GW - 72

MONITORING REPORTS

DATE:

2004

BROWN AND
CALDWELL

Environmental Engineers & Consultants

MARCH 2004 GROUNDWATER SAMPLING REPORT HOBBS, NEW MEXICO FACILITY

BJ SERVICES COMPANY, U.S.A.

JULY 16, 2004

MARCH 2004 GROUNDWATER SAMPLING REPORT
HOBBS, NEW MEXICO FACILITY
BJ SERVICES COMPANY, U.S.A.

Prepared for

BJ Services Company, U.S.A.
11211 FM 2920
Tomball, Texas 77375

BC Project Number: 12832.019

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July 16, 2004

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1.0 INTRODUCTION

Brown and Caldwell conducted a quarterly groundwater sampling event at the BJ Services Company, U.S.A. (BJ Services) facility located at 2708 West County Road in Hobbs, New Mexico on March 29-30, 2004. This report presents a description of the groundwater sampling field activities, a summary and evaluation of the analytical results, and an evaluation of remedial technologies applied at the facility. A groundwater potentiometric surface map and a hydrocarbon distribution map are included.

A layout of the facility is shown in Figure 1. The facility formerly operated an on-site fueling system. The New Mexico Oil Conservation Division (NMOCD) detected evidence of subsurface impact near the former diesel fueling system during an on-site inspection on February 7, 1991. The fueling system was taken out of operation in July 1995. The NMOCD has required a quarterly groundwater monitoring program to assess the concentration of hydrocarbon constituents in groundwater as a result of the diesel fuel release.

A biosparging system was activated in November 1995 and expanded in March/April 1997 and February/March 1998 to remediate soil and groundwater at the former fuel island area of the facility. The biosparging system was deactivated on November 1, 2000 after achieving cleanup goals for groundwater. The confirmation soil sampling program specified in the NMOCD-approved Remedial Action Plan (RAP) for the facility was conducted in July 2001. The results of the confirmation soil sampling program were presented to NMOCD in the report for the June 2001 groundwater sampling event. In accordance with the RAP for the facility, four additional groundwater sampling events were conducted following the confirmation soil sampling event. Hydrocarbon concentrations in groundwater samples from applicable monitor wells remained below the target concentrations specified in the RAP during each of these sampling events, so a request to decommission the biosparging system was submitted to NMOCD in the June 2002 Groundwater Sampling and Biosparging System Closure Report for the facility.

BJ Services removed three field waste tanks from the facility on March 6-7, 1997. The ongoing groundwater monitoring program was expanded to address both the former fuel island and the former field waste tanks areas of the facility, as directed by NMOCD in correspondence dated January 21, 1999.

Table 1 presents a site chronology detailing the history of investigations into and the remediation of hydrocarbon impacts to soil and groundwater in the areas of the former fueling system and the former field waste tanks at the facility, along with the history of investigations conducted by BJ Services regarding chloride impact to groundwater at and in the vicinity of its facility in Hobbs, New Mexico.

2

BROWN AND CALDWELL

2.0 FIELD ACTIVITIES AND RESULTS

Brown and Caldwell purged and sampled seven monitor wells (MW-5, MW-10, MW-11A, MW-12D, MW-14, MW-15, and MW-16) at the facility on March 30, 2004 to evaluate concentrations of dissolved-phase hydrocarbons and NMQCC constituents in groundwater. The monitor well locations are shown in Figure 1. The following subsections describe the field activities conducted by Brown and Caldwell during the current groundwater sampling event and present the results from the associated groundwater analyses.

2.1 Groundwater Sampling Activities

Groundwater level measurements were obtained from all monitor wells at the facility prior to purging and sampling the wells listed above. Groundwater levels were measured to the nearest 0.01 foot with an electronic water-level indicator. Current and historical groundwater elevation data for each well are presented in Table 2. The groundwater elevation data presented in Table 2 indicate that groundwater levels have continued to decline in monitor wells at the facility since late 1995. A groundwater elevation map for March 29, 2004 is presented in Figure 2. The groundwater elevation data indicate that the groundwater flow direction is to the east/northeast, with hydraulic gradient ranging from 0.005 foot/foot (ft/ft) in the western portion of the facility to 0.009 ft/ft in the eastern portion of the groundwater monitoring area.

Monitor wells MW-5, MW-12D, and MW-16 were purged with a submersible pump and previously unused down-hole tubing until groundwater stabilization occurred. The remaining wells were purged with previously unused disposable bailers and clean, previously unused polyethylene rope. Three well volumes were purged from monitor well MW-15. Monitor wells MW-10, MW-11A, and MW-14 were purged dry.

Low flow/low stress purging was performed prior to sampling of monitor wells MW-5, MW-12D and MW-16 to maintain the water level at or near the static water level. Field parameter measurements for pH, specific conductivity, oxidation-reduction potential, dissolved oxygen, and temperature were collected during purging of these wells. Ferrous iron and dissolved oxygen concentrations were measured in groundwater from all monitor wells upon conclusion of purging activities. Field parameter readings were recorded on the groundwater sampling forms included in Appendix A and are summarized in Table 3.

Groundwater samples were obtained directly from the discharge line of the submersible pump or by pouring recovered water from a bailer into laboratory-prepared, clean glass or plastic containers, sealed with Teflon®-lined lids, labeled, and placed on ice in an insulated cooler for delivery to Southern Petroleum Laboratory in Houston, Texas for analysis using standard chain-of-custody procedures.

Field measurement equipment was decontaminated prior to and following each use. Decontamination procedures consisted of washing with distilled water and a non-phosphate detergent, then rinsing with distilled water. Purge and decontamination waters were discharged to an on-site water reclamation system at the BJ Services facility.

2.2 Results of Groundwater Analyses

Groundwater samples from monitor wells MW-5, MW-10, MW-11A, MW-12D, MW-14, MW-15, and MW-16 were analyzed for the following parameters using the indicated analytical methodologies:

- Chloride (Method 325.3);
- BTEX (Method 8021B);
- TPH-D (Method 8015B);
- Nitrate, Sulfate, Fluoride (Method E300);
- Bicarbonate and Carbonate Alkalinity (Method 2320B);
- Hardness (Method E130.2);
- Methane (Method RSK 147);
- Polynuclear Aromatic Hydrocarbons (Method 8310); and

- RCRA metals, calcium, magnesium, potassium and sodium (Method 6010B)/7470A.

TPH-G was not analyzed this quarter due to an insufficient supply of sample containers. Current and cumulative analytical results for BTEX constituents and TPH-D are presented in Table 5. Figure 3 presents a hydrocarbon distribution map for March 30, 2004. All BTEX concentrations measured in groundwater during the current sampling event are less than applicable NMWQCC standards.

Nitrate, sulfate, dissolved methane, and alkalinity data were used to evaluate mechanisms for natural attenuation of hydrocarbons at the facility. Current and historical results for nitrate, sulfate, and dissolved methane analyses performed on groundwater samples from monitor wells MW-5, MW-10, MW-11A, MW-12, and MW-12D are presented in Table 6.

The laboratory analytical reports and chain-of-custody documentation for groundwater samples collected during the current sampling event are provided in Appendix B.

3

BROWN AND CALDWELL

3.0 EVALUATION OF REMEDIAL TECHNOLOGIES

Evaluations of remedial technologies applied at the former fueling system and former field waste tanks areas of the BJ Services facility in Hobbs, New Mexico are presented in Sections 3.1 and 3.2, respectively. Section 3.3 presents an evaluation of chloride impact to groundwater at and in the vicinity of the facility.

3.1 Biosparging System at the Former Fueling System Area

Brown and Caldwell recommended installation of a biosparging system at the former fueling system area of the facility in a Remedial Action Plan (RAP) submitted to the NMOCD in May 1994. The NMOCD approved the RAP on August 11, 1994. The biosparging system was installed in August 1995, with expansions completed in April 1997 and March 1998. Operation of the biosparging system resulted in substantial decreases in hydrocarbon concentrations in former fueling system area monitor wells. In accordance with the RAP, confirmation soil sampling activities were conducted at the former fueling system area in July 2001 to verify the effectiveness of the biosparging system in remediating vadose zone soils. The analytical results for these soil samples, as discussed in the report for the June 2001 groundwater sampling event, indicated that remediation goals for soil in this area had been achieved.

Following the confirmation soil sampling activities, hydrocarbon concentrations in groundwater remained below target cleanup goals for four successive quarters. In accordance with the RAP for the facility, a request to decommission the biosparging system was submitted to the NMOCD in the June 2002 Groundwater Sampling and Biosparging System Closure Report.

3.2 Natural Attenuation at the Former Field Waste Tanks Area

Natural attenuation is the primary remediation mechanism for the dissolved-phase hydrocarbon plume located in the area of the former field waste tanks (see Figure 1).

Plume behavior is the primary evidence of natural attenuation. Secondary evidence of natural attenuation can be obtained by collection and evaluation of data relating to the concentrations of indigenous electron acceptors such as dissolved oxygen, nitrate, sulfate, and carbon dioxide. A plume is shrinking when the rate of hydrocarbon loading from a source area is less than the rate of natural degradation of hydrocarbons. Plume shrinkage in the absence of aggressive remediation is indicative of the occurrence of natural attenuation processes. Conversely, a plume is expanding if the rate of hydrocarbon loading from a source area is greater than the rate of natural degradation of hydrocarbons through natural attenuation processes.

The former field waste tanks in the eastern portion of the facility were removed in March 1997. Concentrations of total BTEX in monitor wells in this area have been generally stable or declining subsequent to removal of these tanks. Sporadic increases in total BTEX concentrations between quarterly sampling events have been observed in monitor wells in this area since March 1997, however. These increases may be attributed to sporadic loading rates from the vadose zone in excess of the rate of natural attenuation in the area. The following subsections present primary and secondary evidence of natural attenuation of hydrocarbons in groundwater at the former field waste tanks area of the facility.

3.2.1 Primary Evidence

The benzene concentration in monitor well MW-10 has decreased from a maximum of 1.3 mg/L in August 1995 (prior to removal of the field waste tanks) to less than the NMWQCC standard of 0.01 mg/L for benzene in the 13 applicable groundwater sampling events from December 2000 to March 2004. Benzene has not been detected in monitor well MW-10 since September 2001, a span of nine consecutive quarterly groundwater sampling events. Concentrations of toluene, ethylbenzene, and xylenes in monitor well MW-10 were non-detect during the current sampling event and have generally been non-detect since December 2000. Detectable concentrations of TPH-D in monitor well MW-10 have ranged from 0.3 mg/L to 3.4 mg/L. TPH-D concentrations in monitor well MW-10 have been less than 1.2 mg/L during the five most recent quarterly groundwater sampling events. TPH-G has not been detected in monitor well MW-10 since March 2001.

Benzene concentrations at the monitor well MW-11/11A location have generally decreased from a maximum of 0.970 mg/L in December 1996 (prior to removal of the field waste tanks). There was no detectible concentration of benzene in monitor well MW-11A during the current sampling event. Benzene concentrations in MW-11A have been less than the NMWQCC standard for benzene during 11 of the 12 groundwater sampling events conducted from June 2001 through March 2004, including the last five consecutive quarterly groundwater sampling events. Concentrations of toluene, ethylbenzene, and xylenes in monitor well MW-11A have been at low to typically non-detectable concentrations since March 1998. Detectable concentrations of TPH-D in monitor well MW-11A have ranged from 0.28 mg/L to 2.2 mg/L. TPH-G concentrations have been less than 1 mg/L throughout the monitoring history of well MW-11A.

Concentrations of each BTEX constituent at the monitor well MW-12/12D location have been below analytical detection limits for the past 12 sampling events. TPH-D has not been detected at this location since September 2002, and TPH-G has not been detected since June 2001.

3.2.2 Secondary Evidence

The following lines of geochemical evidence can also be used to suggest that intrinsic bioremediation (an important natural attenuation mechanism) of dissolved-phase hydrocarbons is occurring in the area of the former field waste tanks.

1. Dissolved oxygen may be utilized as an electron acceptor during intrinsic bioremediation. Dissolved oxygen concentrations should therefore be depressed in areas where intrinsic bioremediation is occurring.

   Groundwater samples from monitor wells MW-10, MW-11A, MW-14 and MW-15 were collected using bailers during the current sampling event. The use of bailers may cause groundwater samples to become oxygenated, thus precluding a meaningful comparison of dissolved oxygen data.

   Historic evidence submitted to the NMOCD in previous quarterly groundwater monitoring reports for the facility when down-hole pumps were utilized has indicated that dissolved oxygen concentrations were typically depressed in hydrocarbon-impacted monitor wells relative to non-impacted wells at the facility (see the June 2001 Groundwater Sampling Report for BJ Services Hobbs, New Mexico Facility, for example).

2. Nitrate may be utilized as an electron acceptor during intrinsic bioremediation after dissolved oxygen is depleted. Therefore, nitrate concentrations may be depressed in areas where intrinsic bioremediation is occurring.

   Nitrate was detected at a concentration of 2.6 mg/L in background monitor well MW-5 during the current sampling event. Although minimal to no hydrocarbon impact was detected at former field waste tanks area wells MW-10, MW-11A, and MW-12D during the current sampling event (see Table 5), nitrate was detected in monitor well MW-10 and MW-11A at respective concentrations of 0.25 mg/L and 1.9 mg/L; nitrate was not detected in monitor well MW-12D. The depressed to non-detectable nitrate concentrations observed during the current sampling event at former field waste tanks area wells MW-10, MW-11A, and MW-12D relative to the background nitrate concentration at the facility are likely due to residual effects of hydrocarbons in these areas.

3. When dissolved oxygen and nitrate are depleted, anaerobic microbes that utilize other electron acceptors may become active. Ferrous iron is the reduction product of ferric iron, a common electron acceptor. Therefore, ferrous iron concentrations should increase in areas where intrinsic bioremediation is occurring.

   Ferrous iron concentrations in former field waste tanks area monitor wells MW-10, MW-11A, and MW-12D ranged from 1.0 mg/L to 10 mg/L, whereas ferrous iron was not detected in background monitor well MW-5. The elevated ferrous iron concentrations in monitor wells MW-10, MW-11A and MW-12D relative to background well MW-5 suggest that ferric iron has been used as an electron acceptor during natural attenuation of hydrocarbons at the former field waste tanks area of the facility.

4. Microbes that utilize sulfate may become active when dissolved oxygen, nitrate, and ferric iron are depleted. Sulfate concentrations should therefore decrease in areas where intrinsic bioremediation is occurring through the use of sulfate as an electron acceptor.

   During the current sampling event, sulfate concentrations in the former field waste tanks area monitor wells MW-10, MW-11A, and MW-12D ranged from 160 mg/L to 380 mg/L, whereas the sulfate concentration in background monitor well MW-5 was measured at 110 mg/L. The fact that sulfate concentrations in the former source area monitor wells are greater than the sulfate concentration in the background monitor well suggests that sulfate is not being utilized as an electron acceptor in the former field waste tanks area.

5. Methane is a reaction product generated during utilization of carbon dioxide as an electron acceptor, so its concentration may increase in areas where concentrations of electron acceptors such as dissolved oxygen, nitrate, and ferric iron have diminished.

   Dissolved methane was not detected in background monitor well MW-5 or in former field waste tanks area monitor wells MW-10, MW-11A, and MW-12D during the current groundwater sampling event. These data indicate that carbon dioxide is not presently being utilized as an electron acceptor at the former field waste tanks area of the facility.

6. Microbes produce fatty acids as a byproduct during degradation of hydrocarbons. These fatty acids react with carbonate mineral substrates to release carbonate into solution, causing alkalinity of groundwater to increase. Elevated alkalinity therefore suggests that natural attenuation of hydrocarbons is occurring.

   Background monitor well MW-5 displayed an alkalinity of 214 mg/L during the current sampling event. Alkalinity was measured at respective concentrations of 582 mg/L and 378 mg/L in former field waste tanks area monitor wells MW-10 and MW-11A in March 2004. The elevated alkalinity values in monitor wells MW-10 and MW-11A may be a result of intrinsic bioremediation of residual hydrocarbons in these areas.

In conclusion, current nitrate and historic dissolved oxygen data suggest that these electron acceptors have been utilized during intrinsic bioremediation processes in the vicinity of the former field waste tanks area of the facility. Data for ferrous iron also indicates utilization of ferric iron as an electron acceptor in this area of the facility. Alkalinity data provide further evidence of natural attenuation of hydrocarbons at the former field waste tanks area.

3.3 Chloride Evaluation

Figure 4 presents a map of chloride distribution in groundwater for March 30, 2004 (see Table 4). The data presented in Figure 4 suggests that the former field wastes tanks at the BJ Services facility may have served as a source of chloride impact to groundwater within the facility, based on exceedances of the NMWQCC chloride standard of 250 mg/L in this area. Previous groundwater sampling conducted by BJ Services at the on-site nested monitor well MW-12/MW-12D location indicated that the degree of chloride impact to groundwater decreased with depth within the uppermost aquifer at the facility (see Table 4).

Groundwater modeling conducted by Brown and Caldwell prior to installation of off-site monitor well MW-16 indicated an anticipated chloride concentration of less than 250 mg/L at the proposed downgradient monitor well MW-16 location east of the BJ Services facility, based on historic data that defined an eastward decrease in chloride concentrations within the BJ Services facility. Specifically, historic chloride concentrations in the area of monitor wells MW-11 and MW-11A, which are located in proximity to BJ Services' former field waste tanks, ranged from 834 mg/L to

3,400 mg/L whereas chloride concentrations in the area of monitor wells MW-14 and MW-15, which are located further east within the BJ Services facility, ranged from 119 mg/L to 368 mg/L.

Off-site monitor well MW-16 has been sampled five times since its installation in May 2003, with chloride concentrations in the well ranging from 753 mg/L to 983 mg/L. During the post-May 2003 time period, chloride concentrations in wells at the BJ Services facility have remained generally consistent with previous chloride data. The elevated chloride concentrations detected in monitor well MW-16 suggest the presence of a separate, off-site source of chloride impact to groundwater east of the BJ Services facility. The data presented in Figure 4 demonstrate that chloride impact associated with the former field waste tanks is limited to within the boundaries of the BJ Services facility and that the concentration of chloride in off-site monitor well MW-16 would not exceed 250 mg/L if there was no off-site source of chloride impact.

Brown and Caldwell provided further evidence of this off-site source of chloride impact to groundwater in the report for the December 2003 groundwater sampling event, based on a search of NMOCD files relating to permitted oil & gas exploration and production activities in the area, and supplemented by historical aerial photographs depicting industrial development in the vicinity. Brown and Caldwell also presented the results of a water well search that indicated no current groundwater usage within 1 mile downgradient of the facility.

Based on these findings and as confirmed on the basis of chloride data from the current groundwater sampling event, further investigation by BJ Services into the occurrence of chloride at and in the vicinity of its Hobbs, New Mexico facility is unwarranted.

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BROWN AND CALDWELL

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on information obtained during the March 2004 and previous groundwater sampling events at the BJ Services Hobbs, New Mexico facility.

4.1 Conclusions

- Operation of the biospraging system installed in the area of the former fuel island at the facility has successfully remediated soil and groundwater impacts to meet performance requirements specified in the RAP for this portion of the facility.
- The substantial reduction in hydrocarbon concentrations in the vicinity of the former field waste tanks is attributable to natural attenuation of hydrocarbons, based on generally decreasing hydrocarbon concentrations in applicable monitor wells over time and as substantiated by geochemical data. Current benzene concentrations in all former field waste tanks area monitor wells have remained less than the NMWQCC standard of 0.01 mg/L for benzene. Benzene concentrations in all former field waste tanks area monitor wells have been less than the NMWQCC benzene standard of 0.01 mg/L during each of the last five quarterly groundwater sampling events.
- The chloride concentrations measured in on-site downgradient monitor wells MW-14 and MW-15 during the current groundwater sampling event are less than the NMWQCC standard of 250 mg/L. The chloride concentration in monitor well MW-16 exceeds the NMWQCC chloride standard, however. Elevated chloride concentrations in groundwater east of the BJ Services facility are apparently attributable to one or more off-site sources. In the absence of these apparent sources, chloride impact attributable to the onsite source would be less than the NMWQCC standard of 250 mg/L in the area to the east of the BJ Services facility.

4.2 Recommendations

- Upon approval from the NMOCD, decommission the biosparging system at the former fuel island area.
- Given that the removal of the former field waste tanks and associated impacted soil in March 1997 constituted effective source removal and that constituent concentrations in all applicable wells have been less than applicable NMWQCC standards for five consecutive quarterly groundwater sampling events, closure for the former field waste tanks area is recommended.

- Given that chloride impact to groundwater attributable to the BJ Services facility at concentrations exceeding the NMWQCC standard of 250 mg/L is limited to the BJ Services facility and there is no current downgradient usage of groundwater within 1 mile of the facility, BJ Services should discontinue sampling and analysis pertaining to chloride impact to groundwater within the uppermost aquifer at and in the vicinity of its Hobbs, New Mexico facility.
- Given that BJ Services has demonstrated compliance with regard to hydrocarbon impacts at the former fuel island and former field waste tanks source area and with regard to chloride issues, granting of overall site closure by NMOCD, with no additional groundwater monitoring activities, is recommended.
- No additional groundwater monitoring activities should be performed while NMOCD evaluates the current and previously submitted closure requests.

DISTRIBUTION

March 2004 Groundwater Sampling Report
BJ Services Company, U.S.A.
Hobbs, New Mexico

July 16, 2004

Final Distribution as follows:

1 copy to: State of New Mexico
Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Attention: Mr. Wayne Price

1 copy to: State of New Mexico
Oil Conservation Division, Hobbs District Office
1625 N. French Dr.
Post Office Box 1980
Hobbs, New Mexico 88240

Attention: Mr. Chris Williams

1 copy to: BJ Services Company, U.S.A.
2708 West County Road
Hobbs, New Mexico 88240

Attention: Mr. John Adcock

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11211 FM 2920
Tomball, Texas 77375

Attention: Ms. Jo Ann Cobb

1 copy to: Brown and Caldwell Project File

QUALITY CONTROL REVIEWER

Thomas R Marvey for

Lynn M. Wright, P.G.
Supervising Geologist

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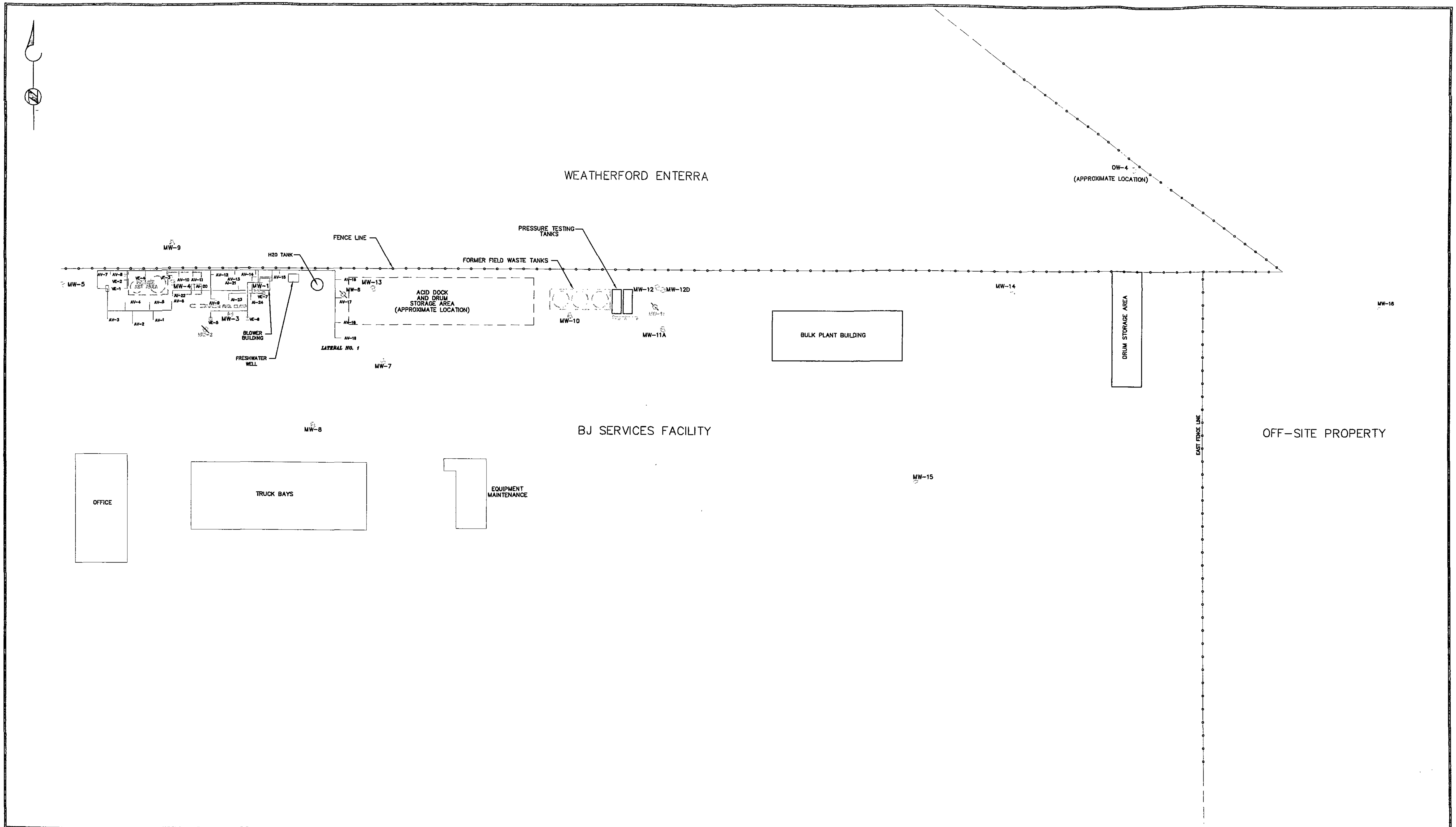
Figures

BROWN AND CALDWELL

FIGURES



BROWN AND CALDWELL
HOUSTON, TEXAS

SUBMITTED: ____________ DATE: ______
PROJECT MANAGER

APPROVED: ____________ DATE: ______
BROWN AND CALDWELL

0 60 90

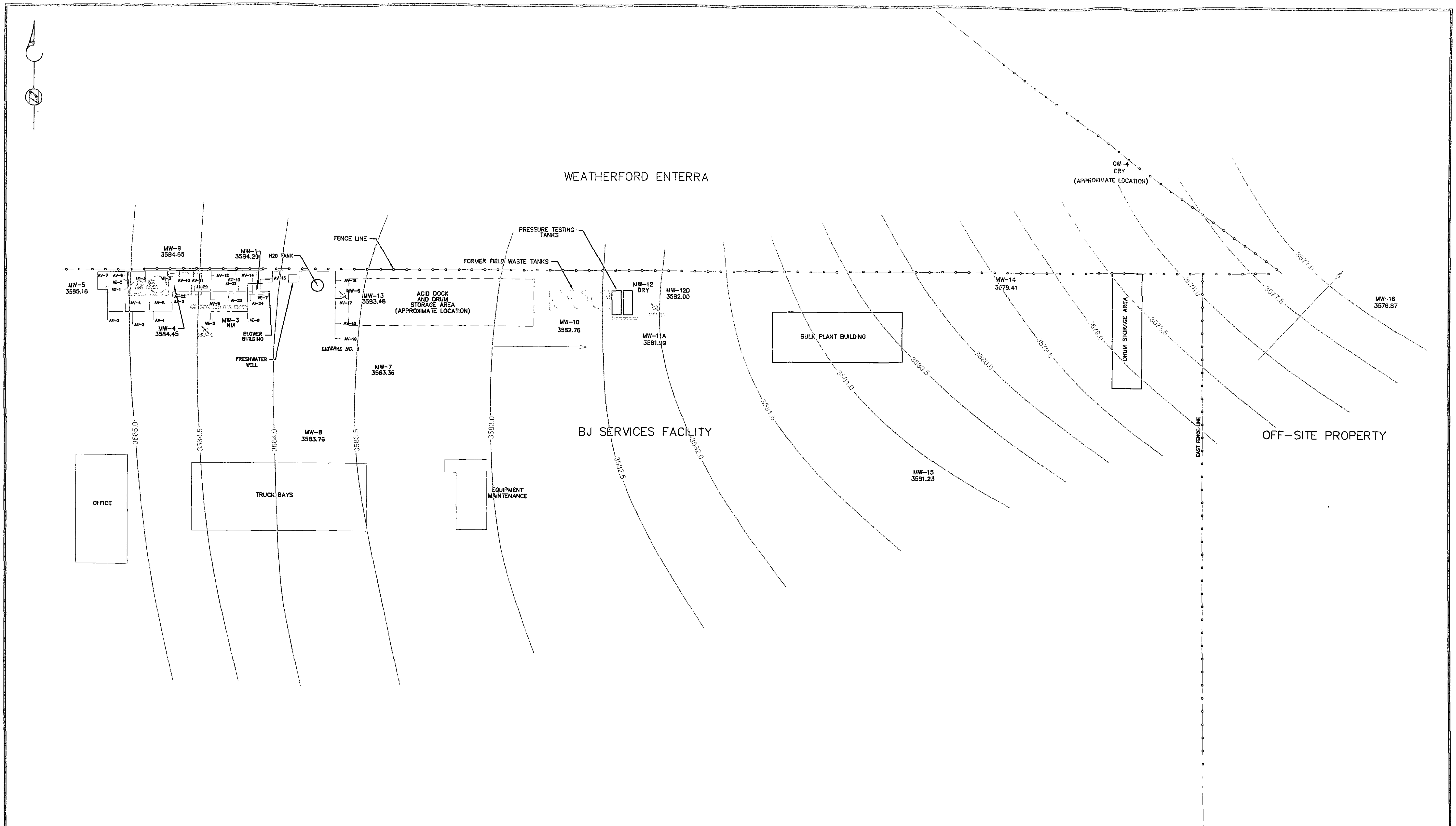
SCALE: 1" = 90'

DRAWN BY: ____ DATE ____
CHK'D BY: ____ DATE ____
APPROVED: ____ DATE ____

LEGEND

MW-3	EXISTING MONITOR WELL LOCATION
	BIOSPARGING SYSTEM
MW-2	MONITOR WELL (PLUGGED AND ABANDONED)

TITLE: SITE MAP	DATE: 5/13/04
CLIENT: BJ SERVICES COMPANY, U.S.A.	PROJECT NUMBER: 12832.019
SITE: HOBBS, NEW MEXICO	FIGURE NUMBER: 1



BROWN AND CALDWELL
HOUSTON, TEXAS

SUBMITTED:________ DATE:______
PROJECT MANAGER

APPROVED:________ DATE:______
BROWN AND CALDWELL

0 60 90

SCALE: 1" = 90'

DRAWN BY:____ DATE____

CHK'D BY:____ DATE____

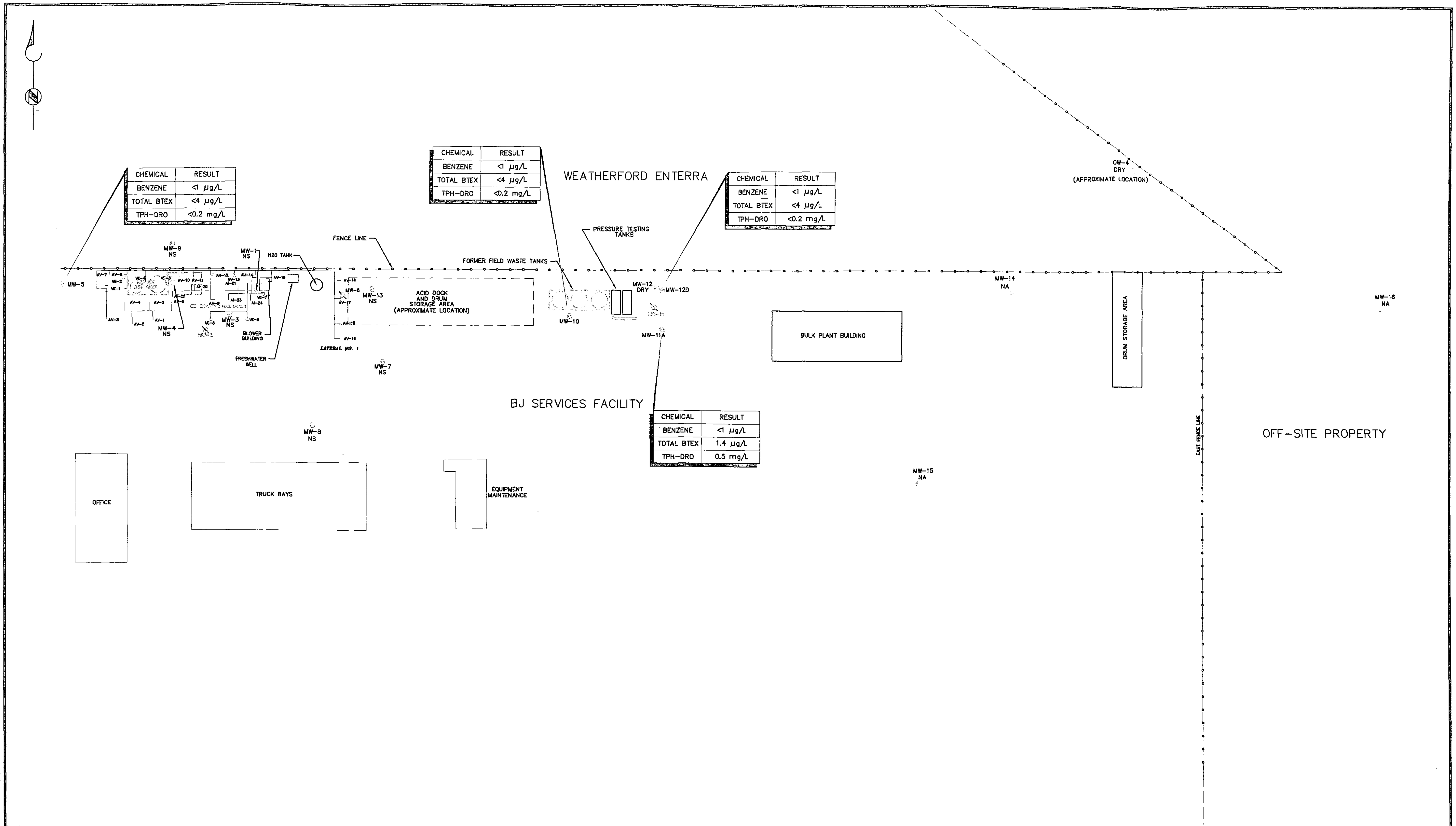
APPROVED:____ DATE____

LEGEND

3585.12 MW-4	EXISTING MONITOR WELL LOCATION WITH GROUNDWATER ELEVATION (FEET AMSL)
	BIOSPARGING SYSTEM
MW-2	MONITOR WELL (PLUGGED AND ABANDONED)
	GROUNDWATER FLOW DIRECTION

NM = NOT MEASURED

TITLE GROUNDWATER ELEVATION MAP FOR MARCH 29, 2004	DATE 5/13/04
CLIENT BJ SERVICES COMPANY, U.S.A.	PROJECT NUMBER 12832.019
SITE HOBBS, NEW MEXICO	FIGURE NUMBER 2



CHEMICAL	RESULT
BENZENE	<1 µg/L
TOTAL BTEX	<4 µg/L
TPH-DRO	<0.2 mg/L

CHEMICAL	RESULT
BENZENE	<1 µg/L
TOTAL BTEX	<4 µg/L
TPH-DRO	<0.2 mg/L

CHEMICAL	RESULT
BENZENE	<1 µg/L
TOTAL BTEX	<4 µg/L
TPH-DRO	<0.2 mg/L

CHEMICAL	RESULT
BENZENE	<1 µg/L
TOTAL BTEX	1.4 µg/L
TPH-DRO	0.5 mg/L

BROWN AND CALDWELL
HOUSTON, TEXAS

SUBMITTED: ____________ DATE: ______
PROJECT MANAGER

APPROVED: ____________ DATE: ______
BROWN AND CALDWELL

0 60 90

SCALE: 1" = 90'

DRAWN BY: _____ DATE _____
CHK'D BY: _____ DATE _____
APPROVED: _____ DATE _____

LEGEND

MW-3 EXISTING MONITOR WELL LOCATION

BIOSPARGING SYSTEM

MW-2 MONITOR WELL (PLUGGED AND ABANDONED)

NS = NOT SAMPLED

NA = NOT ANALYZED

TITLE: HYDROCARBON DISTRIBUTION MAP FOR MARCH 30, 2004

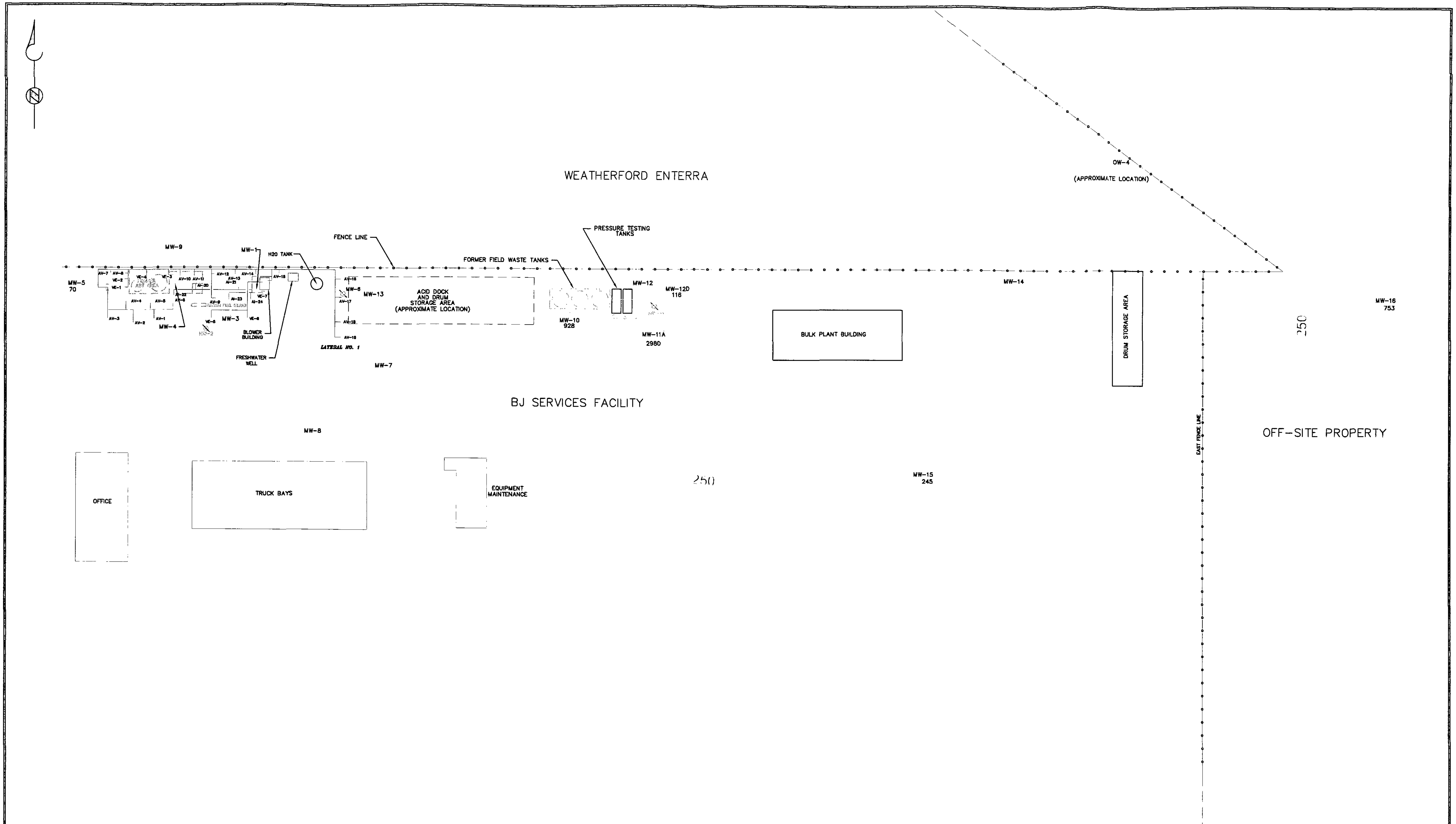
CLIENT: BJ SERVICES COMPANY, U.S.A.

SITE: HOBBS, NEW MEXICO

DATE: 9/11/00

PROJECT NUMBER: 12832.019

FIGURE NUMBER: 3



BROWN AND CALDWELL
HOUSTON, TEXAS

SUBMITTED:________________DATE:______
PROJECT MANAGER

APPROVED:________________DATE:______
BROWN AND CALDWELL

0 60 90
SCALE: 1" = 90'

DRAWN BY:_____ DATE_____
CHK'D BY:_____ DATE_____
APPROVED:_____ DATE_____

LEGEND

MW-3
183 (MARCH 2002) MONITOR WELL LOCATION, WITH MOST RECENT CHLORIDE CONCENTRATION (mg/L) AND DATE

BIOSPARGING SYSTEM

MW-2 MONITOR WELL (PLUGGED AND ABANDONED)

CHLORIDE ISOCONCENTRATION LINE

TITLE: CHLORIDE DISTRIBUTION MAP FOR MARCH 30, 2004	DATE: 5/13/04
CLIENT: BJ SERVICES COMPANY, U.S.A.	PROJECT NUMBER: 12832.019
SITE: HOBBS, NEW MEXICO	FIGURE NUMBER: 4

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Tables

BROWN AND
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TABLES

Table 1
Site Chronology
BJ Services Company, U.S.A.
Hobbs, New Mexico

Date	Activity
February 7, 1991	The New Mexico Oil Conservation Division (NMOCD) conducted an on-site inspection, including sampling of the on-site fresh water well.
August 6, 1991	The NMOCD requested submittal of an investigation work plan.
September 5, 1991	Roberts/Schornick and Associates, Inc. (RSA) submitted Technical Work Plan for soil and groundwater investigation to the NMOCD.
November 15, 1991	The NMOCD approved the Technical Work Plan submitted by RSA.
December 16, 1991	RSA sampled the fresh water well. The analytical results were submitted to the NMOCD.
February 21, 1992	Western sampled the fresh water well. The analytical results were submitted to the NMOCD.
July 29 - August 10, 1992	Brown and Caldwell conducted a soil and groundwater investigation according to the approved Technical Work Plan. The investigation included drilling and sampling nine soil borings, sampling six hand-augured soil borings, installation and sampling of five monitor wells, and sampling of the fresh water well.
October 12, 1992	Brown and Caldwell submitted a Soil and Groundwater Investigation Report to the NMOCD.
December 2, 1992	The NMOCD requested the installation and sampling of four additional monitor wells, including a monitor well on an adjacent property.
April 13, 1993	Brown and Caldwell conducted a vapor extraction pilot test on the existing monitor wells.
April 15, 1993	Brown and Caldwell installed off-site monitor well MW-9.
April 22, 1993	Brown and Caldwell sampled off-site monitor well MW-9.
May 27, 1993	Brown and Caldwell submitted a letter report documenting the installation and sampling of off-site monitor well MW-9 to the NMOCD.
June 2, 1993	Brown and Caldwell conducted a short-term aquifer test using the fresh water well at the facility.
June 8, 1993	USTank Management, Inc. conducted a non-volumetric tank system tightness test on the diesel and unleaded gasoline aboveground storage tanks at the facility.
June 21, 1993	ENSR Consulting and Engineering (ENSR), the environmental consultant for the adjacent property owner on which off-site well MW-9 is located, submitted a request to sample monitor well MW-9.

Table 1
Site Chronology
BJ Services Company, U.S.A.
Hobbs, New Mexico

July 15, 1993	ENSR split a groundwater sample collected from monitor well MW-9 with Brown and Caldwell.
July 30, 1993	USTank Management, Inc. submitted a tank tightness test report to Brown and Caldwell. The report indicated that both tanks and their associated piping passed.
August 16-19, 1993	Brown and Caldwell installed two additional downgradient monitor wells. Brown and Caldwell sampled each of the existing and newly installed monitor wells.
January 26, 1994	Brown and Caldwell performed a groundwater monitoring event; the existing monitor wells and the fresh water well were purged and sampled. The groundwater samples were analyzed for BTEX.
May 6, 1994	A Remedial Action Plan (RAP) was submitted to the NMOCD.
August 11, 1994	The RAP was approved by the NMOCD.
May 3, 1995	Brown and Caldwell conducted the May 1995 groundwater sampling event.
July 31, 1995	Brown and Caldwell conducted the July 1995 groundwater sampling event.
August 2-9, 1995	Installation of the biosparging system was initiated. Nineteen combined injection/extraction wells and three vacuum extraction wells were installed.
August 14-26, 1995	Remedial Construction Services, Inc. (RCS) constructed the initial design of the biosparging system.
September 19, 1995	Operation of the extraction portion of the biosparging system commenced.
November 13, 1995	Operation of the injection portion of the biosparging system commenced.
November 14, 1995	Brown and Caldwell conducted the November 1995 groundwater sampling event.
February 23, 1996	Brown and Caldwell conducted the February 1996 groundwater sampling event.
May 31, 1996	Brown and Caldwell conducted the May 1996 groundwater sampling event.
August 23, 1996	Brown and Caldwell conducted the August 1996 groundwater sampling event.
December 2, 1996	Brown and Caldwell conducted the December 1996 groundwater sampling event.

Table 1
Site Chronology
BJ Services Company, U.S.A.
Hobbs, New Mexico

March 6-7, 1997	BJ Services removed three field waste tanks and associated hydrocarbon-impacted soil.
March 12, 1997	Brown and Caldwell conducted the March 1997 groundwater sampling event.
March 14, 1997	Vapor extraction well VE-4 was installed.
April 1997	Vapor extraction well VE-4 was connected to the vapor extraction system.
June 12, 1997	Brown and Caldwell conducted the June 1997 groundwater sampling event.
September 11-12, 1997	Brown and Caldwell conducted the September 1997 groundwater sampling event.
December 10, 1997	Brown and Caldwell conducted the December 1997 groundwater sampling event.
February 3-14, 1998	Air injection wells AI-20 through AI-24, vapor extraction wells VE-5 through VE-7, and monitor wells MW-11A and MW-12 were installed.
February 19, 1998	Operation of previously existing injection wells was suspended in preparation for start-up of new injection wells AI-20 through AI-24.
March 10, 1998	Operation of new air injection wells AI-20 through AI-24 and new vapor extraction wells VE-5 through VE-7 commenced.
March 23-24, 1998	Brown and Caldwell conducted the March 1998 groundwater sampling event.
March 24, 1998	Operation of previously existing injection wells and vapor extraction wells resumed.
June 23, 1998	Brown and Caldwell conducted the June 1998 groundwater sampling event.
September 30, 1998	Brown and Caldwell conducted the September 1998 groundwater sampling event.
December 9-10, 1998	Brown and Caldwell conducted the December 1998 groundwater sampling event.
January 21, 1999	The NMOCD requested submittal of a work plan by March 22, 1999 to perform additional groundwater delineation in the area of the former field waste tanks and the former AST/MW-6 area.
March 9-10, 1999	Brown and Caldwell conducted the March 1999 groundwater sampling event.
March 19, 1999	Brown and Caldwell submitted the work plan for groundwater delineation activities that was requested by the NMOCD.

Table 1
Site Chronology
BJ Services Company, U.S.A.
Hobbs, New Mexico

May 19, 1999	The NMOCD approved the groundwater delineation work plan.
June 10, 1999	Brown and Caldwell performed sampling of existing monitor wells for the June /July 1999 groundwater sampling event.
July 2, 1999	Brown and Caldwell completed plugging and abandonment of monitor wells MW-2, MW-6, and MW-11; installed and developed monitor wells MW-12D and MW-13; and sampled monitor wells MW-12D and MW-13 to complete the June/July 1999 groundwater sampling event.
July 14, 1999	Brown and Caldwell redirected air discharge from the shallow injection well injection system to Lateral No. 1 and optimized air flow to injection wells AI-16 and AI-17 to apply increased remedial pressure to the eastern portion of the west plume.
September 13-14, 1999	Brown and Caldwell conducted the September 1999 groundwater sampling event.
December 9, 1999	Brown and Caldwell conducted the December 1999 groundwater sampling event.
March 9-10, 2000	Brown and Caldwell conducted the March 2000 groundwater sampling event and shut off air flow to biosparging system Lateral Nos. 4S, 5S, 6S, and 7S.
June 8, 2000	Brown and Caldwell conducted the June 2000 groundwater sampling event.
September 13, 2000	Brown and Caldwell conducted the September 2000 groundwater sampling event.
November 1, 2000	Brown and Caldwell deactivated the biosparging system.
December 7, 2000	Brown and Caldwell conducted the December 2000 groundwater sampling event.
January 2001	Brown and Caldwell installed and sampled monitor wells MW-14 and MW-15.
March 8-9, 2001	Brown and Caldwell conducted the March 2001 groundwater sampling event.
June 21-22, 2001	Brown and Caldwell conducted the June 2001 groundwater sampling event.
July 23, 2001	Brown and Caldwell collected soil samples from four soil borings installed at the former fueling system area of the facility to confirm the effectiveness of the biosparging system in remediating hydrocarbon impact to soil, as specified in the NMOCD-approved RAP.
September 10, 2001	Brown and Caldwell conducted the September 2001 groundwater sampling event.

Table 1
Site Chronology
BJ Services Company, U.S.A.
Hobbs, New Mexico

December 6, 2001	Brown and Caldwell conducted the December 2001 groundwater sampling event.
February 26, 2002	Brown and Caldwell repaired the crushed well completion on monitor well MW-10.
February 28, 2002	NMOCD requested an evaluation of chloride content of groundwater at the facility.
March 11-12, 2002	Brown and Caldwell conducted the March 2002 groundwater sampling event. Groundwater samples from all water-producing wells at the facility were analyzed for chloride content.
May 21, 2002	Brown and Caldwell submitted the report for the March 2002 groundwater sampling event, including an evaluation of chloride content of groundwater at the facility and a recommendation for installation of a downgradient off-site well (MW-16) to replace off-site well OW-4, which has gone dry.
June 17-18, 2002	Brown and Caldwell conducted the June 2002 groundwater sampling event.
September 16, 2002	Brown and Caldwell conducted the September 2002 groundwater sampling event.
November 11, 2002	Brown and Caldwell submitted the June 2002 Groundwater Sampling Report and Biosparging System Closure Report.
January 9, 2003	Brown and Caldwell conducted the January 2003 groundwater sampling event.
March 6, 2003	Brown and Caldwell conducted the March 2003 groundwater sampling event.
May 13, 2003	Brown and Caldwell installed monitor well MW-16 at a location to the west of the facility.
June 19, 2003	Brown and Caldwell initiated the June 2003 groundwater sampling event.
August 22, 2003	Brown and Caldwell completed the June 2003 groundwater sampling event.
October 2, 2003	Brown and Caldwell conducted the October 2003 groundwater sampling event.
December 17-18, 2003	Brown and Caldwell conducted the December 2003 groundwater sampling event.
March 29-30, 2004	Brown and Caldwell conducted the March 2004 groundwater sampling event.

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-1	3,647.53	8/10/1992	53.22	0.00	3,594.31	(1)
		2/9/1993	53.03	0.00	3,594.50	
		8/18/1993	53.10	0.00	3,594.43	
		1/26/1994	53.31	0.00	3,594.22	
		5/3/1995	54.64	0.20	3,593.05	(2)
		7/31/1995	54.14	0.00	3,593.39	
		11/14/1995	53.69	0.00	3,593.84	
		2/23/1996	54.32	0.00	3,593.21	
		5/31/1996	54.14	0.00	3,593.39	
		8/23/1996	56.17	0.00	3,591.36	
		12/2/1996	55.27	0.00	3,592.26	
		3/12/1997	55.70	0.27	3,592.05	
		6/12/1997	55.08	0.02	3,592.47	
		9/12/1997	55.64	0.51	3,592.31	
		12/10/1997	55.46	0.00	3,592.07	PSH Sheen
		3/24/1998	55.81	0.00	3,591.72	PSH Sheen
		6/23/1998	56.38	0.06	3,591.20	
		9/30/1998	56.82	0.00	3,590.71	PSH Sheen
		12/9/1998	57.05	0.00	3,590.48	
		3/10/1999	57.45	0.00	3,590.08	
		6/10/1999	58.02	0.00	3,589.51	
		7/2/1999	57.90	0.00	3,589.63	
		9/14/1999	58.14	0.00	3,589.39	
		12/9/1999	-	-	-	(3)
		3/9/2000	58.99	0.00	3,588.54	
		06/00	-	-	-	
		09/00	-	-	-	
		12/7/00	-	-	-	
		3/8/2001	60.35	0.00	3,587.18	
		6/21/01	60.99	0.00	3,586.54	
		9/10/01	61.17	0.00	3,586.36	
		12/6/2001	not measured			
		03/11/02	62.11	0.00	3,585.42	
		6/17/02	62.53	0.00	3,585.00	
		9/16/2002	62.43	0.00	3,585.10	
		1/9/2003	62.61	0.00	3,584.92	
		3/6/2003	62.72	0.00	3,584.81	
		6/19/2003	-	-	-	(3) - well not located
		10/2/2003	62.97	0.00	3,584.56	
		12/17/2003	63.21	0.00	3,584.32	
		3/29/2004	63.24	0.00	3,584.29	
MW-2	3,644.84	8/10/1992	52.82	0.00	3,592.02	(1)
		2/9/1993	49.60	0.00	3,595.24	
		8/18/1993	49.71	0.00	3,595.13	
		1/26/1994	49.97	0.00	3,594.87	
		5/3/1995	-	-	-	(4),(5)
MW-3	3,645.00	8/10/1992	52.99	0.00	3,592.01	(1)
		2/9/1993	52.72	0.00	3,592.28	
		8/18/1993	52.82	0.00	3,592.18	
		1/26/1994	53.05	0.00	3,591.95	
		5/3/1995	54.31	0.00	3,590.69	
		7/31/1995	51.24	0.00	3,593.76	
		11/14/1995	51.10	0.00	3,593.90	
		2/23/1996	51.68	0.00	3,593.32	
		5/31/1996	51.45	0.00	3,593.55	
		8/23/1996	51.55	0.00	3,593.45	
		12/2/1996	52.23	0.00	3,592.77	
		3/12/1997	52.67	0.00	3,592.33	
		6/12/1997	52.68	0.00	3,592.32	
		9/11/1997	52.71	0.00	3,592.29	
		12/10/1997	52.89	0.00	3,592.11	
		3/23/1998	53.22	0.00	3,591.78	
		6/23/1998	53.66	0.00	3,591.34	
		9/30/1998	54.06	0.00	3,590.94	
		12/9/1998	54.36	0.00	3,590.64	
		3/10/1999	54.72	0.00	3,590.28	
		6/10/1999	55.17	0.00	3,589.83	
		7/2/1999	55.15	0.00	3,589.85	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-3 cont.	3,645.00	9/14/1999	55.42	0.00	3,589.58	
		12/9/1999	55.78	0.00	3,589.22	
		3/9/2000	56.23	0.00	3,588.77	
		6/8/2000	56.66	0.00	3,588.34	
		9/13/2000	56.77	0.00	3,588.23	
		12/7/2000	57.15	0.00	3,587.85	
		3/8/2001	57.69	0.00	3,587.31	
		6/21/01	58.34	0.00	3,586.66	
		9/10/01	58.54	0.00	3,586.46	
		12/6/2001	59.04	0.00	3,585.96	
		3/11/2002	59.50	0.00	3,585.50	
		6/17/02	59.83	0.00	3,585.17	
		9/16/2002	59.80	0.00	3,585.20	
		1/9/2003	60.01	0.00	3,584.99	
		3/6/2003	60.10	0.00	3,584.90	
		6/19/2003	-	-	-	(3) - well not located
		10/2/2003	60.34	0.00	3,584.66	
		12/17/2003	60.50	0.00	3,584.50	
		3/29/2004	60.55	0.00	3,584.45	
MW-4	3,645.28	8/10/1992	50.55	0.00	3,594.73	(1)
		2/9/1993	50.26	0.00	3,595.02	
		8/18/1993	50.38	0.00	3,594.90	
		1/26/1994	50.90	0.30	3,594.63	
		5/3/1995	51.51	0.45	3,594.14	
		7/31/1995	51.74	0.26	3,593.75	
		11/14/1995	51.03	0.00	3,594.25	
		2/23/1996	51.65	0.01	3,593.64	
		5/31/1996	51.48	0.00	3,593.80	
		8/23/1996	53.49	0.00	3,591.79	
		12/2/1996	52.32	0.00	3,592.96	
		3/12/1997	52.74	0.05	3,592.58	
		6/12/1997	53.08	0.44	3,592.56	
		9/12/1997	52.60	0.15	3,592.80	
		12/10/1997	52.89	0.00	3,592.39	PSH Sheen
		3/24/1998	53.20	0.25	3,592.29	
		6/23/1998	53.82	0.22	3,591.64	
		9/30/1998	53.96	0.00	3,591.32	200 ml PSH
		12/9/1998	54.27	0.00	3,591.01	
		3/10/1999	54.69	0.04	3,590.62	
		6/10/1999	55.07	0.00	3,590.21	
		7/2/1999	55.10	0.00	3,590.18	
		9/14/1999	55.33	0.00	3,589.95	
		12/9/1999	55.79	0.00	3,589.49	
		3/10/2000	56.12	0.00	3,589.16	
		6/8/2000	56.67	0.00	3,588.61	
		9/13/2000	56.65	0.00	3,588.63	
		12/7/2000	57.05	0.00	3,588.23	
		3/8/2001	57.72	0.00	3,587.56	
		6/21/01	58.18	0.00	3,587.10	
		9/10/01	58.54	0.00	3,586.74	
		12/6/2001	58.88	0.00	3,586.40	
		3/11/2002	59.41	0.00	3,585.87	
		6/17/02	59.67	0.00	3,585.61	
		9/16/2002	59.71	0.00	3,585.57	
		1/9/2003	59.91	0.00	3,585.37	
		3/6/2003	60.03	0.00	3,585.25	
		6/19/2003	60.16	0.00	3,585.12	
		10/2/2003	60.30	0.00	3,584.98	
		12/17/2003	60.35	0.00	3,584.93	
		3/29/2004	60.38	0.00	3,584.90	
MW-5	3,647.72	8/10/1992	52.38	0.00	3,595.34	(1)
		2/9/1993	52.06	0.00	3,595.66	
		8/18/1993	52.16	0.00	3,595.56	
		1/26/1994	52.50	0.00	3,595.22	
		5/3/1995	53.57	0.00	3,594.15	
		7/31/1995	53.27	0.00	3,594.45	
		11/14/1995	52.83	0.00	3,594.89	
		2/23/1996	53.57	0.00	3,594.15	
		5/31/1996	53.16	0.00	3,594.56	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-5 cont.	3,647.72	8/23/1996	53.41	0.00	3,594.31	
		12/2/1996	53.98	0.00	3,593.74	
		3/12/1997	54.44	0.00	3,593.28	
		6/12/1997	54.48	0.00	3,593.24	
		9/12/1997	54.29	0.00	3,593.43	
		12/10/1997	54.66	0.00	3,593.06	
		3/23/1998	55.05	0.00	3,592.67	
		6/23/1998	55.44	0.00	3,592.28	
		9/30/1998	55.65	0.00	3,592.07	
		12/9/1998	56.00	0.00	3,591.72	
		3/9/1999	56.45	0.00	3,591.27	
		6/10/1999	56.91	0.00	3,590.81	
		7/2/1999	56.93	0.00	3,590.79	
		9/14/1999	57.12	0.00	3,590.60	
		12/9/1999	57.41	0.00	3,590.31	
		3/9/2000	57.92	0.00	3,589.80	
		6/8/2000	58.32	0.00	3,589.40	
		9/13/2000	58.36	0.00	3,589.36	
		12/7/2000	58.71	0.00	3,589.01	
		3/8/2001	59.36	0.00	3,588.36	
		6/21/01	59.94	0.00	3,587.78	
		9/10/01	59.85	0.00	3,587.87	
		12/6/2001	60.56	0.00	3,587.16	
		3/11/02	61.12	0.00	3,586.60	
		6/17/02	61.43	0.00	3,586.29	
		9/16/2002	61.52	0.00	3,586.20	
		1/9/2003	61.75	0.00	3,585.97	
		3/6/2003	61.90	0.00	3,585.82	
		6/19/2003	62.01	0.00	3,585.71	
		10/2/2003	62.16	0.00	3,585.56	
		12/17/2003	62.35	0.00	3,585.37	
		3/29/2004	62.56	0.00	3,585.16	
MW-6	3,644.74	2/9/1993	50.58	0.00	3,594.16	(1)
		8/18/1993	50.78	0.00	3,593.96	
		1/26/1994	51.00	0.00	3,593.74	
		5/3/1995	52.63	0.00	3,592.11	
		7/31/1995	51.90	0.00	3,592.84	
		11/14/1995	51.19	0.00	3,593.55	
		2/23/1996	52.10	0.00	3,592.64	
		5/31/1996	51.76	0.00	3,592.98	
		8/23/1996	51.63	0.00	3,593.11	
		12/2/1996	52.85	0.00	3,591.89	
		3/12/1997	53.55	0.00	3,591.19	
		6/12/1997	52.08	0.00	3,592.66	
		9/11/1997	53.72	0.00	3,591.02	
		12/10/1997	53.27	0.00	3,591.47	
		3/23/1998	53.56	0.00	3,591.18	
		6/23/1998	52.88	0.00	3,591.86	
		9/30/1998	54.89	0.00	3,589.85	
		12/9/1998	54.57	0.00	3,590.17	
		3/10/1999	55.10	0.00	3,589.64	
		7/2/1999	-	-	-	(5),(6)
MW-7	3,644.55	2/9/1993	50.53	0.00	3,594.02	(1)
		8/18/1993	50.74	0.00	3,593.81	
		1/26/1994	51.01	0.00	3,593.54	
		5/3/1995	52.25	0.00	3,592.30	
		7/31/1995	51.92	0.00	3,592.63	
		11/14/1995	51.48	0.00	3,593.07	
		2/23/1996	52.15	0.00	3,592.40	
		5/31/1996	51.78	0.00	3,592.77	
		8/23/1996	52.02	0.00	3,592.53	
		12/2/1996	52.52	0.00	3,592.03	
		3/12/1997	52.99	0.00	3,591.56	
		6/12/1997	53.08	0.00	3,591.47	
		9/11/1997	53.00	0.00	3,591.55	
		12/10/1997	53.28	0.00	3,591.27	
		3/23/1998	53.59	0.00	3,590.96	
		6/23/1998	54.20	0.00	3,590.35	
		9/30/1998	54.54	0.00	3,590.01	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-7 cont.	3,644.55	12/9/1998	54.74	0.00	3,589.81	
		3/9/1999	55.15	0.00	3,589.40	
		6/10/1999	55.66	0.00	3,588.89	
		7/2/1999	55.73	0.00	3,588.82	
		9/13/1999	55.94	0.00	3,588.61	
		12/9/1999	56.38	0.00	3,588.17	
		3/9/2000	56.74	0.00	3,587.81	
		6/8/2000	57.17	0.00	3,587.38	
		9/13/2000	57.40	0.00	3,587.15	
		12/7/2000	57.77	0.00	3,586.78	
		3/8/2001	58.29	0.00	3,586.26	
		6/21/01	58.91	0.00	3,585.64	
		9/10/01	59.25	0.00	3,585.30	
		12/6/2001	59.75	0.00	3,584.80	
		3/11/2002	60.03	0.00	3,584.52	
		6/17/02	60.39	0.00	3,584.16	
		9/16/2002	60.39	0.00	3,584.16	
		1/9/2003	60.53	0.00	3,584.02	
		3/6/2003	60.61	0.00	3,583.94	
		6/19/2003	60.73	0.00	3,583.82	
		10/2/2003	60.84	0.00	3,583.71	
		12/17/2003	60.99	0.00	3,583.56	
		3/29/2004	61.19	0.00	3,583.36	
MW-8	3,644.87	2/9/1993	50.48	0.00	3,594.39	(1)
		8/18/1993	50.67	0.00	3,594.20	
		1/26/1994	50.96	0.00	3,593.91	
		5/3/1995	52.15	0.00	3,592.72	
		7/31/1995	51.77	0.00	3,593.10	
		11/14/1995	51.37	0.00	3,593.50	
		2/23/1996	52.17	0.00	3,592.70	
		5/31/1996	51.55	0.00	3,593.32	
		8/23/1996	51.92	0.00	3,592.95	
		12/2/1996	52.43	0.00	3,592.44	
		3/12/1997	52.93	0.00	3,591.94	
		6/12/1997	53.96	0.00	3,590.91	
		9/11/1997	52.73	0.00	3,592.14	
		12/10/1997	53.15	0.00	3,591.72	
		3/23/1998	53.51	0.00	3,591.36	
		6/23/1998	54.01	0.00	3,590.86	
		9/30/1998	54.35	0.00	3,590.52	
		12/9/1998	54.60	0.00	3,590.27	
		3/9/1999	55.00	0.00	3,589.87	
		6/10/1999	55.56	0.00	3,589.31	
		7/2/1999	55.57	0.00	3,589.30	
		9/13/1999	55.72	0.00	3,589.15	
		12/9/1999	-	-	-	(3)
		3/9/2000	56.52	0.00	3,588.35	
		06/00	-	-	-	
		09/00	-	-	-	
		12/00	-	-	-	
		3/8/2001	58.11	0.00	3,586.76	
		6/21/01	58.72	0.00	3,586.15	
		9/10/01	58.94	0.00	3,585.93	
		12/6/2001	not measured			
		3/11/2002	59.94	0.00	3,584.93	
		6/17/02	60.22	0.00	3,584.65	
		9/16/2002	60.24	0.00	3,584.63	
		1/9/2003	60.42	0.00	3,584.45	
		3/6/2003	60.52	0.00	3,584.35	
		6/19/2003	60.63	0.00	3,584.24	
		10/2/2003	60.75	0.00	3,584.12	
		12/17/2003	60.92	0.00	3,583.95	
		3/29/2004	61.11	0.00	3,583.76	
MW-9	3,644.78	4/22/1993	49.73	0.00	3,595.05	(1)
		7/15/1993	49.65	0.00	3,595.13	
		8/18/1993	49.85	0.00	3,594.93	
		1/26/1994	50.02	0.00	3,594.76	
		5/3/1995	51.35	0.00	3,593.43	
		7/31/1995	50.97	0.00	3,593.81	
		11/14/1995	50.43	0.00	3,594.35	
		2/23/1996	51.12	0.00	3,593.66	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-9 cont.	3,644.78	5/31/1996	50.89	0.00	3,593.89	
		8/23/1996	50.98	0.00	3,593.80	
		12/2/1996	51.58	0.00	3,593.20	
		3/12/1997	52.21	0.05	3,592.61	
		6/12/1997	52.10	0.00	3,592.68	PSH Sheen
		9/12/1997	51.95	0.00	3,592.83	PSH Sheen
		12/10/1997	52.37	0.00	3,592.41	PSH Sheen
		3/23/1998	52.68	0.00	3,592.10	PSH Sheen
		6/23/1998	53.08	0.00	3,591.70	PSH Sheen
		9/30/1998	53.39	0.01	3,591.40	PSH Sheen
		12/9/1998	53.68	0.00	3,591.10	
		3/10/1999	54.15	0.00	3,590.63	
		6/10/1999	54.68	0.00	3,590.10	
		7/2/1999	54.71	0.00	3,590.07	
		9/13/1999	54.71	0.00	3,590.07	
		12/9/1999	-	-	-	(3)
		3/9/2000	55.69	0.00	3,589.09	
		06/00	-	-	-	
		09/00	-	-	-	
		12/00	-	-	-	
		3/8/2001	57.03	0.00	3,587.75	
		6/21/01	57.91	0.00	3,586.87	
		9/10/01	57.95	0.00	3,586.83	
		12/6/2001	not measured			
		3/11/2002	58.96	0.00	3,585.82	
		6/17/02	59.14	0.00	3,585.64	
		9/16/2002	not measured			
		1/9/2003	59.34	0.00	3,585.44	
		3/6/2003	59.48	0.00	3,585.30	
		6/19/2003	59.64	0.00	3,585.14	
		10/2/2003	59.76	0.00	3,585.02	
		12/17/2003	59.93	0.00	3,584.85	
		3/29/2004	60.13	0.00	3,584.65	
MW-10	3,644.47	8/18/1993	51.54	0.00	3,592.93	(1)
		1/26/1994	51.90	0.00	3,592.57	
		5/3/1995	52.97	0.00	3,591.50	
		7/31/1995	52.87	0.00	3,591.60	
		11/14/1995	52.51	0.00	3,591.96	
		2/23/1996	53.05	0.00	3,591.42	
		5/31/1996	52.79	0.00	3,591.68	
		8/23/1996	53.03	0.00	3,591.44	
		12/2/1996	53.41	0.00	3,591.06	
		3/12/1997	54.21	0.00	3,590.26	
		6/12/1997	53.99	0.00	3,590.48	
		9/12/1997	53.94	0.00	3,590.53	
		12/10/1997	54.12	0.00	3,590.35	
		3/23/1998	54.51	0.00	3,589.96	
		6/23/1998	55.12	0.00	3,589.35	
		9/30/1998	55.61	0.00	3,588.86	
		12/9/1998	55.80	0.00	3,588.67	
		3/9/1999	56.09	0.00	3,588.38	
		6/10/1999	56.60	0.00	3,587.87	
		7/2/1999	56.64	0.00	3,587.83	
		9/14/1999	56.91	0.00	3,587.56	
		12/9/1999	57.37	0.00	3,587.10	
		3/10/2000	57.71	0.00	3,586.76	
		6/8/2000	58.08	0.00	3,586.39	
		9/13/2000	58.44	0.00	3,586.03	
		12/7/2000	58.89	0.00	3,585.58	
		3/9/2001	59.31	0.00	3,585.16	
		6/21/01	59.89	0.00	3,584.58	
		9/10/01	61.34	0.00	3,583.13	
		12/6/2001	60.65	0.00	3,583.82	
		3/11/2002	60.69	0.00	3,583.78	
		6/17/02	60.98	0.00	3,583.49	
		9/16/2002	61.00	0.00	3,583.47	
		1/9/2003	61.07	0.00	3,583.40	
		3/6/2003	61.19	0.00	3,583.28	
		6/19/2003	61.26	0.00	3,583.21	
		10/2/2003	61.38	0.00	3,583.09	
		12/17/2003	61.55	0.00	3,582.92	
		3/29/2004	61.71	0.00	3,582.76	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-11	3,643.78	8/18/1993	51.92	0.00	3,591.86	(1)
		1/26/1994	52.32	0.00	3,591.46	
		5/3/1995	53.38	0.00	3,590.40	
		7/31/1995	53.35	0.00	3,590.43	
		11/14/1995	52.96	0.00	3,590.82	
		2/23/1996	53.50	0.00	3,590.28	
		5/31/1996	53.25	0.00	3,590.53	
		8/23/1996	53.49	0.00	3,590.29	
		12/2/1996	53.79	0.00	3,589.99	
		3/12/1997	53.81	0.00	3,589.97	
		6/12/1997	53.96	0.00	3,589.82	
		9/12/1997	52.93	0.00	3,590.85	
		12/10/1997	-	-	-	(5),(6)
MW-11A	3,644.24	3/23/1998	54.79	0.00	3,589.45	(7)
		6/23/1998	55.43	0.00	3,588.81	
		9/30/1998	55.96	0.00	3,588.28	
		12/9/1998	56.13	0.00	3,588.11	
		3/10/1999	56.43	0.00	3,587.81	
		6/10/1999	56.94	0.00	3,587.30	
		7/2/1999	57.01	0.00	3,587.23	
		9/14/1999	57.36	0.00	3,586.88	
		12/9/1999	57.72	0.00	3,586.52	
		3/9/2000	58.01	0.00	3,586.23	
		6/8/2000	58.40	0.00	3,585.84	
		9/13/2000	58.84	0.00	3,585.40	
		12/7/2000	59.29	0.00	3,584.95	
		3/8/2001	59.72	0.00	3,584.52	
		6/21/01	60.28	0.00	3,583.96	
		9/10/01	60.69	0.00	3,583.55	
		12/6/2001	60.88	0.00	3,583.36	
		3/11/2002	61.42	0.00	3,582.82	
		6/17/02	61.55	0.00	3,582.69	
		9/16/2002	61.59	0.00	3,582.65	
		1/9/2003	61.67	0.00	3,582.57	
		3/6/2003	61.70	0.00	3,582.54	
		6/19/2003	61.84	0.00	3,582.40	
		10/2/2003	61.88	0.00	3,582.36	
		12/17/2003	62.05	0.00	3,582.19	
		3/29/2004	62.25	0.00	3,581.99	
MW-12	3,644.29	3/23/1998	54.72	0.00	3,589.57	(7)
		6/23/1998	55.48	0.00	3,588.81	
		9/30/1998	56.02	0.00	3,588.27	
		12/9/1998	56.17	0.00	3,588.12	
		3/10/1999	56.45	0.00	3,587.84	
		6/10/1999	56.97	0.00	3,587.32	
		7/2/1999	56.99	0.00	3,587.30	
		9/14/1999	57.41	0.00	3,586.88	
		12/9/1999	57.76	0.00	3,586.53	
		3/10/2000	58.08	0.00	3,586.21	
		6/8/2000	58.42	0.00	3,585.87	
		9/13/2000	58.85	0.00	3,585.44	
		12/7/2000	59.31	0.00	3,584.98	
		3/8/2001	59.76	0.00	3,584.53	
		6/21/01	60.29	0.00	3,584.00	
		9/10/01	60.79	0.00	3,583.50	
		12/6/2001	well dry during this and subsequent monitoring events			
MW-12D	3,644.38	7/2/1999	57.13	0.00	3,587.25	(8)
		9/14/1999	57.74	0.00	3,586.64	
		12/9/1999	57.86	0.00	3,586.52	
		3/9/2000	58.24	0.00	3,586.14	
		6/8/2000	58.56	0.00	3,585.82	
		09/00	-	-	-	
		12/00	-	-	-	
		3/8/2001	-	-	-	
		6/21/01	-	-	-	
		9/10/01	-	-	-	
		12/6/2001	61.30	0.00	3,583.08	
		3/11/2002	61.61	0.00	3,582.77	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
MW-12D cont.	3,644.38	6/17/02	61.71	0.00	3,582.67	
		9/16/2002	61.75	0.00	3,582.63	
		1/9/2003	61.86	0.00	3,582.52	
		3/6/2003	61.91	0.00	3,582.47	
		6/19/2003	61.95	0.00	3,582.43	
		10/2/2003	62.05	0.00	3,582.33	
		12/17/2003	62.21	0.00	3,582.17	
		3/29/2004	62.38	0.00	3,582.00	
MW-13	3,645.52	7/2/1999	56.60	0.00	3,588.92	(9)
		9/14/1999	56.92	0.00	3,588.60	
		12/9/1999	57.28	0.00	3,588.24	
		3/10/2000	57.68	0.00	3,587.84	
		6/8/2000	58.04	0.00	3,587.48	
		9/13/2000	58.29	0.00	3,587.23	
		12/7/2000	58.68	0.00	3,586.84	
		3/8/2001	59.19	0.00	3,586.33	
		6/21/01	59.80	0.00	3,585.72	
		9/10/01	60.03	0.00	3,585.49	
		12/6/2001	60.59	0.00	3,584.93	
		3/11/2002	60.94	0.00	3,584.58	
		6/17/02	61.28	0.00	3,584.24	
		9/16/2002	61.23	0.00	3,584.29	
		1/9/2003	61.38	0.00	3,584.14	
		3/6/2003	61.45	0.00	3,584.07	
		6/19/2003	61.58	0.00	3,583.94	
		10/2/2003	61.70	0.00	3,583.82	
		12/17/2003	61.93	0.00	3,583.59	
		3/29/2004	62.04	0.00	3,583.48	
MW-14	3,642.45	3/8/2001	61.07	0.00	3,581.38	
		6/21/01	61.71	0.00	3,580.74	
		9/10/01	62.31	0.00	3,580.14	
		12/6/2001	62.80	0.00	3,579.65	
		3/11/2002	62.70	0.00	3,579.75	
		6/17/02	62.65	0.00	3,579.80	
		9/16/2002	62.55	0.00	3,579.90	
		1/9/2003	62.59	0.00	3,579.86	
		3/6/2003	62.64	0.00	3,579.81	
		6/19/2003	62.64	0.00	3,579.81	
		10/2/2003	62.73	0.00	3,579.72	
		12/17/2003	62.93	0.00	3,579.52	
		3/29/2004	63.04	0.00	3,579.41	
MW-15	3,643.24	3/8/2001	59.79	0.00	3,583.45	
		6/21/01	60.49	0.00	3,582.75	
		9/10/01	61.02	0.00	3,582.22	
		12/6/2001	61.47	0.00	3,581.77	
		3/11/2002	61.65	0.00	3,581.59	
		6/17/02	61.68	0.00	3,581.56	
		9/16/2002	61.47	0.00	3,581.77	
		1/9/2003	61.59	0.00	3,581.65	
		3/6/2003	61.63	0.00	3,581.61	
		6/19/2003	61.62	0.00	3,581.62	
		10/2/2003	61.70	0.00	3,581.54	
		12/17/2003	61.83	0.00	3,581.41	
		3/29/2004	62.01	0.00	3,581.23	
MW-16	3,643.73	6/19/2003	66.50	0.00	3,577.23	
		10/2/2003	66.61	0.00	3,577.12	
		12/17/2003	66.72	0.00	3,577.01	
		3/29/2004	66.86	0.00	3,576.87	

Table 2
Cumulative Groundwater Elevation Data
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Top-of-Casing Elevation (MSL)	Date Measured	Depth to Groundwater (feet)	Free Product Thickness (feet)	Groundwater Elevation (MSL)	Comments
OW-4	3,644.06	7/2/1999	58.18	0.00	3,585.88	(8)
		9/14/1999	58.63	0.00	3,585.43	
		12/9/1999	58.92	0.00	3,585.14	
		3/9/2000	59.19	0.00	3,584.87	
		6/8/2000	59.56	0.00	3,584.50	
		9/13/2000	60.16	0.00	3,583.90	
		12/7/2000	61.15	0.00	3,582.91	
		3/8/2001	61.43	0.00	3,582.63	(10)
		6/21/01	61.48	0.00	3,582.58	
		9/10/01	61.53	0.00	3,582.53	
		12/6/2001	well dry during this and subsequent monitoring events			

(1) - Top of casing elevations and groundwater elevations of all monitor wells were relative to an arbitrary datum of 100.00 feet prior to March 1997 and have been converted to Mean Sea Level (MSL).

(2) - For wells having measurable thickness of free product, the groundwater elevation was calculated as follows:
Groundwater Elevation = (TOC elevation)-(depth to groundwater)+[(free product thickness)x(SG of free product)]
Note: The specific gravity (SG) of the free product is 0.82.

(3) - Not measured.

(4) - Monitor well MW-2 could not be located after January 1994.

(5) - Well plugged and abandoned July 2, 1999.

(6) - Monitor well MW-11 could not be located after September 12, 1997.

(7) - TOC elevations for MW-11A and MW-12 estimated relative to TOC elevation for MW-10.

(8) - TOC elevations for MW-12D and OW-4 estimated relative to TOC elevation for MW-12.

(9) - TOC elevation for MW-13 estimated relative to TOC elevation for MW-7.

(10) -Well dry (measured depth to water is below base of screen); true groundwater elevation is less than listed groundwater elevation.

Table 3
March 30, 2004 Field Screening Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Cumulative Liters Removed	pH	Temperature (°C)	Conductivity (umhos/cm)	Redox (mV)	Dissolved Oxygen (meter) (mg/L)	Dissolved Oxygen (Hach kit) (mg/L)	Ferrous Iron (mg/L)
MW-5	4.0	6.92	18.86	1,055	-92	6.18	3.5	0
MW-10	1.9[(1)]	7.22	19.32	4,441	-91	-1.06	0	10
MW-11A	3.8[(1)]	6.94	18.80	9,674	-82.3	-0.46	0	10
MW-12D	5.0	7.18	19.69	1,132	-123	0.57	0	1.0
MW-14	5.7[(1)]	7.39	18.91	1,400	-125	9.52	5.4	0
MW-15	9.5[(1)]	6.98	19.34	1,554	-120	6.64	7	0
MW-16	5.0	6.64	20.14	3,295	-109	0.4	3.5	0

Monitor well MW-2 not operative after January 1994; P&A'd 7/1/99.

Monitor well MW-6 P&A'd 7/1/99.

Monitor well MW-11 not operative after September 1997; P&A'd 7/1/99.

Monitor wells MW-12 and OW-4 were dry.

Monitor wells MW-10, MW-11A, MW-14, and MW-15 were purged by removing 3 well volumes of groundwater from each well.

[(1)] - Well was purged dry using bailing techniques.

Table 4
Cumulative Results[1] for Chloride[2] Analyses
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Sample Date	Monitor Wells[3]																
	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
8/1/95	160	150	310	130	380	310	350	110	2,200	3,400	NP	NP	NP	NP	NP	NP	NP	NS
8/23/96	130	140	100	99	210	250	360	140	2,000	2,900	NP	NP	NP	NP	NP	NP	NP	NS
3/23-24/98	212	206	126	151	183	223	364	164	2,390	NS	940	1,200	NP	NP	NP	NP	NP	NS
3/9-10/99	163	156	142	155	411	238	274	123	1,160	NS	834	314	NP	NP	NP	NP	NP	NS
6/10-7/2/99	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	195	496	NP	NP	NP	266
3/9-10/00	258	196	196	196	NP	224	241	131	474	NP	1,290	327	117	276	NP	NP	NP	258
1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	368	219	NP	NS
3/8-9/01	NA	165	172	152	NP	224	250	127	879	NP	1,720	586	NS	276	327	NA	NP	NS-D
6/21/2001	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NS	NA	222	222	NP	NS-D
9/10/2001	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	245	228	NP	NS-D
9/18/2001	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	79	NA	NA	NA	NP	NS-D
12/6/2001	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	276	215	NP	NS-D
3/11-12/02	177	172	183	127	NP	188	241	110	861	NP	1,230	NS-D	76	207	284	224	NP	NS-D
6/18/2002	NS	NA	NA	NA	NP	NA	NS	NS	NA	NP	NA	NS-D	NA	145	258	233	NP	NS-D
9/16/2002	NS	NS	NS	121	NP	NS	NS	NS	1,030	NP	1,550	NS-D	86	NS	293	246	NP	NS-D
1/9/2003	NS	NS	NS	123	NP	NS	NS	NS	525	NP	3,150	NS-D	95	NS	179	228	NP	NS-D
3/6/2003	NS	NS	NS	116	NP	NS	NS	NS	363	NP	2,900	NS-D	102	NS	163	272	NP	NS-D
6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	89.3	NS	NS	NS	983	NS-D
8/22/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NS	NS	182	280	841	NS-D
10/2/2003	NS	NS	NS	194	NP	NS	NS	NS	420	NP	3,240	NS-D	99.8	NS	175	298	963	NS-D
12/18/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	123	263	823	NS-D
3/30/2004	NS	NS	NS	70	NP	NS	NS	NS	928	NP	2,980	NS-D	116	NS	119	245	753	NS-D

(1) - in mg/L.
(2) - NMWQCC standard for chloride is 250 mg/L.
(3) - MW-2 not operative after May 3, 1995; P&A'd 7/1/99.
MW-6 P&A'd 7/1/99.
MW-11 P&A'd 7/1/99.
MW-11A installed February 1998.
MW-12 installed February 1998 (screened at the top of the saturated zone).
MW-12D installed June 1999, adjacent to MW-12 (screened in a lower portion of the uppermost saturated zone).
MW-13 installed June 1999.
MW-14 installed January 2001.
MW-15 installed January 2001.
MW-16 installed May 2003.

NP = not present at time of sampling event.
NS = not sampled during applicable sampling event.
NA = not analyzed for chloride during applicable sampling event.
NS-D = not sampled because well was dry during applicable sampling event.

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Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-1	8/10/1992	Regular	5550.0	12090.0	2160.0	7370.0	NA	NA
	2/9/1993	Regular	2100.0	6500.0	1300.0	7400.0	NA	NA
	8/19/1993	Regular	3200.0	7300.0	1200.0	3700.0	NA	NA
	1/27/1994	Regular	1930.0	4580.0	672.0	2390.0	NA	NA
	5/3/1995	Regular	NSP	NSP	NSP	NSP	NA	NSP
	8/1/1995	Regular	390.0	1300.0	230.0	800.0	NA	5.7
	11/15/1995	Regular	880.0	1800.0	300.0	970.0	NA	6.8
	2/23/1996	Regular	1500.0	3700.0	620.0	2200.0	NA	21
	5/31/1996	Regular	1100.0	1700.0	380.0	990.0	NA	7.5
	8/23/1996	Regular	1800.0	3300.0	570.0	2100.0	NA	17
	12/2/1996	Regular	5600.0	9600.0	2100.0	9600.0	100	64
	3/12/1997	Regular	5500.0	9700.0	2600.0	8200.0	22	62
	6/12/1997	Regular	5300.0	34000.0	7500.0	27000.0	180	160
	9/12/1997	Regular	1800.0	4400.0	1000.0	3000.0	23	21
	12/10/1997	Regular	7600.0	12000.0	2800.0	8200.0	11	71
	3/24/1998	Regular	4800.0	7200.0	1200.0	2400.0	4.2	38
	6/23/1998	Regular	53.0	680.0	580.0	1400.0	1.4	9.2
	9/30/1998	Regular	3.2	90.0	280.0	970.0	2.5	3.6
	12/10/1998	Regular	< 1.0	1.5	17.0	110.0	1.4	0.31
	3/10/1999	Regular	< 1.0	< 1.0	8.2	110.0	0.62	0.85
	3/10/1999	Duplicate	< 1.0	< 1.0	7.9	110.0	0.66	0.84
	6/10/1999	Regular	< 1.0	1.1	< 1.0	28.0	0.53	0.55
	6/10/1999	Duplicate	< 1.0	1.8	< 1.0	41.0	0.69	0.76
	9/14/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	< 0.10
	12/9/1999	-	NS	NS	NS	NS	NS	NS
	3/9/2000	Regular	< 1	< 1	< 1	9.1	14	1.3
	6/8/2000	-	NS	NS	NS	NS	NS	NS
	9/13/2000	-	NS	NS	NS	NS	NS	NS
	12/7/2000	-	NS	NS	NS	NS	NS	NS
	3/8/2001	Regular	2.0	< 1	< 1	< 1	0.49	0.58
	6/21/2001	-	NS	NS	NS	NS	NS	NS
	9/10/2001	-	NS	NS	NS	NS	NS	NS
	12/6/2001	-	NS	NS	NS	NS	NS	NS
	3/12/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/18/2002 through March 2004	- - -	NS	NS	NS	NS	NS	NS
MW-2[1]	8/10/1992	Regular	14.9	< 4	< 4	< 4	NA	NA
	2/9/1993	Regular	< 2	< 2	< 2	< 6	NA	NA
	8/19/1993	Regular	100.0	12.0	3.0	13.0	NA	NA
	1/27/1994	Regular	< 1	1.2	2.0	2.5	NA	NA
MW-3	8/10/1992	Regular	304.9	2099.0	6760.0	1586.0	NA	NA
	2/9/1993	Regular	130.0	< 10	< 10	190.0	NA	NA
	8/19/1993	Regular	560.0	3100.0	630.0	1900.0	NA	NA
	1/27/1994	Regular	1070.0	5380.0	510.0	3120.0	NA	NA
	5/4/1995	Regular	770.0	3300.0	470.0	1800.0	NA	NA
	8/1/1995	Regular	490.0	2900.0	890.0	1600.0	NA	14
	11/15/1995	Regular	250.0	1000.0	180.0	440.0	NA	2.9
	2/23/1996	Regular	120.0	810.0	170.0	560.0	NA	4
	5/31/1996	Regular	670.0	3900.0	1200.0	2300.0	NA	15
	8/23/1996	Regular	330.0	2200.0	590.0	1500.0	NA	12

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-3	12/2/1996	Regular	220.0	1800.0	670.0	1000.0	0.89	7.4
(cont.)	3/12/1997	Regular	370.0	2000.0	960.0	1400.0	1.8	11
	6/12/1997	Regular	860.0	4800.0	1700.0	2600.0	1.9	20
	9/11/1997	Regular	770.0	3000.0	1600.0	1900.0	1.6	16
	12/10/1997	Regular	240.0	740.0	500.0	450.0	0.59	5.3
	3/24/1998	Regular	140.0	630.0	360.0	310.0	0.56	3.9
	6/23/1998	Regular	100.0	720.0	350.0	490.0	0.40	4.9
	9/30/1998	Regular	42.0	470.0	450.0	530.0	1.0	3.8
	12/10/1998	Regular	13.0	220.0	160.0	290.0	1.3	0.43
	3/10/1999	Regular	3.2	7.4	42.0	32.0	0.2	0.44
	6/10/1999	Regular	1.7	3.1	<1.0	36.0	< 0.20	0.18
	9/14/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	< 0.10
	12/9/1999	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/9/2000	Regular	< 1	< 1	< 1	< 1	0.32	< 0.1
	6/8/2000	Regular	< 1	< 1	< 1	< 1	< 0.22	< 0.1
	9/13/2000	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/7/2000	Regular	< 1	< 1	< 1	< 1	< 0.25	< 0.1
	3/8/2001	Regular	< 1	< 1	< 1	< 1	0.42	< 0.1
	6/21/2001	Regular	< 1	< 1	< 1	< 1	< 0.22	< 0.1
	9/10/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/18/2002	Regular	<1	<1	<1	<1	<0.2	<0.1
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-4	8/10/1992	Regular	2594.0	10360.0	2160.0	6740.0	NA	NA
	2/9/1993	Regular	5200.0	15000.0	2200.0	10000.0	NA	NA
	8/19/1993	Regular	3000.0	12000.0	< 2000	7000.0	NA	NA
	1/27/1994	Regular	NSP	NSP	NSP	NSP	NA	NSP
	5/3/1995	Regular	NSP	NSP	NSP	NSP	NA	NSP
	8/1/1995	Regular	5700.0	17000.0	3500.0	13000.0	NA	120
	11/15/1995	Regular	490.0	1600.0	310.0	1100.0	NA	5.2
	2/23/1996	Regular	360.0	2800.0	560.0	2500.0	NA	18
	5/31/1996	Regular	84.0	830.0	280.0	1100.0	NA	6.2
	8/23/1996	Regular	110.0	1400.0	430.0	1800.0	NA	9.8
	12/2/1996	Regular	190.0	2000.0	1800.0	7200.0	56	43
	3/12/1997	Regular	220.0	1500.0	1500.0	4400.0	27	27
	6/12/1997	Regular	47.0	270.0	360.0	950.0	2.5	6.2
	9/12/1997	Regular	92.0	840.0	670.0	2100.0	15	7.6
	12/10/1997	Regular	230.0	750.0	970.0	2300.0	3.7	16
	3/24/1998	Regular	150.0	510.0	270.0	620.0	1.2	5.6
	6/23/1998	Regular	160.0	890.0	590.0	1600.0	0.69	10
	9/30/1998	Regular	80.0	180.0	370.0	840.0	2.0	3.9
	12/10/1998	Regular	28.0	70.0	210.0	960.0	9.3	4.3
	12/10/1998	Duplicate	26.0	62.0	180.0	830.0	3.9	4.3
	3/10/1999	Regular	8.0	20.0	250.0	1400.0	13.0	13
	6/10/1999	Regular	<1.0	<1.0	12.0	12.0	0.44	0.63
	9/14/1999	Regular	< 1.0	< 1.0	3.3	13.1	0.35	0.17
	12/9/1999	Regular	< 1	2.5	2.3	20.1	2	0.53
	3/10/2000	Regular	< 1	< 1	< 1	3.6	2.6	0.15

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-4 (cont.)	6/8/2000	Regular	< 1	< 1	< 1	< 1	0.44	0.23
	9/13/2000	Regular	< 1	< 1	< 1	< 1	0.61	< 0.1
	12/7/2000	Regular	< 1	< 1	1.3	< 1	0.53	0.16
	3/8/2001	Regular	< 1	< 1	< 1	< 1	0.43	0.16
	6/21/2001	Regular	< 1	< 1	< 1	< 1	< 0.25	< 0.1
	9/10/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	0.6	< 1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/18/2002	Regular	<1	<1	<1	<1	<0.2	<0.1
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-5	8/10/1992	Regular	< 4	< 4	< 4	< 4	NA	NA
	2/9/1993	Regular	< 2	< 2	< 2	< 6	NA	NA
	8/19/1993	Regular	< 2	< 2	< 2	< 6	NA	NA
	1/27/1994	Regular	8.7	29.9	4.0	11.3	NA	NA
	5/3/1995	Regular	3.7	5.3	0.9	4.6	NA	NA
	8/1/1995	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	NA
	11/15/1995	Regular	< 0.3	1.2	< 0.3	1.5	NA	NA
	2/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	NA
	5/31/1996	Regular	31.0	86.0	10.0	20.0	NA	NA
	8/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	12/2/1996	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	3/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	6/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	9/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	12/10/1997	Regular	< 5	< 5	< 5	< 5	< 0.2	< 0.1
	3/23/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/23/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/30/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	12/10/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	3/9/1999	Regular	<1.0	<1.0	<1.0	<1.0	< 0.20	< 0.1
	6/10/1999	Regular	<1.0	<1.0	<1.0	<1.0	< 0.20	< 0.1
	9/14/1999	Regular	<1.0	<1.0	<1.0	<2.0	< 0.20	< 0.10
	12/9/1999	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/9/2000	Regular	< 1	< 1	< 1	< 1	0.55	< 0.1
	6/8/2000	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/13/2000	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/7/2000	Regular	< 1	< 1	< 1	< 1	< 0.25	< 0.1
	3/8/2001	Regular	< 1	< 1	< 1	< 1	0.56	< 0.1
	6/21/2001	Regular	< 1	< 1	< 1	< 1	0.26	< 0.1
	9/10/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	0.49	< 0.1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	< 0.24	< 0.1
	6/18/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/16/2002	Regular	< 0.074	< 0.11	< 0.068	< 0.082	0.3 J	< 0.05
	1/9/2003	Regular	< 1	< 1	< 1	< 1	< 1.0	< 0.1
	3/6/2003	Regular	< 1	< 1	< 1	< 1	NA	< 0.1
	8/21/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	10/2/2003	Regular	< 1	< 1	< 1	< 1	< 1.1	< 0.1

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-5	12/18/2003	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
(cont.)	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA
MW-6[1]	8/10/1992	Regular	NS	NS	NS	NS	NA	NS
	2/9/1993	Regular	7000.0	19000.0	3100.0	7200.0	NA	
	8/19/1993	Regular	8100.0	19000.0	3500.0	6400.0	NA	NA
	1/27/1994	Regular	7960.0	20200.0	3830.0	6150.0		NA
	5/4/1995	Regular	11000.0	17000.0	2900.0	6000.0	NA	NA
	8/1/1995	Regular	8300.0	12000.0	2500.0	5100.0	NA	60
	11/15/1995	Regular	8900.0	17000.0	2900.0	5500.0	NA	57
	2/23/1996	Regular	8100.0	10000.0	2300.0	4000.0	NA	58
	5/31/1996	Regular	83.0	150.0	15.0	51.0	NA	0.57
	5/31/1996	Duplicate	87.0	160.0	13.0	47.0	NA	0.52
	8/23/1996	Regular	31.0	28.0	9.4	7.9	NA	0.46
	12/2/1996	Regular	< 1	< 1	< 1	1.7	5.6	< 0.1
	3/12/1997	Regular	12.0	< 5	6.8	18.0	12	< 0.5
	6/12/1997	Regular	1900.0	1400.0	410.0	310.0	7.8	7.4
	9/11/1997	Regular	11.0	1.3	3.4	< 1	1	< 0.1
	12/10/1997	Regular	3.0	4.2	1.2	3.9	1.7	0.14
	3/24/1998	Regular	3.6	< 1	4.0	< 1	< 0.2	< 0.1
	6/23/1998	Regular	170.0	4.1	15.0	7.2	1.2	0.51
	9/30/1998	Regular	1000.0	420.0	140.0	270.0	4.0	3.3
	12/10/1998	Regular	7.6	6.6	1.7	5.8	2.0	< 0.1
	3/10/1999	Regular	2500.0	930.0	590.0	1400.0	11.0	13
MW-7	8/10/1992	Regular	NS	NS	NS	NS	NA	NS
	2/9/1993	Regular	< 2	< 2	< 2	< 6	NA	NA
	8/19/1993	Regular	< 2	3.0	< 2	< 2	NA	NA
	1/27/1994	Regular	1.1	< 1	< 1	< 1	NA	NA
	5/3/1995	Regular	52.0	3.4	0.7	2.8	NA	NA
	8/1/1995	Regular	22.0	2.2	0.9	2.8	NA	< 0.1
	11/15/1995	Regular	8.4	0.8	< 0.3	0.9	NA	< 0.1
	2/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	2/23/1996	Duplicate	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	5/31/1996	Regular	29.0	83.0	10.0	21.0	NA	0.25
	8/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	12/2/1996	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	3/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	6/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	9/11/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	12/10/1997	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/24/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/23/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/30/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	12/10/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	3/9/1999	Regular	<1.0	<1.0	<1.0	<1.0	4.7	< 0.1
	6/10/1999	Regular	<1.0	<1.0	<1.0	<1.0	< 0.20	< 0.1
	9/13/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	< 0.10
	12/9/1999	Regular	< 5	< 5	< 5	< 5	1.8	< 0.5
	3/9/2000	Regular	< 1	< 1	< 1	< 1	0.66	< 0.1
	6/8/2000	Regular	< 1	< 1	< 1	< 1	< 0.21	< 0.1
	9/13/2000	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/7/2000	Regular	< 1	< 1	< 1	< 1	< 0.29	< 0.1

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-7 (cont.)	3/8/2001	Regular	< 1	< 1	< 1	< 1	1.2	< 0.1
	6/21/2001	Regular	3.1	< 1	< 1	< 1	< 0.22	< 0.1
	9/10/2001	Regular	< 1	< 1	< 1	< 1	< 0.33	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	1.3	< 0.1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	NA	< 0.1
	6/18/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-8	8/10/1992	Regular	NS	NS	NS	NS	NA	NS
	2/9/1993	Regular	< 2	< 2	< 2	< 6	NA	NA
	8/19/1993	Regular	< 2	< 2	< 2	< 2	NA	NA
	1/27/1994	Regular	< 1	< 1	< 1	< 1	NA	NA
	5/3/1995	Regular	3.0	4.9	0.8	3.7	NA	NA
	8/1/1995	Regular	3.1	1.2	0.5	1.6	NA	< 0.001
	11/15/1995	Duplicate	3.6	1.5	0.5	1.5	NA	< 0.1
	11/15/1995	Regular	< 0.3	0.5	< 0.3	< 0.6	NA	< 0.1
	2/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	5/31/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	8/23/1996	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	< 0.1
	12/2/1996	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	3/12/1997	Regular	< 1	< 1	< 1	1.8	< 0.1	< 0.1
	6/12/1997	Regular	< 1	< 1	< 1	< 1	< 0.1	< 0.1
	9/12/1997	Regular	< 1	< 1	< 1	< 1	0.1	< 0.1
	12/10/1997	Regular	< 1	< 1	< 1	< 1	0.3	< 0.1
	3/23/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	6/23/1998	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/30/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	12/10/1998	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	3/9/1999	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	6/10/1999	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20	< 0.1
	9/13/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	< 0.10
	12/9/1999	-	NS	NS	NS	NS	NS	NS
	3/9/2000	Regular	< 1	< 1	< 1	< 1	0.55	< 0.1
	6/8/2000	-	NS	NS	NS	NS	NS	NS
	9/13/2000	-	NS	NS	NS	NS	NS	NS
	12/7/2000	-	NS	NS	NS	NS	NS	NS
	3/8/2001	Regular	< 1	< 1	< 1	< 1	1.6	< 0.1
	6/21/2001	-	NS	NS	NS	NS	NS	NS
	9/10/2001	-	NS	NS	NS	NS	NS	NS
	12/6/2001	-	NS	NS	NS	NS	NS	NS
	3/12/2002	Regular	< 1	< 1	< 1	< 1	0.38	< 0.1
	6/18/2002	-	NS	NS	NS	NS	NS	NS
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-9	4/22/1993	Regular	570.0	380.0	< 50	870.0	NA	NA
	7/15/1993	Regular	121.0	7.3	3.0	458.0	NA	NA
	8/19/1993	Regular	390.0	290.0	40.0	250.0	NA	NA
	1/27/1994	Regular	327.0	357.0	51.1	293.0	NA	NA
	5/3/1995	Regular	380.0	110.0	19.0	120.0	NA	NA
	8/1/1995	Regular	660.0	410.0	91.0	310.0	NA	6.2

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-9	11/15/1995	Regular	240.0	24.0	11.0	140.0	NA	1.5
(cont.)	11/15/1995	Duplicate	170.0	18.0	10.0	120.0	NA	1.9
	2/23/1996	Regular	170.0	18.0	2.3	160.0	NA	4.3
	5/31/1996	Regular	120.0	16.0	3.0	200.0	NA	NA
	8/23/1996	Regular	82.0	13.0	6.0	270.0	NA	4
	8/23/1996	Duplicate	76.0	14.0	4.8	250.0	NA	4.4
	12/2/1996	Regular	61.0	< 25	< 25	210.0	2.6	2.8
	12/2/1996	Duplicate	86.0	13.0	2.4	270.0	3.7	2.9
	3/12/1997	Regular	30.0	48.0	420.0	880.0	8.2	19
	6/12/1997	Regular	4.7	2.1	11.0	97.0	2.6	2.2
	6/12/1997	Duplicate	< 5	< 5	6.6	69.0	5.2	1.9
	9/12/1997	Regular	2.1	2.3	2.1	120.0	1.2	1.9
	12/10/1997	Regular	4.9	9.0	6.8	62.0	0.86	0.92
	3/24/1998	Regular	< 1	< 1	< 1	26.0	0.9	1
	6/23/1998	Regular	2.4	22.0	10.0	36.0	< 0.2	0.25
	9/30/1998	Regular	1.1	5.5	21.0	59.0	0.27	0.27
	12/10/1998	Regular	< 1.0	1.9	17.0	79.0	5.1	0.25
	3/10/1999	Regular	< 1.0	< 1.0	5.7	68.0	< 0.2	0.22
	6/10/1999	Regular	< 1.0	1.8	1.8	71.0	< 0.20	0.43
	9/13/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	<0.10
	12/9/1999	-	NS	NS	NS	NS	NS	NS
	3/9/2000	Regular	< 1	< 1	< 1	64.0	0.66	1.3
	6/8/2000	-	NS	NS	NS	NS	NS	NS
	9/13/2000	-	NS	NS	NS	NS	NS	NS
	12/7/2000	-	NS	NS	NS	NS	NS	NS
	3/8/2001	Regular	< 1	< 1	< 1	< 1	1.4	< 0.1
	6/21/2001	-	NS	NS	NS	NS	NS	NS
	9/10/2001	-	NS	NS	NS	NS	NS	NS
	12/6/2001	-	NS	NS	NS	NS	NS	NS
	3/12/2002	Regular	1	< 1	< 1	< 1	0.37	< 0.1
	6/18/2002	-	NS	NS	NS	NS	NS	NS
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-10	8/19/1993	Regular	190.0	460.0	< 200	240.0	NA	NA
	1/27/1994	Regular	13.4	4.0	5.5	33.6	NA	NA
	5/4/1995	Regular	980.0	15.0	11.0	84.0	NA	NA
	8/1/1995	Regular	1300.0	32.0	32.0	100.0	NA	3.6
	11/15/1995	Regular	1000.0	24.0	15.0	36.0	NA	1.7
	2/23/1996	Regular	810.0	23.0	27.0	44.0	NA	2.4
	5/31/1996	Regular	700.0	24.0	34.0	28.0	NA	2
	8/23/1996	Regular	290.0	3.4	6.4	13.0	NA	1.4
	12/2/1996	Regular	280.0	1.3	17.0	8.0	0.94	0.97
	3/12/1997	Regular	110.0	< 5	17.0	< 5	0.61	0.57
	6/12/1997	Regular	150.0	12.0	30.0	< 5	0.68	< 0.5
	9/12/1997	Regular	87.0	2.3	26.0	2.7	0.76	0.33
	9/12/1997	Duplicate	87.0	2.4	26.0	2.8	0.79	0.33
	12/10/1997	Regular	41.0	9.8	12.0	7.7	1.1	0.28
	12/10/1997	Duplicate	36.0	8.5	10.0	6.7	1.2	0.24
	3/23/1998	Regular	36.0	< 5	5.9	< 5	1.6	< 0.5

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-10 (cont.)	3/23/1998	Duplicate	36.0	< 1	5.3	1.3	1.7	0.18
	6/23/1998	Regular	37.0	< 5	< 5	< 5	2.1	< 0.5
	9/30/1998	Regular	84.0	3.2	30.0	2.2	1.4	0.36
	12/10/1998	Regular	29.0	1.0	7.0	1.0	0.86	0.18
	3/9/1999	Regular	28.0	<5.0	5.8	<5.0	0.92	<0.5
	6/10/1999	Regular	17.0	<1.0	<1.0	<1.0	0.30	0.16
	9/14/1999	Regular	10.0	< 1.0	< 1.0	< 2.0	<0.20	<0.10
	12/9/1999	Regular	23.0	< 1	< 1	1.2	0.44	0.16
	3/10/2000	Regular	300.0	4.3	6.6	43.2	1.2	0.85
	6/8/2000	Regular	78.0	1.7	7.2	9.0	0.67	0.74
	9/13/2000	Regular	23.0	1.5	1.1	2.9	1.6	0.41
	12/7/2000	Regular	7.2	< 1	< 1	< 1	1.5	0.15
	3/8/2001	Regular	3.4	1.1	< 1	< 1	3.4	0.2
	6/22/2001	Regular	< 1	< 1	< 1	< 1	1.2	<0.1
	9/10/01 and 9/18/01	Regular	2	< 1	< 1	< 1	2.3	<0.1
	12/6/2001	Regular	No Valid Data					
	3/12/2002	Regular	< 1	< 1	< 1	< 1	3.2	< 0.1
	6/18/2002	Regular	< 1	< 1	< 1	< 1	1.2	< 0.1
	9/16/2002	Regular	< 0.074	< 0.11	0.1	<0.082	3 J	< 0.05
	1/9/2003	Regular	< 1	< 1	< 1	< 1	< 1.0	< 0.1
	3/6/2003	Regular	< 1	< 1	18	< 1	NA	< 0.1
	8/21/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	10/2/2003	Regular	< 1	< 1	< 1	< 1	< 1.2	< 0.1
	12/18/2003	Regular	< 1	< 1	< 1	< 1	0.9	< 0.1
	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA
MW-11[1]	8/19/1993	Regular	< 2	< 2	< 2	< 2	NA	NA
	1/27/1994	Regular	< 1	< 1	< 1	< 1	NA	NA
	5/4/1995	Regular	< 0.3	< 0.3	< 0.3	< 0.6	NA	NA
	8/1/1995	Regular	44.0	29.0	5.5	13.0	NA	0.2
	11/15/1995	Regular	190.0	2.8	6.2	11.0	NA	0.4
	2/23/1996	Regular	49.0	1.2	0.5	4.0	NA	0.25
	5/31/1996	Regular	300.0	83.0	12.0	28.0	NA	0.8
	8/23/1996	Regular	100.0	1.2	0.3	4.7	NA	0.26
	12/2/1996	Regular	970.0	< 5	6.0	8.1	2	1.3
	3/12/1997	Regular	130.0	< 5	13.0	5.8	0.42	< 0.5
	3/12/1997	Duplicate	100.0	< 5	10.0	5.1	0.43	< 0.5
	6/12/1997	Regular	150.0	23.0	19.0	< 5	1.1	0.55
	9/12/1997	Regular	220.0	15.0	27.0	13.0	1	0.46
MW-11A	3/24/1998	Regular	24.0	5.0	< 5	< 5	0.28	0.14
	6/23/1998	Regular	9.9	< 5	< 5	< 5	< 0.2	< 0.5
	9/30/1998	Regular	9.3	3.7	2.2	7.0	<0.20	0.1
	12/10/1998	Regular	1.7	<1.0	<1.0	<1.0	<0.20	<0.1
	3/10/1999	Regular	<5	< 5	< 5	< 5	0.3	<0.5
	6/10/1999	Regular	<1.0	< 1.0	< 1.0	< 1.0	<0.20	<0.10
	9/13/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	<0.20	<0.10
	12/9/1999	Regular	< 5	< 5	< 5	< 5	< 0.2	< 0.1
	3/9/2000	Regular	1.2	< 1	< 1	< 1	0.43	< 0.1
	6/8/2000	Regular	3.6	< 1	< 1	< 1	0.37	< 0.1
	9/13/2000	Regular	1.4	< 1	< 1	< 1	0.36	< 0.1
	12/7/2000	Regular	26	< 1	< 1	3.3	0.3	0.12

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-11A	3/8/2001	Regular	12	< 5	< 5	< 5	2.2	< 0.5
(cont.)	6/22/2001	Regular	1.5	< 1	< 1	< 1	1	< 0.1
	9/10/2001	Regular	7.9	< 1	< 1	< 1	1.1	< 0.1
	12/6/2001	Regular	<1	< 1	< 1	< 1	1	< 0.1
	3/12/2002	Regular	1.8	< 1	< 1	1	1.6	< 0.1
	6/18/2002	Regular	2.9	< 0.1	1.3	< 1	0.91	<0.1
	9/16/2002	Regular	9	< 0.11	41	< 0.082	1 J	0.2
	1/9/2003	Regular	12	< 1	< 1	1.2	< 1.0	0.4
	3/6/2003	Regular	3.2	< 1	< 1	1.2	< 1	0.13
	8/21/2003	Regular	3.7	< 1	< 1	< 1	< 1	< 0.1
	10/2/2003	Regular	3.7	< 1	< 1	< 1	< 1.2	< 0.1
	12/18/2003	Regular	3.4	< 1	1.1	< 1	0.63	0.28
	3/30/2004	Regular	< 1	< 1	1.4	< 1	0.5	NA
MW-12	3/24/1998	Regular	100.0	11.0	6.0	8.0	0.29	0.41
	6/23/1998	Regular	88.0	< 5		< 5	< 0.2	< 0.5
	6/23/1998	Duplicate	89.0	< 5	< 5	< 5	0.31	< 0.5
	9/30/1998	Regular	260.0	3.0	1.2	7.9	<0.20	0.62
	12/10/1998	Regular	160.0	< 1.0	< 1.0	1.2	0.21	0.36
	3/10/1999	Regular	160.0	1.1	< 1.0	2.9	0.38	0.45
	6/10/1999	Regular	49.0	1.4	< 1.0	< 1.0	0.22	0.13
	9/14/1999	Regular	75.0	< 1.0	< 1.0	< 2.0	<0.20	0.23
	12/9/1999	Regular	64.0	< 1	< 1	< 1	< 0.2	0.21
	3/10/2000	Regular	93.0	< 1	< 1	< 1	< 0.2	0.21
	3/10/2000	Duplicate	99.0	< 1	< 1	< 1	0.22	0.22
	6/8/2000	Regular	62.0	< 1	< 1	< 1	< 0.2	< 0.1
	9/13/2000	Regular	34.0	< 1	< 1	< 1	0.23	< 0.1
	12/7/2000	Regular	27	< 1	2.9	1.9	<0.25	< 0.1
	3/8/2001	Regular	14	< 1	< 1	< 1	2.1	0.1
	6/22/2001	Regular	12	< 1	< 1	< 1	0.51	0.11
	9/10/2001	Well Dry (Not Sampled) During This and Subsequent Monitoring Events						
MW-12D	7/2/1999	Regular	< 5	< 5	< 5	< 5	<0.20	<0.10
	9/14/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	<0.10
	12/9/1999	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/9/2000	Regular	< 1	< 1	< 1	< 1	0.24	< 0.1
	6/8/2000	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/13/2000	-	NS	NS	NS	NS	NS	NS
	12/7/2000	-	NS	NS	NS	NS	NS	NS
	3/8/2001	-	NS	NS	NS	NS	NS	NS
	6/22/2001	-	NS	NS	NS	NS	NS	NS
	9/18/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	0.44	< 0.1
	6/18/2002	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/16/2002	Regular	< 0.074	< 0.11	< 0.068	< 0.082	0.2 J	< 0.05
	1/9/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	3/6/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	6/20/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	8/21/2003	Regular	< 1	< 1	< 1	< 1	< 1	< 0.1
	10/2/2003	Regular	< 1	< 1	< 1	< 1	< 1.2	< 0.1
	12/18/2003	Regular	< 1	< 1	< 1	< 1	<0.2	< 0.1
	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA

Table 5
Cumulative BTEX and TPH Analytical Results for Groundwater Samples
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Monitor Well	Sample Date	Sample Type	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-D	TPH-G
			micrograms per liter, ug/L				milligrams per liter, mg/L	
MW-13	7/2/1999	Regular	1500.0	23.0	750.0	58.0	2.2	5.1
	9/14/1999	Regular	860.0	16.0	450.0	34.4	2.1	3.1
	12/9/1999	Regular	430.0	16.0	410.0	40.9	0.46	3.2
	3/10/2000	Regular	88.0	2.8	200.0	1.3	1.9	0.99
	6/8/2000	Regular	6.0	< 1	63.0	3.3	1.1	0.91
	9/13/2000	Regular	<1.0	<1.0	3.4	<1.0	0.44	0.12
	12/7/2000	Regular	<1	<1	<1	<1	0.43	< 0.1
	3/8/2001	Regular	<1	<1	1.2	<1	2	< 0.1
	6/22/2001	Regular	< 1	< 1	< 1	< 1	0.31	< 0.1
	9/10/2001	Regular	< 1	< 1	< 1	< 1	0.3	< 0.1
	12/6/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	3/12/2002	Regular	< 1	< 1	< 1	< 1	0.84	< 0.1
	6/18/2002	Regular	<1	<1	<1	<1	0.3	<0.1
	9/16/2002 through March 2004	-	NS	NS	NS	NS	NS	NS
MW-14	1/14/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/16/2002	Regular	NA	NA	NA	NA	NA	NA
	1/9/2003	Regular	NA	NA	NA	NA	NA	NA
	March 2003	Regular	NA	NA	NA	NA	NA	NA
	June 2003	Regular	NA	NA	NA	NA	NA	NA
	October 2003	Regular	NA	NA	NA	NA	NA	NA
	12/18/03	Regular	NA	NA	NA	NA	NA	NA
	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA
MW-15	1/14/2001	Regular	< 1	< 1	< 1	< 1	< 0.2	< 0.1
	9/16/2002	Regular	NA	NA	NA	NA	NA	NA
	1/9/2003	Regular	NA	NA	NA	NA	NA	NA
	March 2003	Regular	NA	NA	NA	NA	NA	NA
	June 2003	Regular	NA	NA	NA	NA	NA	NA
	October 2003	Regular	NA	NA	NA	NA	NA	NA
	12/18/03	Regular	NA	NA	NA	NA	NA	NA
	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA
MW-16	6/20/2003	Regular	< 5	< 5	< 5	< 5	NA	NA
	October 2003	Regular	NA	NA	NA	NA	NA	NA
	12/18/03	Regular	NA	NA	NA	NA	NA	NA
	3/30/2004	Regular	< 1	< 1	< 1	< 1	< 0.2	NA
OW-4	6/10/1999	Regular	<1.0	<1.0	<1.0	4.4	< 0.2	< 0.10
	9/14/1999	Regular	< 1.0	< 1.0	< 1.0	< 2.0	< 0.20	< 0.10
	12/9/1999	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2	< 0.1
	3/9/2000	Regular	< 1.0	< 1.0	< 1.0	< 1.0	0.25	< 0.1
	6/8/2000	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.21	< 0.1
	9/13/2000	Regular	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2	< 0.1
	12/7/2000	Well Dry (Not Sampled) During This and Subsequent Monitoring Events						

[1] Well plugged and abandoned 7/1/99
NA = Not Analyzed
NS = Not Sampled
NS-D = Not Sampled because well was dry
NSP = Not Sampled due to Phase-Separated Hydrocarbons

Table 6
Current and Historical Nitrate, Sulfate, and Dissolved Methane Data for Monitor Wells MW-5, MW-10, MW-11A, MW-12, and MW-12D
Hobbs, New Mexico
BJ Services Company, U.S.A.

Well	Date	Nitrate[1] (mg/L)	Sulfate[1] (mg/L)	Dissolved Methane (mg/L)
MW-5	3/23/1998	3.87	190	< 0.0012
	3/9/1999	< 0.1	195	< 0.0012
	6/10/1999	4.73	209	< 0.0012
	9/14/1999	4.3	210	< 0.0012
	12/9/1999	4.2	210	< 0.0012
	3/9/2000	5.3	260	< 0.0012
	6/8/2000	4.7	240	< 0.0012
	9/13/2000	3.93	200	< 0.0012
	12/7/2000	3.27	160	< 0.0012
	3/8/2001	3.24	180	< 0.0012
	6/21/2001	2.74	150	0.0017
	9/10/2001	NA[2]	130	< 0.0012
	12/6/2001	2.38	120	< 0.0012
	3/12/2002	2.98	120	< 0.0012
	6/18/2002	2.56	110	0.002
	9/16/2002	2.4	105	0.002
	1/9/2003	2.1	97	0.004
	3/6/2003	2.75	110	< 0.0012
	8/21/2003	2.4	100	< 0.0012
	10/2/2003	2.5	100	<0.0012
	12/18/2003	2.5	110	<0.0012
	3/30/2004	2.6	110	<0.0012
MW-10	3/23/1998	0.07	320	0.91
	6/23/1998	< 0.1	325	0.55
	9/30/1998	< 0.1	204	0.81
	12/10/1998	< 0.1	180	0.091
	3/9/1999	< 0.1	142 223[3]	0.035
	9/14/1999	< 0.10	160	0.0049
	12/9/1999	0.49	170	0.0039
	3/10/2000	0.1	160	0.0056
	6/8/2000	< 0.1	150	0.031
	9/13/2000	< 0.1	160	0.031
	12/7/2000	< 0.1	190	0.17
	3/8/2001	< 0.1	270	< 0.0012
	6/22/2001	< 0.1	270	0.044
	9/10/2001	NA	NA	NA
	3/12/2002	< 0.1	230	NA
	6/18/2002	< 0.1	240	0.007

Table 6
Current and Historical Nitrate, Sulfate, and Dissolved Methane Data for Monitor Wells MW-5, MW-10, MW-11A, MW-12, and MW-12D
Hobbs, New Mexico
BJ Services Company, U.S.A.

Well	Date	Nitrate(1) (mg/L)	Sulfate(1) (mg/L)	Dissolved Methane (mg/L)
MW-10 (cont.)	9/16/2002	< 0.03	318	0.006
	1/9/2003	< 0.1	280	0.0024
	3/6/2003	< 0.1	270	0.0031
	8/21/2003	0.21	350	< 0.0012
	10/2/2003	0.11	360	<0.0012
	12/18/2003	0.28	350	<0.0012
	3/30/2004	0.25	350	<0.0012
MW-11A	3/23/1998	< 0.05	190	0.14
	6/23/1998	< 0.1	225	0.11
	9/30/1998	0.4	196	0.043
	12/10/1998	0.7	188	0.033
	3/10/1999	< 0.1	164	0.094
		< 0.1(4)	227(3)	
	6/10/1999	< 0.1	181	0.0036
	9/13/1999	0.22	250	< 0.0012
	12/9/1999	< 0.1	290	0.0079
	3/9/2000	0.11	270	0.037
	6/8/2000	< 0.1	240	0.0069
	9/13/2000	< 0.1	320	< 0.0012
	12/7/2000	< 0.1	260	0.0096
	3/8/2001	< 0.1	330	0.0028
	6/22/2001	< 0.1	180	0.0074
	9/10/2001	NA	280	< 0.0012
	12/6/2001	< 0.1	240	0.0041
	3/12/2002	< 0.1	350	0.0044
	6/18/2002	< 0.1	560	0.0028
	9/16/2002	0.3	383	< 0.0012
	1/9/2003	< 0.5	290	0.0063
	3/6/2003	< 0.1	290	0.0044
	8/21/2003	0.68	340	< 0.0012
	10/2/2003	1.4	350	< 0.0012
	12/18/2003	<0.1	320	<0.0012
	3/30/2004	1.9	380	<0.0012
MW-12	3/23/1998	< 0.05	240	< 0.0012
	6/23/1998	< 0.1	240	< 0.0012
	9/30/1998	< 0.1	168	< 0.0012
	12/10/1998	< 0.1	202	< 0.0012
	3/10/1999	< 0.1	137	< 0.0012
		< 0.1(4)	193(3)	
	6/10/1999	< 0.1	217	< 0.0012
	9/14/1999	< 0.10	230	< 0.0012
	12/9/1999	< 0.1	180	< 0.0012
	3/10/2000	< 0.1	210	< 0.0012

Table 6
Current and Historical Nitrate, Sulfate, and Dissolved Methane Data for Monitor Wells MW-5, MW-10, MW-11A, MW-12, and MW-12D
Hobbs, New Mexico
BJ Services Company, U.S.A.

Well	Date	Nitrate(1) (mg/L)	Sulfate(1) (mg/L)	Dissolved Methane (mg/L)
MW-12 (cont.)	6/8/2000	< 0.1	220	< 0.0012
	9/13/2000	< 0.1	240	< 0.0012
	12/7/2000	< 0.1	260	< 0.0012
	3/8/2001	< 0.1	300	< 0.0012
	6/22/2001	< 0.1	360	0.0021
	9/10/2001	Well Dry (Not Sampled) During This and Subsequent Monitoring Events		
MW-12D	9/18/2001	NA	190	< 0.0012
	12/6/2001	< 0.1	200	< 0.0012
	3/12/2002	< 0.1	200	< 0.0012
	6/18/2002	< 0.1	180	0.0012
	9/16/2002	0.06	172	< 0.0012
	1/9/2003	< 0.1	150	0.005
	3/6/2003	0.705	170	0.0038
	6/20/2003	< 0.1	160	< 0.0012
	8/22/2003	< 0.1	160	< 0.0012
	10/2/2003	< 0.1	140	< 0.0012
	12/18/2003	<0.1	160	<0.0012
	3/30/2004	<0.1	160	<0.0012

(1) - By EPA Method 300, except as noted
(2) - NA indicates not analyzed
(3) - By EPA Method 375.4
(4) - By EPA Method 353.3
(5) - NS-D indicates not sampled (well dry)
mg/L = milligrams per liter

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells(1)																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Bicarbonate, as $CaCO_3$ (mg/L)	8/1/1995	380	430	490	290	670	440	360	570	520	560	NP(2)	NP	NP	NP	NP	NP	NP	NS(3)
	8/23/1996	310	310	210	270	120	400	280	390	520	430	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	286	214	175	247	180	309	260	306	557	NS	319	451	NP	NP	NP	NP	NP	NS
	3/9-10/1999	92	309	186	283	286	358	317	333	278	NS	335	386	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	200	520	NP	NP	NP	316
	3/9-10/2000	89.1	248	160	253	NP	301	362	279	455	NP	703	402	244	240	NP	NP	NP	1020
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	374	250	NP	NS
	3/8-9/2001	90.9	242	232	222	NP	283	252	252	586	NP	646	475	NS	131	NA(4)	NS	NP	NS-D(5)
	3/11-12/2002	230	230	210	260	NP	260	340	260	784	NP	520	NS-D	260	164	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	243	NP	NS	NS	NS	273	NP	401	NS-D	241	NS	373	231	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	232	NS	NA	NA	163	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	214	NP	NS	NS	NS	582	NP	378	NS-D	214	NS	368	209	279	NS-D
Carbonate, as $CaCO_3$ (mg/L)	8/1/1995	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 1	< 1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<1	<1	<1	<1	<1	< 1	< 1	< 1	< 1	NS	< 1	< 1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<1	<1	NP	NP	NP	<1
	3/9-10/2000	<2	<2	<2	<2	NP	<2	<2	<2	<2	NP	<2	<2	<2	<2	NP	NP	NP	<4
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<2	<2	NP	NS
	3/8-9/2001	<2	<2	<2	<2	NP	<2	<2	<2	<2	NP	<2	<2	NS	<2	NA	NS	NP	NS-D
	3/11-12/2002	<2	<2	<2	<2	NP	<2	<2	<2	<2	NP	<2	NS-D	<2	<2	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	<2	NP	NS	NS	NS	<2	NP	<2	NS-D	<2	NS	3.03	<2	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NA	NS-D	<2	NS	NA	NA	< 2	NS-D
	12/18/2004	NS	NS	NS	234	NP	NS	NS	NS	279	NP	386	NS-D	189	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<2	NP	NS	NS	NS	<2	NP	<2	NS-D	<2	NS	<2	<2	< 2	NS-D
Hardness-Total, as $CaCO_3$ (mg/L)	3/23-24/1998	430	430	275	342	440	670	740	510	1,450	NP	1,000	1,600	NP	NP	NP	NP	NP	NS
	3/9-10/1999	250	440	310	340	640	780	680	370	720	NS	1,150	460	NP	NP	NP	NP	NP	NS
	3/9-10/2000	600	450	500	1,200	NP	660	760	430	760	NP	880	700	260	540	NP	NP	NP	3,000
	3/8-9/2001	310	470	610	440	NP	590	590	1,000	1,300	NP	1,900	1,300	NS	670	NA	NS	NP	NS-D
	3/11-12/2002	420	420	450	420	NP	ND(6)	ND	ND	1,200	NP	1,400	NS-D	330	750	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	690	NP	NS	NS	NS	NA	NP	1,500	NS-D	360	NS	NA	NA	NP	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	790	NP	NA	NS-D	NA	NS	600	660	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	220	NP	NS	NS	NS	1,300	NP	2,200	NS-D	380	NS	800	760	640	NS-D
Hydroxide (mg/L)	8/1/1995	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NP	NP	NP	NP	NP	NP	NP	NS
Methane (mg/L)	3/23-24/1998	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012	0.039	< 0.0012	0.91	NS	0.14	< 0.0012	NP	NP	NP	NP	NP	NS
	3/9-10/1999	NS	NS	NS	<0.0012	NS	NS	NS	NS	0.035	NS	0.094	< 0.0012	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NA	NA	0.0015	0.0017	NP	NP	NP	< 0.0012
	3/9-10/2000	< 0.0012	< 0.0012	< 0.0012	< 0.0012	NP	< 0.0012	0.13	< 0.0012	0.0056	NP	0.037	< 0.0012	< 0.0012	< 0.0012	NP	NP	NP	< 0.0012
	3/8-9/2001	< 0.0012	< 0.0012	< 0.0012	< 0.0012	NP	< 0.0012	< 0.0012	< 0.0012	< 0.0012	NP	0.0028	< 0.0012	NS	< 0.0012	NA	NS	NP	NS-D
	3/11-12/2002	0.007	< 0.0012	0.0024	< 0.0012	NP	ND	ND	ND	ND	NP	0.0044	NS-D	< 0.0012	< 0.0012	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	< 0.0012	NP	NS	NS	NS	0.0031	NP	0.0044	NS-D	0.0038	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	< 0.0012	NS	NS	NS	< 0.0012	NS-D
	8/21-22/2003	NS	NS	NS	< 0.0012	NP	NS	NS	NS	<0.0012	NP	< 0.0012	NS-D	< 0.0012	NS	< 0.0012	< 0.0012	NS	NS-D
	12/18/2004	NS	NS	NS	< 0.0012	NP	NS	NS	NS	<0.0012	NP	< 0.0012	NS-D	<0.0012	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.0012	NP	NS	NS	NS	<0.0012	NP	< 0.0012	NS-D	<0.0012	NS	< 0.0012	< 0.0012	< 0.0012	NS-D

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1]																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Anions (mg/L)																			
Chloride		*See Table 4*																	
Fluoride	3/23-24/1998	0.9	1.2	1.2	0.6	1.1	0.8	0.9	1.3	6.1	NS	2.9	4.2	NP	NP	NP	NP	NP	NS
	3/9-10/1999	1.54	1.46	1.5	1.38	1.79	1.56	1.44	1.84	4.93	NS	3.08	3.13	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	1.83	2.22	NP	NP	NP	3.45
	3/9-10/2000	1.7	1.1	1.1	1.1	NP	0.75	0.69	1.5	1	NP	<0.1	1.7	1.3	1.7	NP	NP	NP	3.8
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	3.5	1.2	NP	NS
	3/8-9/2001	1.3	0.77	0.63	0.86	NP	0.69	0.66	0.92	1.2	NP	1.1	1.9	NS	1.6	NA	NS	NP	NS-D
	3/11-12/2002	1.2	1.4	1.2	1.4	NP	1.3	1.1	1.5	1.8	NP	2.1	NS-D	1.4	2.3	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	1.1	NP	NS	NS	NS	1.6	NP	4.1	NS-D	1.2	NS	2.3	0.91	NP	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	1.1	NP	NS	NS	NS	2.2	NP	3.5	NS-D	1.1	NS	2.5	1.1	5.3	NS-D
Nitrate (Nitrogen as N)	8/1/1995	4.7	5.6	15	28	1.3	9.2	11	38	< 0.1	5.5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	11	7.6	7.6	12	< 0.5	10	8.6	24	< 5	11	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	1.78	3.07	2.59	3.87	0.69	3.92	1.84	4.27	0.07	NS	< 0.05	< 0.05	NP	NP	NP	NP	NP	NS
	3/9-10/1999	0.7	2.1	2.6	NA	<0.1	3.3	0.7	3.7	NA	NP	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	2.1	2.4	NP	NP	NP	3.96
	3/9-10/2000	0.33	2.9	3.7	5.3	NP	3.6	0.35	7.2	0.1	NP	0.11	<0.1	0.14	<0.1	NP	NP	NP	3.6
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	4.5	4.88	NP	NS
	3/8-9/2001	4.31	2.56	4.75	3.24	NP	2.82	0.664	7.9	<0.1	NP	<0.1	<0.1	NS	<0.1	NA	NS	NP	NS-D
	3/11-12/2002	5.7	3.86	8.55	2.98	NP	3.23	0.607	6.34	<0.1	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	2.75	NP	NS	NS	NS	<0.1	NP	<0.1	NS-D	0.705	NS	5.82	3.67	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	<0.1	NS	NS	NS	4.4	NS-D
	8/21/2003	NS	NS	NS	2.4	NP	NS	NS	NS	NA	NP	NA	NS-D	< 0.1	NS	NA	NA	NS	NS-D
	12/18/2004	NS	NS	NS	2.5	NP	NS	NS	NS	0.28	NP	<0.1	NS-D	< 0.1	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	2.6	NP	NS	NS	NS	0.25	NP	1.9	NS-D	< 0.1	NS	4.9	3	5.8	NS-D
Sulfate	8/1/1995	150	150	210	230	6.7	180	160	150	130	230	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	130	150	150	140	85	80	160	180	120	130	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	130	180	160	190	230	310	250	230	320	NS	190	240	NP	NP	NP	NP	NP	NS
	3/9-10/1999	196	162	178	195	72	246	240	146	223	NP	227	193	NP	NP	NP	NP	NP	NS
	6/10/1999-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	249	334	NP	NP	NP	192
	3/9-10/2000	530	190	250	260	NP	280	260	170	160	NP	270	210	200	170	NP	NP	NP	200
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	180	130	NP	NS
	3/8-9/2001	210	170	180	180	NP	260	240	150	270	NP	330	300	NS	380	NA	NS	NP	NS-D
	3/11-12/2002	190	150	160	120	NP	240	250	130	230	NP	350	NS-D	200	380	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	110	NP	NS	NS	NS	270	NP	290	NS-D	170	NS	150	150	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	160	NS	NS	NS	200	NS-D
	8/21/2003	NS	NS	NS	100	NP	NS	NS	NS	NA	NP	NA	NS-D	160	NS	NA	NA	NS	NS-D
	12/18/2004	NS	NS	NS	110	NP	NS	NS	NS	350	NP	320	NS-D	160	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	110	NP	NS	NS	NS	350	NP	380	NS-D	160	NS	150	140	180	NS-D
Cations (mg/L)																			
Calcium	8/1/1995	120	120	220	160	320	300	300	180	610	490	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	120	130	89	110	62	270	230	190	390	440	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	129	122	79	109	94	208	215	142	417	NS	259	388	NP	NP	NP	NP	NP	NS
	3/9-10/1999	80.2	129	90.8	116	141	233	197	122	214	NP	308	148	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	113	389	NP	NP	NP	141
	3/9-10/2000	155	119	147	387	NP	167	215	110	177	NP	229	180	78.1	122	NP	NP	NP	882
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	179	150	NP	NS
	3/8-9/2001	86.8	148	214	157	NP	172	183	381	331	NP	466	338	NS	198	NA	NS	NP	NS-D
	3/11-12/2002	112	121	130	143	NP	ND	ND	ND	303	NP	330	NS-D	120	225	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	288	NP	NS	NS	NS	NA	NP	470	NS-D	135	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	219	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	108	NP	NA	NS-D	NA	NS	62.2	107	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	80.1	NP	NS	NS	NS	308	NP	763	NS-D	142	NS	205	255	210	NS-D
Magnesium	8/1/1995	34	36	58	27	72	42	49	43	130	130	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	120	32	21	18	28	40	48	44	84	120	NP	NP	NP	NP	NP	NP	NP	NS

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1]																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Magnesium (continued)	3/23-24/1998	36	30	18	20	42	47	52	36	130	NS	96	108	NP	NP	NP	NP	NP	NS
	3/9-10/1999	19.7	31.5	20.4	21.6	62.2	54.4	47.7	28.5	43	NP	101	32.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	16.6	83.9	NP	NP	NP	44.3
	3/9-10/2000	41.3	27.5	26.3	29.2	NP	44.3	39.1	26.2	61	NP	47.7	30.6	7.25	38.8	NP	NP	NP	74.5
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	87.5	28.3	NP	NS
	3/8-9/2001	20.7	24.9	25.9	16.6	NP	41.1	37.4	28.2	95.1	NP	93.4	95.3	NS	52.3	NA	NS	NP	NS-D
	3/11-12/2002	27.3	20.7	20.7	13	NP	ND	ND	ND	ND	NP	103	NS-D	6.06	44.7	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	19.6	NP	NS	NS	NS	NA	NP	160	NS-D	6.74	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	45.4	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	41.1	NP	NA	NS-D	NA	NS	35.5	17.3	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	12.4	NP	NS	NS	NS	128	NP	134	NS-D	7.63	NS	66.4	31.5	39.2	NS-D
Potassium	8/1/1995	2.4	2.6	3.5	4.2	3	3.4	5	4.1	35	46	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	2.4	3	2.2	3.1	2.4	3.7	3.9	2.6	41	53	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	20	NS	30	70	NP	NP	NP	NP	NP	NS
	3/9-10/1999	3	4	3	4	4	9	4	3	15	NP	21	101	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	66	6	NP	NP	NP	3
	3/9-10/2000	4.01	4.11	3.95	5.61	NP	6.98	4.53	4.08	18.3	NP	18.6	104	70.6	2.84	NP	NP	NP	10.7
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	3.59	4.59	NP	NS
	3/8-9/2001	<2	2.56	2.76	2.25	NP	5.15	2.94	3.84	19.5	NP	33.5	47.2	NS	2.26	NA	NS	NP	NS-D
	3/11-12/2002	2.82	4.05	2.79	3.55	NP	ND	ND	ND	ND	NP	41.5	NS-D	72	2.82	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	3.72	NP	NS	NS	NS	NA	NP	39.4	NS-D	55.6	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	4.78	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	4.61	NP	NA	NS-D	NA	NS	< 2	3.98	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	4.15	NP	NS	NS	NS	10.8	NP	28.6	NS-D	50.4	NS	3.07	3.55	4.02	NS-D
Sodium	8/1/1995	100	93	140	110	130	95	94	98	660	2000	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	100	110	88	120	120	96	100	83	960	2600	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	113	126	109	130	100	92	101	118	1090	NS	312	381	NP	NP	NP	NP	NP	NS
	3/9-10/1999	126	135	124	155	141	110	115	122	856	NP	225	180	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	121	165	NP	NP	NP	103
	3/9-10/2000	123	112	115	123	NP	95.1	95.4	99.1	181	NP	608	129	103	114	NP	NP	NP	97.3
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	144	108	NP	NS
	3/8-9/2001	141	124	135	147	NP	121	118	119	410	NP	801	185	NS	142	NA	NS	NP	NS-D
	3/11-12/2002	147	133	128	145	NP	ND	ND	ND	ND	NP	660	NS-D	79.4	127	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	144	NP	NS	NS	NS	NA	NP	1550	NS-D	68.8	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	436	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	170	NP	NA	NS-D	NA	NS	53.3	63.8	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	115	NP	NS	NS	NS	408	NP	1370	NS-D	54	NS	80.7	88.1	382	NS-D
Metals (mg/L)																			
Arsenic	8/1/1995	0.0076	0.0043	< 0.002	0.0059	0.028	0.0033	0.0034	0.0055	0.015	0.0086	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	0.0078	0.0066	0.0059	0.0067	0.018	0.0036	0.0033	0.0044	0.028	0.011	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	0.007	0.007	0.008	0.007	0.013	< 0.005	< 0.005	0.005	0.035	NS	0.019	0.013	NP	NP	NP	NP	NP	NS
	3/9-10/1999	0.013	0.009	0.012	0.005	0.02	0.006	0.005	0.007	0.026	NP	0.036	0.066	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	0.022	0.008	NP	NP	NP	<0.005
	3/9-10/2000	0.0178	0.00817	0.0178	0.0173	NP	0.00849	0.00953	0.00757	0.0474	NP	0.108	0.0948	0.0143	< 0.005	NP	NP	NP	0.034
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	0.00511	< 0.005	NP	NS
	3/8-9/2001	0.0205	0.0094	0.0386	0.00974	NP	0.00694	NA	0.013	0.133	NP	0.08	0.0445	NS	0.00673	NA	NS	NP	NS-D
	3/11-12/2002	0.00939	0.00889	0.0101	0.0104	NP	ND	ND	ND	0.286	NP	0.086	NS-D	0.0471	0.012	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	0.0125	NP	NS	NS	NS	NA	NP	0.0387	NS-D	0.0491	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	0.00674	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	0.0598	NP	NA	NS-D	NA	NS	< 0.005	< 0.005	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	0.00836	NP	NS	NS	NS	0.052	NP	0.0559	NS-D	0.045	NS	0.00911	0.00841	0.00869	NS-D
Barium	8/1/1995	0.069	0.38	0.34	0.049	1.1	0.069	0.075	0.089	0.37	0.2	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	0.064	0.24	0.069	0.038	0.29	0.061	0.066	0.089	0.26	0.2	NP	NP	NP	NP	NP	NP	NP	NS

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells(1)																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Barium (continued)	3/23-24/1998	0.11	0.182	0.044	0.044	0.208	0.059	0.074	0.066	0.287	NS	0.163	0.157	NP	NP	NP	NP	NP	NS
	3/9-10/1999	0.058	0.059	0.045	0.054	0.555	0.076	0.052	0.043	0.17	NP	0.174	0.144	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	0.155	0.333	NP	NP	NP	0.062
	3/9-10/2000	0.0917	0.108	0.0694	0.184	NP	0.046	0.236	0.0419	0.281	NP	0.872	0.245	0.0962	0.113	NP	NP	NP	1.49
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	0.0833	0.073	NP	NS
	3/8-9/2001	0.044	0.119	0.0978	0.0055	NP	0.043	0.0512	0.111	0.23	NP	0.401	0.603	NS	0.171	NA	NS	NP	NS-D
	3/11-12/2002	0.06	0.0797	0.0805	0.0524	NP	ND	ND	ND	0.294	NP	0.348	NS-D	0.0865	0.109	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	0.15	NP	NS	NS	NS	NA	NP	0.297	NS-D	0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	0.0728	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	0.04	NP	NA	NS-D	NA	NS	0.0262	0.0326	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	0.0464	NP	NS	NS	NS	0.0922	NP	0.221	NS-D	0.104	NS	0.0699	0.0772	0.0596	NS-D
Cadmium	8/1/1995	< 0.001	< 0.001	0.0052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NS	< 0.005	< 0.005	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NP	<0.005	<0.005	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.005	<0.005	NP	NP	NP	<0.005
	3/9-10/2000	<0.005	< 0.005	0.0178	<0.005	NP	<0.005	<0.005	<0.005	<0.005	NP	< 0.005	<0.005	<0.005	<0.005	NP	NP	NP	<0.005
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.005	<0.005	NP	NS
	3/8-9/2001	<0.005	<0.005	0.0121	<0.005	NP	<0.005	<0.005	<0.005	<0.005	NP	<0.005	<0.005	NS	<0.005	NA	NS	NP	NS-D
	3/11-12/2002	<0.005	<0.005	<0.005	<0.005	NP	ND	ND	ND	<0.005	NP	<0.005	NS-D	<0.005	<0.005	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	<0.005	NP	NS	NS	NS	NA	NP	<0.005	NS-D	<0.005	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<0.005	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	<0.005	NP	NA	NS-D	NA	NS	62.2	107	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.005	NP	NS	NS	NS	<0.005	NP	<0.005	NS-D	<0.005	NS	<0.005	<0.005	<0.005	NS-D
Chromium	8/1/1995	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 0.01	< 0.01	< 0.01	< 0.01	0.049	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NS	< 0.01	< 0.01	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NP	< 0.01	< 0.01	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	0.02	0.02	NP	NP	NP	< 0.01
	3/9-10/2000	< 0.01	< 0.01	< 0.01	0.0248	NP	< 0.01	< 0.01	< 0.01	0.031	NP	0.0342	0.0124	< 0.01	< 0.01	NP	NP	NP	0.105
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	< 0.01	< 0.01	NP	NS
	3/8-9/2001	< 0.01	< 0.01	0.0104	0.0101	NP	< 0.01	< 0.01	0.013	0.0109	NP	0.0392	0.0469	NS	0.0104	NA	NS	NP	NS-D
	3/11-12/2002	< 0.01	< 0.01	< 0.01	< 0.01	NP	ND	ND	ND	0.0246	NP	0.023	NS-D	< 0.01	0.0114	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	0.0174	NP	NS	NS	NS	NA	NP	0.0168	NS-D	0.01	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 0.01	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	< 0.01	NP	NA	NS-D	NA	NS	< 0.01	< 0.01	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.01	NP	NS	NS	NS	< 0.01	NP	0.0441	NS-D	< 0.01	NS	< 0.01	< 0.01	< 0.01	NS-D
Lead	8/1/1995	< 0.002	< 0.002	0.0044	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0025	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NS	< 0.005	< 0.005	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.005	<0.005	<0.005	< 0.005	0.013	< 0.005	< 0.005	< 0.005	< 0.005	NP	0.009	<0.005	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.005	<0.005	NP	NP	NP	< 0.005
	3/9-10/2000	<0.005	<0.005	<0.005	0.00565	NP	< 0.005	< 0.005	< 0.005	0.00661	NP	0.00595	< 0.005	<0.005	<0.005	NP	NP	NP	0.0355
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.005	<0.005	NP	NS
	3/8-9/2001	<0.005	<0.005	0.00602	<0.005	NP	<0.005	<0.005	0.00597	0.0222	NP	0.0119	0.00627	NS	<0.005	NA	NS	NP	NS-D
	3/11-12/2002	<0.005	<0.005	<0.005	<0.005	NP	ND	ND	ND	0.0234	NP	<0.005	NS-D	<0.005	<0.005	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	<0.005	NP	NS	NS	NS	NA	NP	<0.005	NS-D	<0.005	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<0.005	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	< 0.005	NP	NA	NS-D	NA	NS	< 0.005	< 0.005	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.005	NP	NS	NS	NS	< 0.005	NP	0.00901	NS-D	<0.005	NS	< 0.005	<0.005	<0.005	NS-D
Mercury	8/1/1995	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0005	< 0.0002	< 0.0002	< 0.0002	< 0.0002	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0003	< 0.0002	< 0.0002	NS	< 0.0002	< 0.0002	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NP	<0.0002	<0.0002	NP	NP	NP	NP	NP	NS

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Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells(1)																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Mercury (continued)	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.0002	<0.0002	NP	NP	NP	<0.0002
	3/9-10/2000	NS	NS	NS	NS	NP	<0.0002	<0.0002	<0.0002	<0.0002	NP	<0.0002	<0.0002	<0.0002	<0.0002	NP	NP	NP	<0.0002
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.0002	<0.0002	NP	NS
	3/8-9/2001	<0.0002	<0.0002	<0.0002	<0.0002	NP	<0.0002	<0.0002	<0.0002	<0.0002	NP	<0.0002	<0.0002	NS	<0.0002	NA	NS	NP	NS-D
	3/11-12/2002	<0.0002	<0.0002	<0.0002	0.000243	NP	ND	ND	ND	<0.0002	NP	<0.0002	NS-D	<0.0002	<0.0002	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	<0.0002	NP	NS	NS	NS	NA	NP	<0.0002	NS-D	<0.0002	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<0.0002	NS-D
	8/21-22/2003	NS	NS	NS	NA	NP	NS	NS	NS	<0.0002	NP	NA	NS-D	NA	NS	<0.0002	<0.0002	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.0002	NP	NS	NS	NS	<0.0002	NP	<0.0002	NS-D	<0.0002	NS	<0.0002	<0.0002	<0.0002	NS-D
Selenium	8/1/1995	<0.004	<0.004	<0.004	<0.004	<0.004	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	<0.004	<0.004	<0.004	<0.004	<0.004	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	NP	NP	NP	NP	NP	NS
	3/9-10/1999	0.005	0.006	<0.005	0.006	<0.005	0.005	<0.005	<0.005	<0.005	NP	<0.005	<0.005	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NP	NP	NS
	3/9-10/2000	<0.005	<0.005	<0.005	<0.005	NP	0.00926	<0.005	<0.005	<0.005	NP	<0.005	<0.005	<0.005	<0.005	NP	NP	NP	<0.005
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.005	0.00523	NP	NS
	3/8-9/2001	<0.005	0.00702	0.00508	0.00587	NP	0.00617	<0.005	0.0054	<0.005	NP	<0.005	<0.005	NS	<0.005	NA	NS	NP	NS-D
	3/11-12/2002	0.00549	0.00625	<0.005	0.00558	NP	ND	ND	ND	<0.005	NP	<0.005	NS-D	<0.005	<0.005	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	<0.005	NP	NS	NS	NS	NA	NP	<0.005	NS-D	<0.005	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<0.005	NS-D
	8/21-22/2003	NS	NS	NS	NS	NP	NS	NS	NS	< 0.005	NP	NS	NS-D	NA	NS	< 0.005	< 0.005	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.005	NP	NS	NS	NS	< 0.005	NP	<0.005	NS-D	<0.005	NS	< 0.005	< 0.005	< 0.005	NS-D
PAHs (µg/L)																			
Acenaphthene	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 30	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	NS	<0.3	<0.3	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.1	< 0.1	<2.0	< 0.1	<2.0	<0.1	<0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	< 1.0	NP	NP	NP	<0.1
	3/9-10/2000	0.28	< 0.1	< 0.1	<0.1	NP	<0.1	<0.1	<0.1	< 0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Acenaphthylene	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 30	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.1	< 0.1	< 0.1	< 0.1	<2.0	<0.1	<0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	< 1.0	NP	NP	NP	<0.1
	3/9-10/2000	0.91	< 0.1	< 0.1	<0.1	NP	<0.1	<0.1	<0.1	0.4	NP	<0.1	<0.1	<0.1	1.8	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	0.71	NP	0.35	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	1.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Anthracene	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 30	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.1	< 0.1	< 0.1	< 0.1	<2.0	<0.1	<0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	NP	NP	NP	NP	NP	NS

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1]																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Anthracene (continued)	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	<1.0	NP	NP	NP	<0.1
	3/9-10/2000	0.12	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	<0.1	<0.11	<0.1	<0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<5	NS-D
	8/21-22/2003	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	NA	NS-D	NA	NS	<0.1	<0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Benzo(a)anthracene	8/1/1995	<50	<10	<500	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	<10	<10	<30	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	<10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.1	<0.1	0.2	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	<1.0	NP	NP	NP	<0.1
	3/9-10/2000	0.18	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	<0.1	<0.11	<0.1	<0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<5	NS-D
	8/21-22/2003	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	NA	NS-D	NA	NS	<0.1	<0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Benzo(k)fluoranthene	8/1/1995	<50	<10	<500	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	<10	<10	<30	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	<10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.1	<0.1	0.2	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	<1.0	NP	NP	NP	<0.1
	3/9-10/2000	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	<0.1	<0.11	<0.1	<0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<5	NS-D
	8/21-22/2003	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	NA	NS-D	NA	NS	<0.1	<0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Benzo(a)pyrene	8/1/1995	<50	<10	<500	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	<10	<10	<30	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	<10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	<0.1	<0.1	0.2	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	<1.0	NP	NP	NP	<0.1
	3/9-10/2000	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	<0.1	<0.11	<0.1	<0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	<5	NS-D
	8/21-22/2003	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	NA	NS-D	NA	NS	<0.1	<0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	<0.1	NP	NS	NS	NS	<0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Fluorene	8/1/1995	<50	<10	<500	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NA	NA	NP	NS
	8/23/1996	<10	<10	<30	<5	<30	<5	<5	<5	<5	<5	NP	NP	NP	NP	NA	NA	NP	NS
	3/23-24/1998	<10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	NS	<0.3	<0.3	NP	NP	NA	NA	NP	NS
	3/9-10/1999	<0.1	<0.1	<2.0	<0.1	<2.0	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	NP	NP	NA	NA	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<0.1	<1.0	NA	NA	NP	<0.1
	3/9-10/2000	25	<0.1	0.36	<0.1	NP	<0.1	<0.1	1.5	<0.1	NP	<0.1	<0.1	<0.1	1.6	NA	NA	NP	<0.1

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Table 7

Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1] MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Fluorene	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
(continued)	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Naphthalene	8/1/1995	< 5	210	1700	< 5	470	< 5	< 5	15	92	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	230	110	440	< 5	< 30	< 5	< 5	< 84	< 76	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	130	23	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	4	8	NS	0.8	11	NP	NP	NP	NP	NP	NS
	3/9-10/1999	10	8	170	0.1	160	<0.1	<0.1	<0.1	6	NP	<0.1	19	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	0.6	34	NP	NP	NP	<0.1
	3/9-10/2000	2.4	<0.1	0.44	<0.1	NP	<0.1	<0.1	0.42	1.5	NP	0.12	0.26	<0.1	56	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	0.15	NP	0.21	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	0.14	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	0.14	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Phenanthrene	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 30	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.1	< 0.1	2	< 0.1	<2.0	<0.1	<0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 0.1	< 1.0	NP	NP	NP	<0.1
	3/9-10/2000	0.65	<0.1	< 0.1	<0.1	NP	<0.1	<0.1	<0.1	<0.1	NP	<0.1	<0.1	<0.1	0.22	NP	NP	NP	<0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	<0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
Pyrene	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	< 10	< 10	< 30	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	3/23-24/1998	< 10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NS	<0.1	<0.1	NP	NP	NP	NP	NP	NS
	3/9-10/1999	< 0.1	< 0.1	0.4	< 0.1	<2.0	<0.1	<0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 0.1	< 1.0	NP	NP	NP	<0.1
	3/9-10/2000	< 2	< 0.1	< 0.1	< 0.1	NP	< 0.1	< 0.1	< 0.1	<0.1	NP	< 0.1	< 0.1	< 0.1	< 0.1	NP	NP	NP	< 0.1
	1/14/2001	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	NS	NS	<0.1	<0.1	NP	NS
	3/8-9/2001	<0.12	<0.13	<0.12	< 0.1	NP	<0.13	<0.12	<0.12	<0.15	NP	<0.13	<0.13	NS	<0.12	NA	NS	NP	NS-D
	3/11-12/2002	< 0.1	<0.11	< 0.1	< 0.1	NP	ND	ND	ND	ND	NP	<0.1	NS-D	<0.1	<0.1	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	<0.1	NS-D	<0.1	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS-D	NA	NS	NS	NS	< 5	NS-D
	8/21-22/2003	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	NA	NS-D	NA	NS	< 0.1	< 0.1	NS	NS-D
	12/18/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	< 0.1	NP	NS	NS	NS	< 0.1	NP	<0.1	NS-D	<0.1	NS	<0.1	<0.1	<0.1	NS-D
VOCs (μg/L)																			
Acetone	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<100	<100	NP	NP	NP	NP	NP	NS
	6/10-7/2/99	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	130	<100	NP	NP	NP	<100
	6/10-7/2/1999	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<100	<100	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1]																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
Acetone (continued)	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 100	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
sec-Butylbenzene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NA
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	5	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
Isopropylbenzene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	31	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
Naphthalene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	190	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
n-Propylbenzene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	68	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
1,2,4-Trimethylbenzene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	93	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
1,3,5-Trimethylbenzene	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	93	NP	NP	NP	< 5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
MTBE	3/23-24/1998	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 10	25	NP	NP	NP	< 10
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	<5.0	<5.0	NP	NS-D
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
SVOCs (µg/L)																			
2,4-Dimethylphenol	8/1/1995	< 50	97	< 500	< 5	42	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	56	NP	NP	NP	<5

Table 7
Summary of Groundwater Quality Parameters and Detected PAHs, Metals, VOCs and SVOCs
Hobbs, New Mexico Facility
BJ Services Company, U.S.A.

Analyte (units)	Sample Date	Monitor Wells[1]																	
		MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-11A	MW-12	MW-12D	MW-13	MW-14	MW-15	MW-16	OW-4
2,4-Dimethylphenol (continued)	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
2-Methylnaphthalene	8/1/1995	280	62	1500	< 5	150	< 5	< 5	36	23	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	29	NP	NP	NP	<5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
2-Methylphenol	8/1/1995	< 50	56	< 500	< 5	< 30	< 5	< 5	< 5	< 5	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	< 5	NP	NP	NP	<5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
4-Methylphenol	8/1/1995	< 80	< 20	< 800	< 8	150	< 8	< 8	< 8	< 8	< 8	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	< 5	NP	NP	NP	<5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
Bis(2-ethylhexyl)-phthalate	8/1/1995	750	< 20	10000	40	< 40	< 7	< 7	< 7	< 7	< 7	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	< 5	< 5	NP	NP	NP	<5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D
Phenol	8/1/1995	< 50	< 10	< 500	< 5	< 30	< 5	< 5	< 5	8.2	< 5	NP	NP	NP	NP	NP	NP	NP	NS
	8/23/1996	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NP	NP	NP	NP	NP	NS
	6/10-7/2/1999	NS	NS	NS	NS	NP	NS	NS	NS	NS	NP	NS	NS	<5	6	NP	NP	NP	<5
	3/9-10/2000	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NP	NP	NS
	3/11-12/2002	NA	NA	NA	NA	NP	NA	NA	NA	NA	NP	NA	NS-D	NA	NA	NS	NS	NP	NS-D
	3/6/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NP	NS-D
	6/20/2003	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	< 5	NS-D
	3/30/2004	NS	NS	NS	NA	NP	NS	NS	NS	NA	NP	NA	NS-D	NA	NS	NA	NA	NA	NS-D

(1) - MW-2 not operative after May 3, 1995; MW-11 not operative after September 1997; MW-2, MW-6, and MW-11 P&A'd 7/1/99.
(2) - NP = *Well not present at time of sampling event.*
(3) - NS = Well not sampled.
(4) - NA = Not Analyzed.
(5) - NS-D = Well not sampled (dry well).
(6) - ND = No data - sample aliquot not collected due to insufficient well yield.

Appendices

BROWN AND CALDWELL

APPENDICES

A

BROWN AND CALDWELL

APPENDIX A

Groundwater Sampling Forms

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-5

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3/30/04 Time: 0810

Client: BJ Services Personnel: R. Banda / S. Sale

Project Location: Hobbs, NM Weather: 70°F, No wind.

2. WELL DATA

Casing Diameter: 2 inches	Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:
Screen Diameter: 2 inches	Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:
Total Depth of Well: 64.50 feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:
Depth to Static Water: 62.56 feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:
Depth to Product: — feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 1.94 feet Well Volume: 0.31 gal Screened Interval (from GS): 45-60

Pump intake depth 64 (from GS)

Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft

3. PURGE DATA

Purge Method: ☐ Bailer, Size: ___ ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ___

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ___ ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Rope/Tubing ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ___ ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☐ Yes ☑ No Pumping Rate: 0.2 L/min

Equipment Model(s)

1. Fultz pump
2. YSI 600XL
3. HACH Turbidity meter

Time	Cum. Liters Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
start purging 0852	L	—	°F	mS/cm	mV	~~mg/L~~	NTU	ft	
0856	0.5	6.65	64.66	1.058	-87	7.05	12.9	62.95	
0900	1.0	6.66	64.74	1.070	-87	7.05	4.26	62.95	
0903	2.0	6.79	65.37	1.057	-89	6.32	4.02	62.95	
0906	3.0	6.87	65.68	1.056	-90	6.20	3.06	62.95	
0910	4.0	6.92	65.95	1.055	-92	6.18	2.41	62.94	

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: ___ ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ___ ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Tubing/Rope ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ___ ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: 62.94 Field Filtered? ☐ Yes ☑ No

Sample ID: MW-5 Sample Time: 0915 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: ___

Geochemical Analyses

Ferrous Iron: 0 mg/L

DO: 3.5 mg/L

Nitrate: ___ mg/L

Sulfate: ___ mg/L

Alkalinity: ___ mg/L

5. COMMENTS

Sampled for anions, HCO_3, CO_3, PAH, Hardness, Metals, Methane, BTEX, DRO

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature RDBS

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-10

1. PROJECT INFORMATION

Project Number: 12332 Task Number: 019 Date: 3/30/04 Time: 1035

Client: BJ Services Personnel: R. Bandu / S. Sole

Project Location: Hobbs, NM Weather: 75°F

2. WELL DATA

Casing Diameter: 2 inches	Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:
Screen Diameter: 2 inches	Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:
Total Depth of Well: 63.51 feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:
Depth to Static Water: 61.71 feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:
Depth to Product: — feet	From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:
Length of Water Column: 1.8 feet	Well Volume: 0.288 gal Screened Interval (from GS): —
Pump intake depth — (from GS)	3 well vol. = 0.864 *Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft*

3. PURGE DATA

Purge Method: ☑ Bailer, Size: ___ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Rope/Tubing ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☑ Yes ☐ No Pumping Rate: — gal/min

Equipment Model(s)

1. Clearview bailer
2. YSI 600XL
3. —

Time	Cum. Gallons Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
1039	0.5	7.22	19.32	4.441	-91	-1.06			

Bailed dry at 0.5 gal.

4. SAMPLING DATA

Method(s): ☑ Bailer, Size: ___ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Tubing/Rope ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☑ No

Sample ID: MW-10 Sample Time: 1045 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 10 mg/L

DO: 0.0 mg/L

Nitrate: ___ mg/L

Sulfate: ___ mg/L

Alkalinity: ___ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11A

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3-30-04 Time: 1020

Client: BJ Services Personnel: R. Banda / S. Sale

Project Location: Hobbs NM Weather: 75°F /

2. WELL DATA

Casing Diameter: 2 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Screen Diameter: 2 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Total Depth of Well: 64.72 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☑ Other: measured

Depth to Static Water: 62.25 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: — feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 2.47 feet Well Volume: 0.4 gal Screened Interval (from GS): 50-65'

Pump intake depth — (from GS) 0.4 X 3 = 1.2 gal. *Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft*

3. PURGE DATA

Purge Method: ☑ Bailer, Size: ___ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Rope/Tubing ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☑ Yes ☐ No Pumping Rate: — gal/min

Equipment Model(s)

1. Clearview bailer
2. YSI 600XL
3. —

Time	Cum. Gallons Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
1000	0.5	7.02	18.68	9.578	-105	0.68			
1010	1.0	6.94	18.80	9.674	-82.3	-0.46			

Bailed dry at 1.0 gal.

4. SAMPLING DATA

Method(s): ☑ Bailer, Size: ___ ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Tubing/Rope ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☑ No

Sample ID: MW-11A Sample Time: 1030 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 10 mg/L

DO: 0 mg/L

Nitrate: ___ mg/L

Sulfate: ___ mg/L

Alkalinity: ___ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-12D

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3/30/04 Time: 1020

Client: BJ Services Personnel: R. Banda / S. Sale

Project Location: Hobbs, NM Weather: 75°F / light breeze from South

2. WELL DATA

Casing Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Screen Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Total Depth of Well: 87.58 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☑ Other: Historical

Depth to Static Water: 62.38 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: — feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 25.2 feet Well Volume: 4.032 gal Screened Interval (from GS): 77.5 - 87.5

Pump Intake depth 70 (from GS) *Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft*

3. PURGE DATA

Purge Method: ☐ Bailer, Size: ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Rope/Tubing ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☐ Yes ☑ No Pumping Rate: 0.25 L/min

Equipment Model(s)
1. HACH TURB
2. YSI
3. FOLTZ

Start Purging

Time	Cum. Liters Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
1050	L.	—	°C	mS/cm	mV	mg/L	NTUs	ft.	
1054	1.0	7.15	19.09	1.128	-119	1.89	22.1	62.62	
1058	2.0	7.14	19.26	1.132	-118	1.38	12.1	62.63	
1102	3.0	7.15	19.49	1.133	-121	0.86	9.66	62.63	
1106	4.0	7.16	19.63	1.132	-122	0.59	7.23	62.63	
1110	5.0	7.18	19.69	1.132	-123	0.57	5.18	62.63	

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Tubing/Rope ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: 62.63 Field Filtered? ☐ Yes ☑ No

Sample ID: MW-12D Sample Time: 1115 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 1.0 mg/L

DO: 0 mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg) Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-14

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3/30/04 Time: 1305

Client: BJ-Services Personnel: R. Banda / S. Sale

Project Location: Hobbs, NM Weather: 80°F / light breeze from the ~~[illegible]~~ South

2. WELL DATA

Casing Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Screen Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Total Depth of Well: 69.37 feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☑ Other: Historical

Depth to Static Water: 63.04 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: — feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 6.33 feet Well Volume: 1.01 gal Screened Interval (from GS): 54.9 - 69.5

Pump intake depth — (from GS) 5 X 1.01 = 3.03 gal. *Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft*

3. PURGE DATA

Purge Method: ☑ Bailer, Size: ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Rope/Tubing ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☑ Yes ☐ No Pumping Rate: — gal/min

Equipment Model(s)

1. YSI
2. HACH Turb. Meter
3.

Time	Cum. Gallons Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
1315	0.1	7.42	18.86	1.421	-133	9.58	84.5		
1323	1.0	7.39	18.91	1.400	-125	9.52	280		
	~~2.0~~								
	~~3.0~~								
Bailed dry at 1.5 gal									

start

4. SAMPLING DATA

Method(s): ☑ Bailer, Size: ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Tubing/Rope ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☑ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☑ No

Sample ID: MW-14 Sample Time: 1345 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 0.0 mg/L

DO: 5.4 mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature [signature]

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3/30/04 Time: 1210

Client: BJ Services Personnel: R. Banda / S. Sale

Project Location: Hobbs NM Weather: Sunny / 78°F /

2. WELL DATA

Casing Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Screen Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Total Depth of Well: 67.01 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Static Water: 62.01 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: — feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 5.0 feet Well Volume: 0.8 gal Screened Interval (from GS): 52 - 67'

Pump Intake depth — (from GS) 3 X 0.8 = 2.4 gal *Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft*

3. PURGE DATA

Purge Method: ☑ Bailer, Size: ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Rope/Tubing ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☐ Yes ☑ No Pumping Rate: — gal/min

Equipment Model(s)

1. YSI 600XL
2. Bailer - Clearview
3. HACH Turb. Meter

Time	Cum. Gallons Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
—	gal.	—	°C	mS/cm	mV	mg/L	NTUs		
1216	0.1	7.29	19.21	1.595	-117	6.50	195		
1218	1.0	7.24	19.85	1.575	-117	9.59	182		
1224	2.0	7.20	19.18	1.588	-119	3.45	205		
1228	2.5	6.98	19.34	1.554	-120	6.64	219		

4. SAMPLING DATA

Method(s): ☑ Bailer, Size: ☐ Bladder Pump ☐ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Plastic ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Materials: Tubing/Rope ☐ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☑ No

Sample ID: MW-15 Sample Time: 1235 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 0.0 mg/L

DO: 7.0 mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-16

1. PROJECT INFORMATION

Project Number: 12832 Task Number: 019 Date: 3/30/04 Time: ~~1[illegible]~~ 1420

Client: BJ Services Personnel: R. Banks / S. Sale

Project Location: Hobbs, NM Weather: 80°F, light breeze from ~~[illegible]~~ South

2. WELL DATA

Casing Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: ____

Screen Diameter: 2 inches — Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: ____

Total Depth of Well: 73 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: ____

Depth to Static Water: 66.86 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: ____

Depth to Product: — feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: ____

Length of Water Column: 6.14 feet Well Volume: 0.98 gal Screened Interval (from GS): 48-73' bgs

Note: 2-inch well = 0.16 gal/ft 4-inch well = 0.65 gal/ft

Pump intake depth 70 (from GS)

3. PURGE DATA

Purge Method: ☐ Bailer, Size: ___ ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: ____

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Rope/Tubing ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ____ ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Was well purged dry? ☐ Yes ☑ No Pumping Rate: ____ gal/min

Equipment Model(s)

1. YSI 600XL
2. Fultz Pump
3. HACH Turbidity meter

Time	Cum. ~~Gallons~~ Liters Removed	pH	Temp	Spec. Cond.	Eh	Dissolved Oxygen	Turbidity	Depth to Water (TOC)	Comments
1435	L	—	°C	mS/cm	mV	mg/L	NTU's	ft	
1439	1.0	6.96	20.96	3.247	-123	0.34	537	67.06	
1443	2.0	6.66	19.86	3.275	-116	0.8	455	67.08	
1447	3.0	6.65	20.15	3.272	-113	0.6	298	67.09	
1451	4.0	6.62	20.10	3.244	-111	0.5	217	67.09	
1455	5.0	6.64	20.14	3.295	-109	0.4	200	67.09	
							86		
							35		
							9.8		

Start purging

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: ___ ☐ Bladder Pump ☑ 2" Submersible Pump ☐ 4" Submersible Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other:

Materials: Pump/Bailer ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: ____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned ☐ Disposable

Materials: Tubing/Rope ☑ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Other: ____ ☐ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned ☑ Disposable

Depth to Water at Time of Sampling: 67.09 Field Filtered? ☐ Yes ☑ No

Sample ID: MW-16 Sample Time: 1500 # of Containers: 7

Duplicate Sample Collected? ☐ Yes ☑ No ID: —

Geochemical Analyses

Ferrous Iron: 0 mg/L

DO: 3.5 mg/L

Nitrate: ____ mg/L

Sulfate: ____ mg/L

Alkalinity: ____ mg/L

5. COMMENTS

Turbidity at 9.8 NTU when metals jar collected.

Note: Include comments such as well condition, odor, presence of NAPL or other items not on the field data sheet.

Gen\non-proj\forms\Field Data Sheet.xls\BC-gallons

FORM GW-1 (Rev 2/26/02 - dg)

Signature [signature]

B

BROWN AND CALDWELL

APPENDIX B

Laboratory Analytical Report

SPL®

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Brown & Caldwell

Certificate of Analysis Number:

04031164

Report To: Brown & Caldwell
Rick Rexroad
1415 Louisiana
Suite 2509
Houston
TX
77002-
ph: (713) 759-0999 fax: (713) 308-3886

Fax To: Brown & Caldwell
Rick Rexroad fax : (713) 308-3886

Project Name: BJ-Hobbs
Site: Hobbs, NM
Site Address:
PO Number:
State: New Mexico
State Cert. No.:
Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
V-16	04031164-01	Water	3/30/2004 3:00:00 PM	3/31/2004 9:30:00 AM	215970	☐
V-10	04031164-02	Water	3/30/2004 10:45:00 AM	3/31/2004 9:30:00 AM	215969	☐
MW-14	04031164-03	Water	3/30/2004 12:35:00 PM	3/31/2004 9:30:00 AM	215969	☐
V-15	04031164-04	Water	3/30/2004 1:45:00 PM	3/31/2004 9:30:00 AM	215969	☐
p Blank	04031164-05	Water	3/30/2004	3/31/2004 9:30:00 AM	215969	☐
MW-5	04031164-06	Water	3/30/2004 9:15:00 AM	3/31/2004 9:30:00 AM	215968	☐
MW-11A	04031164-07	Water	3/30/2004 10:30:00 AM	3/31/2004 9:30:00 AM	215968	☐
V-12D	04031164-08	Water	3/30/2004 11:15:00 AM	3/31/2004 9:30:00 AM	215968	☐
p Blank	04031164-09	Water	3/30/2004	3/31/2004 9:30:00 AM	215968	☐

Patricia L. Lynch

at Lynch
enior Project Manager

4/21/2004
Date

Joel Grice
Laboratory Director

Ted Yen
Quality Assurance Officer

4/21/2004 3:40:00 PM

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:

Brown & Caldwell

Certificate of Analysis Number:

04031164

Report To:		Project Name:	BJ-Hobbs
Brown & Caldwell		Site:	Hobbs, NM
Rick Rexroad		Site Address:	
1415 Louisiana			
Suite 2509		PO Number:	
Houston		State:	New Mexico
TX			
77002-		State Cert. No.:	
ph: (713) 759-0999	fax: (713) 308-3886	Date Reported:	

The data in this report applies to the analysis of seven water samples plus two trip blanks for the BJ Services site in Hobbs, New Mexico. These samples were received on March 31, 2004, assigned to SPL Certificate of Analysis No. 04031164, and analyzed for the parameters as noted on Chain-of-Custody Nos.215968- 215970 .

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other exceptions associated with this report will be footnoted in the analytical result pages or the quality control summary pages.

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Patricia L. Lynch

Pat Lynch
Senior Project Manager

4/21/2004
Date

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-16 **Collected:** 03/30/2004 15:00 **SPL Sample ID:** 04031164-01

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				**MCL**	**M2320 B**		**Units: mg/L**		
Alkalinity, Bicarbonate	279		2		1		04/12/04 11:30	J_C	2166822
ALKALINITY, CARBONATE				**MCL**	**M2320 B**		**Units: mg/L**		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166882
CHLORIDE, TOTAL				**MCL**	**E325.3**		**Units: mg/L**		
Chloride	753		10		10		04/12/04 16:00	RA	2167132
DIESEL RANGE ORGANICS				**MCL**	**SW8015B**		**Units: mg/L**		
Diesel Range Organics	ND		0.2		1		04/05/04 4:11	AM	2162238
Surr: n-Pentacosane	58.0	%	39-142		1		04/05/04 4:11	AM	2162238

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)				**MCL**	**E130.2**		**Units: mg/L**		
Hardness (As CaCO3)	640		50		10		04/08/04 18:00	CV	2165188
HEADSPACE GAS ANALYSIS				**MCL**	**RSK147**		**Units: mg/L**		
Methane	ND		0.0012		1		04/08/04 10:57	AE	2161955
ION CHROMATOGRAPHY				**MCL**	**E300.0**		**Units: mg/L**		
Fluoride	5.3		0.5		5		04/05/04 18:42	CV	2158647
Nitrogen,Nitrate (As N)	5.8		0.1		1		03/31/04 16:11	CV	2150329
Sulfate	180		4		20		04/06/04 17:56	CV	2160912
MERCURY, TOTAL				**MCL**	**SW7470A**		**Units: mg/L**		
Mercury	ND		0.0002		1		04/01/04 11:16	JAB	2150997

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**		**Units: mg/L**		
Arsenic	0.00869		0.005		1		04/08/04 10:20	NS	2164523
Lead	ND		0.005		1		04/08/04 0:27	NS	2164460
Selenium	ND		0.005		1		04/08/04 0:27	NS	2164460
Barium	0.0596		0.005		1		04/05/04 10:21	MW	2158747
Cadmium	ND		0.005		1		04/05/04 10:21	MW	2158747
Calcium	210		0.1		1		04/05/04 10:21	MW	2158747
Chromium	ND		0.01		1		04/05/04 10:21	MW	2158747
Magnesium	39.2		0.1		1		04/05/04 10:21	MW	2158747
Potassium	4.02		2		1		04/05/04 10:21	MW	2158747
Silver	ND		0.01		1		04/05/04 10:21	MW	2158747
Sodium	382		0.5		1		04/12/04 16:27	MW	2167107

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-16 **Collected:** 03/30/2004 15:00 **SPL Sample ID:** 04031164-01

Site: **Hobbs, NM**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
POLYNUCLEAR AROMATIC HYDROCARBONS			**MCL**	**SW8310**		**Units: ug/L**		
Acenaphthene	ND		0.1	1		04/05/04 18:26	DL	2159142
Acenaphthylene	ND		0.1	1		04/05/04 18:26	DL	2159142
Anthracene	ND		0.1	1		04/05/04 18:26	DL	2159142
Benz(a)anthracene	ND		0.1	1		04/05/04 18:26	DL	2159142
Benzo(a)pyrene	ND		0.1	1		04/05/04 18:26	DL	2159142
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 18:26	DL	2159142
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 18:26	DL	2159142
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 18:26	DL	2159142
Chrysene	ND		0.1	1		04/05/04 18:26	DL	2159142
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 18:26	DL	2159142
Fluoranthene	ND		0.1	1		04/05/04 18:26	DL	2159142
Fluorene	ND		0.1	1		04/05/04 18:26	DL	2159142
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 18:26	DL	2159142
Naphthalene	ND		0.1	1		04/05/04 18:26	DL	2159142
Phenanthrene	ND		0.1	1		04/05/04 18:26	DL	2159142
Pyrene	ND		0.1	1		04/05/04 18:26	DL	2159142
Surr: 1-Fluoronaphthalene	104	%	18-130	1		04/05/04 18:26	DL	2159142
Surr: Phenanthrene-d10	124MI	%	21-111	1	*	04/05/04 18:26	DL	2159142

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		1	1		04/03/04 11:00	D_R	2155978
Toluene	ND		1	1		04/03/04 11:00	D_R	2155978
Ethylbenzene	ND		1	1		04/03/04 11:00	D_R	2155978
Xylenes,Total	ND		1	1		04/03/04 11:00	D_R	2155978
Surr: 1,4-Difluorobenzene	104	%	39-163	1		04/03/04 11:00	D_R	2155978
Surr: 4-Bromofluorobenzene	98.0	%	57-157	1		04/03/04 11:00	D_R	2155978

Qualifiers:

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MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-10 **Collected:** 03/30/2004 10:45 **SPL Sample ID:** 04031164-02

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Bicarbonate	582		2		1		04/12/04 11:30	J_C	2166823
ALKALINITY, CARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166883
CHLORIDE, TOTAL				MCL	E325.3		Units: mg/L		
Chloride	928		10		10		04/12/04 16:00	RA	2167133
DIESEL RANGE ORGANICS				MCL	SW8015B		Units: mg/L		
Diesel Range Organics	ND		0.2		1		04/05/04 4:51	AM	2162240
Surr: n-Pentacosane	64.0	%	39-142		1		04/05/04 4:51	AM	2162240

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			MCL	E130.2		Units: mg/L		
Hardness (As CaCO3)	1300	120		25		04/08/04 18:00	CV	2165192
HEADSPACE GAS ANALYSIS			MCL	RSK147		Units: mg/L		
Methane	ND	0.0012		1		04/08/04 11:24	AE	2161957
ION CHROMATOGRAPHY			MCL	E300.0		Units: mg/L		
Fluoride	2.2	0.5		5		04/05/04 18:54	CV	2158648
Nitrogen,Nitrate (As N)	0.25	0.1		1		03/31/04 17:13	CV	2150334
Sulfate	350	10		50		04/06/04 18:08	CV	2160913
MERCURY, TOTAL			MCL	SW7470A		Units: mg/L		
Mercury	ND	0.0002		1		04/01/04 11:24	JAB	2151001

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL			MCL	SW6010B		Units: mg/L		
Arsenic	0.052	0.005		1		04/08/04 0:32	NS	2164461
Lead	ND	0.005		1		04/08/04 0:32	NS	2164461
Selenium	ND	0.005		1		04/08/04 0:32	NS	2164461
Barium	0.0922	0.005		1		04/05/04 10:25	MW	2158748
Cadmium	ND	0.005		1		04/05/04 10:25	MW	2158748
Calcium	308	0.1		1		04/05/04 10:25	MW	2158748
Chromium	ND	0.01		1		04/05/04 10:25	MW	2158748
Magnesium	128	0.1		1		04/05/04 10:25	MW	2158748
Potassium	10.8	2		1		04/05/04 10:25	MW	2158748
Silver	ND	0.01		1		04/05/04 10:25	MW	2158748
Sodium	408	0.5		1		04/12/04 16:31	MW	2167108

Qualifiers:

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J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-10 **Collected:** 03/30/2004 10:45 **SPL Sample ID:** 04031164-02

Site: **Hobbs, NM**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
POLYNUCLEAR AROMATIC HYDROCARBONS			**MCL**	**SW8310**		**Units: ug/L**		
Acenaphthene	ND		0.1	1		04/05/04 19:04	DL	2159143
Acenaphthylene	ND		0.1	1		04/05/04 19:04	DL	2159143
Anthracene	ND		0.1	1		04/05/04 19:04	DL	2159143
Benz(a)anthracene	ND		0.1	1		04/05/04 19:04	DL	2159143
Benzo(a)pyrene	ND		0.1	1		04/05/04 19:04	DL	2159143
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 19:04	DL	2159143
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 19:04	DL	2159143
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 19:04	DL	2159143
Chrysene	ND		0.1	1		04/05/04 19:04	DL	2159143
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 19:04	DL	2159143
Fluoranthene	ND		0.1	1		04/05/04 19:04	DL	2159143
Fluorene	ND		0.1	1		04/05/04 19:04	DL	2159143
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 19:04	DL	2159143
Naphthalene	ND		0.1	1		04/05/04 19:04	DL	2159143
Phenanthrene	ND		0.1	1		04/05/04 19:04	DL	2159143
Pyrene	ND		0.1	1		04/05/04 19:04	DL	2159143
Surr: 1-Fluoronaphthalene	68.3	%	18-130	1		04/05/04 19:04	DL	2159143
Surr: Phenanthrene-d10	98.9	%	21-111	1		04/05/04 19:04	DL	2159143

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS			**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		1	1		04/06/04 0:44	D_R	2161714
Toluene	ND		1	1		04/06/04 0:44	D_R	2161714
Ethylbenzene	ND		1	1		04/06/04 0:44	D_R	2161714
Xylenes,Total	ND		1	1		04/06/04 0:44	D_R	2161714
Surr: 1,4-Difluorobenzene	103	%	39-163	1		04/06/04 0:44	D_R	2161714
Surr: 4-Bromofluorobenzene	97.5	%	57-157	1		04/06/04 0:44	D_R	2161714

Qualifiers:

ND/U - Not Detected at the Reporting Limit
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J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-14 **Collected:** 03/30/2004 12:35 **SPL Sample ID:** 04031164-03

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				**MCL**		**M2320 B**	**Units: mg/L**		
Alkalinity, Bicarbonate	368		2		1		04/12/04 11:30	J_C	2166825
ALKALINITY, CARBONATE				**MCL**		**M2320 B**	**Units: mg/L**		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166886
CHLORIDE, TOTAL				**MCL**		**E325.3**	**Units: mg/L**		
Chloride	119		2		2		04/12/04 16:00	RA	2167134
DIESEL RANGE ORGANICS				**MCL**		**SW8015B**	**Units: mg/L**		
Diesel Range Organics	ND		0.2		1		04/05/04 5:30	AM	2162241
Surr: n-Pentacosane	43.0	%	39-142		1		04/05/04 5:30	AM	2162241

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)				**MCL**		**E130.2**	**Units: mg/L**		
Hardness (As CaCO3)	800		50		10		04/08/04 18:00	CV	2165193
HEADSPACE GAS ANALYSIS				**MCL**		**RSK147**	**Units: mg/L**		
Methane	ND		0.0012		1		04/08/04 11:34	AE	2161958
ION CHROMATOGRAPHY				**MCL**		**E300.0**	**Units: mg/L**		
Fluoride	2.5		0.1		1		04/05/04 19:07	CV	2158649
Nitrogen,Nitrate (As N)	4.9		0.1		1		03/31/04 17:26	CV	2150335
Sulfate	150		4		20		04/06/04 18:21	CV	2160914
MERCURY, TOTAL				**MCL**		**SW7470A**	**Units: mg/L**		
Mercury	ND		0.0002		1		04/01/04 11:26	JAB	2151002

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL				**MCL**		**SW6010B**	**Units: mg/L**		
Arsenic	0.00911		0.005		1		04/08/04 0:49	NS	2164464
Lead	ND		0.005		1		04/08/04 0:49	NS	2164464
Selenium	ND		0.005		1		04/08/04 0:49	NS	2164464
Barium	0.0699		0.005		1		04/05/04 10:29	MW	2158749
Cadmium	ND		0.005		1		04/05/04 10:29	MW	2158749
Calcium	205		0.1		1		04/05/04 10:29	MW	2158749
Chromium	ND		0.01		1		04/05/04 10:29	MW	2158749
Magnesium	66.4		0.1		1		04/05/04 10:29	MW	2158749
Potassium	3.07		2		1		04/05/04 10:29	MW	2158749
Silver	ND		0.01		1		04/05/04 10:29	MW	2158749
Sodium	80.7		0.5		1		04/12/04 16:35	MW	2167109

Qualifiers:

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J - Estimated Value between MDL and PQL
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MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-14 **Collected:** 03/30/2004 12:35 **SPL Sample ID:** 04031164-03

Site: **Hobbs, NM**

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

POLYNUCLEAR AROMATIC HYDROCARBONS			MCL	SW8310		Units: ug/L		
Acenaphthene	ND		0.1	1		04/05/04 19:41	DL	2159144
Acenaphthylene	ND		0.1	1		04/05/04 19:41	DL	2159144
Anthracene	ND		0.1	1		04/05/04 19:41	DL	2159144
Benz(a)anthracene	ND		0.1	1		04/05/04 19:41	DL	2159144
Benzo(a)pyrene	ND		0.1	1		04/05/04 19:41	DL	2159144
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 19:41	DL	2159144
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 19:41	DL	2159144
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 19:41	DL	2159144
Chrysene	ND		0.1	1		04/05/04 19:41	DL	2159144
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 19:41	DL	2159144
Fluoranthene	ND		0.1	1		04/05/04 19:41	DL	2159144
Fluorene	ND		0.1	1		04/05/04 19:41	DL	2159144
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 19:41	DL	2159144
Naphthalene	ND		0.1	1		04/05/04 19:41	DL	2159144
Phenanthrene	ND		0.1	1		04/05/04 19:41	DL	2159144
Pyrene	ND		0.1	1		04/05/04 19:41	DL	2159144
Surr: 1-Fluoronaphthalene	55.9	%	18-130	1		04/05/04 19:41	DL	2159144
Surr: Phenanthrene-d10	88.6	%	21-111	1		04/05/04 19:41	DL	2159144

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

PURGEABLE AROMATICS			MCL	SW8021B		Units: ug/L		
Benzene	1.2		1	1		04/03/04 12:00	D_R	2155979
Toluene	ND		1	1		04/03/04 12:00	D_R	2155979
Ethylbenzene	ND		1	1		04/03/04 12:00	D_R	2155979
Xylenes,Total	ND		1	1		04/03/04 12:00	D_R	2155979
Surr: 1,4-Difluorobenzene	103	%	39-163	1		04/03/04 12:00	D_R	2155979
Surr: 4-Bromofluorobenzene	98.0	%	57-157	1		04/03/04 12:00	D_R	2155979

Qualifiers:

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>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-15 **Collected:** 03/30/2004 13:45 **SPL Sample ID:** 04031164-04

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Bicarbonate	209		2		1		04/12/04 11:30	J_C	2166826
ALKALINITY, CARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166887
CHLORIDE, TOTAL				MCL	E325.3		Units: mg/L		
Chloride	245		10		10		04/12/04 16:00	RA	2167135
DIESEL RANGE ORGANICS				MCL	SW8015B		Units: mg/L		
Diesel Range Organics	ND		0.2		1		04/05/04 6:09	AM	2162242
Surr: n-Pentacosane	74.2	%	39-142		1		04/05/04 6:09	AM	2162242

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)				MCL	E130.2		Units: mg/L		
Hardness (As CaCO3)	760		50		10		04/08/04 18:00	CV	2165194
HEADSPACE GAS ANALYSIS				MCL	RSK147		Units: mg/L		
Methane	*ND*		*0.0012*		*1*		*04/08/04 11:50*	*AE*	*2161959*
ION CHROMATOGRAPHY				MCL	E300.0		Units: mg/L		
Fluoride	1.1		0.1		1		04/05/04 19:19	CV	2158650
Nitrogen,Nitrate (As N)	3		0.1		1		03/31/04 17:39	CV	2150336
Sulfate	140		4		20		04/06/04 18:34	CV	2160915
MERCURY, TOTAL				MCL	SW7470A		Units: mg/L		
Mercury	ND		0.0002		1		04/01/04 11:29	JAB	2151003

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL				MCL	SW6010B		Units: mg/L		
Arsenic	0.00841		0.005		1		04/08/04 0:54	NS	2164465
Lead	ND		0.005		1		04/08/04 0:54	NS	2164465
Selenium	ND		0.005		1		04/08/04 0:54	NS	2164465
Barium	0.0772		0.005		1		04/05/04 10:33	MW	2158752
Cadmium	ND		0.005		1		04/05/04 10:33	MW	2158752
Calcium	255		0.1		1		04/05/04 10:33	MW	2158752
Chromium	ND		0.01		1		04/05/04 10:33	MW	2158752
Magnesium	31.5		0.1		1		04/05/04 10:33	MW	2158752
Potassium	3.55		2		1		04/05/04 10:33	MW	2158752
Silver	ND		0.01		1		04/05/04 10:33	MW	2158752
Sodium	88.1		0.5		1		04/12/04 16:39	MW	2167110

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-15 **Collected:** 03/30/2004 13:45 **SPL Sample ID:** 04031164-04

Site: **Hobbs, NM**

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

POLYNUCLEAR AROMATIC HYDROCARBONS			MCL	SW8310		Units: ug/L		
Acenaphthene	ND		0.1	1		04/05/04 21:33	DL	2159145
Acenaphthylene	ND		0.1	1		04/05/04 21:33	DL	2159145
Anthracene	ND		0.1	1		04/05/04 21:33	DL	2159145
Benz(a)anthracene	ND		0.1	1		04/05/04 21:33	DL	2159145
Benzo(a)pyrene	ND		0.1	1		04/05/04 21:33	DL	2159145
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 21:33	DL	2159145
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 21:33	DL	2159145
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 21:33	DL	2159145
Chrysene	ND		0.1	1		04/05/04 21:33	DL	2159145
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 21:33	DL	2159145
Fluoranthene	ND		0.1	1		04/05/04 21:33	DL	2159145
Fluorene	ND		0.1	1		04/05/04 21:33	DL	2159145
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 21:33	DL	2159145
Naphthalene	ND		0.1	1		04/05/04 21:33	DL	2159145
Phenanthrene	ND		0.1	1		04/05/04 21:33	DL	2159145
Pyrene	ND		0.1	1		04/05/04 21:33	DL	2159145
Surr: 1-Fluoronaphthalene	65.4	%	18-130	1		04/05/04 21:33	DL	2159145
Surr: Phenanthrene-d10	79.8	%	21-111	1		04/05/04 21:33	DL	2159145

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

PURGEABLE AROMATICS			MCL	SW8021B		Units: ug/L		
Benzene	ND		1	1		04/03/04 12:30	D_R	2155980
Toluene	ND		1	1		04/03/04 12:30	D_R	2155980
Ethylbenzene	ND		1	1		04/03/04 12:30	D_R	2155980
Xylenes,Total	ND		1	1		04/03/04 12:30	D_R	2155980
Surr: 1,4-Difluorobenzene	102	%	39-163	1		04/03/04 12:30	D_R	2155980
Surr: 4-Bromofluorobenzene	97.9	%	57-157	1		04/03/04 12:30	D_R	2155980

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID Trip Blank **Collected:** 03/30/2004 0:00 **SPL Sample ID:** 04031164-05

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS				**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		1		1		04/03/04 12:59	D_R	2155981
Toluene	ND		1		1		04/03/04 12:59	D_R	2155981
Ethylbenzene	ND		1		1		04/03/04 12:59	D_R	2155981
Xylenes,Total	ND		1		1		04/03/04 12:59	D_R	2155981
Surr: 1,4-Difluorobenzene	104	%	39-163		1		04/03/04 12:59	D_R	2155981
Surr: 4-Bromofluorobenzene	98.0	%	57-157		1		04/03/04 12:59	D_R	2155981

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

4/21/2004 3:41:30 PM

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-5 **Collected:** 03/30/2004 9:15 **SPL Sample ID:** 04031164-06

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Bicarbonate	214		2		1		04/12/04 11:30	J_C	2166827
ALKALINITY, CARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166888
CHLORIDE, TOTAL				MCL	E325.3		Units: mg/L		
Chloride	70		1		1		04/12/04 16:00	RA	2167136
DIESEL RANGE ORGANICS				MCL	SW8015B		Units: mg/L		
Diesel Range Organics	ND		0.2		1		04/05/04 6:49	AM	2162243
Surr: n-Pentacosane	73.4	%	39-142		1		04/05/04 6:49	AM	2162243

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			MCL	E130.2		Units: mg/L		
Hardness (As CaCO3)	220	25		5		04/08/04 18:00	CV	2165196
HEADSPACE GAS ANALYSIS			MCL	RSK147		Units: mg/L		
Methane	ND	0.0012		1		04/08/04 12:04	AE	2161960
ION CHROMATOGRAPHY			MCL	E300.0		Units: mg/L		
Fluoride	1.1	0.1		1		04/05/04 19:57	CV	2158653
Nitrogen,Nitrate (As N)	2.6	0.1		1		03/31/04 17:51	CV	2150337
Sulfate	110	2		10		04/06/04 19:11	CV	2160918
MERCURY, TOTAL			MCL	SW7470A		Units: mg/L		
Mercury	ND	0.0002		1		04/01/04 11:31	JAB	2151004

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL			MCL	SW6010B		Units: mg/L		
Arsenic	0.00836	0.005		1		04/08/04 1:00	NS	2164466
Lead	ND	0.005		1		04/08/04 1:00	NS	2164466
Selenium	ND	0.005		1		04/08/04 1:00	NS	2164466
Barium	0.0464	0.005		1		04/05/04 10:38	MW	2158759
Cadmium	ND	0.005		1		04/05/04 10:38	MW	2158759
Calcium	80.1	0.1		1		04/05/04 10:38	MW	2158759
Chromium	ND	0.01		1		04/05/04 10:38	MW	2158759
Magnesium	12.4	0.1		1		04/05/04 10:38	MW	2158759
Potassium	4.15	2		1		04/05/04 10:38	MW	2158759
Silver	ND	0.01		1		04/05/04 10:38	MW	2158759
Sodium	115	0.5		1		04/12/04 16:43	MW	2167111

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-5 **Collected:** 03/30/2004 9:15 **SPL Sample ID:** 04031164-06

Site: **Hobbs, NM**

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

POLYNUCLEAR AROMATIC HYDROCARBONS			MCL	SW8310		Units: ug/L		
Acenaphthene	ND		0.1	1		04/05/04 22:10	DL	2159146
Acenaphthylene	ND		0.1	1		04/05/04 22:10	DL	2159146
Anthracene	ND		0.1	1		04/05/04 22:10	DL	2159146
Benz(a)anthracene	ND		0.1	1		04/05/04 22:10	DL	2159146
Benzo(a)pyrene	ND		0.1	1		04/05/04 22:10	DL	2159146
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 22:10	DL	2159146
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 22:10	DL	2159146
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 22:10	DL	2159146
Chrysene	ND		0.1	1		04/05/04 22:10	DL	2159146
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 22:10	DL	2159146
Fluoranthene	ND		0.1	1		04/05/04 22:10	DL	2159146
Fluorene	ND		0.1	1		04/05/04 22:10	DL	2159146
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 22:10	DL	2159146
Naphthalene	ND		0.1	1		04/05/04 22:10	DL	2159146
Phenanthrene	ND		0.1	1		04/05/04 22:10	DL	2159146
Pyrene	ND		0.1	1		04/05/04 22:10	DL	2159146
Surr: 1-Fluoronaphthalene	38.1	%	18-130	1		04/05/04 22:10	DL	2159146
Surr: Phenanthrene-d10	44.1	%	21-111	1		04/05/04 22:10	DL	2159146

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

PURGEABLE AROMATICS			MCL	SW8021B		Units: ug/L		
Benzene	ND		1	1		04/03/04 13:29	D_R	2155982
Toluene	ND		1	1		04/03/04 13:29	D_R	2155982
Ethylbenzene	ND		1	1		04/03/04 13:29	D_R	2155982
Xylenes,Total	ND		1	1		04/03/04 13:29	D_R	2155982
Surr: 1,4-Difluorobenzene	103	%	39-163	1		04/03/04 13:29	D_R	2155982
Surr: 4-Bromofluorobenzene	97.9	%	57-157	1		04/03/04 13:29	D_R	2155982

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
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J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-11A **Collected:** 03/30/2004 10:30 **SPL Sample ID:** 04031164-07

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Bicarbonate	378		2		1		04/12/04 11:30	J_C	2166828
ALKALINITY, CARBONATE				MCL	M2320 B		Units: mg/L		
Alkalinity, Carbonate	ND		2		1		04/12/04 11:30	J_C	2166889
CHLORIDE, TOTAL				MCL	E325.3		Units: mg/L		
Chloride	2980		50		50		04/12/04 16:00	RA	2167137
DIESEL RANGE ORGANICS				MCL	SW8015B		Units: mg/L		
Diesel Range Organics	0.5		0.2		1		04/05/04 9:26	AM	2162249
Surr: n-Pentacosane	73.0	%	39-142		1		04/05/04 9:26	AM	2162249

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			MCL	E130.2		Units: mg/L		
Hardness (As CaCO3)	2200	120		25		04/08/04 18:00	CV	2165197
HEADSPACE GAS ANALYSIS			MCL	RSK147		Units: mg/L		
Methane	ND	0.0012		1		04/08/04 13:19	AE	2161962
ION CHROMATOGRAPHY			MCL	E300.0		Units: mg/L		
Fluoride	3.5	0.5		5		04/05/04 20:10	CV	2158654
Nitrogen,Nitrate (As N)	1.9	0.1		1		03/31/04 18:04	CV	2150338
Sulfate	380	10		50		04/06/04 19:49	CV	2160921
MERCURY, TOTAL			MCL	SW7470A		Units: mg/L		
Mercury	ND	0.0002		1		04/01/04 11:35	JAB	2151005

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result	Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL			MCL	SW6010B		Units: mg/L		
Arsenic	0.0559	0.005		1		04/08/04 1:05	NS	2164467
Lead	0.00901	0.005		1		04/08/04 1:05	NS	2164467
Selenium	ND	0.005		1		04/08/04 1:05	NS	2164467
Barium	0.221	0.005		1		04/05/04 10:42	MW	2158766
Cadmium	ND	0.005		1		04/05/04 10:42	MW	2158766
Calcium	763	0.5		5		04/08/04 12:54	MW	2167175
Chromium	0.0441	0.01		1		04/05/04 10:42	MW	2158766
Magnesium	134	0.1		1		04/05/04 10:42	MW	2158766
Potassium	28.6	2		1		04/05/04 10:42	MW	2158766
Silver	ND	0.01		1		04/05/04 10:42	MW	2158766
Sodium	1370	2.5		5		04/12/04 16:48	MW	2167112

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-11A **Collected:** 03/30/2004 10:30 **SPL Sample ID:** 04031164-07

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

POLYNUCLEAR AROMATIC HYDROCARBONS			MCL	SW8310		Units: ug/L		
Acenaphthene	ND		0.1	1		04/05/04 22:47	DL	2159147
Acenaphthylene	ND		0.1	1		04/05/04 22:47	DL	2159147
Anthracene	ND		0.1	1		04/05/04 22:47	DL	2159147
Benz(a)anthracene	ND		0.1	1		04/05/04 22:47	DL	2159147
Benzo(a)pyrene	ND		0.1	1		04/05/04 22:47	DL	2159147
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 22:47	DL	2159147
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 22:47	DL	2159147
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 22:47	DL	2159147
Chrysene	ND		0.1	1		04/05/04 22:47	DL	2159147
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 22:47	DL	2159147
Fluoranthene	ND		0.1	1		04/05/04 22:47	DL	2159147
Fluorene	ND		0.1	1		04/05/04 22:47	DL	2159147
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 22:47	DL	2159147
Naphthalene	ND		0.1	1		04/05/04 22:47	DL	2159147
Phenanthrene	ND		0.1	1		04/05/04 22:47	DL	2159147
Pyrene	ND		0.1	1		04/05/04 22:47	DL	2159147
Surr: 1-Fluoronaphthalene	56.0	%	18-130	1		04/05/04 22:47	DL	2159147
Surr: Phenanthrene-d10	51.2	%	21-111	1		04/05/04 22:47	DL	2159147

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

PURGEABLE AROMATICS			MCL	SW8021B		Units: ug/L		
Benzene	ND		1	1		04/03/04 14:59	D_R	2155984
Toluene	ND		1	1		04/03/04 14:59	D_R	2155984
Ethylbenzene	1.4		1	1		04/03/04 14:59	D_R	2155984
Xylenes,Total	ND		1	1		04/03/04 14:59	D_R	2155984
Surr: 1,4-Difluorobenzene	102	%	39-163	1		04/03/04 14:59	D_R	2155984
Surr: 4-Bromofluorobenzene	98.0	%	57-157	1		04/03/04 14:59	D_R	2155984

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID MW-12D **Collected:** 03/30/2004 11:15 **SPL Sample ID:** 04031164-08

Site: **Hobbs, NM**

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
ALKALINITY, BICARBONATE			MCL	M2320 B		Units: mg/L		
Alkalinity, Bicarbonate	214		2	1		04/12/04 11:30	J_C	2166829
ALKALINITY, CARBONATE			MCL	M2320 B		Units: mg/L		
Alkalinity, Carbonate	ND		2	1		04/12/04 11:30	J_C	2166890
CHLORIDE, TOTAL			MCL	E325.3		Units: mg/L		
Chloride	116		2	2		04/12/04 16:00	RA	2167138
DIESEL RANGE ORGANICS			MCL	SW8015B		Units: mg/L		
Diesel Range Organics	ND		0.2	1		04/05/04 10:05	AM	2162250
Surr: n-Pentacosane	49.0	%	39-142	1		04/05/04 10:05	AM	2162250

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 9:00	K_L	1.00

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
HARDNESS, TOTAL (TITRIMETRIC, EDTA)		MCL	E130.2		Units: mg/L		
Hardness (As CaCO3)	380	50	10		04/08/04 18:00	CV	2165198
HEADSPACE GAS ANALYSIS		MCL	RSK147		Units: mg/L		
Methane	ND	0.0012	1		04/08/04 13:29	AE	2161963
ION CHROMATOGRAPHY		MCL	E300.0		Units: mg/L		
Fluoride	1.1	0.1	1		04/05/04 20:22	CV	2158655
Nitrogen,Nitrate (As N)	ND	0.1	1		03/31/04 18:16	CV	2150339
Sulfate	160	4	20		04/06/04 20:02	CV	2160922
MERCURY, TOTAL		MCL	SW7470A		Units: mg/L		
Mercury	ND	0.0002	1		04/01/04 11:39	JAB	2151006

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/01/2004 7:50	JAB	1.00

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6010B, TOTAL		MCL	SW6010B		Units: mg/L		
Arsenic	0.045	0.005	1		04/08/04 1:11	NS	2164468
Lead	ND	0.005	1		04/08/04 1:11	NS	2164468
Selenium	ND	0.005	1		04/08/04 1:11	NS	2164468
Barium	0.104	0.005	1		04/05/04 10:46	MW	2158772
Cadmium	ND	0.005	1		04/05/04 10:46	MW	2158772
Calcium	142	0.1	1		04/05/04 10:46	MW	2158772
Chromium	ND	0.01	1		04/05/04 10:46	MW	2158772
Magnesium	7.63	0.1	1		04/05/04 10:46	MW	2158772
Potassium	50.4	2	1		04/05/04 10:46	MW	2158772
Silver	ND	0.01	1		04/05/04 10:46	MW	2158772
Sodium	54	0.5	1		04/12/04 16:52	MW	2167113

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID MW-12D **Collected:** 03/30/2004 11:15 **SPL Sample ID:** 04031164-08

Site: **Hobbs, NM**

Analyses/Method	Result		Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	03/31/2004 15:30	MOF	1.00

POLYNUCLEAR AROMATIC HYDROCARBONS			MCL	SW8310		Units: ug/L		
Acenaphthene	ND		0.1	1		04/05/04 23:25	DL	2159148
Acenaphthylene	ND		0.1	1		04/05/04 23:25	DL	2159148
Anthracene	ND		0.1	1		04/05/04 23:25	DL	2159148
Benz(a)anthracene	ND		0.1	1		04/05/04 23:25	DL	2159148
Benzo(a)pyrene	ND		0.1	1		04/05/04 23:25	DL	2159148
Benzo(b)fluoranthene	ND		0.1	1		04/05/04 23:25	DL	2159148
Benzo(g,h,i)perylene	ND		0.1	1		04/05/04 23:25	DL	2159148
Benzo(k)fluoranthene	ND		0.1	1		04/05/04 23:25	DL	2159148
Chrysene	ND		0.1	1		04/05/04 23:25	DL	2159148
Dibenzo(a,h)anthracene	ND		0.1	1		04/05/04 23:25	DL	2159148
Fluoranthene	ND		0.1	1		04/05/04 23:25	DL	2159148
Fluorene	ND		0.1	1		04/05/04 23:25	DL	2159148
Indeno(1,2,3-cd)pyrene	ND		0.1	1		04/05/04 23:25	DL	2159148
Naphthalene	ND		0.1	1		04/05/04 23:25	DL	2159148
Phenanthrene	ND		0.1	1		04/05/04 23:25	DL	2159148
Pyrene	ND		0.1	1		04/05/04 23:25	DL	2159148
Surr: 1-Fluoronaphthalene	22.7	%	18-130	1		04/05/04 23:25	DL	2159148
Surr: Phenanthrene-d10	30.4	%	21-111	1		04/05/04 23:25	DL	2159148

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/01/2004 8:58	K_L	1.00

PURGEABLE AROMATICS			MCL	SW8021B		Units: ug/L		
Benzene	ND		1	1		04/03/04 15:29	D_R	2155985
Toluene	ND		1	1		04/03/04 15:29	D_R	2155985
Ethylbenzene	ND		1	1		04/03/04 15:29	D_R	2155985
Xylenes,Total	ND		1	1		04/03/04 15:29	D_R	2155985
Surr: 1,4-Difluorobenzene	103	%	39-163	1		04/03/04 15:29	D_R	2155985
Surr: 4-Bromofluorobenzene	97.9	%	57-157	1		04/03/04 15:29	D_R	2155985

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID Trip Blank	**Collected:** 03/30/2004 0:00	**SPL Sample ID:** 04031164-09

Site: Hobbs, NM

Analyses/Method	Result		Rep.Limit		Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
PURGEABLE AROMATICS				**MCL**	**SW8021B**		**Units: ug/L**		
Benzene	ND		1		1		04/03/04 15:59	D_R	2155986
Toluene	ND		1		1		04/03/04 15:59	D_R	2155986
Ethylbenzene	ND		1		1		04/03/04 15:59	D_R	2155986
Xylenes,Total	ND		1		1		04/03/04 15:59	D_R	2155986
Surr: 1,4-Difluorobenzene	103	%	39-163		1		04/03/04 15:59	D_R	2155986
Surr: 4-Bromofluorobenzene	98.0	%	57-157		1		04/03/04 15:59	D_R	2155986

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

Quality Control Documentation

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ORGANIC ANALYSIS DATA SHEET

Client Sample ID

OU2-30904-MW4-G-W-01DL

Lab Name:	SPL Inc.			SDG:	OU230904
Lab Code:	SPLHOU			Lab Sample ID:	04030340-05IDL
Matrix:	Water			Lab File ID:	n076s06.d
Sample wt/vol:	5	mL		Date Collected:	3/9/2004 15:30
Level:	LOW			Date Extracted:	
% Moisture:	0			Date Analyzed:	3/16/2004
GC Column:	RTX-5	ID: 0.53	(mm)	Dilution Factor:	2
Extract Volume:				Concentration Units:	ug/L

CAS No.	Analyte	ug/L	Q
71-55-6	1,1,1-Trichloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
75-34-3	1,1-Dichloroethane	100	D
75-35-4	1,1-Dichloroethene	90	D
107-06-2	1,2-Dichloroethane	2	U
67-64-1	Acetone	200	U
71-43-2	Benzene	22	D
75-00-3	Chloroethane	20	U
156-59-2	cis-1,2-Dichloroethene	350	D
100-41-4	Ethylbenzene	73	D
75-09-2	Methylene chloride	10	U
127-18-4	Tetrachloroethene	6	U
108-88-3	Toluene	11	D
156-60-5	trans-1,2-Dichloroethene	10	U
79-01-6	Trichloroethene	2	U
75-01-4	Vinyl chloride	46	D
1330-20-7	Xylenes,Total	10	DJ

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Quality Control Report

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Brown & Caldwell

BJ-Hobbs

Analysis: **Diesel Range Organics**
Method: **SW8015B**

WorkOrder: **04031164**
Lab Batch ID: **36741A**

Method Blank

RunID: HP_V_040405E-2162245 Units: mg/L
Analysis Date: 04/05/2004 8:07 Analyst: AM
Preparation Date: 04/01/2004 9:00 Prep By: K_L Method SW3510C

Analyte	Result	Rep Limit
Diesel Range Organics	ND	0.20
Surr: n-Pentacosane	85.6	39-142

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01E	MW-16
04031164-02E	MW-10
04031164-03E	MW-14
04031164-04E	MW-15
04031164-06E	MW-5
04031164-07E	MW-11A
04031164-08E	MW-12D

Laboratory Control Sample (LCS)

RunID: HP_V_040405E-2162244 Units: mg/L
Analysis Date: 04/05/2004 7:28 Analyst: AM
Preparation Date: 04/01/2004 9:00 Prep By: K_L Method SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics	2.5	2.29	91.5	21	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031158-01
RunID: HP_V_040405E-2162236 Units: mg/L
Analysis Date: 04/05/2004 2:53 Analyst: AM
Preparation Date: 04/01/2004 9:00 Prep By: K_L Method SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics	ND	5	4.41	88.2	5	4.34	86.8	1.65	39	26	113

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

Brown & Caldwell

BJ-Hobbs

Analysis: Headspace Gas Analysis
Method: RSK147
WorkOrder: 04031164
Lab Batch ID: R108472

Method Blank

RunID: VARC_040408A-2161951 Units: mg/L
Analysis Date: 04/08/2004 10:05 Analyst: AE

Analyte	Result	Rep Limit
Methane	ND	0.0012

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01C	MW-16
04031164-02C	MW-10
04031164-03C	MW-14
04031164-04C	MW-15
04031164-06C	MW-5
04031164-07C	MW-11A
04031164-08C	MW-12D

Laboratory Control Sample (LCS)

RunID: VARC_040408A-2161950 Units: mg/L
Analysis Date: 04/08/2004 9:34 Analyst: AE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Methane	1000	882	88.2	70	130

Sample Duplicate

Original Sample: 04031164-01
RunID: VARC_040408A-2161955 Units: mg/L
Analysis Date: 04/08/2004 10:57 Analyst: AE

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Butane	ND	ND	0	50
Ethane	ND	ND	0	50
Ethylene	ND	ND	0	50
Isobutane	ND	ND	0	50
Methane	ND	ND	0	50
Propane	ND	ND	0	50
Propylene	ND	ND	0	50

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

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Brown & Caldwell

BJ-Hobbs

Analysis: **Purgeable Aromatics**
Method: **SW8021B**

WorkOrder: **04031164**
Lab Batch ID: **R108171**

Method Blank

RunID: VARD_040403A-2155971 Units: ug/L
Analysis Date: 04/03/2004 7:31 Analyst: D_R

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,4-Difluorobenzene	102.6	39-163
Surr: 4-Bromofluorobenzene	97.7	57-157

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01F	MW-16
04031164-03F	MW-14
04031164-04F	MW-15
04031164-05F	Trip Blank
04031164-06F	MW-5
04031164-07F	MW-11A
04031164-08F	MW-12D
04031164-09F	Trip Blank

Laboratory Control Sample (LCS)

RunID: VARD_040403A-2155970 Units: ug/L
Analysis Date: 04/03/2004 7:01 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	49.2	98.4	81	125
Ethylbenzene	50	46.8	93.6	85	119
Toluene	50	48.2	96.4	87	120
Xylenes,Total	150	141.8	94.53	83	122

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031156-06
RunID: VARD_040403A-2155972 Units: ug/L
Analysis Date: 04/03/2004 8:00 Analyst: D_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	106	20	112	N/C	20	111	N/C	N/C	26	43	155
Ethylbenzene	9.65	20	27.8	90.6	20	27.6	89.6	0.730	34	51	142
Toluene	2.55	20	23.1	103	20	23.1	103	0.287	25	57	142
Xylenes,Total	16.5	60	73.7	95.3	60	73.1	94.3	0.817	27	47	154

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

Quality Control Report

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BJ-Hobbs

Analysis: Purgeable Aromatics
Method: SW8021B
WorkOrder: 04031164
Lab Batch ID: R108456

Method Blank

RunID: VARD_040405A-2161697 Units: ug/L
Analysis Date: 04/05/2004 16:44 Analyst: D_R

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-02F	MW-10

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,4-Difluorobenzene	102.6	39-163
Surr: 4-Bromofluorobenzene	98.7	57-157

Laboratory Control Sample (LCS)

RunID: VARD_040405A-2161696 Units: ug/L
Analysis Date: 04/05/2004 16:14 Analyst: D_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	50	49.2	98.5	81	125
Ethylbenzene	50	47.7	95.4	85	119
Toluene	50	48.8	97.5	87	120
Xylenes,Total	150	144.4	96.27	83	122

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031016-18
RunID: VARD_040405A-2161698 Units: ug/L
Analysis Date: 04/05/2004 17:15 Analyst: D_R

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	34.8	20	49.2	72.0	20	46.6	59.1	5.40	26	43	155
Ethylbenzene	ND	20	19.7	98.6	20	18.5	92.7	6.11	34	51	142
Toluene	ND	20	20.7	102	20	19.4	95.7	6.08	25	57	142
Xylenes,Total	ND	60	60.7	101	60	56.8	94.7	6.64	27	47	154

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

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BJ-Hobbs

Analysis: **Polynuclear Aromatic Hydrocarbons** **WorkOrder:** **04031164**
Method: **SW8310** **Lab Batch ID:** **36740**

Method Blank

RunID: 2_040405A-2159138 Units: ug/L
Analysis Date: 04/05/2004 15:57 Analyst: DL
Preparation Date: 04/01/2004 8:58 Prep By: K_L Method SW3510C

Analyte	Result	Rep Limit
Acenaphthene	ND	0.10
Acenaphthylene	ND	0.10
Anthracene	ND	0.10
Benz(a)anthracene	ND	0.10
Benzo(a)pyrene	ND	0.10
Benzo(b)fluoranthene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Benzo(k)fluoranthene	ND	0.10
Chrysene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Fluoranthene	ND	0.10
Fluorene	ND	0.10
Indeno(1,2,3-cd)pyrene	ND	0.10
Naphthalene	ND	0.10
Phenanthrene	ND	0.10
Pyrene	ND	0.10
Surr: 1-Fluoronaphthalene	65.0	18-130
Surr: Phenanthrene-d10	74.8	21-111

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01D	MW-16
04031164-02D	MW-10
04031164-03D	MW-14
04031164-04D	MW-15
04031164-06D	MW-5
04031164-07D	MW-11A
04031164-08D	MW-12D

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: 2_040405A-2159139 Units: ug/L
Analysis Date: 04/05/2004 16:35 Analyst: DL
Preparation Date: 04/01/2004 8:58 Prep By: K_L Method SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Acenaphthene	0.5	0.358	71.7	0.500	0.370	74.1	3.3	30	35	125
Acenaphthylene	0.5	0.359	71.8	0.500	0.412	82.4	13.7	30	35	122
Anthracene	0.5	0.268	53.6	0.500	0.266	53.2	0.7	30	29	126
Benz(a)anthracene	0.5	0.398	79.6	0.500	0.400	80.0	0.5	30	39	119
Benzo(a)pyrene	0.5	0.395	79.0	0.500	0.382	76.4	3.2	30	34	125
Benzo(b)fluoranthene	0.5	0.403	80.7	0.500	0.405	81.0	0.3	30	42	127
Benzo(g,h,i)perylene	0.5	0.422	84.3	0.500	0.427	85.3	1.2	30	37	125
Benzo(k)fluoranthene	0.5	0.398	79.6	0.500	0.400	79.9	0.4	30	42	125
Chrysene	0.5	0.396	79.2	0.500	0.398	79.5	0.5	30	40	144
Dibenzo(a,h)anthracene	0.5	0.394	78.8	0.500	0.397	79.4	0.7	30	42	130
Fluoranthene	0.5	0.384	76.7	0.500	0.388	77.7	1.2	30	38	126
Fluorene	0.5	0.354	70.8	0.500	0.396	79.3	11.3	30	37	130
Indeno(1,2,3-cd)pyrene	0.5	0.374	74.8	0.500	0.375	75.1	0.4	30	39	130

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

Brown & Caldwell

BJ-Hobbs

Analysis:	**Polynuclear Aromatic Hydrocarbons**	**WorkOrder:**	**04031164**
Method:	**SW8310**	**Lab Batch ID:**	**36740**

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID:	2_040405A-2159139	Units:	ug/L
Analysis Date:	04/05/2004 16:35	Analyst:	DL
Preparation Date:	04/01/2004 8:58	Prep By:	K_L Method SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Naphthalene	0.5	0.353	70.5	0.500	0.362	72.5	2.7	30	36	130
Phenanthrene	0.5	0.388	77.5	0.500	0.399	79.9	3.0	30	38	128
Pyrene	0.5	0.434	86.7	0.500	0.443	88.7	2.2	30	39	137

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

4/21/2004 3:42:33 PM

Quality Control Report

HOUSTON LABORATORY
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Brown & Caldwell
BJ-Hobbs

Analysis: **Metals by Method 6010B, Total**
Method: **SW6010B**

WorkOrder: **04031164**
Lab Batch ID: **36727**

Method Blank

RunID: TJA_040405A-2158737 Units: mg/L
Analysis Date: 04/05/2004 9:38 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Result	Rep Limit
Barium	ND	0.005
Cadmium	ND	0.005
Calcium	ND	0.1
Chromium	ND	0.01
Magnesium	ND	0.1
Potassium	ND	2
Silver	ND	0.01

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01B	MW-16
04031164-02B	MW-10
04031164-03B	MW-14
04031164-04B	MW-15
04031164-06B	MW-5
04031164-07B	MW-11A
04031164-08B	MW-12D

Laboratory Control Sample (LCS)

RunID: TJA_040405A-2158738 Units: mg/L
Analysis Date: 04/05/2004 9:43 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Barium	1	0.9642	96.42	80	120
Cadmium	1	1.053	105.3	80	120
Calcium	1	1.072	107.2	80	120
Chromium	1	1.038	103.8	80	120
Magnesium	1	1.006	100.6	80	120
Potassium	10	10.15	101.5	80	120
Silver	1	1.045	104.5	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031134-08
RunID: TJA_040405A-2158740 Units: mg/L
Analysis Date: 04/05/2004 9:51 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	ND	1	1.000	100.0	1	0.9874	98.74	1.287	20	75	125
Cadmium	ND	1	1.063	106.3	1	1.055	105.5	0.7423	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

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Brown & Caldwell
BJ-Hobbs

Analysis: Metals by Method 6010B, Total
Method: SW6010B

WorkOrder: 04031164
Lab Batch ID: 36727

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031134-08
RunID: TJA_040405A-2158740 Units: mg/L
Analysis Date: 04/05/2004 9:51 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Calcium	ND	1	1.066	106.6	1	1.070	107.0	0.4298	20	75	125
Chromium	ND	1	1.048	104.8	1	1.049	104.9	0.04578	20	75	125
Magnesium	ND	1	1.005	100.5	1	1.002	100.2	0.3428	20	75	125
Potassium	ND	10	10.21	102.1	10	9.493	94.93	7.302	20	75	125
Silver	ND	1	1.060	106.0	1	1.059	105.9	0.1349	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

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Quality Control Report

Brown & Caldwell

BJ-Hobbs

Analysis: Metals by Method 6010B, Total
Method: SW6010B

WorkOrder: 04031164
Lab Batch ID: 36727-T

Method Blank

RunID: TJAT_040407D-2164450 Units: mg/L
Analysis Date: 04/07/2004 23:43 Analyst: NS
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Result	Rep Limit
Arsenic	ND	0.005
Lead	ND	0.005
Selenium	ND	0.005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01B	MW-16
04031164-02B	MW-10
04031164-03B	MW-14
04031164-04B	MW-15
04031164-06B	MW-5
04031164-07B	MW-11A
04031164-08B	MW-12D

Laboratory Control Sample (LCS)

RunID: TJAT_040407D-2164451 Units: mg/L
Analysis Date: 04/07/2004 23:48 Analyst: NS
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Arsenic	0.1	0.1106	110.6	80	120
Lead	0.1	0.1066	106.6	80	120
Selenium	0.1	0.1067	106.7	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031134-08
RunID: TJAT_040407D-2164455 Units: mg/L
Analysis Date: 04/07/2004 23:59 Analyst: NS
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Arsenic	ND	0.1	0.1096	109.6	0.1	0.1102	110.2	0.5733	20	75	125
Lead	ND	0.1	0.1062	106.2	0.1	0.1079	107.9	1.607	20	75	125
Selenium	ND	0.1	0.1072	107.2	0.1	0.1095	109.5	2.132	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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BJ-Hobbs

Analysis: Metals by Method 6010B, Total
Method: SW6010B

WorkOrder: 04031164
Lab Batch ID: 36727A

Method Blank

RunID: TJA_040408C-2165501 Units: mg/L
Analysis Date: 04/08/2004 11:38 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Result	Rep Limit
Calcium	ND	0.1
Sodium	ND	0.5

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01B	MW-16
04031164-02B	MW-10
04031164-03B	MW-14
04031164-04B	MW-15
04031164-06B	MW-5
04031164-07B	MW-11A
04031164-08B	MW-12D

Laboratory Control Sample (LCS)

RunID: TJA_040408C-2165503 Units: mg/L
Analysis Date: 04/08/2004 11:42 Analyst: MW
Preparation Date: 03/31/2004 15:30 Prep By: MOF Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Calcium	1	1.005	100.5	80	120
Sodium	1	0.9355	93.55	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031134-08
RunID: TJA_040408C-2165508 Units: mg/L
Analysis Date: 04/08/2004 11:51 Analyst: MW
Preparation Date: 03/31/2004 15:30 *Prep By:* MOF Method SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Calcium	ND	1	1.026	102.6	1	1.027	102.7	0.09353	20	75	125
Sodium	ND	1	0.9779	97.79	1	0.9737	97.37	0.4376	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

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Brown & Caldwell

BJ-Hobbs

Analysis: **Mercury, Total** **WorkOrder:** **04031164**
Method: **SW7470A** **Lab Batch ID:** **36737**

Method Blank

RunID: HGLD_040401A-2150979 Units: mg/L
Analysis Date: 04/01/2004 10:32 Analyst: JAB
Preparation Date: 04/01/2004 7:50 Prep By: JAB Method SW7470A

Analyte	Result	Rep Limit
Mercury	ND	0.0002

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01B	MW-16
04031164-02B	MW-10
04031164-03B	MW-14
04031164-04B	MW-15
04031164-06B	MW-5
04031164-07B	MW-11A
04031164-08B	MW-12D

Laboratory Control Sample (LCS)

RunID: HGLD_040401A-2150980 Units: mg/L
Analysis Date: 04/01/2004 10:35 Analyst: JAB
Preparation Date: 04/01/2004 7:50 Prep By: JAB Method SW7470A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	0.002	0.002036	101.8	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031151-30
RunID: HGLD_040401A-2150983 Units: mg/L
Analysis Date: 04/01/2004 10:40 Analyst: JAB
Preparation Date: 04/01/2004 7:50 Prep By: JAB Method SW7470A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0.002	0.001994	99.72	0.002	0.001993	99.64	0.08485	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

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Quality Control Report

Brown & Caldwell

BJ-Hobbs

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 04031164
Lab Batch ID: R107895

Method Blank

RunID: IC1_040331A-2150318 Units: mg/L
Analysis Date: 03/31/2004 13:36 Analyst: CV

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	0.10

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: IC1_040331A-2150319 Units: mg/L
Analysis Date: 03/31/2004 13:48 Analyst: CV

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	10	9.85	98.5	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031164-01
RunID: IC1_040331A-2150330 Units: mg/L
Analysis Date: 03/31/2004 16:23 Analyst: CV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrate (As N)	5.78	10	15.8	99.9	10	16.2	104	2.64	20	80	120

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

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BJ-Hobbs

Analysis: Ion Chromatography
Method: E300.0
WorkOrder: 04031164
Lab Batch ID: R108302A

Method Blank

RunID: IC1_040405A-2158619 Units: mg/L
Analysis Date: 04/05/2004 12:49 Analyst: CV

Analyte	Result	Rep Limit
Fluoride	ND	0.10

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: IC1_040405A-2158620 Units: mg/L
Analysis Date: 04/05/2004 13:02 Analyst: CV

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Fluoride	10	10.4	104	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031164-04
RunID: IC1_040405A-2158651 Units: mg/L
Analysis Date: 04/05/2004 19:32 Analyst: CV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Fluoride	1.12	10	10.9	97.6	10	11.0	98.5	0.777	20	80	120

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

Quality Control Report

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Brown & Caldwell

BJ-Hobbs

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 04031164
Lab Batch ID: R108418

Method Blank

RunID: IC1_040406A-2160906 Units: mg/L
Analysis Date: 04/06/2004 15:42 Analyst: CV

Analyte	Result	Rep Limit
Sulfate	ND	0.20

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: IC1_040406A-2160907 Units: mg/L
Analysis Date: 04/06/2004 15:55 Analyst: CV

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	10	9.86	98.6	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031164-04
RunID: IC1_040406A-2160916 Units: mg/L
Analysis Date: 04/06/2004 18:46 Analyst: CV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	143	200	349	103	200	364	111	4.39	20	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

Brown & Caldwell
BJ-Hobbs

Analysis: Hardness, Total (Titrimetric, EDTA) **WorkOrder:** 04031164
Method: E130.2 **Lab Batch ID:** R108632

Method Blank

RunID: WET_040408ZE-2165184 Units: mg/L
Analysis Date: 04/08/2004 18:00 Analyst: CV

Analyte	Result	Rep Limit
Hardness (As CaCO3)	ND	5.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01B	MW-16
04031164-02B	MW-10
04031164-03B	MW-14
04031164-04B	MW-15
04031164-06B	MW-5
04031164-07B	MW-11A
04031164-08B	MW-12D

Laboratory Control Sample (LCS)

RunID: WET_040408ZE-2165187 Units: mg/L
Analysis Date: 04/08/2004 18:00 Analyst: CV

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Hardness (As CaCO3)	62.4	59.0	94.6	85	115

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031164-01
RunID: WET_040408ZE-2165189 Units: mg/L
Analysis Date: 04/08/2004 18:00 Analyst: CV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Hardness (As CaCO3)	640	500	1160	104	500	1150	102	0.866	20	80	120

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Brown & Caldwell

BJ-Hobbs

Analysis: Alkalinity, Bicarbonate
Method: M2320 B

WorkOrder: 04031164
Lab Batch ID: R108705

Method Blank

RunID: WET_040412L-2166819 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Result	Rep Limit
Alkalinity, Bicarbonate	ND	2.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: WET_040412L-2166821 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Bicarbonate	101	97.51	96.54	90	110

Sample Duplicate

Original Sample: 04031164-02
RunID: WET_040412L-2166823 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Bicarbonate	582	582.1	0	20

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

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Quality Control Report

Brown & Caldwell
BJ-Hobbs

Analysis: Alkalinity, Carbonate
Method: M2320 B
WorkOrder: 04031164
Lab Batch ID: R108707

Method Blank

RunID: WET_040412ZD-2166879 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Result	Rep Limit
Alkalinity, Carbonate	ND	2.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: WET_040412ZD-2166881 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Carbonate	101	97.51	96.54	90	110

Sample Duplicate

Original Sample: 04031164-02
RunID: WET_040412ZD-2166883 Units: mg/L
Analysis Date: 04/12/2004 11:30 Analyst: J_C

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Carbonate	ND	ND	0	20

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

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Quality Control Report

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Brown & Caldwell

BJ-Hobbs

Analysis: Chloride, Total
Method: E325.3

WorkOrder: 04031164
Lab Batch ID: R108720

Method Blank

RunID: WET_040412P-2167119 Units: mg/L
Analysis Date: 04/12/2004 16:00 Analyst: RA

Analyte	Result	Rep Limit
Chloride	ND	1.0

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
04031164-01A	MW-16
04031164-02A	MW-10
04031164-03A	MW-14
04031164-04A	MW-15
04031164-06A	MW-5
04031164-07A	MW-11A
04031164-08A	MW-12D

Laboratory Control Sample (LCS)

RunID: WET_040412P-2167121 Units: mg/L
Analysis Date: 04/12/2004 16:00 Analyst: RA

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	78	77.05	98.79	90	110

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 04031164-08
RunID: WET_040412P-2167139 Units: mg/L
Analysis Date: 04/12/2004 16:00 Analyst: RA

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	115.6	100	213.6	98.07	100	213.6	98.07	0	20	85	115

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

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Sample Receipt Checklist

And

Chain of Custody

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SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 04031164 | 215970 | page 1 of 1

Client Name: Brown and Caldwell
Address: 1415 Louisiana, Suite 2500
Phone/Fax: 713-759-0999
Client Contact: R. Rexroad Email: ——
Project Name/No.: BJ-Hobbs
Site Name: BJ-Hobbs
Site Location: Hobbs, NM
Invoice To: Same Ph: ——

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil SL=sludge X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Method 2320B Bicarbonate and Carbonate	Method E130.2 Hardness	Method 6010B Metals <2	Method 325.3 Chloride	Method E300 SO_4, NO_3, F	Method RSK147 Methane	Method 8310 PAH	Method 8015B DRO	Method 8021B BTEX
MW-16	3-30-04	1500		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓

RUSH

Client/Consultant Remarks: DRO and BTEX sample collected in unpreserved containers. Hold time 7 days. Nitrates samples need 48 hr. TAT

Laboratory remarks:

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 4.5 c

Requested TAT
Contract ☐ 72hr ☐
24hr ☐ Standard ☑
48hr ☑
Other ☐ ________

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial): AL

	date	time	
1. Relinquished by Sampler: R. Banda	3-30-04	17:30	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	3/31/04	0930	6. Received by Laboratory:

☑ 8880 Interchange Drive Houston, TX 77054 (713) 660-0901
☐ 500 Ambassador Caffery Parkway Scott, LA 70583 (337) 237-4775
☐ 459 Hughes Drive Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No.: 04031164

215969

page 1 of 1

Client Name: Brown and Caldwell
Address: 1415 Louisiana, Suite 2500
Phone/Fax: 713-759-0999
Client Contact: R. Rexroad   Email: —
Project Name/No.: BJ-Hobbs
Site Name: BJ-Hobbs
Site Location: Hobbs, NM
Invoice To: R. Rexroad   Ph: —

Requested Analysis

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil SL=sludge X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Method 2320B Bicarbonate and Carbonate	Method E 130.2 Hardness	Method 6010 B Metals	Method 325.3 Chloride	Method E300 SO4, NO3, F	Method RSK M7 Methane	Method 8310 PAH	Method 8015B DRO	Method 8021B BTEX
MW-10	3-30-04	1045		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
MW-14	3-30-04	1235		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
MW-15	3-30-04	1345		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trip Blank	~~3~~				W	V	40	1	2									✓

RUSH

Client/Consultant Remarks: DRO and BTEX samples were collected in unpreserved containers. Hold time 7days. Nitrate samples need 48hr. TAT

Laboratory remarks:

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 5.0c

Requested TAT
Contract ☐ 72hr ☐
24hr ☐ Standard ☑
48hr ☑
Other ☐ ______

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial): PL

	date	time	
1. Relinquished by Sampler: R. Banda	3/30/04	1730	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	3/31/04	0930	6. Received by Laboratory:

☑ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 04031164 — 215968 — page 1 of 1

Client Name: Brown and Caldwell
Address: 1415 Louisiana, Suite 2500
Phone/Fax: 713-759-0999
Client Contact: R. Rexroad Email: rrexroad@brwncald.com
Project Name/No.: BJ-Hobbs 12832
Site Name: BJ-Hobbs
Site Location: Hobbs, NM
Invoice To: R. Rexroad Ph: 713-759-0999

matrix: W=water S=soil O=oil SL=sludge X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Method 2320B Bicarbonate & Carbonate	Method E130.2 Hardness	Method 6010B Metals	Method 325.3 Chloride	Method E300 SO_4, NO_3, F	Method RSK 147 Methane	Method 8310 PAH	Method 8015B DRO	Method 8021B BTEX
MW-5	3-30-04	0915		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
MW-11A	3-30-04	1030		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
~~MW-10~~		~~1045~~		~~✓~~	~~W~~	~~PAV~~	~~1,40~~	~~2~~										
MW-12D	3-30-04	1115		✓	W	PAV	1,40	2	7	✓	✓	✓	✓	✓	✓	✓	✓	✓
~~MW-15~~		~~1235~~		~~✓~~	~~W~~	~~PAV~~	~~1,40~~	~~2~~	~~7~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
~~MW-14~~		~~1345~~		~~✓~~	~~W~~	~~PAV~~	~~1,40~~	~~2~~	~~7~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
~~MW-16~~		~~1500~~		~~✓~~	~~W~~	~~PAV~~	~~1,40~~	~~2~~	~~7~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~	~~✓~~
Trip Blank					W	V	40	1	2									✓

RUSH

Client/Consultant Remarks: DRO and BTEX samples were collected in unpreserved containers. Hold time 7 days. Nitrates samples need 48hr. TAT.

Laboratory remarks:

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 5.6 c

Requested TAT: Contract ☐ 72hr ☐ 24hr ☐ Standard ☑ 48hr ☑ Other ☐ ______

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial): FLL

1. Relinquished by Sampler: R. Banda	date 3/30/04	time 1730	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date 3/31/04	time 0930	6. Received by Laboratory:

☑ 8880 Interchange Drive Houston, TX 77054 (713) 660-0901
☐ 500 Ambassador Caffery Parkway Scott, LA 70583 (337) 237-4775
☐ 459 Hughes Drive Traverse City, MI 49686 (231) 947-5777

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	04031164	Received By:	NB
Date and Time Received:	3/31/2004 9:30:00 AM	Carrier name:	FedEx
Temperature:	4.5°C	Chilled by:	Water Ice

		Yes	No	Not Present / Not Applicable
1.	Shipping container/cooler in good condition?	☑	☐	Not Present ☐
2.	Custody seals intact on shippping container/cooler?	☑	☐	Not Present ☐
3.	Custody seals intact on sample bottles?	☐	☐	Not Present ☑
4.	Chain of custody present?	☑	☐	
5.	Chain of custody signed when relinquished and received?	☑	☐	
6.	Chain of custody agrees with sample labels?	☑	☐	
7.	Samples in proper container/bottle?	☑	☐	
8.	Sample containers intact?	☑	☐	
9.	Sufficient sample volume for indicated test?	☑	☐	
10.	All samples received within holding time?	☑	☐	
11.	Container/Temp Blank temperature in compliance?	☑	☐	
12.	Water - VOA vials have zero headspace?	☑	☐	Not Applicable ☐
13.	Water - pH acceptable upon receipt?	☑	☐	Not Applicable ☐

SPL Representative: | Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions: