
Molybdenum	1.04		"	1.00		104	90-110			
Nickel	1.04		"	1.00		104	90-110			
Selenium	1.04		"	1.00		104	90-110			
Silver	0.458		"	0.500		91.6	90-110			
Zinc	0.938		"	1.00		93.8	90-110			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50903 - EPA 3005A										
Matrix Spike (EI50903-MS1)	**Source: 5H18012-01**			Prepared & Analyzed: 09/09/05						
Aluminum	3.03	0.0150	mg/L	1.50	1.48	103	75-125			
Arsenic	1.34	0.00800	"	0.800	0.338	125	75-125			
Barium	0.850	0.00100	"	0.200	0.626	112	75-125			
Cadmium	0.238	0.00100	"	0.200	0.0278	105	75-125			
Chromium	0.471	0.00500	"	0.200	0.247	112	75-125			
Cobalt	0.597	0.00200	"	0.200	0.376	110	75-125			
Copper	0.572	0.00200	"	0.200	0.364	104	75-125			
Iron	1.33	0.00200	"	0.200	1.12	105	75-125			
Lead	1.26	0.0110	"	1.10	0.108	105	75-125			
Manganese	2.61	0.00100	"	0.200	2.45	80.0	75-125			
Molybdenum	0.394	0.00200	"	0.200	0.175	110	75-125			
Nickel	2.88	0.00600	"	0.600	2.27	102	75-125			
Selenium	1.64	0.00400	"	0.400	1.17	118	75-125			
Zinc	2.15	0.00100	"	0.200	1.95	100	75-125			
Matrix Spike (EI50903-MS2)	**Source: 5H18012-01**			Prepared & Analyzed: 09/09/05						
Boron	2.24	0.00500	mg/L	0.500	1.70	108	75-125			
Matrix Spike (EI50903-MS3)	**Source: 5I06002-01**			Prepared & Analyzed: 09/09/05						
Silver	0.0981	0.00500	mg/L	0.100	ND	98.1	75-125			
Matrix Spike Dup (EI50903-MSD1)	**Source: 5H18012-01**			Prepared & Analyzed: 09/09/05						
Aluminum	3.09	0.0150	mg/L	1.50	1.48	107	75-125	1.96	20	
Arsenic	1.34	0.00800	"	0.800	0.338	125	75-125	0.00	20	
Barium	0.872	0.00100	"	0.200	0.626	123	75-125	2.56	20	
Cadmium	0.246	0.00100	"	0.200	0.0278	109	75-125	3.31	20	
Chromium	0.472	0.00500	"	0.200	0.247	112	75-125	0.212	20	
Cobalt	0.597	0.00200	"	0.200	0.376	110	75-125	0.00	20	
Copper	0.569	0.00200	"	0.200	0.364	102	75-125	0.526	20	
Lead	1.27	0.0110	"	1.10	0.108	106	75-125	0.791	20	
Iron	1.36	0.00200	"	0.200	1.12	120	75-125	2.23	20	
Manganese	2.63	0.00100	"	0.200	2.45	90.0	75-125	0.763	20	
Molybdenum	0.394	0.00200	"	0.200	0.175	110	75-125	0.00	20	
Nickel	2.92	0.00600	"	0.600	2.27	108	75-125	1.38	20	
Selenium	1.62	0.00400	"	0.400	1.17	112	75-125	1.23	20	
Zinc	2.17	0.00100	"	0.200	1.95	110	75-125	0.926	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50903 - EPA 3005A										
Matrix Spike Dup (EI50903-MSD2)	**Source: 5H18012-01**			Prepared & Analyzed: 09/09/05						
Boron	2.28	0.00500	mg/L	0.500	1.70	116	75-125	1.77	20	
Matrix Spike Dup (EI50903-MSD3)	**Source: 5I06002-01**			Prepared & Analyzed: 09/09/05						
Silver	0.0969	0.00500	mg/L	0.100	ND	96.9	75-125	1.23	20	

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 9/13/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

ARCADIS

Laboratory Task Order No./P.O. N[redacted]

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name MT000643.0001

Project Location Rice Operating Junction I-9

Laboratory Environmental Lab of Texas

Project Manager SHaron Hall

Sampler(s)/Affiliation ARCADIS/RN

Sample ID/Location	Matrix	Date/~~Time~~ Sampled	Time ~~Sampled~~	ANALYSIS / METHOD / SIZE: (2) 40 ml voa BTEX HCl	(1) liter plastic Major Anions/Cations, TDS Neat	(1) 250 ml plastic Chloride Neat	(1) 500 ml plastic WQCC Metals HNO3			Remarks	Total
I-9 McNeil Well	L	9-2-05	1359	2	1	1	1			SI06002-01	5
I-9 mw-1	L	9-2-05	1253	2	1	1	1			-02	5
I-9 mw-3	L	9-2-05	1213	2	1	1	1			-03	5
I-9 mw-4	L	9-2-05	1446	2	1	1	1			-04	5

Sample Matrix: ~~L = Liquid~~ S = Solid A = Air

Total No. of Bottles/ Containers: 20

Relinquished by: [signature]	Organization: ARCADIS	Date 9/2/05	Time 1653	Seal Intact?	
Received by: [signature]	Organization: ECOT	Date 09/02/05	Time 1653	Yes No (N/A)	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: Need 5 Day Turnaround time 0.5°C on ice w/labels

Copy Debbie Gann on email of Results

Delivery Method: ☒ In Person ☐ Common Carrier SPECIFY ☐ Lab Courier ☐ Other SPECIFY

AG 05-12/01

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: ARCADIS

Date/Time: 9/6/05 8:30

Order #: 5I06002

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

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