

AP - 001

**ANNUAL
MONITORING REPORT**

**YEAR(S):
1997**



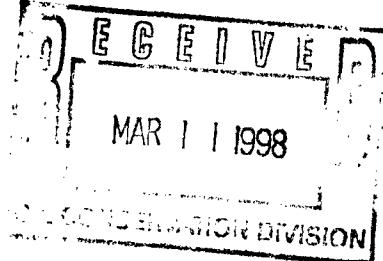
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BDM/ABQ-MWS-EN019-98

March 10, 1998

Mr. Bill Olsen
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505



RE: 1997 ANNUAL REPORT OF GROUNDWATER MONITORING AT THE BRICKLAND
REFINERY SITE, SUNLAND PARK, NEW MEXICO

Dear Bill:

BDM International, Inc. (BDM), on behalf of Huntsman Corporation (Huntsman), formerly Rexene Corporation, is pleased to submit the Annual Groundwater Monitoring Report for the Brickland Refinery Site, Sunland Park, New Mexico. This letter report summarizes the results of semi-annual groundwater monitoring conducted in June 1997 and January 1998. The second semi-annual sampling event, originally planned for December 1997, was postponed until January 1998 because severe weather conditions, including heavy snow and rain, impeded access to the site and increased the potential for sampling errors.

This annual report includes the following elements required by the approved Groundwater Monitoring Plan:

- A description of all monitoring activities that occurred during the year, with corresponding conclusions and recommendations.
- Summary tables of all past and present laboratory analytical results of groundwater and surface water sampling.
- Plots of concentrations versus time for contaminants of concern for monitoring point MW-6S.
- Copies of laboratory data sheets for the past year.
- Plots of water table elevation versus time for each groundwater monitor well where free-phase product is not detected.
- Groundwater surface contour maps for each semi-annual monitoring event based on groundwater elevations from the monitor wells.

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The semi-annual monitoring includes the following items as required by the Groundwater Monitoring Plan as approved by NMOCDD:

- Measure the depth to groundwater in all on-site monitor wells and five off-site monitor wells (MW-3S, MW-3D, MW-6S, MW-6D, and MW-9S). Water levels are not measured in well points because the well points were specifically designed to detect free-phase product at discrete depth and the screen intervals do not correlate with monitor well screens.
- Measure product thickness in all on-site monitor wells and five off-site monitor wells (MW-3S, MW-3D, MW-6S, MW-6D and MW-9S), as well as all on-site well points.
- Collect groundwater samples from monitor wells MW-3S, MW-3D, MW-6S, MW-6D, and MW-9S. In addition, collect two surface water samples from the Rio Grande: one from the upstream end of the site, and one from the downstream end of the site near MW-6S. Samples collected in June were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by Method 8020, polycyclic aromatic hydrocarbons (PAHs) by Method 610, and for priority pollutant metals. Samples collected in December were analyzed only for BTEX.

Semi-annual sampling was conducted by BDM in June 1997 and January 1998 according to the work scope previously cited. The sample containers for the upstream river sample and monitor well MW-3S were broken by the laboratory upon receipt. Therefore, those two locations were resampled in July 1997.

Results/Conclusions

June 1997 groundwater elevations beneath the site correlate very well with groundwater elevations in June 1996 (Table 1). Groundwater elevations in January 1998 were approximately 2 feet lower than in June 1997 and correlate well with historical December groundwater elevations (Figure 1). Groundwater continues to flow generally south at variable directions (Figures 2 and 3). The hydraulic gradient beneath the site is very flat and completely reverses locally in the southern portion. The hydraulic gradient in June was approximately 0.0015 feet per foot and, in general, groundwater tended to flow parallel to the Rio Grande or flowed from the Rio Grande towards the site. The hydraulic gradient in January was approximately 0.0008 feet per foot and, in general, groundwater tended to flow from the site towards the Rio Grande. Groundwater conditions, in general, remain unchanged from conditions described in detail in the Final Site Investigation Report.

In June 1997 and January 1998, 2.01 and 2.26 feet of free-phase product were measured in monitor well MW-10, respectively (Table 2). Monitor well MW-4 contained 0.14 feet of product in June, however, no product was measured in January. Well point WP-27D contained 0.44 and 1.18 feet of free-phase product in June and January, respectively. Well point WP-26S contained 1.29 feet of product in June but did not have measurable product in January, although a tar-like substance was observed on the instrument probe after attempting the measurement. Well points WP-15, WP-17, WP-21 and WP-37 contained product ranging in thickness from 0.12 to 2.0 feet in June. No well points, with the exception of WP-27D, contained measurable product in January. All other monitor wells and well points either contained no product, were dry, or had a trace of suspected hydrocarbon (Table 2).

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The results of the June 1997 and January 1998 monitoring events correlate well with previous sampling events. BTEX was not detected in monitor wells MW-3S, MW-3D, MW-6D, MW-9S, nor in upstream or downstream river samples in the June and January events. MW-6S contained 130 micrograms per liter ($\mu\text{g}/\text{L}$) benzene and 15 $\mu\text{g}/\text{L}$ ethylbenzene in June 1997, and 14 $\mu\text{g}/\text{L}$ benzene in January 1998 (Table 3 and Figure 4).

No PAHs were detected in any of the monitor wells or river samples in June (Table 4).

All metals analyses in June were either non-detect or below New Mexico Water Quality Control Commission (NMWQCC) standards (Table 5).

Recommendations

- (1) Well points WP-22, -23 and -25 are damaged and therefore cannot be monitored.
- (2) The following well points have never contained measurable or even trace thicknesses of product: WP-2, -3, -4, -5, -7, -8, -12, -13, -16, -20, -24, -28, -30, -31, -32, -35, and -36.
- (3) The following well points have never contained more than a trace of suspected hydrocarbon: WP-6, -18, -29, -33, and -34.

It is recommended and requested that these well points, as listed in (1), (2) and (3) above, be deleted from the monitoring plan and ultimately removed and/or plugged. The remaining well points should be maintained for semi-annual monitoring.

The next groundwater monitoring event is scheduled for June 1998.

Sincerely,



Michael W. Selke, RG
Senior Program Manager

3031/FANNL97B.RPT

Enclosure

cc: Reggie Baker, Huntsman
 Todd Carver, Huntsman
 NMOCD, Artesia Office
 IBWC, El Paso
 Project File

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Groundwater Elevations

- Table 1 summarizes groundwater elevations in the monitor wells.
- Figure 1 presents groundwater elevations versus time for the monitor wells.
- Figures 2 and 3 are groundwater surface maps based on groundwater elevations in the monitor wells in June 1997 and January 1998, respectively.

Free Product Thickness

- Table 2 summarizes free-phase product thicknesses in monitor wells and well points from September 1993 through January 1998.

Laboratory Reports

- Laboratory reports for June 1997 and January 1998 are enclosed.

BTEX

- Table 3 summarizes BTEX results from December 1993 through January 1998.
- Figure 4 presents plots of BTEX versus time for monitoring point MW-6S.

PAH

- Table 4 summarizes PAH results from December 1993 through January 1998.
- Plots of PAHs versus time are not provided because all sampling events have resulted in non-detect, with the exception of one positive result in MW-6S in June 1995.

Metals

- Table 5 summarizes metals results from the June 1996 and 1997 sampling events. Metals results from previous sampling are summarized in Table 16 of the Final Site Investigation Report.
- Plots for metals are not included in this report because previous sampling events have a different analyte list for metals and there were no regulatory exceedences for metals in groundwater in 1997.

Table 1
Brickland Refinery
Monitor Well Groundwater Elevations

Well ID	Jul. 93	Dec. 93	Mar. 94	Jul. 94	Sept. 94	Dec. 94	Mar. 95	Jun. 95	Sept. 95	Jun. 96	Dec. 96	Jun. 97	Jan. 98
MW-1	3725.78	3724.30	3725.27	3726.54	3725.37	3724.35	NM	3726.66	NM	3725.72	3724.03	3726.31	3724.13
MW-2	NM	NM	3726.39	3726.54	3725.89	3723.97	NM	3726.81	NM	3726.56	3724.67	3726.72	3724.77
MW-3S	3725.29	3723.27	3725.20	3725.87	3724.50	3723.44	3725.35	3725.68	3724.98	3725.08	3723.10	3724.54*	3723.20
MW-3D	3725.22	3723.30	3725.10	3725.78	3724.42	3723.35	3725.26	3725.75	3724.97	3725.00	3723.01	3725.46	3721.05
MW-4	3725.21	3723.59	3725.36	3725.56	3724.68	3723.64	3725.56	3725.66	3725.40	3725.25	3723.31	3724.68	3723.44
MW-5	3725.11	3723.59	3725.30	3725.88	3724.70	3723.65	3725.40	3725.86	3725.39	3725.37	3722.93	3724.17	3723.48
MW-6S	3725.08	3723.78	3724.85	3725.55	3724.20	3723.03	3725.05	3725.53	3724.63	3724.83	3722.80	3725.29	3722.90
MW-6D	3725.00	3723.75	3724.82	3725.57	3724.22	3723.00	3725.02	3725.48	3724.57	3724.75	3722.72	3725.25	3720.81
MW-7	3725.16	3723.72	3725.16	3725.89	3724.46	3723.16	3725.36	3725.32	3725.23	NM	3723.16	3725.12	3723.26
MW-8	3725.10	3723.42	3725.12	3725.77	3724.49	3723.45	3725.42	3725.74	3724.33	3725.29	3723.13	3724.21	3722.31
MW-9S	3724.84	3723.52	3724.56	3725.29	3723.91	3722.81	3724.81	3725.21	3725.52	3724.49	3722.51	3724.84	3722.62
MW-10	P	P	P	P	P	P	P	P	P	P	P	P	3720.98
MW-11	3724.91	3722.90	3725.10	3725.75	P	3723.40	3725.35	3725.86	3724.98	3725.20	3723.10	3724.39	3723.15
MW-12	3726.09	3724.91	3726.45	3727.05	3725.70	3723.65	NM	3727.15	3726.39	NM	3724.37	3726.34	NM
MW-13	3725.22	NM	NM	3725.82	3724.71	3724.44	NM	3726.05	NM	3725.30	3723.27	3725.56	3723.55
MW-14	NM	NM	NM	3726.03	3724.61	3723.58	3725.56	3726.01	3725.31	NM	3723.25	3725.07	3723.35
MW-15	NM	NM	NM	3725.62	3724.28	3723.19	3724.97	3725.58	3724.87	NM	3721.90	3723.52	3722.99
MW-16	NM	NM	NM	3725.43	3724.06	3722.93	3724.88	3725.44	3724.54	3724.65	3722.63	3723.59	3722.75
MW-17	NM	NM	NM	3725.90	3724.46	3723.36	3725.38	3726.82	3726.05	NM	3723.07	3724.95	D

Notes: NM = Not measured.
P = Product observed.
* Resampled in July.
D = Well Dry.

Table 2
Brickland Refinery
Product Thickness (feet)

Well ID	Sept. 93	Dec. 93	Mar. 94	Jul. 94	Sept. 94	Dec. 94	Mar. 95	Dec. 95	Jun. 96	Dec. 96	Jul. 97	Jan. 98
MW-1	NM	NM	NP	NP	NP	NP	NM	NP	NP	NP	NP	NP
MW-2	NM	NM	NP	NP	NP	NP	NM	NP	NP	NP	NP	NP
MW-3S	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NM
MW-3D	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
MW-4	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	0.14	NP
MW-5	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
MW-6S	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NM
MW-6D	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NM
MW-7	NM	NM	NP	NP	NP	NP	NP	NP	NM	NP	NP	NP
MW-8	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
MW-9S	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
MW-10	5.42	3.58	NM	3.45	2.40	2.46	NM	2.29	2.3	2.14	2.01	2.26
MW-11	NM	NM	NP	NP	0.05	NM	NM	0.16	NP	Trace	Trace	Trace
MW-12	NM	NM	NP	NP	NP	NP	NM	NP	NM	NP	NP	NM
MW-13	NM	NM	NM	NP	NP	NP	NM	NP	NP	NP	NP	NP
MW-14	NM	NM	NM	NP	NP	NP	NP	NP	NM	NP	NP	NP
MW-15	NM	NM	NM	NP	NP	NP	NP	NP	NM	NP	NP	NP
MW-16	NM	NM	NM	NP	NP	NP	NP	NP	NP	NP	NP	NP
MW-17	NM	NM	NM	NP	NP	NP	NP	NP	NM	NP	NP	Dry
WP-1	NM	NM	NM	NP	NP	NP	NM	0.16	NM	Trace	NP	Dry
WP-2	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-3	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-4	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-5	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-6	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	Trace
WP-7	NM	NM	NM	NP	NP	NP	NM	NM	NM	NP	NP	NP
WP-8	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-9	0.01	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-10	NM	NM	NM	NP	0.20	Dry	NM	NP	NM	Dry	NP	Dry
WP-11	0.01	NM	NM	NP	Dry	Dry	NM	NM	NM	Dry	NP	Dry
WP-12	NM	NM	NM	NP	Dry	NM	NM	NP	NM	Dry	NP	Dry
WP-13	NM	NM	NM	NP	NP	NP	NM	NP	NM	Dry	NP	Dry

Table 2
Brickland Refinery
Product Thickness (feet)

Well ID	Sept. 93	Dec. 93	Mar. 94	Jul. 94	Sept. 94	Dec. 94	Mar. 95	Dec. 95	Jun. 96	Dec. 96	Jul. 97	Jan. 98
WP-14	NM	NM	NM	NP	Tar	NM	NM	0.14	NM	Tar	Tar	Tar
WP-15	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	0.20	Dry
WP-16	NM	NM	NM	NP	NM	NM	NM	NP	NM	Dry	Dry	Dry
WP-17	NM	NM	NM	NP	Dry	Dry	NM	NP	NM	Dry	0.12	Dry
WP-18	NM	NM	NM	NP	NP	NP	NM	NP	NM	Trace	Trace	Dry
WP-19	NM	0.01	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-20	NM	NM	NM	NP	NM	NP	NM	NP	NM	NP	NP	NP
WP-21	NM	NM	NM	NP	NP	NP	NM	NP	NM	Dry	0.06	Dry
WP-22	NM	NM	NM	NP	NP	NP	NM	NP	NM	NM	NM	NM
WP-23	NM	NM	NM	NP	NP	NP	NM	NP	NM	NM	NM	NM
WP-24	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-25	0.05	0.05	NM	0.22	NM	0.20	NM	1.56	NM	NM	NM	Trace
WP-26S	NM	0.12	NM	2.20	2.59	1.53	NM	NP	NM	NP	1.29	Tar
WP-26D	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-27S	NM	NM	NM	NP	NP	NP	NM	NM	NM	NP	NP	NP
WP-27D	NM	NM	NM	0.11	0.45	0.49	NM	NM	NM	0.48	0.44	1.18
WP-28	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	Dry
WP-29	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	Trace	NP
WP-30	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-31	NM	NM	NM	NP	NP	NP	NM	NP	NM	Dry	Dry	Dry
WP-32	NM	NM	NM	Dry	Dry	Dry	NM	Dry	NM	Dry	Dry	Dry
WP-33	NM	NM	NM	NP	NP	NP	NM	NP	NM	Trace	Trace	NP
WP-34	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-35	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-36	NM	NM	NM	NP	NP	NP	NM	NP	NM	NP	NP	NP
WP-37	NM	NM	NM	NP	NP	NP	NM	NP	NM	0.04	0.17	NP

Notes: NM - Not Measured

NP - No Product

Trace = Trace of free product was observed.

Table 3
Brickland Refinery
BTEX Concentrations in Monitoring Wells and River Surface Samples

MW-3S												
Parameter	12/08/93	03/25/94	07/12/94	09/28/94	12/13/94	03/28/95	06/21/95	09/26/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	ND	ND	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND							
Xylenes	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-3D												
Parameter	12/08/93	03/23/94	07/12/94	09/28/94	12/13/94	03/28/95	06/21/95	09/26/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND,ND	ND
Toluene	ND	ND	ND	ND,ND	ND							
Ethyl Benzene	ND	ND	ND	ND,ND	ND							
Xylenes	ND	ND	ND	ND,ND	ND							

MW-6S												
Parameter	12/08/93	03/25/94	07/12/94	09/28/94	12/13/94	03/28/95	06/21/95	9/25/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	71	74	110	4.8	59	110	NS	180	330	50	130	14
Toluene	ND	ND	2.8	ND	7	NS	120	160	ND	ND	ND	ND
Ethyl Benzene	52	12	30	34	ND	32	NS	ND	ND	ND	15	ND
Xylenes	ND	7.6	88	16	ND	43	NS	30	90	ND	ND	ND

MW-6D												
Parameter	12/08/93	03/23/94	07/12/94	09/28/94	12/13/94	03/28/95	06/21/95	9/25/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	ND	ND,ND	ND	ND	ND	ND						
Toluene	ND	ND,ND	ND	ND	ND	ND						
Ethyl Benzene	ND	ND,ND	ND	ND	ND	ND						
Xylenes	ND	1.6	ND	ND	ND	ND	ND	ND,ND	ND	ND	ND	ND

MW-9S												
Parameter	12/08/93	03/25/94	07/12/94	09/27/94	12/13/94	03/28/95	06/21/95	09/26/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	ND	ND	ND	ND	ND,ND							
Toluene	ND	ND	ND	ND	ND,ND							
Ethyl Benzene	ND	ND	ND	ND	ND,ND							
Xylenes	ND	ND	0.6	ND	ND	0.6	ND	ND	ND	ND	ND	ND,ND

River - Upstream												
Parameter	12/08/93	03/25/94	07/12/94	09/27/94	12/13/94	03/28/95	06/21/95	09/26/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	NS	ND	ND	ND	ND	ND						
Toluene	NS	ND	ND	ND	ND	ND						
Ethyl Benzene	NS	ND	ND	ND	ND	ND						
Xylenes	NS	ND	ND	ND	ND	ND						

River - Downstream												
Parameter	12/08/93	03/25/94	07/12/94	09/27/94	12/13/94	03/28/95	06/21/95	09/26/95	6/21/96	12/23/96	6/26/97	1/8/98
Benzene	NS	ND	ND	ND	ND	ND						
Toluene	NS	ND	ND	ND	ND	ND						
Ethyl Benzene	NS	ND	ND	ND	ND	ND						
Xylenes	NS	ND	ND	ND	ND	ND						

	WQCC Std.	Detection Limit
Benzene	10	0.5 µg/L
Toluene	750	0.1 µg/L
Ethyl Benzene	750	0.5 µg/L
Xylenes	620	0.5 µg/L

NA = Not available
 ND = Not detected
 NS = Not sampled
 µg/L = Micrograms per liter

Table 4
Brickland Refinery

Total PAH Concentrations in Monitoring Wells and River Surface Samples From December 1993 through January 1998

Well ID	Dec. 93	Mar. 94	Jul. 94	Sept. 94	Dec. 94	Mar. 95	June 95	June 96	Dec. 96	July 97	Jan. 98
MW-3S	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	ND
MW-3D	ND	ND	ND	ND	ND	ND	ND	ND	-	ND, ND	-
MW-6S	ND	ND	ND	ND	ND	ND	15, 10	ND	-	ND	-
MW-6D	ND	-	ND	ND	ND	ND	ND, ND	-	-	ND	-
MW-9S	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	-
Riv-Up	-	-	-	-	-	-	-	ND	-	ND	-
Riv-Down	-	-	-	-	-	-	-	ND	-	ND	-

Notes: - = Not sampled for PAH.

All Results in Micrograms per Liter ($\mu\text{g/L}$)

Table 5
Brickland Refinery
Monitoring Well and River Surface Samples Analytical Results from June 1996 Sampling Event

Well ID	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
NM WQCC Std.	5.0	0.1	1.0	0.0100	0.050	1.0	0.0020	0.2	0.05	0.05		10.0
Detection Limit	0.010	0.010	0.001	0.0005	0.005	0.003	0.0002	0.005	0.010	0.005	0.01	0.005
MW-3S	ND	0.020	ND	0.0021	0.023	ND	ND	ND	0.050	ND	ND	ND
MW-3D	ND	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6S	ND	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6D	ND	ND	0.002	ND	0.031	ND	ND	ND	ND	0.120	0.056	ND
MW-6D (Dope)	0.010	0.020	0.003	0.0044	ND	ND	ND	ND	0.008	ND	0.007	0.014
MW-9S	0.020	ND	ND	0.0007	ND	0.044	ND	ND	ND	0.070	ND	0.040
River-Upstream	ND	ND	ND	ND	ND	ND	0.007	ND	ND	ND	ND	0.013
River-Downstream	ND	ND	ND	ND	0.008	ND	0.005	ND	ND	ND	ND	0.006

mg/L = Milligrams per liter

Monitoring Well and River Surface Samples Analytical Results from July 1997 Sampling Event

Well ID	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc
NM WQCC Std.	5.0	0.1	1.0	0.0100	0.050	1.0	0.0020	0.2	0.05	0.05		10.0
Detection Limit	0.010	0.010	0.001	0.0005	0.005	0.003	0.0002	0.005	0.010	0.005	0.01	0.005
MW-3S	ND	0.010	ND	ND	ND	ND	ND	ND	0.020	ND	ND	0.013
MW-3D	ND	0.010	ND	0.0019	ND	ND	ND	0.007	ND	ND	ND	ND
MW-3D (Dope)	0.010	0.020	ND	0.0024	ND	ND	ND	0.016	ND	0.009	ND	0.006
MW-6S	0.010	0.070	ND	0.0015	ND	0.008	ND	ND	0.020	ND	ND	0.008
MW-6D	0.010	ND	0.0020	ND	0.006	ND	ND	0.025	ND	ND	ND	ND
MW-9S	0.020	ND	ND	ND	ND	ND	ND	0.030	ND	ND	ND	ND
River-Upstream	ND	ND	ND	ND	0.010	ND	ND	0.010	ND	ND	ND	0.009
River-Downstream	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

mg/L = Milligrams per liter

Figure 1
Brickland Refinery
MW-1 Groundwater Elevation Over Time

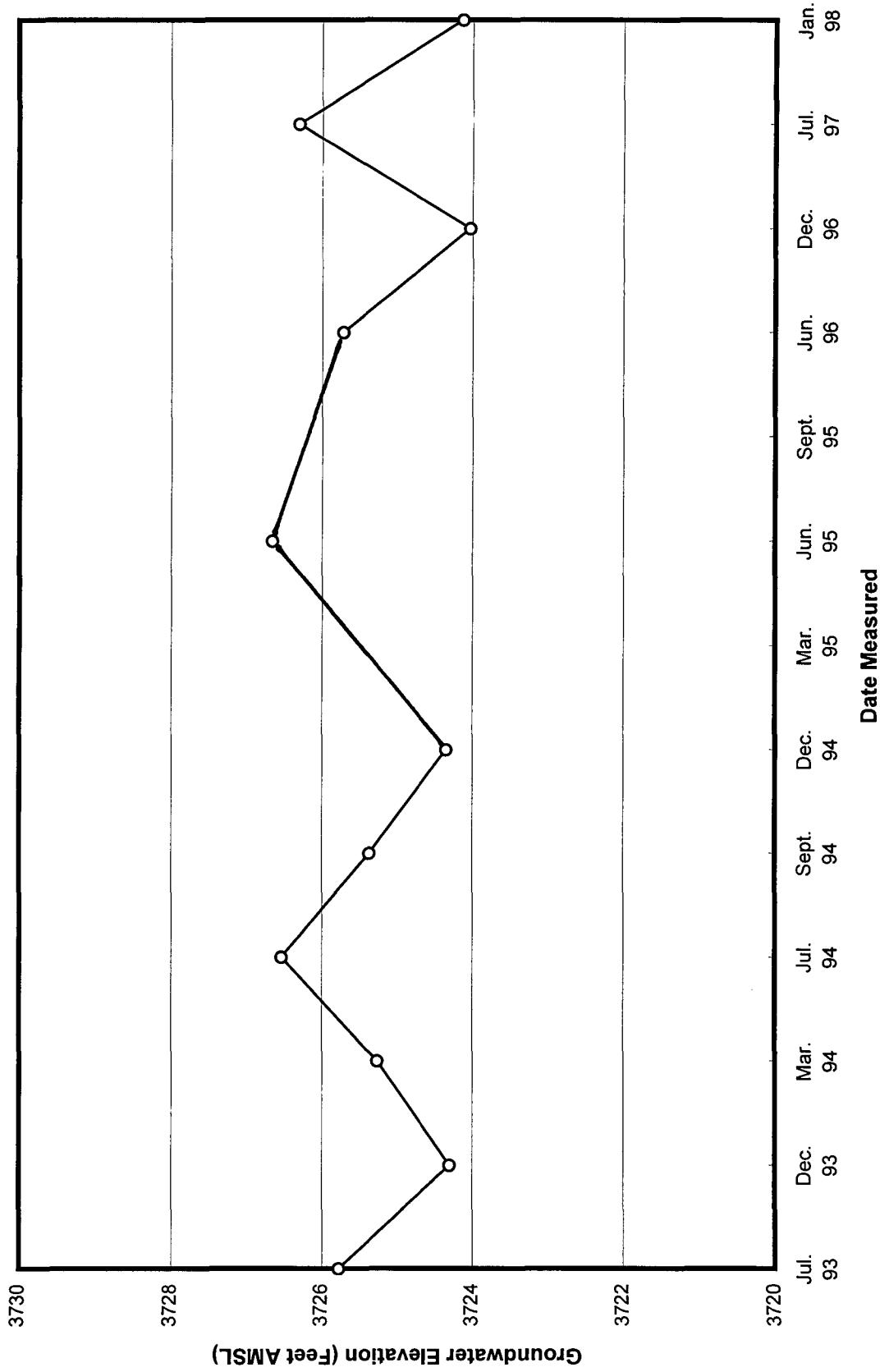


Figure 1 (Cont.)
Brickland Refinery
MW-2 Groundwater Elevation Over Time

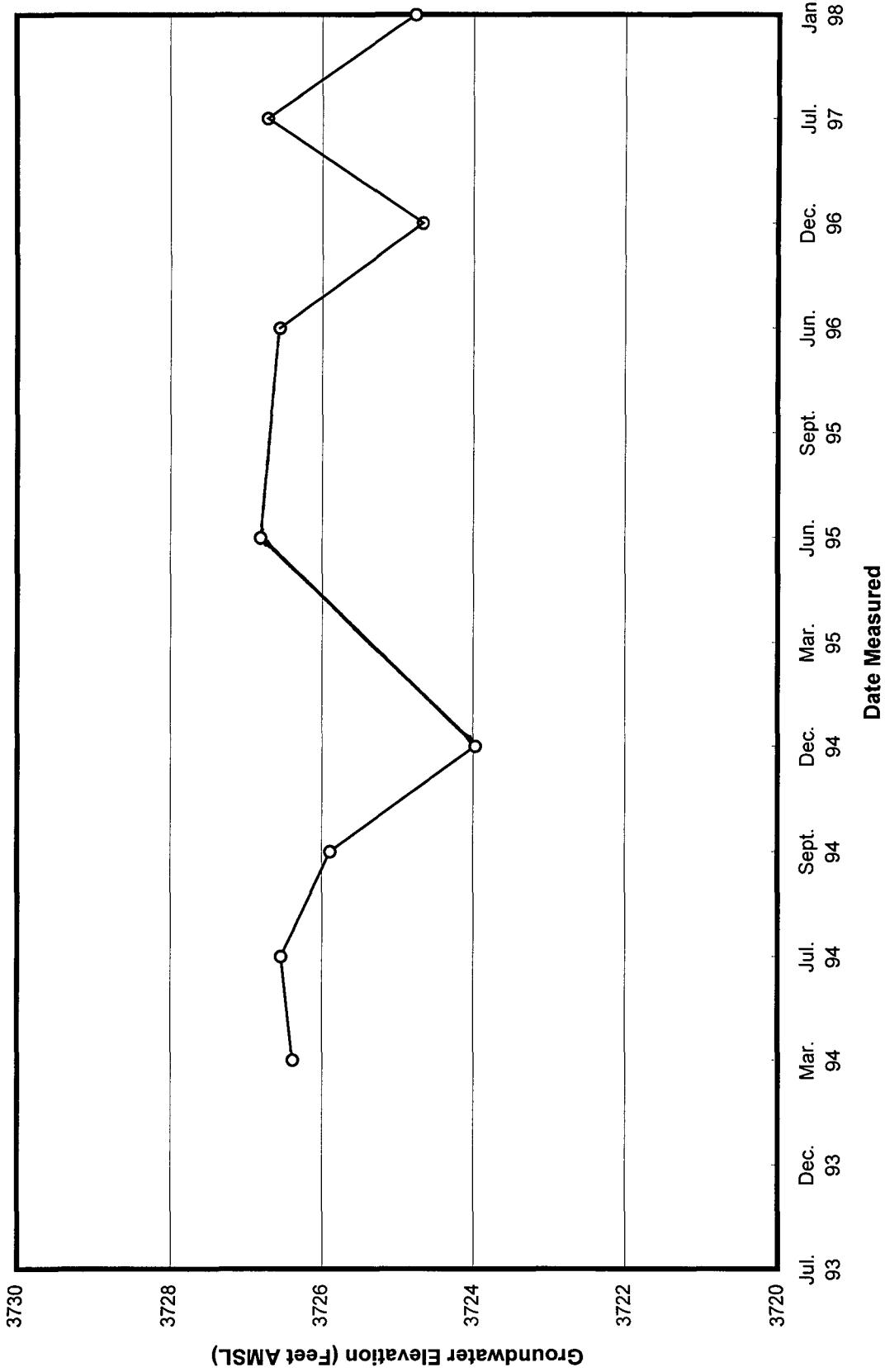


Figure 1 (Cont.)
Brickland Refinery
MW-3S Groundwater Elevation Over Time

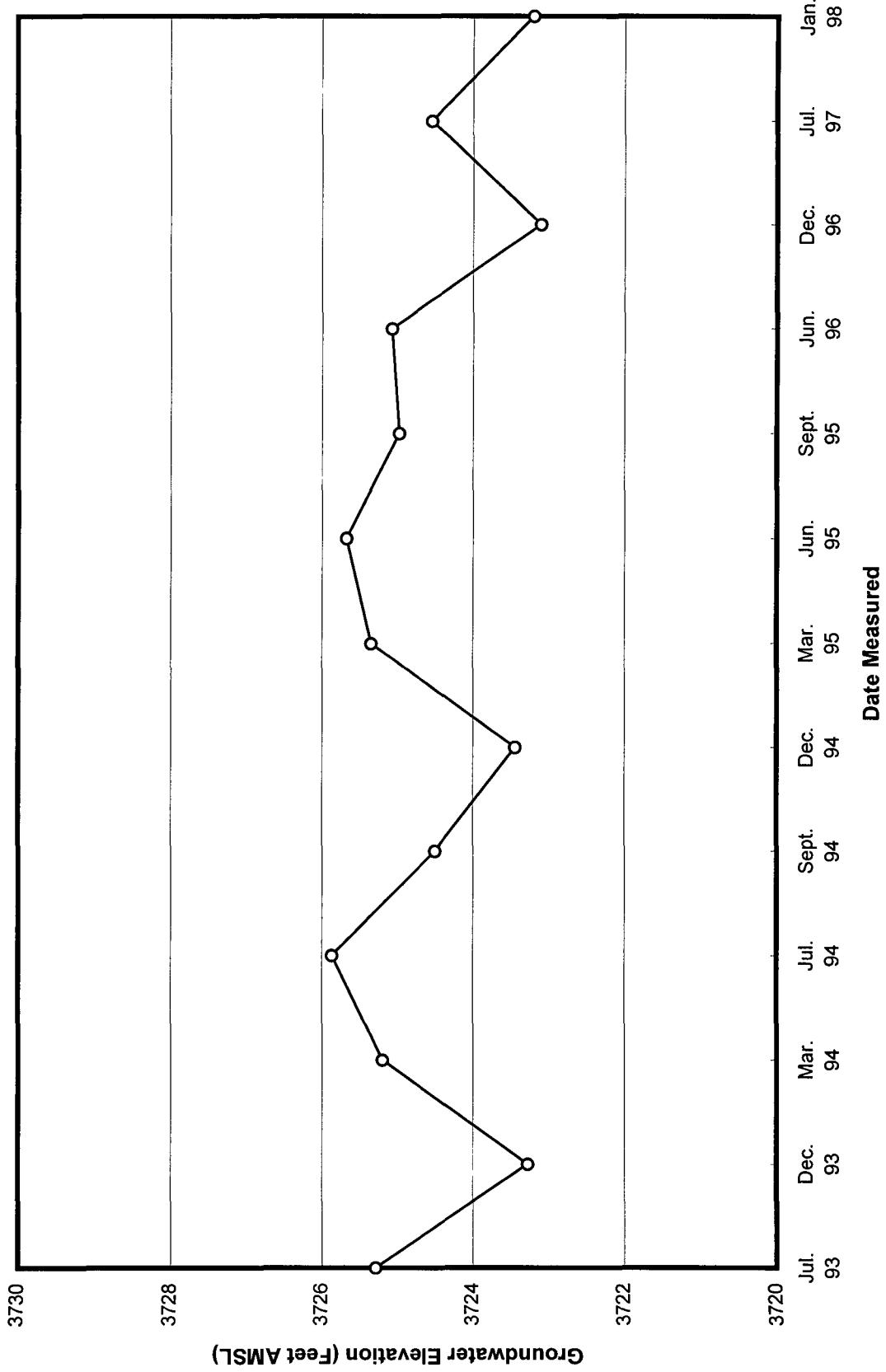


Figure 1 (Cont.)
Brickland Refinery
MW-3D Groundwater Elevation Over Time

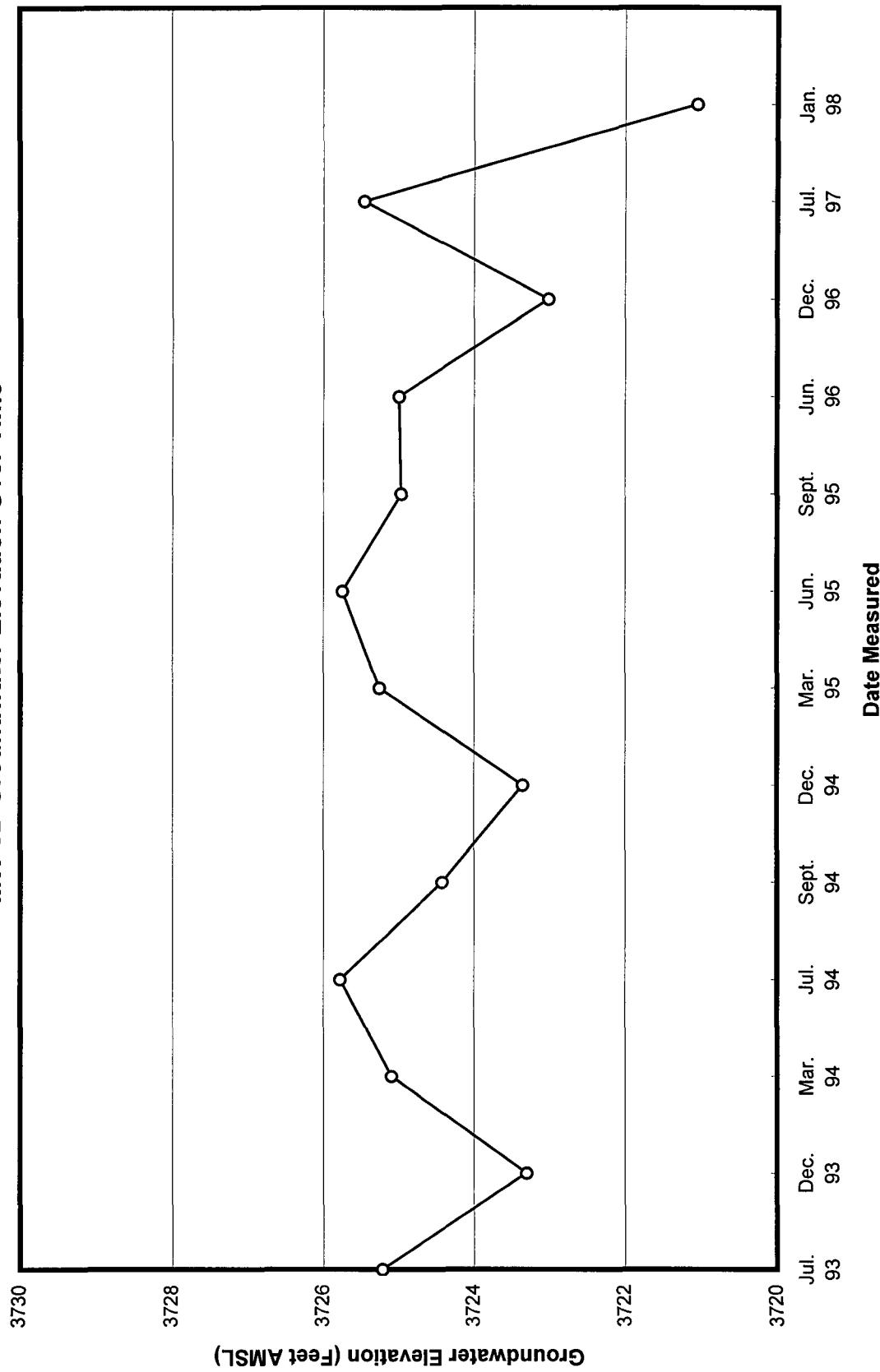


Figure 1 (Cont.)
Brickland Refinery
MW-4 Groundwater Elevation Over Time

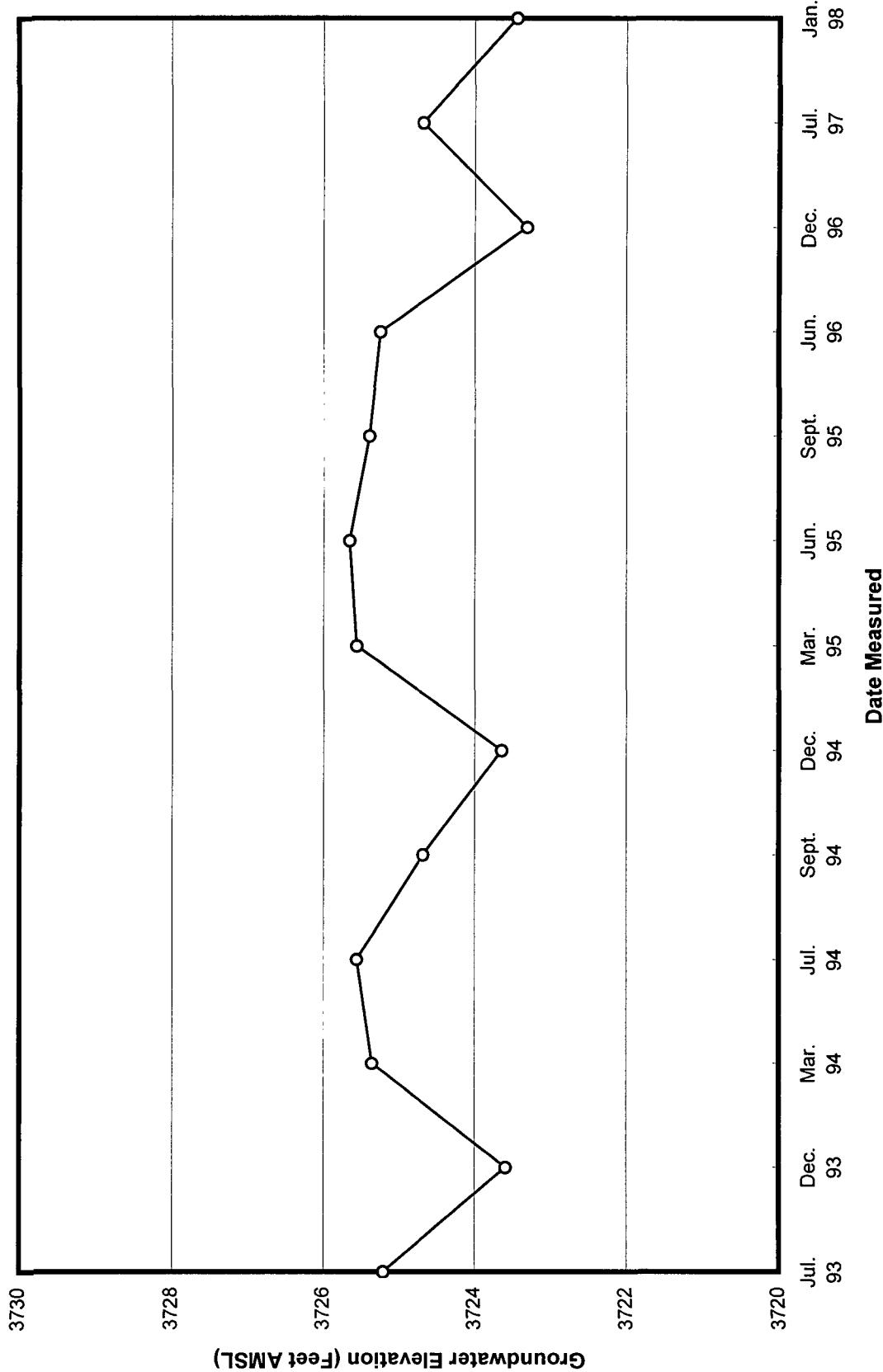


Figure 1 (Cont.)
Brickland Refinery
MW-5 Groundwater Elevation Over Time

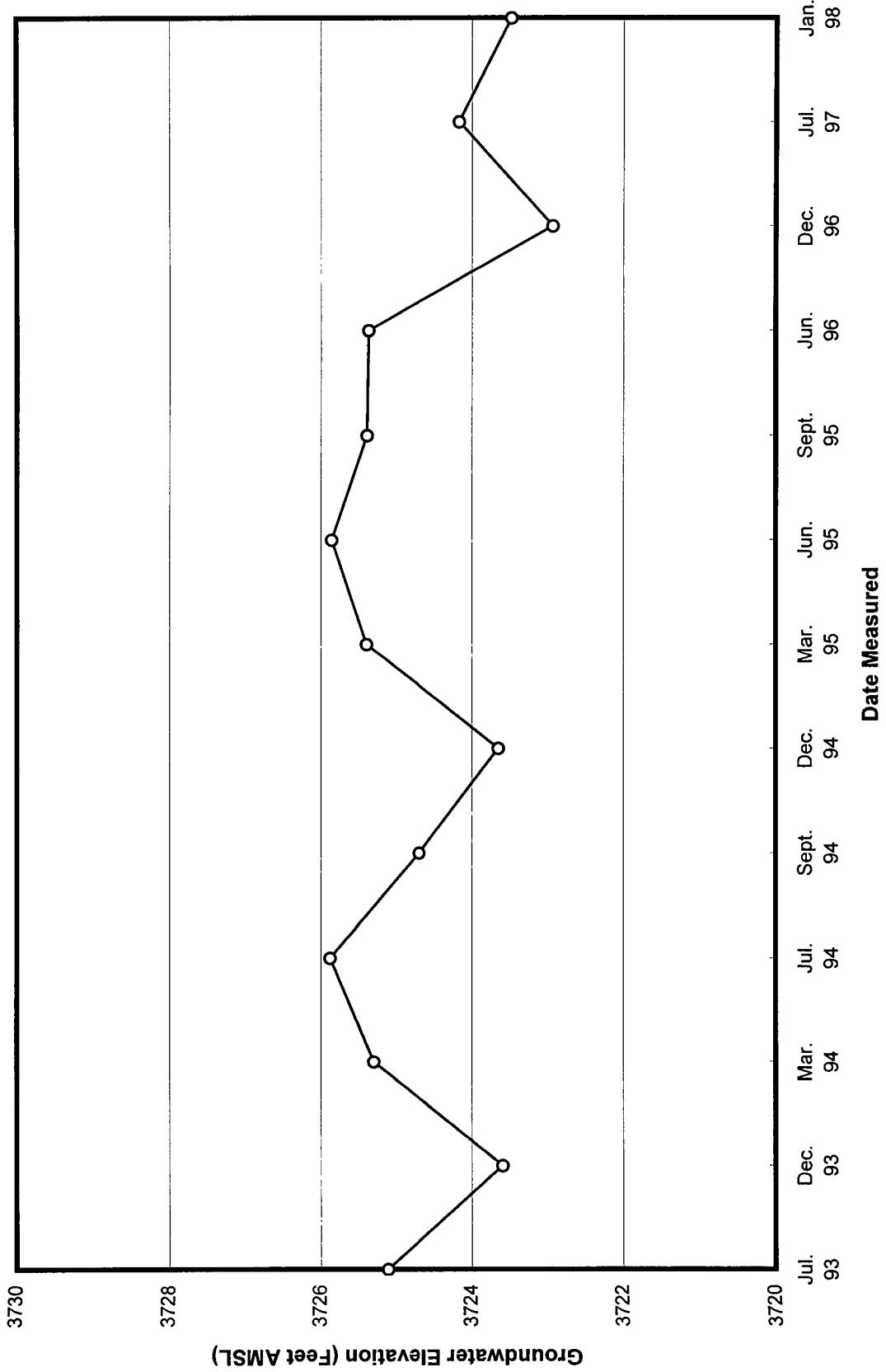


Figure 1 (Cont.)
Brickland Refinery
MW-6S Groundwater Elevation Over Time

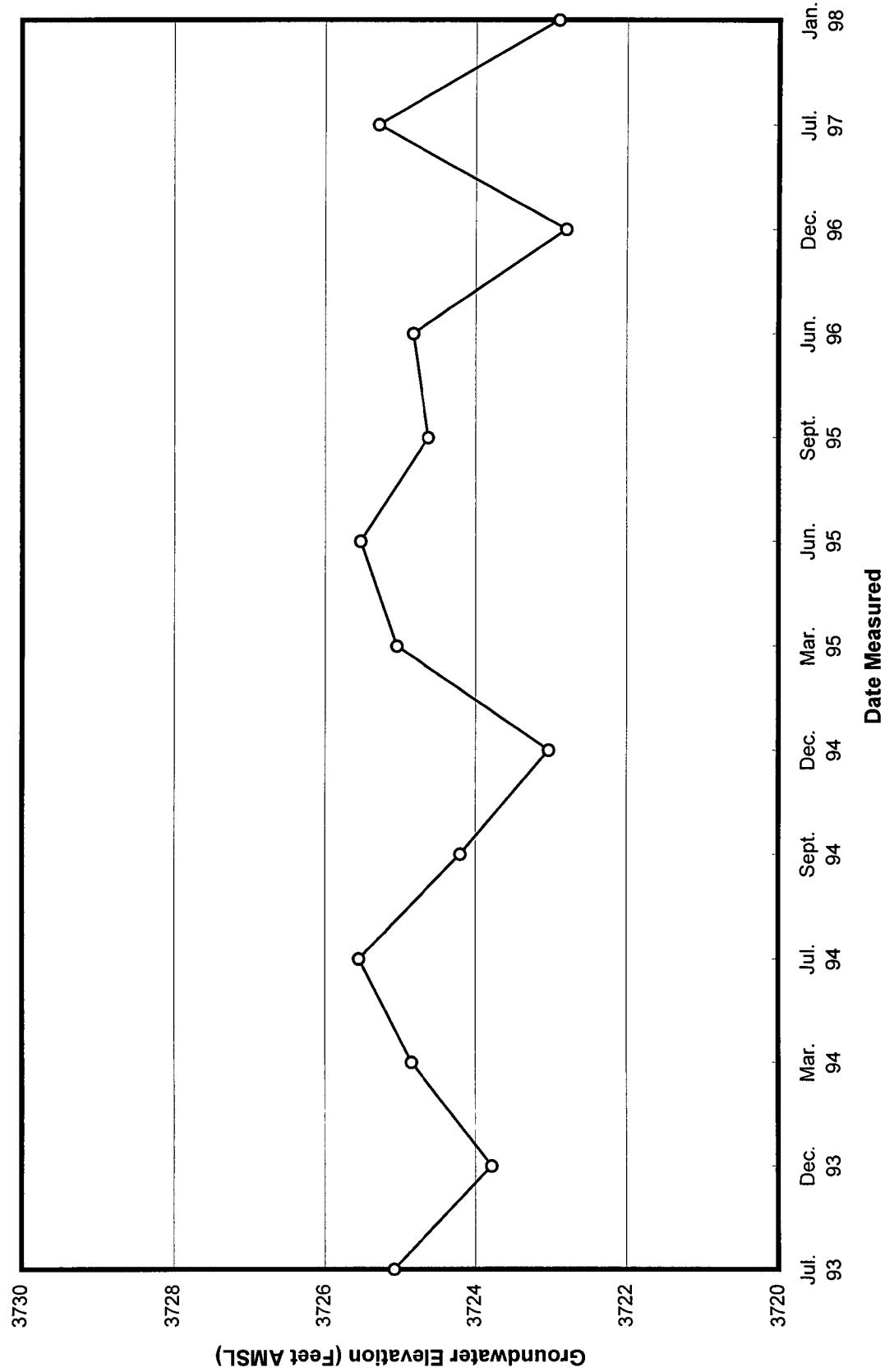


Figure 1 (Cont.)
Brickland Refinery
MW-6D Groundwater Elevation Over Time

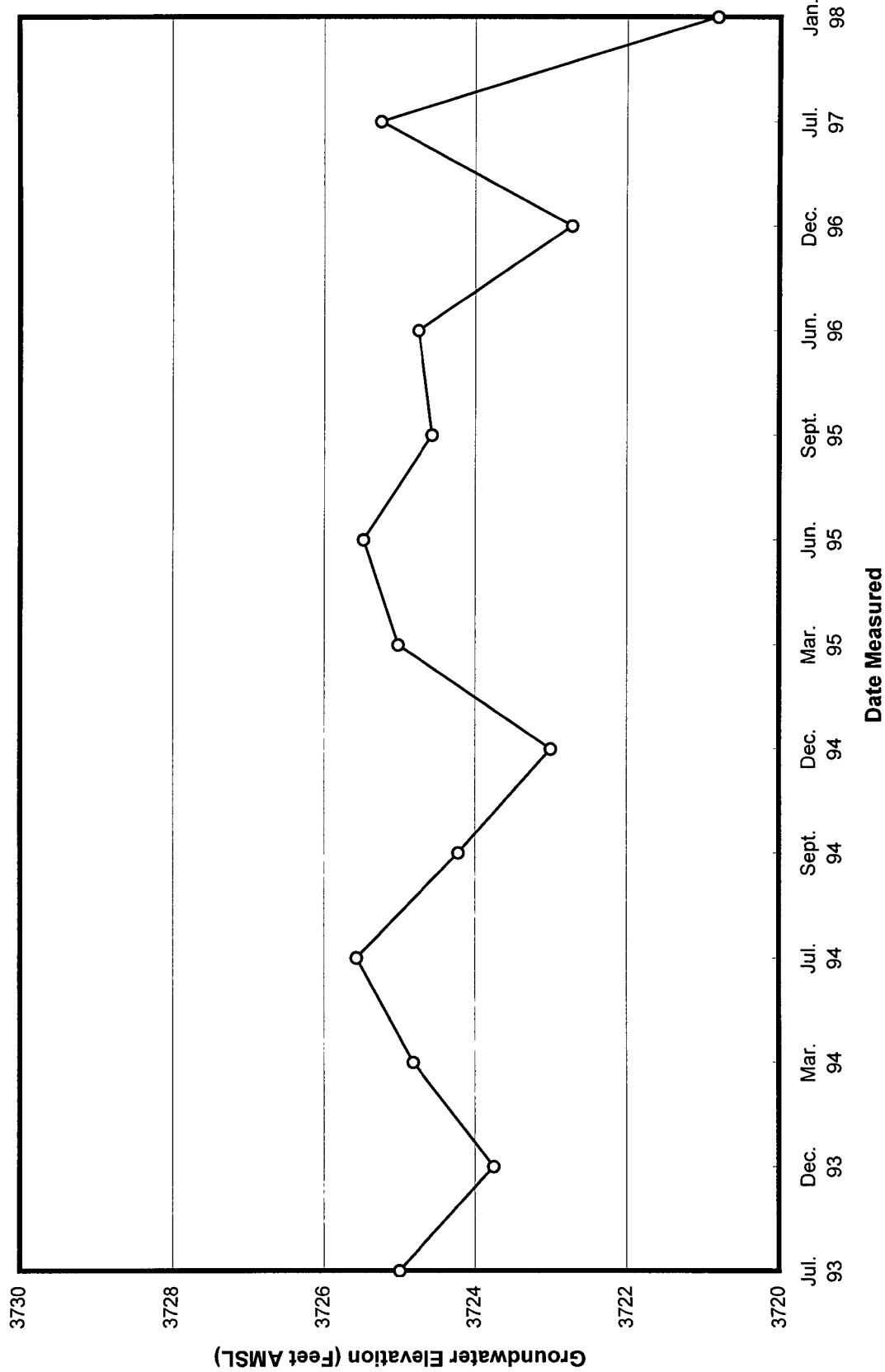


Figure 1 (Cont.)
Brickland Refinery
MW-7 Groundwater Elevation Over Time

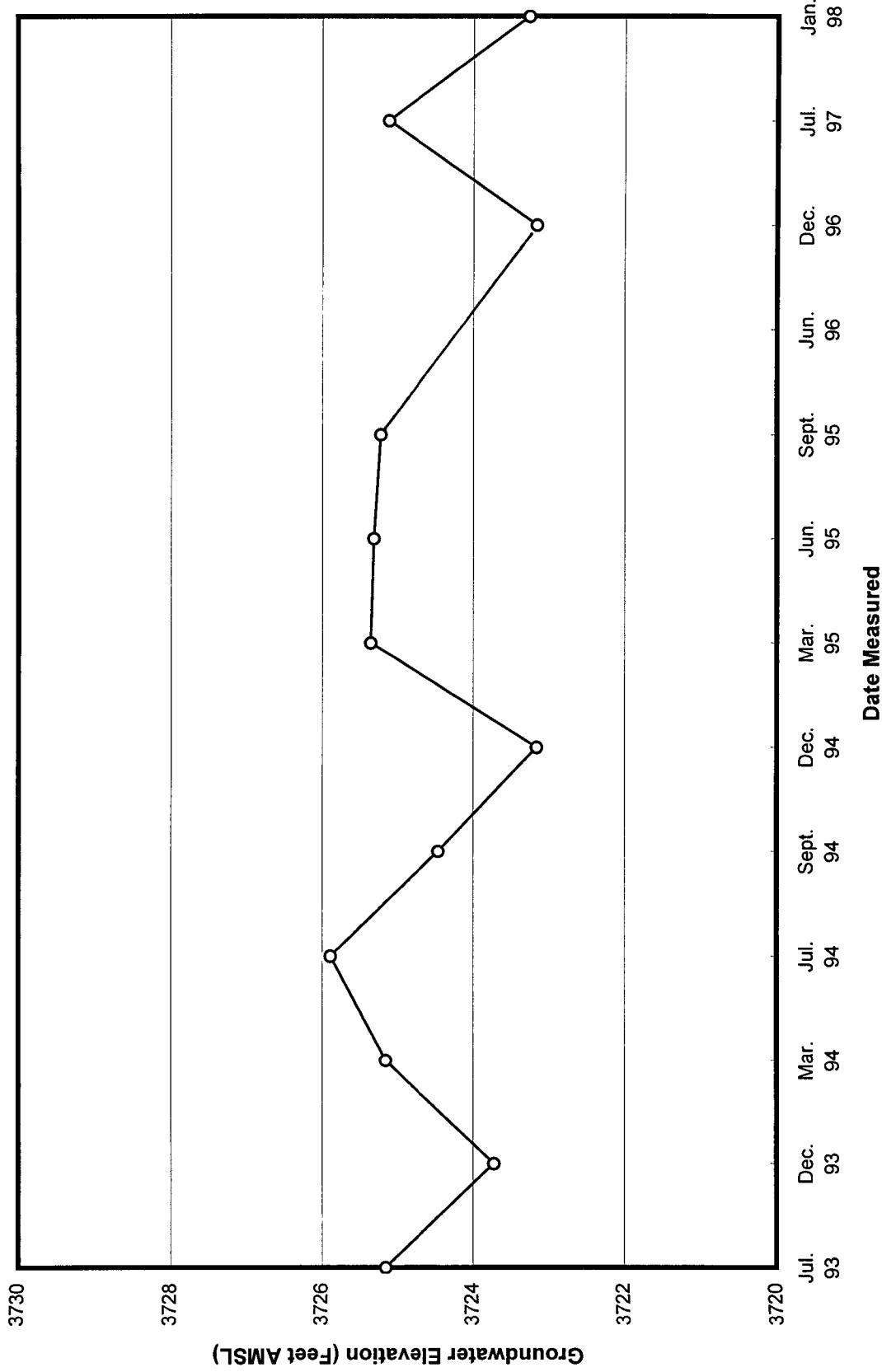


Figure 1 (Cont.)
Brickland Refinery
MW-8 Groundwater Elevation Over Time

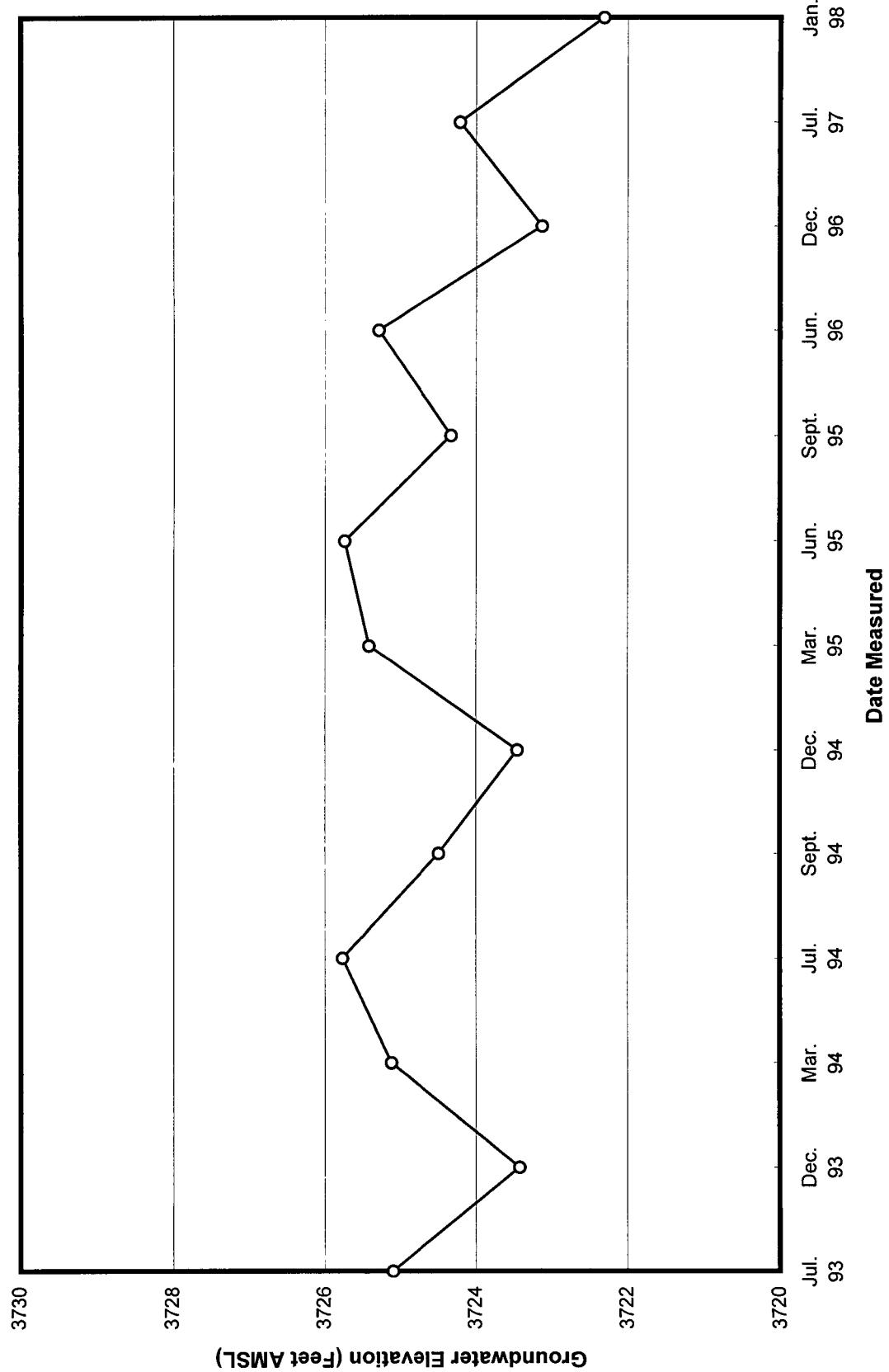


Figure 1 (Cont.)
Brickland Refinery
MW-9S Groundwater Elevation Over Time

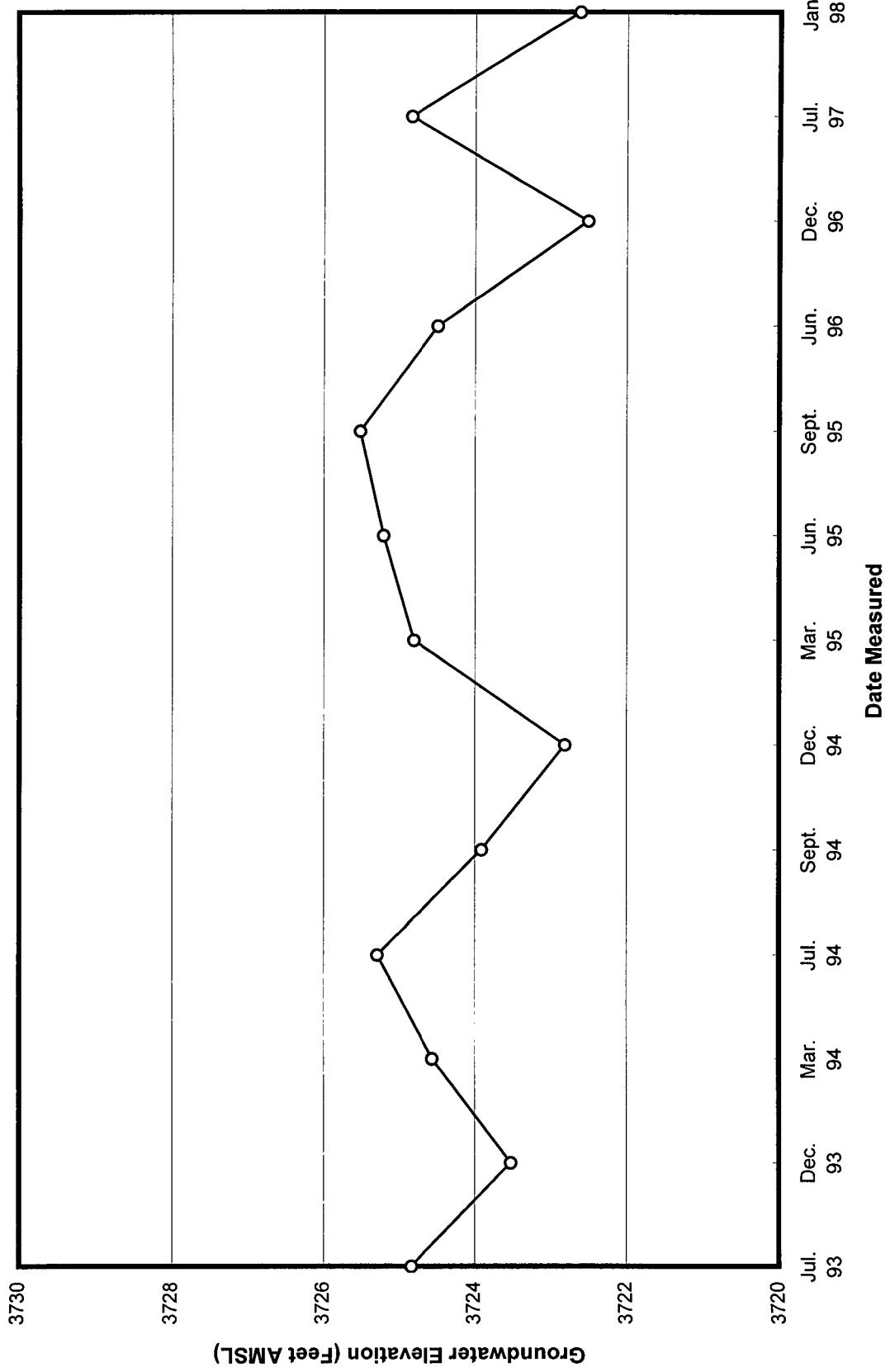


Figure 1 (Cont.)
Brickland Refinery
MW-10 Groundwater Elevation Over Time

Date Measured	Groundwater Elevation (Ft MSL)											
	Jul. 93	Dec. 93	Mar. 94	Jul. 94	Sept. 94	Dec. 94	Mar. 95	Jun. 95	Sept. 95	Jun. 96	Dec. 96	Jan. 97
3730												
3728												
3726												
3724												
3722												
3720												
	Note: Product has been observed in MW-10 and water levels are therefore generally not measured.											

Figure 1 (Cont.)
Brickland Refinery
MW-11 Groundwater Elevation Over Time

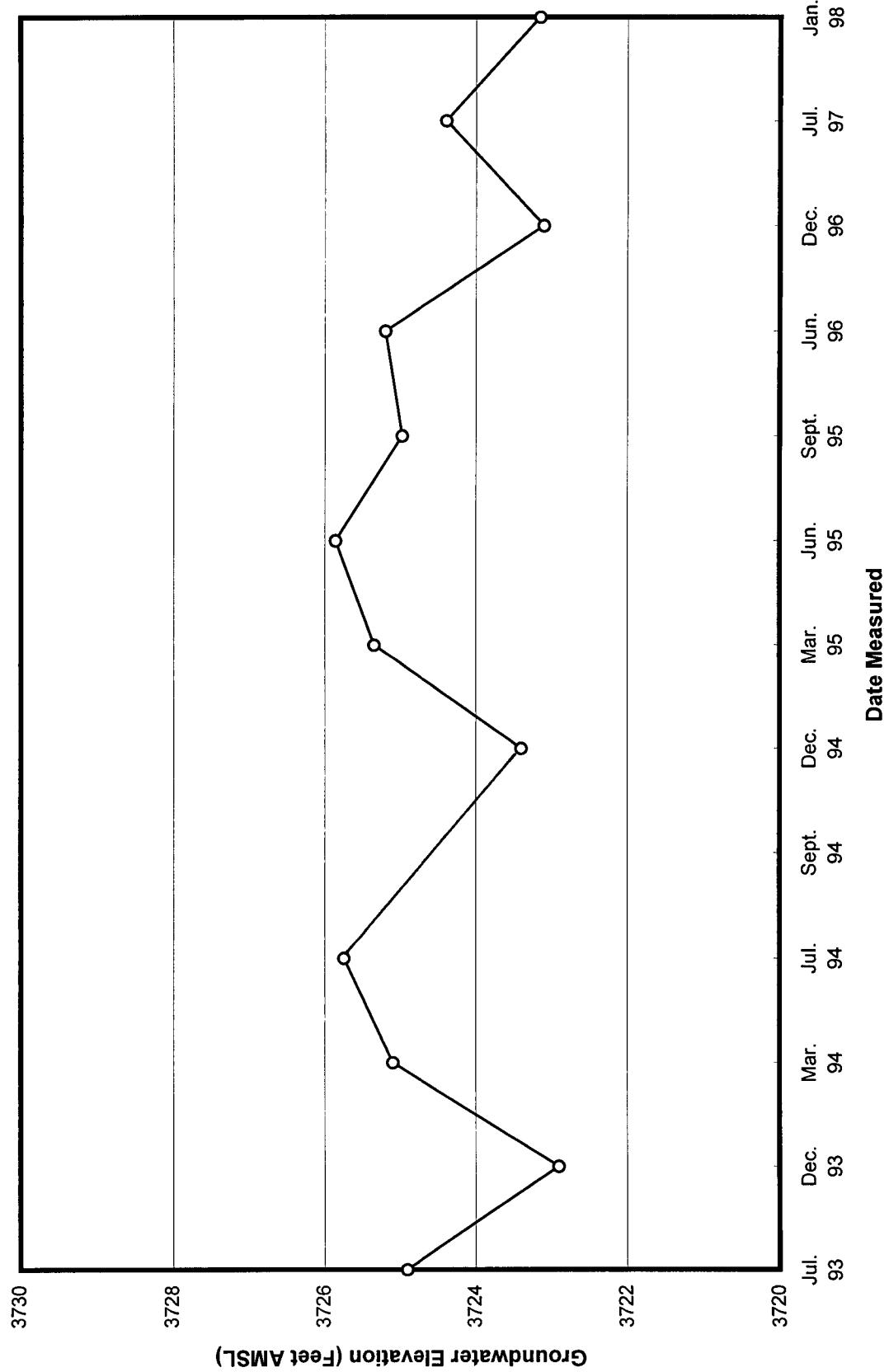


Figure 1 (Cont.)
Brickland Refinery
MW-12 Groundwater Elevation Over Time

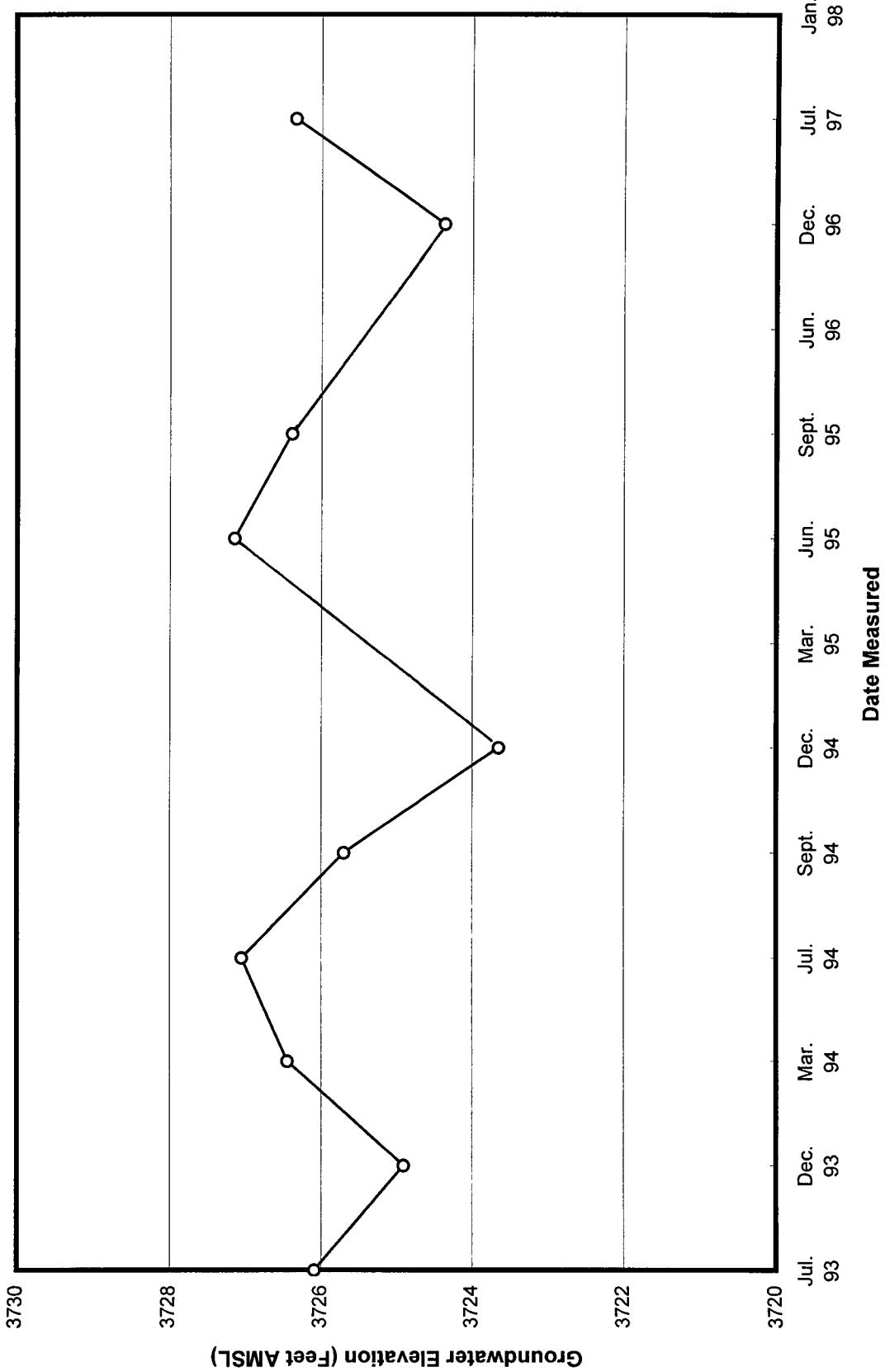


Figure 1 (Cont.)
Brickland Refinery
MW-13 Groundwater Elevation Over Time

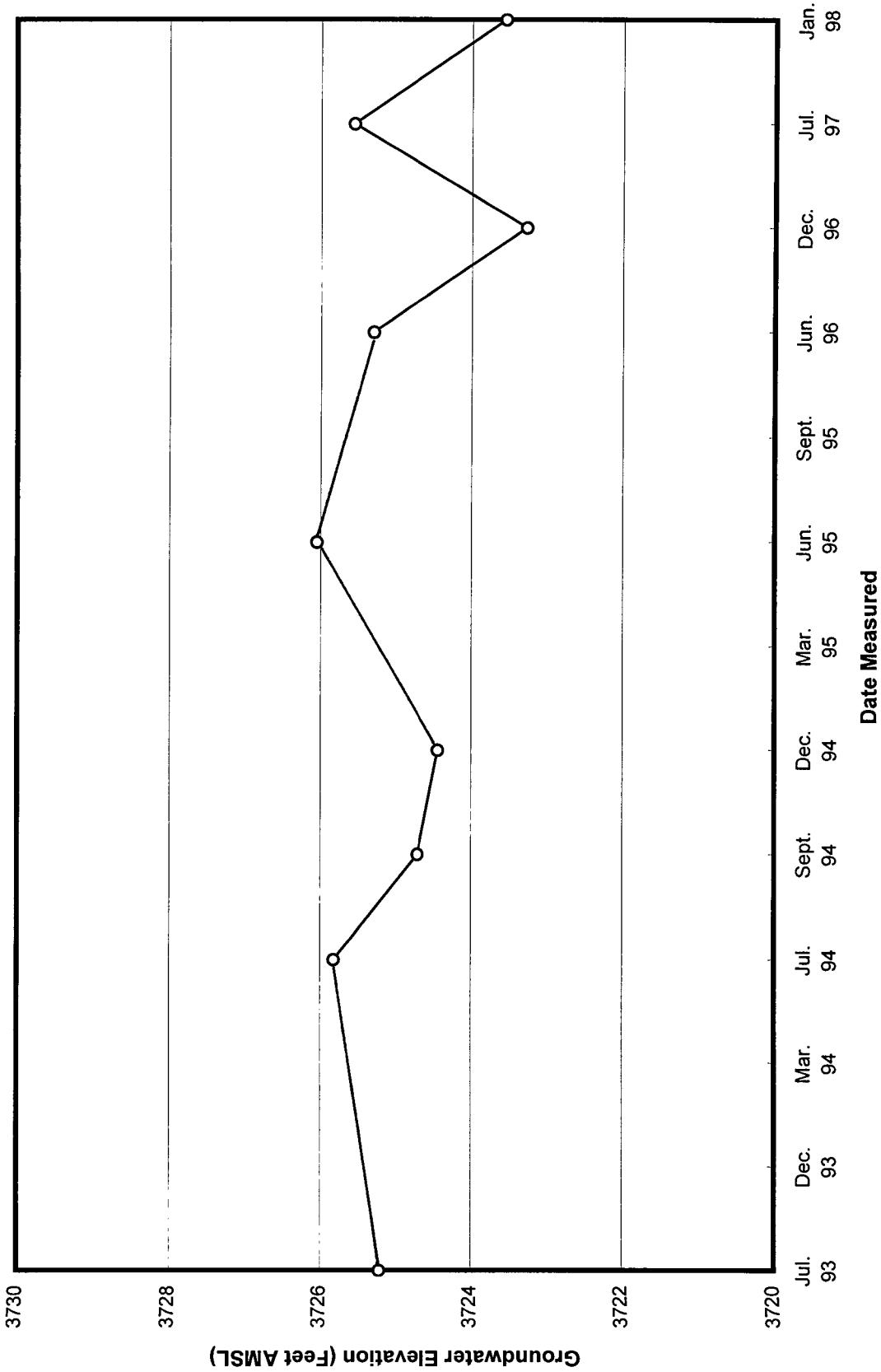


Figure 1 (Cont.)
Brickland Refinery
MW-14 Groundwater Elevation Over Time

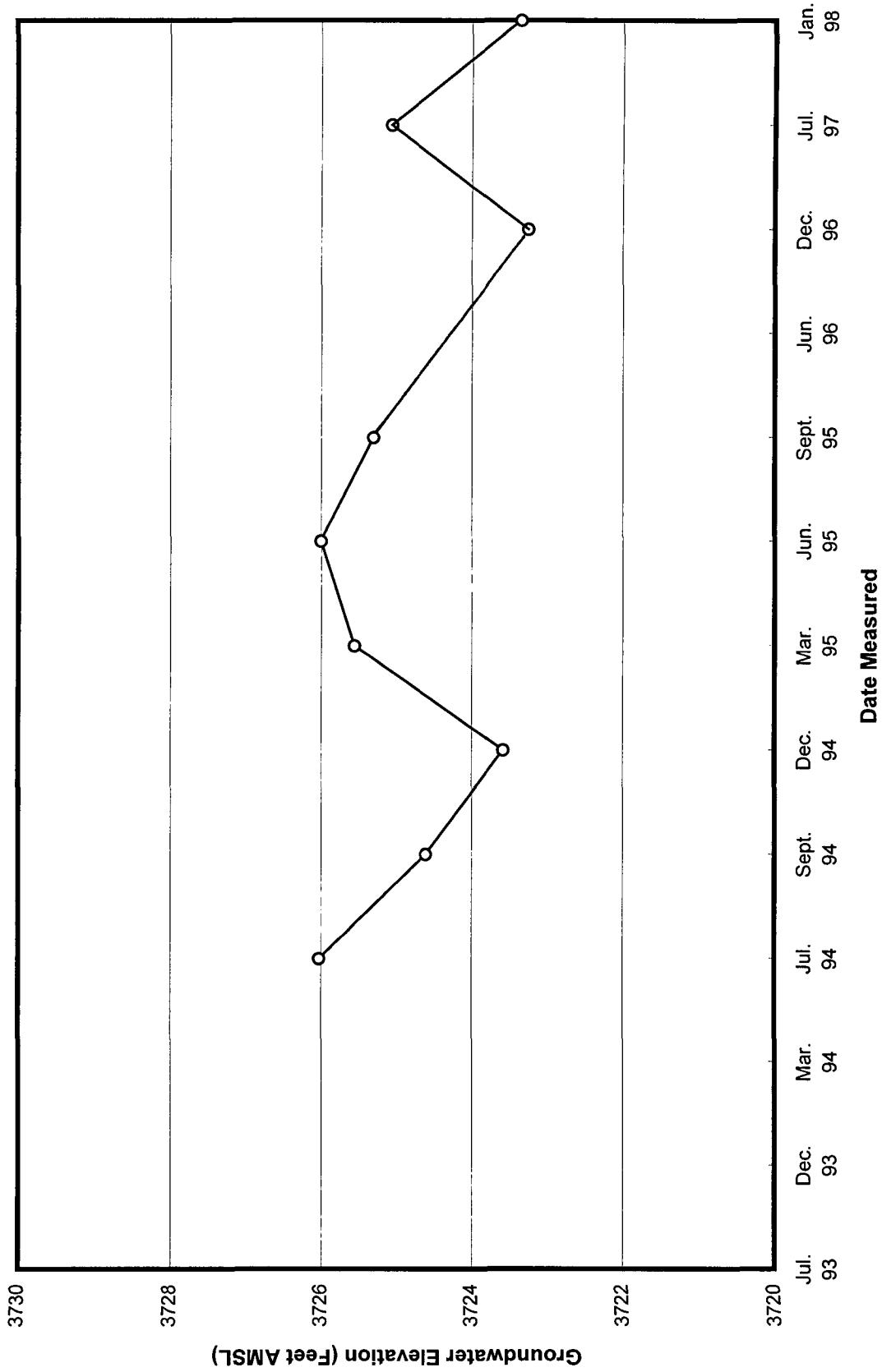


Figure 1 (Cont.)
Brickland Refinery
MW-15 Groundwater Elevation Over Time

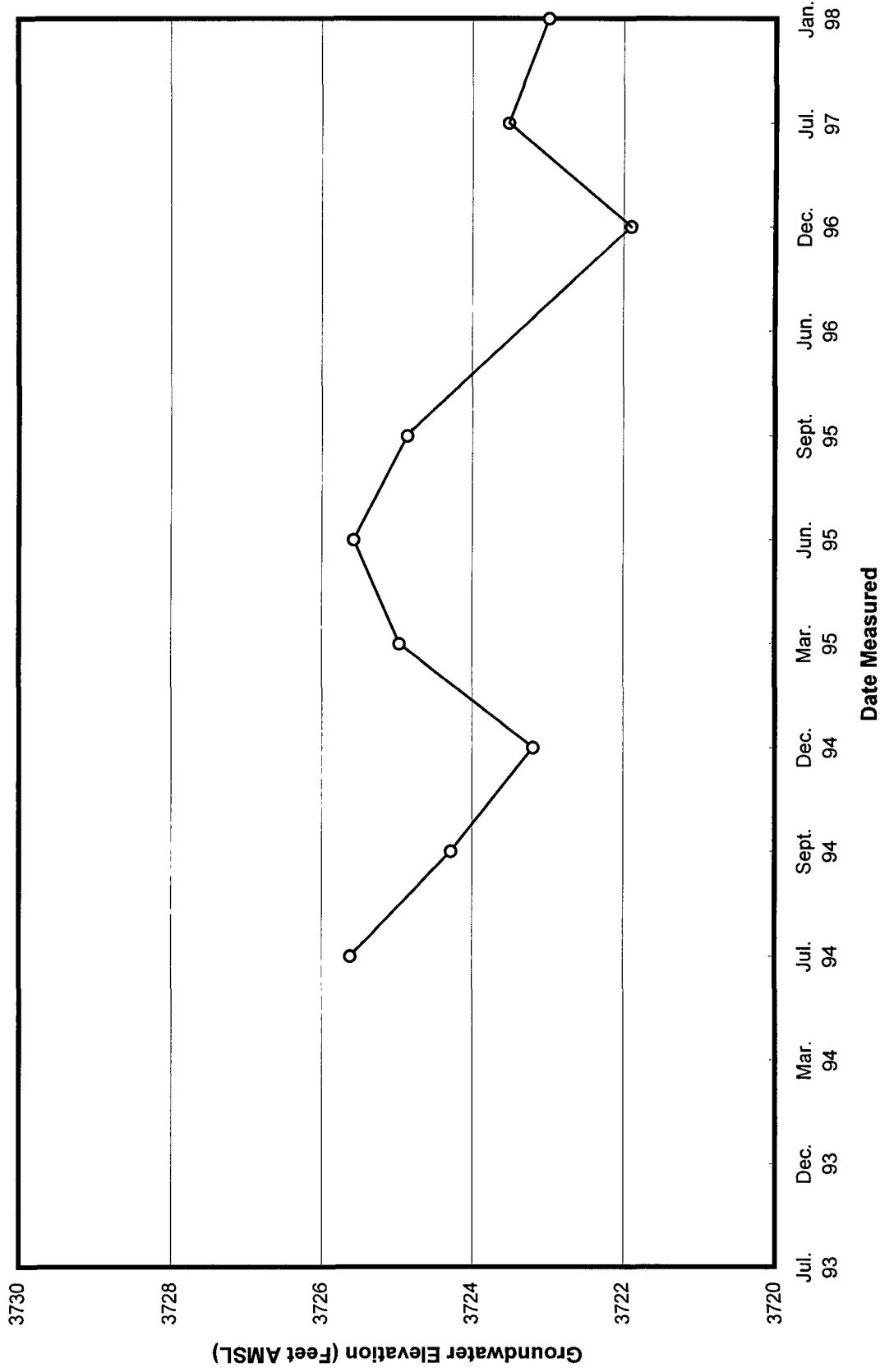


Figure 1 (Cont.)
Brickland Refinery
MW-16 Groundwater Elevation Over Time

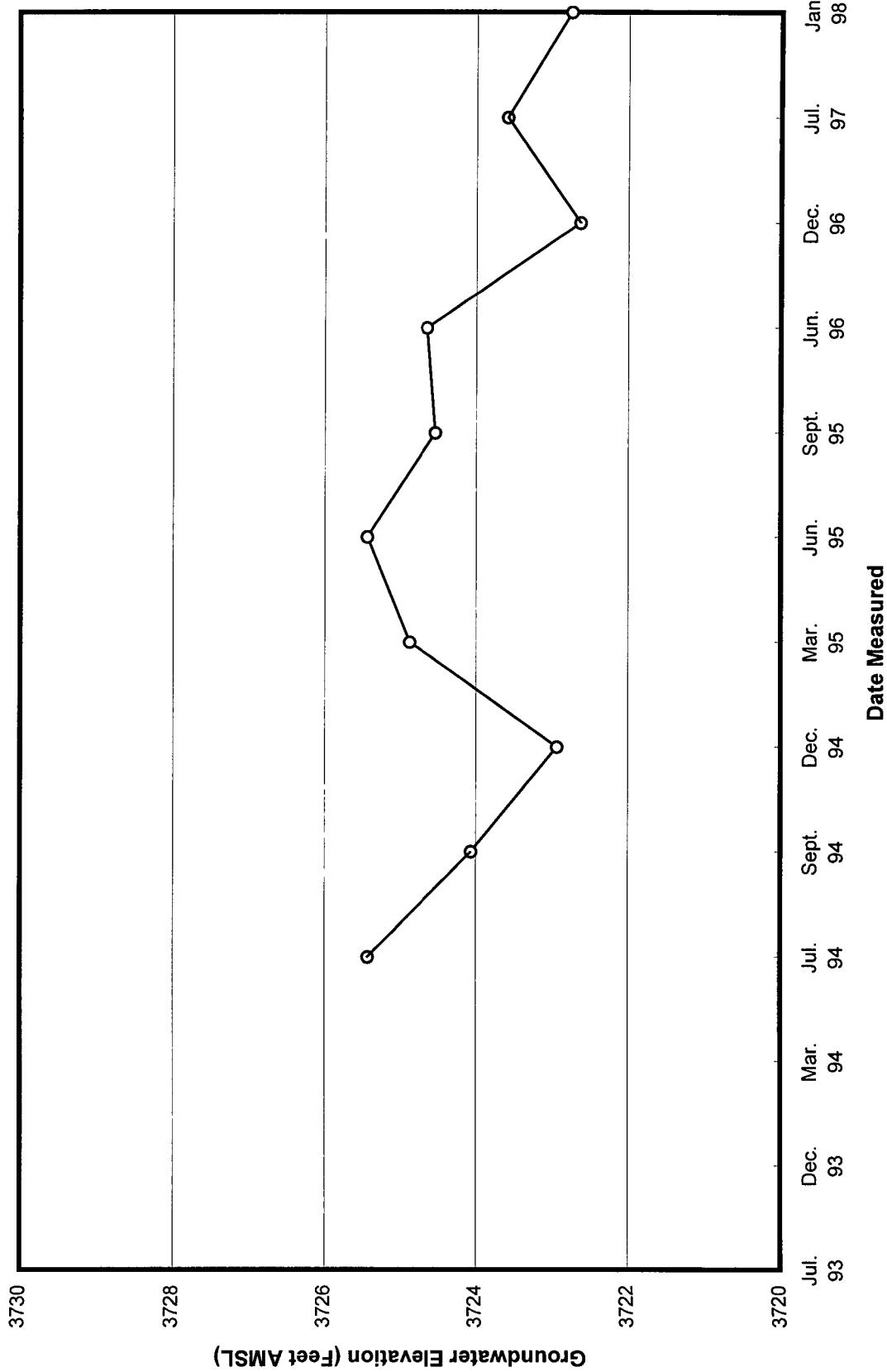
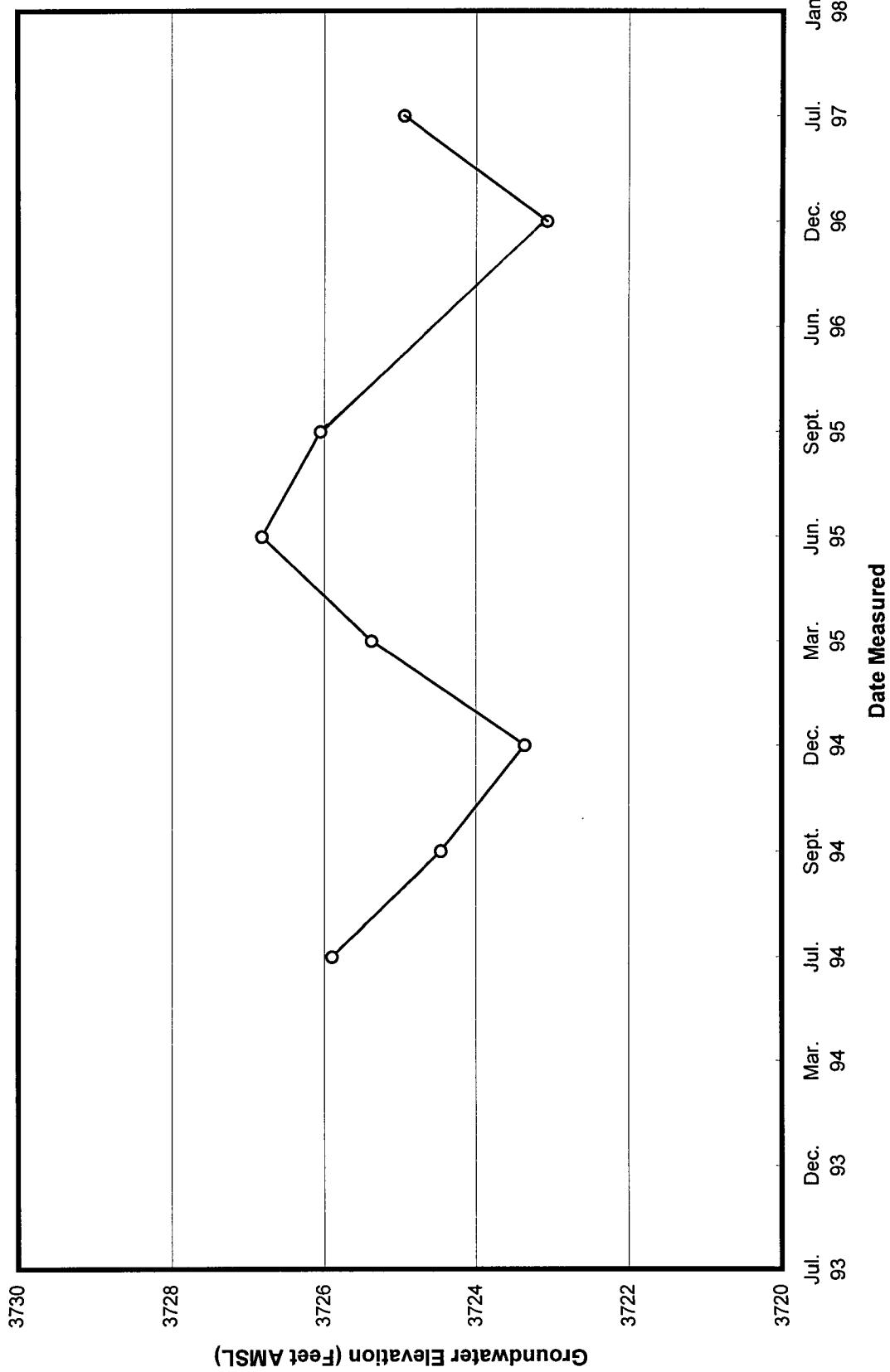
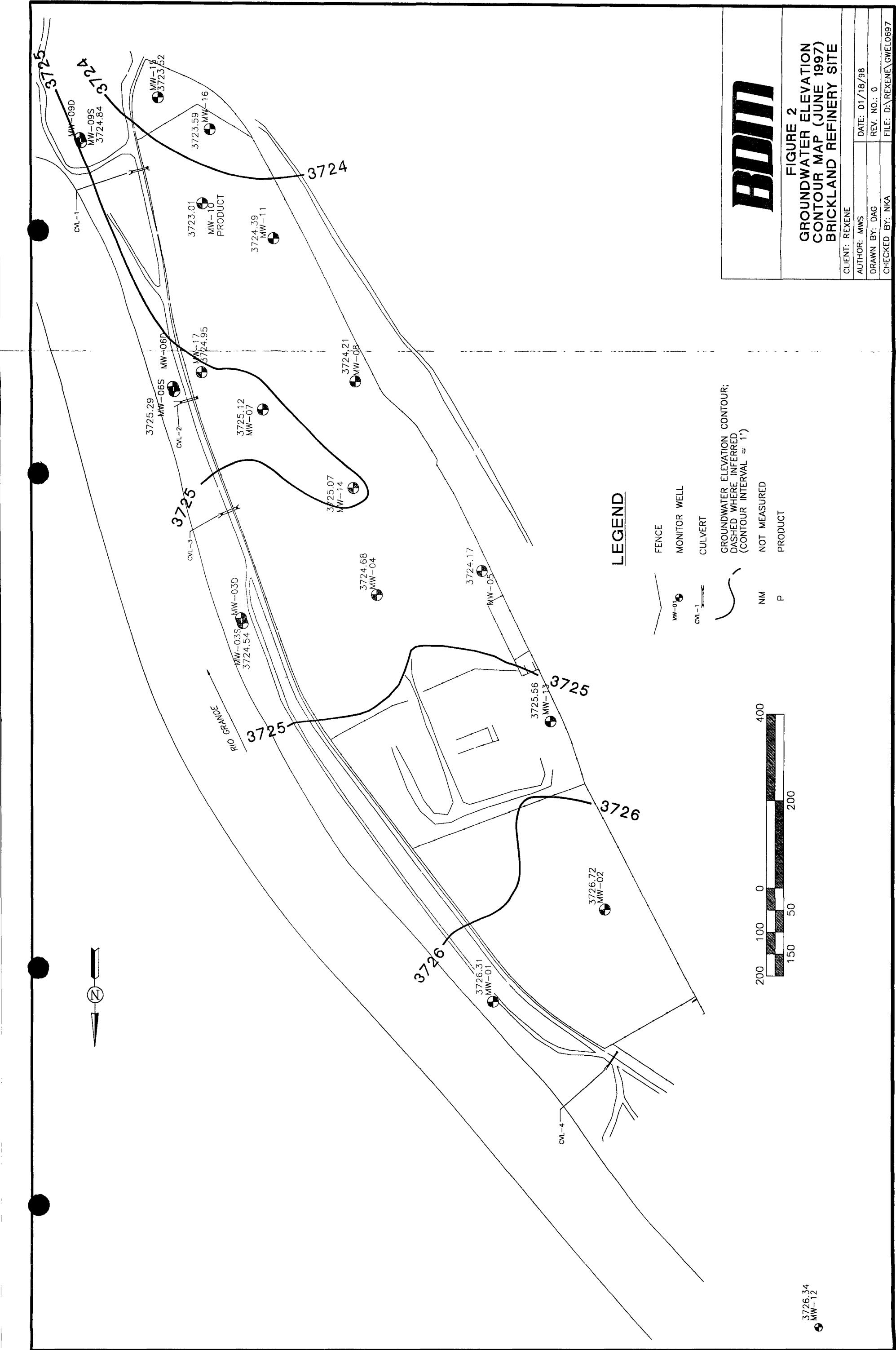


Figure 1 (Cont.)
Brickland Refinery
MW-17 Groundwater Elevation Over Time

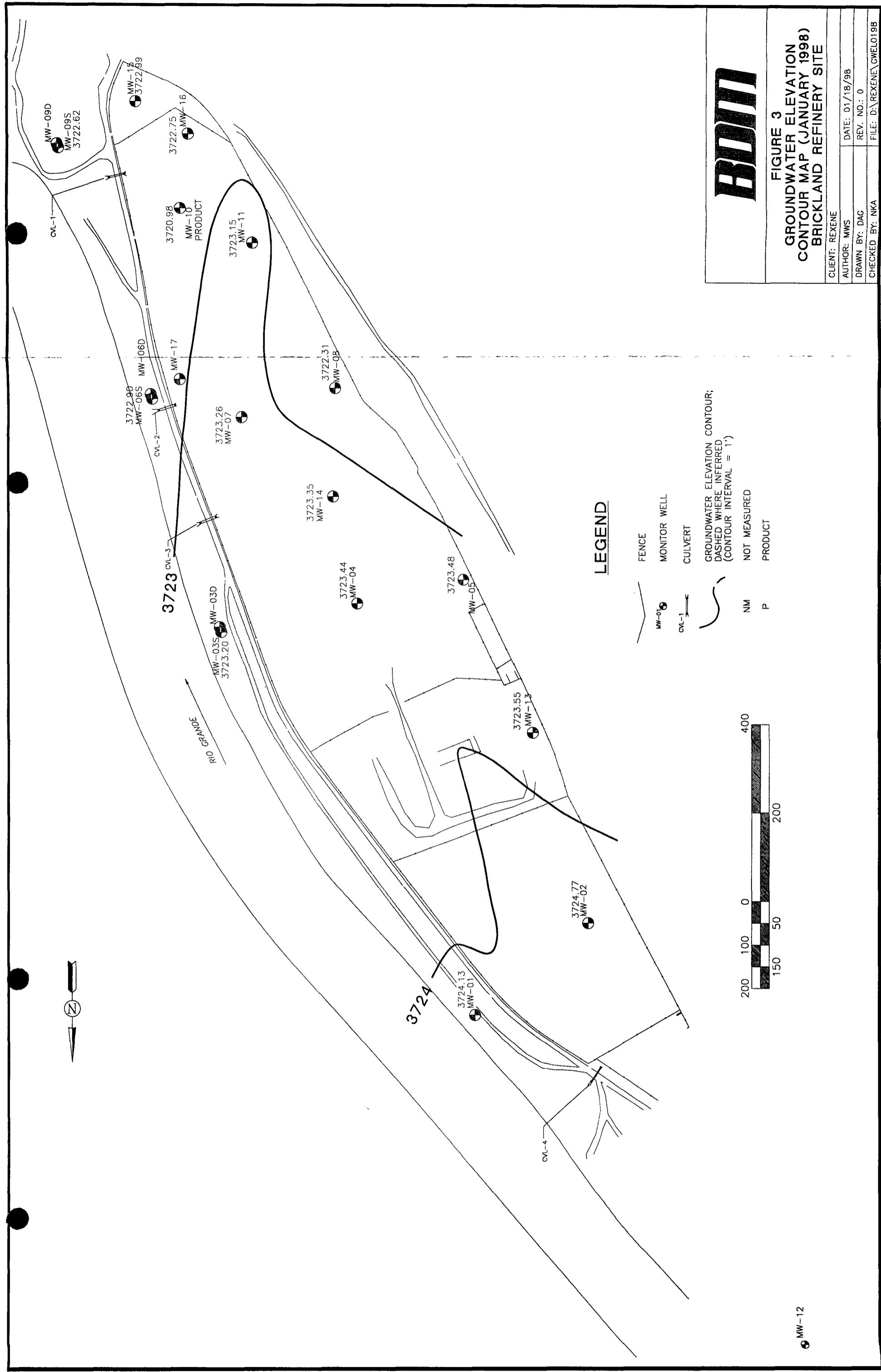




BILL

FIGURE 2
GROUNDWATER ELEVATION
CONTOUR MAP (JUNE 1997)
BRICKLAND REFINERY SITE

CLIENT: REXENE	AUTHOR: MWS	DRAWN BY: DAG	CHECKED BY: NK
----------------	-------------	---------------	----------------

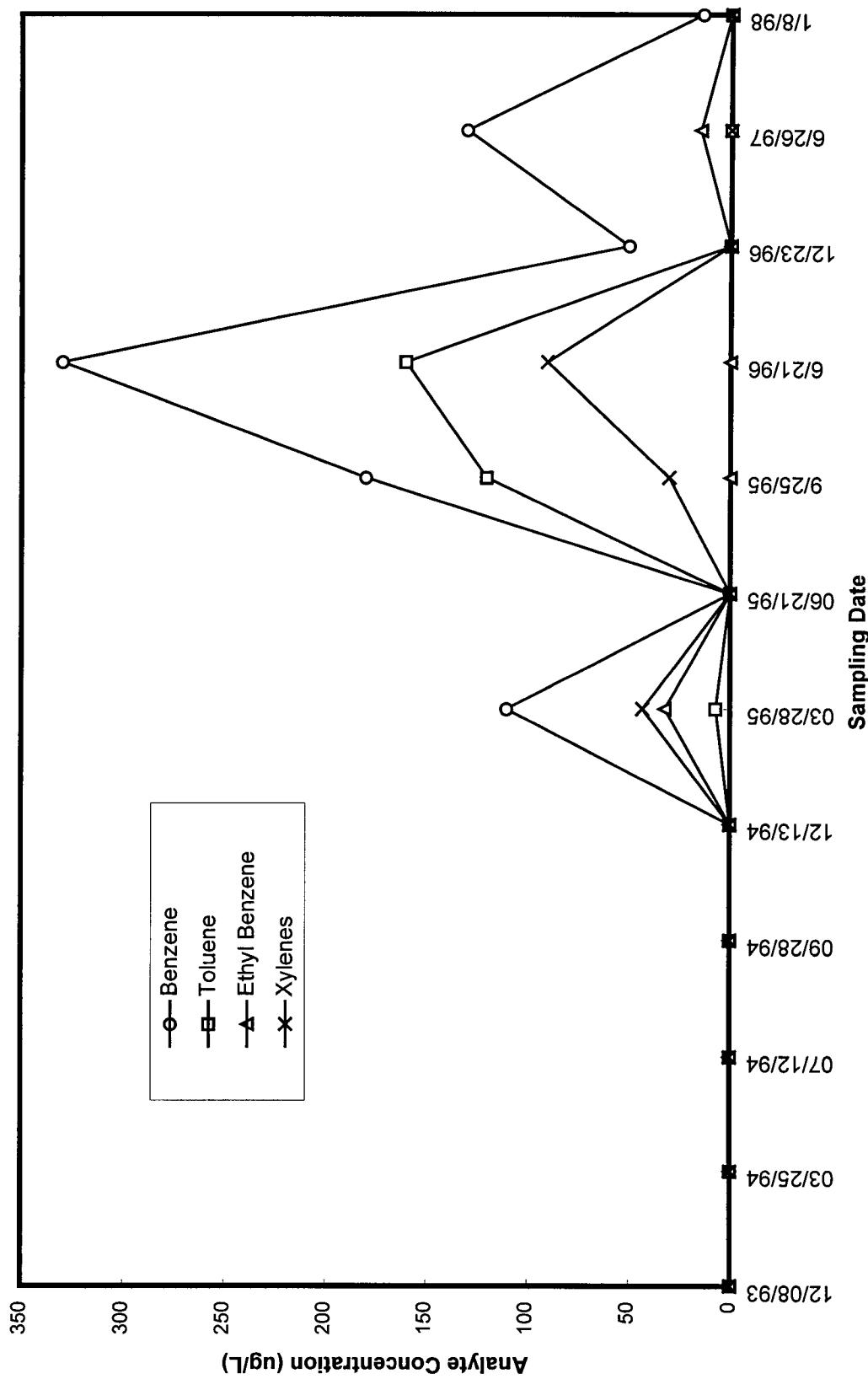


BILL

FIGURE 3
GROUNDWATER ELEVATION
CONTOUR MAP (JANUARY 1998)
BRICKLAND REFINERY SITE

CLIENT: REXENE	AUTHOR: MWS	DATE: 01/18/98
DRAWN BY: DAG		REV. NO.: 0
CHECKED BY: NKA		FILE: D:\REXENE\GWEL0198

Figure 4
Brickland Refinery
MW-6S BTEX Concentrations Over Time





CORE LABORATORIES

ANALYTICAL REPORT

JOB NUMBER: 971757

Prepared For:

BDM International, Inc.
1801 Randolph Street SE
Albuquerque, NM 87106

Attention: Mike Selke

Date: 07/15/97

Linda L. Benkers
Signature

7-15-97

Date

Name: Linda L. Benkers
Title: QA/QC Coordinator

CORE LABORATORIES, INC.
10703 East Bethany Drive
Aurora, CO 80014

PHONE: (303) 751-1780
FAX: (303) 751-1784

BLU

BDM International, Inc.
1801 Randolph Road, SE
MS 10
Albuquerque, NM 87106
(505) 848-5000
FAX: (505) 848-5299

12263

Chain of Custody

Date 6-26-97 Page 1 of 1

Analysis Request		Project Information		Sample Receipt		1. Relinquished By		2. Relinquished By		3.	
Lab Name	Core Laboratories	Project	Revised	Sample	Receipt	Relinquished By	Signature	Relinquished By	Signature	Relinquished By	Signature
Address	1503 E. Parkway Dr. Aurora, CO 80014	Project Director	M. S. / 162	Total No. of Containers	27	Designee	<u>DeeDee Salisbury</u> <th>Total No. of Containers</th> <td>27</td> <th>Designee</th> <td><u>DeeDee Salisbury</u> </td>	Total No. of Containers	27	Designee	<u>DeeDee Salisbury</u>
Telephone	800-972-2673	Charge Code No.	P/2345/1031	Chain of Custody Seals	✓	Signature	<u>6-26-97</u> <th>Chain of Custody Seals</th> <td>✓</td> <th>Signature</th> <td><u>6-26-97</u> </td>	Chain of Custody Seals	✓	Signature	<u>6-26-97</u>
Samplers (SIGNATURES)	D. Bergeron	Shipping ID. No.	3519924730	Rec'd Good Condition/Cold	✓	Date	<u>6-26-97</u> <th>Conforms to Record</th> <td>✓</td> <th>Date</th> <td><u>6-26-97</u> </td>	Conforms to Record	✓	Date	<u>6-26-97</u>
Sample Number	9706261735	Via:	Fed-Ex	Lab No.	971757	Company		Received By		Company	
Matrix	H ₂ O	Special Instructions/Comments:	Temp 4.2° C	Signature		Printed Name		Signature	<th>Printed Name</th> <td> </td>	Printed Name	
Location	MW-3D	Received By	National TAT, any questions please contact Mike Salter at 505-848-5359	Printed Name		Company		Signature	<th>Printed Name</th> <td> </td>	Printed Name	
1	9706261800	H ₂ O	MW-3M	✓							
2	9706261930	H ₂ O	MW-6D	✓							
3	9706261940	H ₂ O	Field Blank	✓							
4	9706262015	H ₂ O	After 65 Russell	✓							
5	9706262030	H ₂ O	MW-6S	✓							
6	9706262040	H ₂ O	Trip Blank	✓							
7											

Distribution: White, Canary-Laboratory • Pink, BDM



CORE LABORATORIES

SAMPLE DELIVERY GROUP NARRATIVE

July 15, 1997

Customer: BDM International, Inc.

Project: REXENE

Core Laboratories Project Number: 971757

Method 8020 BTEX Analysis:

The ending CCV analyzed with sample 971757-7 was not acquired due to an autosampler malfunction. The preceding quality control was within acceptance criteria. Another VOA vial was not available for reanalysis.

A handwritten signature in black ink, appearing to read "Linda L. Benkers".

Linda L. Benkers
QA/QC Coordinator

A handwritten signature in black ink, appearing to read "Kathy L. Klausmeier".

Kathy L. Klausmeier
Laboratory Supervisor



CORE LABORATORIES

SAMPLE INFORMATION

Date: 07/15/97

Job Number.: 971757
Customer ..: BDM International, Inc.
Attn.....: Mike Selke

Project Number.....: 95000161
Customer Project ID....: REXENE
Project Description....: BDM Rexene Quarterly Waters

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
971757-1	9706261735	Water	06/26/97	17:35	07/01/97	09:35
971757-2	9706261800	Water	06/26/97	18:00	07/01/97	09:35
971757-3	9706261930	Water	06/26/97	19:30	07/01/97	09:35
971757-4	9706261940	Water	06/26/97	19:40	07/01/97	09:35
971757-5	9706262015	Water	06/26/97	20:15	07/01/97	09:35
971757-6	9706262030	Water	06/26/97	20:30	07/01/97	09:35
971757-7	9706262040	Water	06/26/97	20:40	07/01/97	09:35



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261735
Date Sampled.....: 06/26/97
Time Sampled.....: 17:35
Sample Matrix.....: Water

Laboratory Sample ID: 971757-1
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Arsenic (As), Diss.	0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/09/97	gag
EPA 200.7	Cadmium (Cd), Diss.	0.0019	0.0005	mg/L	07/09/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Copper (Cu), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.02	0.02	mg/L	07/09/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	veb
EPA 200.7	Nickel (Ni), Diss.	0.007	0.005	mg/L	07/09/97	gag
EPA 200.7	Selenium (Se), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Zinc (Zn), Diss.	<0.005	0.005	mg/L	07/09/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261735

Laboratory Sample ID: 971757-1

Date Sampled.....: 06/26/97

Date Received.....: 07/01/97

Time Sampled.....: 17:35

Time Received.....: 09:35

Sample Matrix.....: Water

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261800
Date Sampled.....: 06/26/97
Time Sampled.....: 18:00
Sample Matrix.....: Water

Laboratory Sample ID: 971757-2
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Arsenic (As), Diss.	0.02	0.01	mg/L	07/09/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/09/97	gag
EPA 200.7	Cadmium (Cd), Diss.	0.0024	0.0005	mg/L	07/09/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Copper (Cu), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.03	0.03	mg/L	07/09/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	veb
EPA 200.7	Nickel (Ni), Diss.	0.016	0.005	mg/L	07/09/97	gag
EPA 200.7	Selenium (Se), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Silver (Ag), Diss.	0.009	0.005	mg/L	07/09/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Zinc (Zn), Diss.	0.006	0.005	mg/L	07/09/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenz(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261800
Date Sampled.....: 06/26/97
Time Sampled.....: 18:00
Sample Matrix.....: Water

Laboratory Sample ID: 971757-2
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261930
Date Sampled.....: 06/26/97
Time Sampled.....: 19:30
Sample Matrix.....: Water

Laboratory Sample ID: 971757-3
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Arsenic (As), Diss.	0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/09/97	gag
EPA 200.7	Cadmium (Cd), Diss.	0.0020	0.0005	mg/L	07/09/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Copper (Cu), Diss.	0.006	0.005	mg/L	07/09/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.02	0.02	mg/L	07/09/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	veb
EPA 200.7	Nickel (Ni), Diss.	0.025	0.005	mg/L	07/09/97	gag
EPA 200.7	Selenium (Se), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/09/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/09/97	gag
EPA 200.7	Zinc (Zn), Diss.	<0.005	0.005	mg/L	07/09/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj

**CORE LABORATORIES**

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261930
Date Sampled.....: 06/26/97
Time Sampled.....: 19:30
Sample Matrix.....: Water

Laboratory Sample ID: 971757-3
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261940
Date Sampled.....: 06/26/97
Time Sampled.....: 19:40
Sample Matrix.....: Water

Laboratory Sample ID: 971757-4
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706262015
Date Sampled.....: 06/26/97
Time Sampled.....: 20:15
Sample Matrix.....: Water

Laboratory Sample ID: 971757-5
Date Received.....: 07/01/97
Time Received.....: 09:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7

Batch.....: 23517

Analyst...: gag

Method Description.: Metals Analysis(ICAP), Trace

Reporting Limit...: 0.01

Parameter.....: Antimony (Sb)

Units.....: mg/L

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05048		2.00		102.5	% REC	07/09/97 1118
ICB		970212Z	0.00135						07/09/97 1151
ISB		970708X	0.97731		1.000		97.7	% REC	07/09/97 1259
ISB		970701WW	1.00890		1.000		100.9	% REC	07/09/97 1312
CCV		970304Y	2.51217		2.5		100.5	% REC	07/09/97 1550
CCB		970212Z	0.00261						07/09/97 1606
MD	970111-24		0.00490			0.00329	0.00161	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.00004		1.000	0.00329	99.7	% REC	07/09/97 1654
CCV		970304Y	2.51633		2.5		100.7	% REC	07/09/97 1737
CCB		970212Z	0.00000						07/09/97 1746
CCV		970304Y	2.44038		2.5		97.6	% REC	07/09/97 1904
CCB		970212Z	0.00110						07/09/97 1913
CCV		970304Y	2.38103		2.5		95.2	% REC	07/09/97 2016
CCB		970212Z	0.00056						07/09/97 2050
ISB		970708X	0.97297		1.000		97.3	% REC	07/09/97 2207
ISB		970701WW	1.05376		1.000		105.4	% REC	07/09/97 2218
CCV		970304Y	2.52173		2.5		100.9	% REC	07/09/97 2229
CCB		970212Z	-0.00335						07/09/97 2244

Test Method.....: EPA 200.7

Batch.....: 23517

Analyst...: gag

Method Description.: Metals Analysis(ICAP), Trace

Reporting Limit...: 0.01

Parameter.....: Arsenic (As)

Units.....: mg/L

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.04588		2.00		102.3	% REC	07/09/97 1118
ICB		970212Z	0.00092						07/09/97 1151
ISB		970708X	0.94516		1.000		94.5	% REC	07/09/97 1259
ISB		970701WW	0.97770		1.000		97.8	% REC	07/09/97 1312
CCV		970304Y	2.49957		2.5		100.0	% REC	07/09/97 1550
CCB		970212Z	0.00061						07/09/97 1606
MD	970111-24		0.00367			0.00307	0.00060	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.05944		1.000	0.00307	105.6	% REC	07/09/97 1654
CCV		970304Y	2.51026		2.5		100.4	% REC	07/09/97 1737
CCB		970212Z	0.00016						07/09/97 1746
CCV		970304Y	2.45372		2.5		98.1	% REC	07/09/97 1904
CCB		970212Z	0.00292						07/09/97 1913
CCV		970304Y	2.38043		2.5		95.2	% REC	07/09/97 2016
CCB		970212Z	0.00076						07/09/97 2050
ISB		970708X	0.92909		1.000		92.9	% REC	07/09/97 2207
ISB		970701WW	0.97735		1.000		97.7	% REC	07/09/97 2218
CCV		970304Y	2.52799		2.5		101.1	% REC	07/09/97 2229
CCB		970212Z	0.00003						07/09/97 2244

Test Method.....: EPA 200.7

Batch.....: 23517

Analyst...: gag

Method Description.: Metals Analysis(ICAP), Trace

Reporting Limit...: 0.001

Parameter.....: Beryllium (Be)

Units.....: mg/L

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.09722		2.00		104.9	% REC	07/09/97 1118



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Beryllium (Be)

Batch.....: 23517
 Reporting Limit...: 0.001
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICB		970212Z	0.00014						
ISB		970708X	0.47010		0.5000		94.0	% REC	07/09/97 1259
ISB		970701WW	0.97415		1.000		97.4	% REC	07/09/97 1312
CCV		970304Y	2.58775		2.5		103.5	% REC	07/09/97 1550
CCB		970212Z	0.00003						07/09/97 1606
MD	970111-24		0.00020			0.00022	0.00002	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.07739		1.000	0.00022	107.7	% REC	07/09/97 1654
CCV		970304Y	2.54822		2.5		101.9	% REC	07/09/97 1737
CCB		970212Z	-0.00000						07/09/97 1746
CCV		970304Y	2.48160		2.5		99.3	% REC	07/09/97 1904
CCB		970212Z	0.00008						07/09/97 1913
CCV		970304Y	2.39777		2.5		95.9	% REC	07/09/97 2016
CCB		970212Z	0.00011						07/09/97 2050
ISB		970708X	0.47240		0.5000		94.5	% REC	07/09/97 2207
ISB		970701WW	0.98421		1.000		98.4	% REC	07/09/97 2218
CCV		970304Y	2.59074		2.5		103.6	% REC	07/09/97 2229
CCB		970212Z	-0.00003						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Cadmium (Cd)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.06574		2.00		103.3	% REC	07/09/97 1118
ICB		970212Z	-0.00015						07/09/97 1151
ISB		970708X	0.89251		1.000		89.3	% REC	07/09/97 1259
ISB		970701WW	0.97055		1.000		97.1	% REC	07/09/97 1312
CCV		970304Y	1.02109		1.0		102.1	% REC	07/09/97 1550
CCB		970212Z	-0.00018						07/09/97 1606
MD	970111-24		0.00047			0.00033	0.00014	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.11476		1.000	0.00033	111.4	% REC	07/09/97 1654
CCV		970304Y	1.02432		1.0		102.4	% REC	07/09/97 1737
CCB		970212Z	-0.00016						07/09/97 1746
CCV		970304Y	1.02605		1.0		102.6	% REC	07/09/97 1904
CCB		970212Z	0.00014		1.0		102.6	% REC	07/09/97 1913
CCV		970304Y	1.02404		1.0		102.4	% REC	07/09/97 2016
CCB		970212Z	0.00003						07/09/97 2050
ISB		970708X	0.89707		1.000		89.7	% REC	07/09/97 2207
ISB		970701WW	0.98616		1.000		98.6	% REC	07/09/97 2218
CCV		970304Y	1.04189		1.0		104.2	% REC	07/09/97 2229
CCB		970212Z	0.00009						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Chromium (Cr)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05574		2.00		102.8	% REC	07/09/97 1118
ICB		970212Z	-0.00015						07/09/97 1151



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Chromium (Cr)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ISB		970708X	0.46772		0.5000		93.5	% REC	07/09/97 1259
ISA		970618W	48.79621		50.000000		97.6	% REC	07/09/97 1306
ISB		970701WW	45.44014		51.00		89.1	% REC	07/09/97 1312
CCV		970304Y	2.51937		2.5		100.8	% REC	07/09/97 1550
CCB		970212Z	0.00061						07/09/97 1606
MD	970111-24		0.00108			0.00060	0.00048	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.04514		1.000	0.00060	104.5	% REC	07/09/97 1654
CCV		970304Y	2.54166		2.5		101.7	% REC	07/09/97 1737
CCB		970212Z	0.00051						07/09/97 1746
CCV		970304Y	2.51779		2.5		100.7	% REC	07/09/97 1904
CCB		970212Z	-0.00059						07/09/97 1913
CCV		970304Y	2.44459		2.5		97.8	% REC	07/09/97 2016
CCB		970212Z	-0.00090						07/09/97 2050
ISB		970708X	0.46375		0.5000		92.8	% REC	07/09/97 2207
ISA		970618W	48.97531		50.000000		98.0	% REC	07/09/97 2211
ISB		970701WW	45.76190		51.00		89.7	% REC	07/09/97 2218
CCV		970304Y	2.54032		2.5		101.6	% REC	07/09/97 2229
CCB		970212Z	0.00016						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Copper (Cu)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	1.96541		2.00		98.3	% REC	07/09/97 1118
ICB		970212Z	-0.00008						07/09/97 1151
ISB		970708X	0.49360		0.5000		98.7	% REC	07/09/97 1259
ISA		970618W	48.80637		50.000000		97.6	% REC	07/09/97 1306
ISB		970701WW	45.63150		51.00		89.5	% REC	07/09/97 1312
CCV		970304Y	2.54867		2.5		101.9	% REC	07/09/97 1550
CCB		970212Z	0.00042						07/09/97 1606
MD	970111-24		0.00245			0.00255	0.00010	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	0.89330		1.000	0.00255	89.1	% REC	07/09/97 1654
CCV		970304Y	2.60008		2.5		104.0	% REC	07/09/97 1737
CCB		970212Z	0.00046						07/09/97 1746
CCV		970304Y	2.52928		2.5		101.2	% REC	07/09/97 1904
CCB		970212Z	-0.00019						07/09/97 1913
CCV		970304Y	2.46286		2.5		98.5	% REC	07/09/97 2016
CCB		970212Z	-0.00091						07/09/97 2050
ISB		970708X	0.49097		0.5000		98.2	% REC	07/09/97 2207
ISA		970618W	48.80362		50.000000		97.6	% REC	07/09/97 2211
ISB		970701WW	46.29728		51.00		90.8	% REC	07/09/97 2218
CCV		970304Y	2.49310		2.5		99.7	% REC	07/09/97 2229
CCB		970212Z	0.00046						07/09/97 2244



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Lead (Pb)

Batch.....: 23517
Reporting Limit...: 0.003
Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05307		2.00		102.7	% REC	07/09/97 1118
ICB		970212Z	-0.00147						07/09/97 1151
ISB		970708X	0.91866		1.000		91.9	% REC	07/09/97 1259
ISB		970701WW	0.98235		1.000		98.2	% REC	07/09/97 1312
CCV		970304Y	1.01396		1.0		101.4	% REC	07/09/97 1550
CCB		970212Z	-0.00026						07/09/97 1606
MD 970111-24			-0.00101			-0.00052	0.00049	ABS Diff.	07/09/97 1649
PDS 970111-24		970630Z	1.10998		1.000	-0.00052	111.0	% REC	07/09/97 1654
CCV		970304Y	1.01873		1.0		101.9	% REC	07/09/97 1737
CCB		970212Z	-0.00015						07/09/97 1746
CCV		970304Y	1.03575		1.0		103.6	% REC	07/09/97 1904
CCB		970212Z	0.00073						07/09/97 1913
CCV		970304Y	0.99279		1.0		99.3	% REC	07/09/97 2016
CCB		970212Z	-0.00213						07/09/97 2050
ISB		970708X	0.91409		1.000		91.4	% REC	07/09/97 2207
ISB		970701WW	0.98491		1.000		98.5	% REC	07/09/97 2218
CCV		970304Y	1.02673		1.0		102.7	% REC	07/09/97 2229
CCB		970212Z	0.00000						07/09/97 2244

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Nickel (Ni)

Batch.....: 23517
Reporting Limit...: 0.005
Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.04946		2.00		102.5	% REC	07/09/97 1118
ICB		970212Z	0.00014						07/09/97 1151
ISB		970708X	0.86649		1.000		86.6	% REC	07/09/97 1259
ISA		970618W	48.39080		50.000000		96.8	% REC	07/09/97 1306
ISB		970701WW	45.49726		51.00		89.2	% REC	07/09/97 1312
CCV		970304Y	2.56997		2.5		102.8	% REC	07/09/97 1550
CCB		970212Z	-0.00068						07/09/97 1606
MD 970111-24			0.00695			0.00521	0.00174	ABS Diff.	07/09/97 1649
PDS 970111-24		970630Z	1.02910		1.000	0.00521	102.4	% REC	07/09/97 1654
CCV		970304Y	2.57610		2.5		103.0	% REC	07/09/97 1737
CCB		970212Z	0.00022						07/09/97 1746
CCV		970304Y	2.58992		2.5		103.6	% REC	07/09/97 1904
CCB		970212Z	-0.00005						07/09/97 1913
CCV		970304Y	2.53794		2.5		101.5	% REC	07/09/97 2016
CCB		970212Z	0.00007						07/09/97 2050
ISB		970708X	0.87994		1.000		88.0	% REC	07/09/97 2207
ISA		970618W	49.63230		50.000000		99.3	% REC	07/09/97 2211
ISB		970701WW	46.77140		51.00		91.7	% REC	07/09/97 2218
CCV		970304Y	2.54123		2.5		101.6	% REC	07/09/97 2229
CCB		970212Z	0.00021						07/09/97 2244



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Beryllium (Be)

Batch.....: 23517
 Reporting Limit...: 0.001
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICB		970212Z	0.00014						07/09/97 1151
ISB		970708X	0.47010		0.5000		94.0	% REC	07/09/97 1259
ISB		970701WW	0.97415		1.000		97.4	% REC	07/09/97 1312
CCV		970304Y	2.58775		2.5		103.5	% REC	07/09/97 1550
CCB		970212Z	0.00003						07/09/97 1606
MD	970111-24		0.00020			0.00022	0.00002	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.07739		1.000	0.00022	107.7	% REC	07/09/97 1654
CCV		970304Y	2.54822		2.5		101.9	% REC	07/09/97 1737
CCB		970212Z	-0.00000						07/09/97 1746
CCV		970304Y	2.48160		2.5		99.3	% REC	07/09/97 1904
CCB		970212Z	0.00008						07/09/97 1913
CCV		970304Y	2.39777		2.5		95.9	% REC	07/09/97 2016
CCB		970212Z	0.00011						07/09/97 2050
ISB		970708X	0.47240		0.5000		94.5	% REC	07/09/97 2207
ISB		970701WW	0.98421		1.000		98.4	% REC	07/09/97 2218
CCV		970304Y	2.59074		2.5		103.6	% REC	07/09/97 2229
CCB		970212Z	-0.00003						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Cadmium (Cd)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.06574		2.00		103.3	% REC	07/09/97 1118
ICB		970212Z	-0.00015						07/09/97 1151
ISB		970708X	0.89251		1.000		89.3	% REC	07/09/97 1259
ISB		970701WW	0.97055		1.000		97.1	% REC	07/09/97 1312
CCV		970304Y	1.02109		1.0		102.1	% REC	07/09/97 1550
CCB		970212Z	-0.00018						07/09/97 1606
MD	970111-24		0.00047			0.00033	0.00014	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.11476		1.000	0.00033	111.4	% REC	07/09/97 1654
CCV		970304Y	1.02432		1.0		102.4	% REC	07/09/97 1737
CCB		970212Z	-0.00016						07/09/97 1746
CCV		970304Y	1.02605		1.0		102.6	% REC	07/09/97 1904
CCB		970212Z	0.00014						07/09/97 1913
CCV		970304Y	1.02404		1.0		102.4	% REC	07/09/97 2016
CCB		970212Z	0.00003						07/09/97 2050
ISB		970708X	0.89707		1.000		89.7	% REC	07/09/97 2207
ISB		970701WW	0.98616		1.000		98.6	% REC	07/09/97 2218
CCV		970304Y	1.04189		1.0		104.2	% REC	07/09/97 2229
CCB		970212Z	0.00009						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Chromium (Cr)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05574		2.00		102.8	% REC	07/09/97 1118
ICB		970212Z	-0.00015						07/09/97 1151



CORE LABORATORIES

QUALITY CONTROL RESULTS				
Job Number: 971757				Date: 07/15/97
CUSTOMER: BDM International, Inc.		PROJECT: REXENE		ATTN: Mike Selke

Test Method.....: EPA 200.7	Batch.....: 23517	Analyst....: gag
Method Description.: Metals Analysis(ICAP), Trace	Reporting Limit...: 0.005	
Parameter.....: Chromium (Cr)	Units.....: mg/L	

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ISB	970708X		0.46772		0.5000		93.5	% REC	07/09/97 1259
ISA	970618W		48.79621		50.000000		97.6	% REC	07/09/97 1306
ISB	970701WW		45.44014		51.00		89.1	% REC	07/09/97 1312
CCV	970304Y		2.51937		2.5		100.8	% REC	07/09/97 1550
CCB	970212Z		0.00061						07/09/97 1606
MD	970111-24		0.00108			0.00060	0.00048	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.04514		1.000	0.00060	104.5	% REC	07/09/97 1654
CCV	970304Y		2.54166		2.5		101.7	% REC	07/09/97 1737
CCB	970212Z		0.00051						07/09/97 1746
CCV	970304Y		2.51779		2.5		100.7	% REC	07/09/97 1904
CCB	970212Z		-0.00059						07/09/97 1913
CCV	970304Y		2.44459		2.5		97.8	% REC	07/09/97 2016
CCB	970212Z		-0.00090						07/09/97 2050
ISB	970708X		0.46375		0.5000		92.8	% REC	07/09/97 2207
ISA	970618W		48.97531		50.000000		98.0	% REC	07/09/97 2211
ISB	970701WW		45.76190		51.00		89.7	% REC	07/09/97 2218
CCV	970304Y		2.54032		2.5		101.6	% REC	07/09/97 2229
CCB	970212Z		0.00016						07/09/97 2244

Test Method.....: EPA 200.7	Batch.....: 23517	Analyst....: gag
Method Description.: Metals Analysis(ICAP), Trace	Reporting Limit...: 0.005	
Parameter.....: Copper (Cu)	Units.....: mg/L	

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV	970624W		1.96541		2.00		98.3	% REC	07/09/97 1118
ICB	970212Z		-0.00008						07/09/97 1151
ISB	970708X		0.49360		0.5000		98.7	% REC	07/09/97 1259
ISA	970618W		48.80637		50.000000		97.6	% REC	07/09/97 1306
ISB	970701WW		45.63150		51.00		89.5	% REC	07/09/97 1312
CCV	970304Y		2.54867		2.5		101.9	% REC	07/09/97 1550
CCB	970212Z		0.00042						07/09/97 1606
MD	970111-24		0.00245			0.00255	0.00010	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	0.89330		1.000	0.00255	89.1	% REC	07/09/97 1654
CCV	970304Y		2.60008		2.5		104.0	% REC	07/09/97 1737
CCB	970212Z		0.00046						07/09/97 1746
CCV	970304Y		2.52928		2.5		101.2	% REC	07/09/97 1904
CCB	970212Z		-0.00019						07/09/97 1913
CCV	970304Y		2.46286		2.5		98.5	% REC	07/09/97 2016
CCB	970212Z		-0.00091						07/09/97 2050
ISB	970708X		0.49097		0.5000		98.2	% REC	07/09/97 2207
ISA	970618W		48.80362		50.000000		97.6	% REC	07/09/97 2211
ISB	970701WW		46.29728		51.00		90.8	% REC	07/09/97 2218
CCV	970304Y		2.49310		2.5		99.7	% REC	07/09/97 2229
CCB	970212Z		0.00046						07/09/97 2244



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Lead (Pb)

Batch.....: 23517
Reporting Limit...: 0.003
Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05307		2.00		102.7	% REC	07/09/97 1118
ICB		970212Z	-0.00147						07/09/97 1151
ISB		970708X	0.91866		1.000		91.9	% REC	07/09/97 1259
ISB		970701WW	0.98235		1.000		98.2	% REC	07/09/97 1312
CCV		970304Y	1.01396		1.0		101.4	% REC	07/09/97 1550
CCB		970212Z	-0.00026						07/09/97 1606
MD	970111-24		-0.00101			-0.00052	0.00049	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.10998		1.000	-0.00052	111.0	% REC	07/09/97 1654
CCV		970304Y	1.01873		1.0		101.9	% REC	07/09/97 1737
CCB		970212Z	-0.00015						07/09/97 1746
CCV		970304Y	1.03575		1.0		103.6	% REC	07/09/97 1904
CCB		970212Z	0.00073						07/09/97 1913
CCV		970304Y	0.99279		1.0		99.3	% REC	07/09/97 2016
CCB		970212Z	-0.00213						07/09/97 2050
ISB		970708X	0.91409		1.000		91.4	% REC	07/09/97 2207
ISB		970701WW	0.98491		1.000		98.5	% REC	07/09/97 2218
CCV		970304Y	1.02673		1.0		102.7	% REC	07/09/97 2229
CCB		970212Z	0.00000						07/09/97 2244

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Nickel (Ni)

Batch.....: 23517
Reporting Limit...: 0.005
Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.04946		2.00		102.5	% REC	07/09/97 1118
ICB		970212Z	0.00014						07/09/97 1151
ISB		970708X	0.86649		1.000		86.6	% REC	07/09/97 1259
ISA		970618W	48.39080		50.000000		96.8	% REC	07/09/97 1306
ISB		970701WW	45.49726		51.00		89.2	% REC	07/09/97 1312
CCV		970304Y	2.56997		2.5		102.8	% REC	07/09/97 1550
CCB		970212Z	-0.00068						07/09/97 1606
MD	970111-24		0.00695			0.00521	0.00174	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.02910		1.000	0.00521	102.4	% REC	07/09/97 1654
CCV		970304Y	2.57610		2.5		103.0	% REC	07/09/97 1737
CCB		970212Z	0.00022						07/09/97 1746
CCV		970304Y	2.58992		2.5		103.6	% REC	07/09/97 1904
CCB		970212Z	-0.00005						07/09/97 1913
CCV		970304Y	2.53794		2.5		101.5	% REC	07/09/97 2016
CCB		970212Z	0.00007						07/09/97 2050
ISB		970708X	0.87994		1.000		88.0	% REC	07/09/97 2207
ISA		970618W	49.63230		50.000000		99.3	% REC	07/09/97 2211
ISB		970701WW	46.77140		51.00		91.7	% REC	07/09/97 2218
CCV		970304Y	2.54123		2.5		101.6	% REC	07/09/97 2229
CCB		970212Z	0.00021						07/09/97 2244



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Selenium (Se)

Batch.....: 23517
 Reporting Limit...: 0.01
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.05433		2.00		102.7	% REC	07/09/97 1118
ICB		970212Z	0.00214						07/09/97 1151
ISB		970708X	0.93367		1.000		93.4	% REC	07/09/97 1259
ISB		970701WW	0.96614		1.000		96.6	% REC	07/09/97 1312
CCV		970304Y	2.48200		2.5		99.3	% REC	07/09/97 1550
CCB		970212Z	-0.00050						07/09/97 1606
MD 970111-24			-0.00137			-0.00454	0.00317	ABS Diff.	07/09/97 1649
PDS 970111-24		970630Z	1.07428		1.000	-0.00454	107.9	% REC	07/09/97 1654
CCV		970304Y	2.49315		2.5		99.7	% REC	07/09/97 1737
CCB		970212Z	-0.00298						07/09/97 1746
CCV		970304Y	2.45390		2.5		98.2	% REC	07/09/97 1904
CCB		970212Z	-0.00507						07/09/97 1913
CCV		970304Y	2.52227		2.5		100.9	% REC	07/09/97 2016
CCB		970212Z	-0.00302						07/09/97 2050
ISB		970708X	0.93831		1.000		93.8	% REC	07/09/97 2207
ISB		970701WW	0.98639		1.000		98.6	% REC	07/09/97 2218
CCV		970304Y	2.50704		2.5		100.3	% REC	07/09/97 2229
CCB		970212Z	0.00002						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Silver (Ag)

Batch.....: 23517
 Reporting Limit...: 0.005
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970325Y	2.03041		2.00		101.5	% REC	07/09/97 1128
ICB		970212Z	-0.00226						07/09/97 1151
ISB		970708X	0.93867		1.000		93.9	% REC	07/09/97 1259
ISB		970701WW	0.94933		1.000		94.9	% REC	07/09/97 1312
CCV		970702D	2.52999		2.500		101.2	% REC	07/09/97 1520
CCB		970212Z	0.00161						07/09/97 1606
MD 970111-24			-0.00027			-0.00223	0.00196	ABS Diff.	07/09/97 1649
PDS 970111-24		970630Z	0.98059		1.000	-0.00223	98.3	% REC	07/09/97 1654
CCV		970702D	2.58974		2.500		103.6	% REC	07/09/97 1733
CCB		970212Z	0.00089						07/09/97 1746
CCV		970702D	2.61051		2.500		104.4	% REC	07/09/97 1847
CCB		970212Z	-0.00258						07/09/97 1913
CCV		970702D	2.48358		2.500		99.3	% REC	07/09/97 2001
CCB		970212Z	-0.00479						07/09/97 2050
ISB		970708X	0.90828		1.000		90.8	% REC	07/09/97 2207
ISB		970701WW	0.93042		1.000		93.0	% REC	07/09/97 2218
CCV		970702D	2.43040		2.500		97.2	% REC	07/09/97 2225
CCB		970212Z	0.00070						07/09/97 2244

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Thallium (Tl)

Batch.....: 23517
 Reporting Limit...: 0.01
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	1.99637		2.00		99.8	% REC	07/09/97 1118



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7

Method Description.: Metals Analysis(ICAP), Trace

Parameter.....: Thallium (Tl)

Batch.....: 23517

Reporting Limit...: 0.01

Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICB		970212Z	0.00042						07/09/97 1151
ISB		970708X	0.98030		1.000		98.0	% REC	07/09/97 1259
ISA		970618W	48.69480		50.000000		97.4	% REC	07/09/97 1306
ISB		970701WW	47.17610		51.00		92.5	% REC	07/09/97 1312
CCV		970304Y	0.99343		1.0		99.3	% REC	07/09/97 1550
CCB		970212Z	-0.00045						07/09/97 1606
MD	970111-24		0.00111						07/09/97 1649
PDS	970111-24	970630Z	1.05987		1.000	-0.00014	0.00125	ABS Diff.	07/09/97 1654
CCV		970304Y	1.00960		1.0	-0.00014	106.0	% REC	07/09/97 1737
CCB		970212Z	-0.00098				101.0	% REC	07/09/97 1746
CCV		970304Y	1.02440		1.0		102.4	% REC	07/09/97 1904
CCB		970212Z	-0.00171						07/09/97 1913
CCV		970304Y	0.98510		1.0		98.5	% REC	07/09/97 2016
CCB		970212Z	-0.00013						07/09/97 2050
ISB		970708X	0.91078		1.000		91.1	% REC	07/09/97 2207
ISA		970618W	48.67189		50.000000		97.3	% REC	07/09/97 2211
ISB		970701WW	47.33219		51.00		92.8	% REC	07/09/97 2218
CCV		970304Y	0.99835		1.0		99.8	% REC	07/09/97 2229
CCB		970212Z	-0.00020						07/09/97 2244

Test Method.....: EPA 200.7

Method Description.: Metals Analysis(ICAP), Trace

Parameter.....: Zinc (Zn)

Batch.....: 23517

Reporting Limit...: 0.005

Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970624W	2.08476		2.00		104.2	% REC	07/09/97 1118
ICB		970212Z	0.00023						07/09/97 1151
ISB		970708X	0.97258		1.000		97.3	% REC	07/09/97 1259
ISB		970701WW	1.03081		1.000		103.1	% REC	07/09/97 1312
CCV		970304Y	2.58279		2.5		103.3	% REC	07/09/97 1550
CCB		970212Z	0.00005						07/09/97 1606
MD	970111-24		0.00361			0.00297	0.00064	ABS Diff.	07/09/97 1649
PDS	970111-24	970630Z	1.05658		1.000	0.00297	105.4	% REC	07/09/97 1654
CCV		970304Y	2.56888		2.5		102.8	% REC	07/09/97 1737
CCB		970212Z	0.00004						07/09/97 1746
CCV		970304Y	2.51759		2.5		100.7	% REC	07/09/97 1904
CCB		970212Z	0.00047						07/09/97 1913
CCV		970304Y	2.42304		2.5		96.9	% REC	07/09/97 2016
CCB		970212Z	0.00014						07/09/97 2050
ISB		970708X	0.98170		1.000		98.2	% REC	07/09/97 2207
ISB		970701WW	1.05596		1.000		105.6	% REC	07/09/97 2218
CCV		970304Y	2.57942		2.5		103.2	% REC	07/09/97 2229
CCB		970212Z	0.00008						07/09/97 2244



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 245.2
Method Description.: Mercury (CVAA)
Parameter.....: Mercury (Hg)

Batch.....: 23538
Reporting Limit...: 0.0002
Units.....: mg/L

Analyst...: veb

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	Units	Date/Time
ICV		970701H	0.003603		0.004000		90.1	% REC	07/10/97 1106
ICB		07107	-0.000001						07/10/97 1108
MB		0709	0.000017						07/10/97 1111
SB		970529M	0.004462		0.005000		89.2	% REC	07/10/97 1113
MS	971760-1	970529M	0.004295		0.005000	0.000024	85.4	% REC	07/10/97 1119
MD	971760-1		0.000021			0.000024	0.000000	ABS Diff.	07/10/97 1121
MB		0709	0.000010						07/10/97 1125
SB		970529M	0.004953		0.005000		99.1	% REC	07/10/97 1127
CCV		960930N	0.005211		0.005000		104.2	% REC	07/10/97 1132
CCB		07107	-0.000001						07/10/97 1134
MS	971757-1	970529M	0.004087		0.005000	0.000086	80.0	% REC	07/10/97 1136
MSD	971757-1	970529M	0.004093	0.00408	0.005000	0.000086	80.1	% REC	07/10/97 1138
							0.1	RPD	
MD	971757-6		0.000022			0.000035	0.00001	ABS Diff.	07/10/97 1146
CCV		960930N	0.005214		0.005000		104.3	% REC	07/10/97 1157
CCB		07107	-0.000002						07/10/97 1159
CCV		960930N	0.005057		0.005000		101.2	% REC	07/10/97 1223
CCB		07107	0.000145						07/10/97 1225
SB		970529M	0.004313		0.005000		86.3	% REC	07/10/97 1227
EB		0707	0.000121						07/10/97 1229
ED	971620-1		0.000088			0.000108	0.00001	ABS Diff.	07/10/97 1233
MD	971620-2		0.000059			0.000063	0.00000	ABS Diff.	07/10/97 1239
MB		0709	0.000028						07/10/97 1246
CCV		960930N	0.005156		0.005000		103.1	% REC	07/10/97 1248
CCB		07107	0.000068						07/10/97 1250
SB		970529M	0.004967		0.005000		99.3	% REC	07/10/97 1252
LCS		970353	0.004338		0.005130		84.6	% REC	07/10/97 1254
CCV		960930N	0.005178		0.005000		103.6	% REC	07/10/97 1307
CCB		07107	0.000058						07/10/97 1309
MS	971758-1	970529M	0.004575		0.005000	0.000011	91.3	% REC	07/10/97 1330
CCV		960930N	0.005200		0.005000		104.0	% REC	07/10/97 1345
CCB		07107	0.000129						07/10/97 1347
MSD	971758-1	970529M	0.004600	0.00457	0.005000	0.000011	91.8	% REC	07/10/97 1402
							0.6	RPD	
CCV		960930N	0.005158		0.005000		103.2	% REC	07/10/97 1412
CCB		07107	0.000067						07/10/97 1431
CCV		960930N	0.005202		0.005000		104.1	% REC	07/10/97 1437
CCB		07107	0.000054						07/10/97 1439



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: SW-846 8020
Method Description.: Volatile Organics -AromaticsBatch.....: 23419
Units.....: ug/L

Analyst ...: vdt

MB	Method Blank						07/07/97 1109
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	ND		0.5				
Ethylbenzene	ND		0.5				
Toluene	ND		0.5				
Xylenes (total)	ND		0.5				

SB	Spiked Blank		T970707B				07/07/97 1143
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	22.079		0.5	20.10		109.8	% REC
Ethylbenzene	21.131		0.5	20.08		105.2	% REC
Toluene	21.789		0.5	20.08		108.5	% REC
Xylenes (total)	62.008		0.5	60.26		102.9	% REC

SBD	Spiked Blank Duplicate		T970707B				07/07/97 1218
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	22.187	22.079	0.5	20.10		110.4	% REC
Ethylbenzene	21.261	21.131	0.5	20.08		105.9	% REC
Toluene	21.886	21.789	0.5	20.08		109.0	% REC
Xylenes (total)	63.746	62.008	0.5	60.26		105.8	% REC
						0.5	RPD
						0.6	RPD
						0.4	RPD
						2.8	RPD

Test Method.....: SW-846 8020 Method Description.: Volatile Organics -Aromatics	Batch.....: 23435 Units.....: ug/L	Analyst ...: vdt
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MB	Method Blank						07/03/97 1001
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	ND		0.5				
Ethylbenzene	ND		0.5				
Toluene	ND		0.5				
Xylenes (total)	ND		0.5				



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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SBD	Spiked Blank	T970703B				07/03/97 1126
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	20.903		0.5	20.10		104.0	% REC
Ethylbenzene	19.792		0.5	20.08		98.6	% REC
Toluene	20.673		0.5	20.08		103.0	% REC
Xylenes (total)	60.622		0.5	60.26		100.6	% REC

SBD	Spiked Blank Duplicate	T970703B				07/03/97 1201
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Benzene	20.997	20.903	0.5	20.10		104.5	% REC
Ethylbenzene	20.047	19.792	0.5	20.08		99.8	% REC
Toluene	20.706	20.673	0.5	20.08		103.1	% REC
Xylenes (total)	60.990	60.622	0.5	60.26		101.2	% REC

Test Method.....: SW-846 8270 Method Description.: Semivolatile Organics (Client List)	Batch.....: 23485 Units.....: ug/L	Analyst ...: dmj
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MB	Method Blank	MB3110				07/08/97 1339
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Acenaphthene	ND		10				
Acenaphthylene	ND		10				
Anthracene	ND		10				
Benz(a)anthracene	ND		10				
Benz(b)fluoranthene	ND		10				
Benz(k)fluoranthene	ND		10				
Benz(ghi)perylene	ND		10				
Benz(a)pyrene	ND		10				
Chrysene	ND		10				
Dibenzo(a,h)anthracene	ND		10				
Fluoranthene	ND		10				
Fluorene	ND		10				
Indeno(1,2,3-cd)pyrene	ND		10				
1-Methylnaphthalene	ND		10				
2-Methylnaphthalene	ND		10				
Naphthalene	ND		10				
Phenanthrene	ND		10				
Pyrene	ND		10				



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971757

Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Seike

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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LCS	Laboratory Control Sample	8970613A			07/08/97	1437
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Acenaphthene	76.44		10	100.0	ND	76.4	% REC
Pyrene	90.09		10	100.1	ND	90.0	% REC

LCD	Laboratory Control Sample Duplicate	8970613A			07/08/97	1536
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Parameter/Test Description	QC Result	QC Result	Rep. Limit	True Value	Orig. Value	Calc. Result	Units
Acenaphthene	77.54	76.44	10	100.0	ND	77.5	% REC
Pyrene	90.19	90.09	10	100.1	ND	90.1	% REC



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971757

Report Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Method.....: SW-846 8020
Method Code.....: 8020Batch.....: 23419
Analyst.....: vdt

Surrogate	Units
BFB (Surrogate)	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB		21.718	20.07	108.2		07/07/97	1109
		SB		20.738	20.07	103.3		07/07/97	1143
		SBD		20.801	20.07	103.6		07/07/97	1218
971757-1				20.386	20.07	101.6		07/07/97	1851
971757-2				20.131	20.07	100.3		07/07/97	2010
971757-3				19.988	20.07	99.6		07/07/97	2045
971757-4				19.862	20.07	99.0		07/07/97	2119
971757-5				19.735	20.07	98.3		07/07/97	2154
971758-2				19.750	20.07	98.4		07/07/97	2252
971758-1				20.610	20.07	102.7		07/07/97	2326
971757-6			10	19.214	20.07	95.7		07/08/97	0001

Method.....: SW-846 8020
Method Code.....: 8020Batch.....: 23435
Analyst.....: vdt

Surrogate	Units
BFB (Surrogate)	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB		21.278	20.07	106.0		07/03/97	1001
		SB		20.385	20.07	101.6		07/03/97	1126
		SBD		20.272	20.07	101.0		07/03/97	1201
971757-7				19.352	20.07	96.4		07/03/97	1235

Method.....: SW-846 8270
Method Code.....: 8270CBatch.....: 23485
Analyst.....: dmj

Surrogate	Units
2,4,6-Tribromophenol	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	77.59	100.51	77		07/08/97	1339
		LCS	1.00	85.84	100.51	85		07/08/97	1437
		LCD	1.00	86.45	100.51	86		07/08/97	1536
971757-1			1.00	87.68	100.51	87		07/08/97	1634
971757-2			1.00	88.65	100.51	88		07/08/97	1732
971757-3			1.00	88.60	100.51	88		07/08/97	1830
971757-6			1.00	88.38	100.51	88		07/08/97	1928



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971757

Report Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Surrogate	Units
2,4,6-Tribromophenol	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
971758-1			1.00	93.09	100.51	93		07/08/97	2026
971758-2			1.00	87.51	100.51	87		07/08/97	2123
971758-3			1.00	86.54	100.51	86		07/08/97	2220
971758-4			1.00	87.74	100.51	87		07/08/97	2317

Surrogate	Units
2-Fluorobiphenyl	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	35.84	50.00	72		07/08/97	1339
		LCS	1.00	35.17	50.00	70		07/08/97	1437
		LCD	1.00	35.81	50.00	72		07/08/97	1536
971757-1			1.00	42.50	50.00	85		07/08/97	1634
971757-2			1.00	41.98	50.00	84		07/08/97	1732
971757-3			1.00	41.48	50.00	83		07/08/97	1830
971757-6			1.00	44.13	50.00	88		07/08/97	1928
971758-1			1.00	43.56	50.00	87		07/08/97	2026
971758-2			1.00	37.55	50.00	75		07/08/97	2123
971758-3			1.00	36.85	50.00	74		07/08/97	2220
971758-4			1.00	35.54	50.00	71		07/08/97	2317

Surrogate	Units
2-Fluorophenol	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	39.36	99.98	39		07/08/97	1339
		LCS	1.00	37.72	99.98	38		07/08/97	1437
		LCD	1.00	38.15	99.98	38		07/08/97	1536
971757-1			1.00	43.80	99.98	44		07/08/97	1634
971757-2			1.00	42.57	99.98	43		07/08/97	1732
971757-3			1.00	44.14	99.98	44		07/08/97	1830
971757-6			1.00	60.66	99.98	61		07/08/97	1928
971758-1			1.00	43.72	99.98	44		07/08/97	2026
971758-2			1.00	38.73	99.98	39		07/08/97	2123
971758-3			1.00	38.81	99.98	39		07/08/97	2220
971758-4			1.00	35.99	99.98	36		07/08/97	2317



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971757

Report Date: 07/15/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Surrogate	Units
Nitrobenzene-d5	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	37.53	50.07	75		07/08/97	1339
		LCS	1.00	36.57	50.07	73		07/08/97	1437
		LCD	1.00	36.86	50.07	74		07/08/97	1536
971757-1			1.00	40.45	50.07	81		07/08/97	1732
971757-2			1.00	40.17	50.07	80		07/08/97	1634
971757-3			1.00	39.65	50.07	79		07/08/97	1830
971757-6			1.00	43.36	50.07	87		07/08/97	1928
971758-1			1.00	39.19	50.07	78		07/08/97	2026
971758-2			1.00	35.85	50.07	72		07/08/97	2123
971758-3			1.00	36.41	50.07	73		07/08/97	2220
971758-4			1.00	33.66	50.07	67		07/08/97	2317

Surrogate	Units
Phenol-d6	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	26.92	100.40	27		07/08/97	1339
		LCS	1.00	29.37	100.40	29		07/08/97	1437
		LCD	1.00	29.88	100.40	30		07/08/97	1536
971757-1			1.00	29.10	100.40	29		07/08/97	1634
971757-2			1.00	28.39	100.40	28		07/08/97	1732
971757-3			1.00	29.44	100.40	29		07/08/97	1830
971757-6			1.00	35.74	100.40	36		07/08/97	1928
971758-1			1.00	31.37	100.40	31		07/08/97	2026
971758-2			1.00	26.33	100.40	26		07/08/97	2123
971758-3			1.00	27.05	100.40	27		07/08/97	2220
971758-4			1.00	25.35	100.40	25		07/08/97	2317

Surrogate	Units
Terphenyl-d14	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Flag	Date	Time
		MB	1.00	46.48	50.02	93		07/08/97	1339
		LCS	1.00	47.40	50.02	95		07/08/97	1437
		LCD	1.00	46.86	50.02	94		07/08/97	1536
971757-1			1.00	48.76	50.02	97		07/08/97	1634
971757-2			1.00	46.96	50.02	94		07/08/97	1732
971757-3			1.00	48.09	50.02	96		07/08/97	1830
971757-6			1.00	50.94	50.02	102		07/08/97	1928
971758-1			1.00	49.02	50.02	98		07/08/97	2026
971758-2			1.00	46.99	50.02	94		07/08/97	2123
971758-3			1.00	46.99	50.02	94		07/08/97	2220
971758-4			1.00	47.86	50.02	96		07/08/97	2317



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/15/97

	WATER LIMITS Recovery RPD	SOIL LIMITS Recovery RPD
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VOLATILE ORGANICS

Methods 602/8020 Surrogate
Bromofluorobenzene 89-110% 78-123%

Methods 602/8020 Spike/Spike Duplicate
Benzene 39-150% 25 75-125% 25
Ethylbenzene 32-160% 25 60-140% 25
Toluene 46-148% 25 70-130% 25
Xylenes 75-125% 25 61-139% 25

Method 8015 Mod. Spike/Spike Duplicate
TPPH 75-125% 20 48-152% 20
TEPH 54-135% 20 54-135% 20

Methods 624/8240/8260 Surrogates
Dibromofluoromethane 86-118% 80-120%
Toluene-(d8) 88-110% 81-117%
4-Bromofluorobenzene 86-115% 74-121%

Method 524.2 Surrogates
4-Bromofluorobenzene 80-120%
1,4-Dichlorobenzene-d4 80-120%

Methods 624/8240 Spike/Spike Duplicate
1,1-Dichloroethene 61-145% 14 59-172% 22
Trichloroethene 71-120% 14 62-137% 24
Benzene 76-127% 11 66-142% 21
Toluene 76-125% 13 59-139% 21
Chlorobenzene 75-130% 13 60-133% 21

Method 8260 Spike/Spike Duplicate
1,1-Dichloroethene 70-130% 14 70-130% 22
Trichloroethene 71-120% 14 70-130% 24
Benzene 76-127% 11 70-130% 21
Toluene 76-125% 13 70-130% 21
Chlorobenzene 75-130% 13 70-130% 21

Method 524.2 Spike/Spike Duplicate
1,1-Dichloroethene 80-120% 14
Trichloroethene 80-120% 14
Benzene 80-120% 11
Toluene 80-120% 13
Chlorobenzene 80-120% 13

PESTICIDES AND PCB'S

Methods 608/8080 Surrogates
Tetrachloro-m-xylene 60-150% 60-150%
4,4'-Dichlorobiphenyl 60-150% 60-150%
Decachlorobiphenyl 60-150% 60-150%

Method 8140 Surrogates
Tributylphosphate 36-152% 36-152%
Triphenylphosphate 36-152% 36-152%



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/15/97

SEMIVOLATILE ORGANICS

	WATER LIMITS	SOIL LIMITS
	Recovery	RPD

Methods 625/8270 Surrogates

Nitrobenzene-d5	35-114%	23-120%
2-Fluorobiphenyl	43-116%	30-115%
4-Terphenyl-d14	33-141%	18-137%
Phenol-d6	10-94%	24-113%
2-Fluorophenol	21-100%	25-121%
2,4,6-Tribromophenol	10-123%	19-122%

Methods 625/8270 Spike/Spike Duplicate

Phenol	12-110%	42	26-90%	35
2-Chlorophenol	27-123%	40	25-102%	50
1,4-Dichlorobenzene	36-97%	28	28-104%	27
N-Nitroso-di-n-propylamine	41-116%	38	41-126%	38
1,2,4-Trichlorobenzene	39-98%	28	38-107%	23
4-Chloro-3-methylphenol	23-97%	42	26-103%	33
Acenaphthene	46-118%	31	31-137%	19
4-Nitrophenol	10-80%	50	11-114%	50
2,4-Dintrotoluene	24-96%	38	28-89%	47
Pentachlorophenol	9-103%	50	17-109%	47
Pyrene	26-127%	31	35-142%	36

HERBICIDES

Method 8150 Surrogate

2,4-Dichlorophenylacetic acid	50-150%	50-150%
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Method 8150 Spike/Spike Duplicate

2,4-D	41-126%	25	41-126%	25
2,4,5-T	45-119%	25	45-119%	25



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/15/97

- (1) EPA 600/4-79-020 Methods for Chemical Analysis of Water and Wastes, March 1983
- (2) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986
- (3) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update I, July 1992
- (4) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update II, September 1994
- (5) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIA, August 1993
- (6) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIB, January 1995
- (7) Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985
- (8) Standard Methods for the Examination of Water and Wastewater, 17th Edition, 1989
- (9) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
- (10) EPA 600/4-80-032 Prescribed Procedures For Measurement Of Radioactivity in Drinking Water, August 1980
- (11) EPA 600/8-78-017 Microbiological Methods For Monitoring The Environment, December 1978
- (12) Federal Register, July 1, 1990 (40 CFR Part 136)
- (13) EPA 600/4-88-03 Methods For The Determination of Organics Compounds in Drinking Water, December 1988
- (14) U.S.G.S. Methods For Determination of Inorganic Substances In Water And Fluvial Sediments, Book 5, Chapter A1, 1985
- (15) Federal Register, June 7, 1991 (40 CFR Parts 141 & 142)
- (16) ASTM Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
- (17) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
- (18) ASTM Section 5, Petroleum Products, Lubricants, and Fossil Fuels, Volume 05.05, Gaseous Fuels, Coal, and Coke
- (19) EPA 600/2-78-054 Field and Laboratory Methods Applicable To Overburdens and Mine Soils, March 1978
- (20) ASTM Part 19, Soils and Rocks; Building Stones, 1981



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/15/97

COMMENTS

- a) ND = Not detected. NC = Not calculable due to value(s) lower than the detection limit.
- b) Data in the QA report may differ from final results due to digestion and/or dilution of samples into analytical ranges. Quality control results are reported "as analyzed" within the instruments established calibration range.
- c) The "Time Analyzed" in the QA report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "Date Analyzed" is the actual date of analysis.
- d) Results for soil and sludge samples are reported on a wet weight basis (i.e. not corrected for percent moisture) unless otherwise indicated.

BLANK QC SAMPLE IDENTIFICATION

MB	Method Blank
EB	Extraction Blank
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS	Method (Matrix) Spike
MSD	Method (Matrix) Spike Duplicate
PDS	Post-Digestion Spike
SB	Spike Blank
SBD	Spike Blank Duplicate

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
ICL	Initial Calibration/Laboratory Control Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "Technician" using the following codes:

SUBCONTRACT LABORATORY

Core Laboratories - Anaheim, CA	CODE
Core Laboratories - Casper, WY	* AN
Core Laboratories - Corpus Christi, TX	* CA
Core Laboratories - Edison, NJ	* CC
Core Laboratories - Gulf States - Houston, TX	* ED
Core Laboratories - Houston, TX	* HE
Core Laboratories - Indianapolis, IN	* HP
	* IN



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/15/97

Core Laboratories - Lake Charles, LA	* LC
Core Laboratories - Long Beach, CA	* LB
Core Laboratories - Tampa, FL	* TP
Core Laboratories - Valparaiso, IN	* VP
Other Subcontract Laboratories	* XX

EXPLANATION OF DATA QUALIFIERS - ORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- J - This qualifier indicates that the value is an estimate. It is used when a compound is determined to be present based on the mass spectral data but at a concentration less than the practical quantitation limit of the method.
- E - This qualifier indicates that a sample result is an estimate because the concentration exceeded the upper calibration range of the instrument.

EXPLANATION OF DATA QUALIFIERS - METALS & INORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- B - This qualifier indicates that the analyte was detected at a level below the reporting limit but greater than or equal to the instrument detection limit.

EXPLANATION OF DATA FLAGS - ALL PARAMETERS

- B - This flag indicates that an analyte is present in the method blank as well as in the sample. The client should consider this when evaluating the data.
- E - This flag indicates the reported value is estimated due to sample matrix interference.
- W - This flag indicates that a post-digestion spike for GFAA analysis is outside quality control limits.
- X - This flag indicates that a surrogate recovery is outside quality control limits.
- Y - This flag indicates a spike or spike duplicate recovery is outside quality control limits.
- Z - This flag indicates a relative percent difference for a spike and spike duplicate is outside quality control limits.
- * - This flag indicates a relative percent difference for a duplicate analysis is outside quality control limits.
- - This flag indicates a percent recovery for a standard is outside quality control limits.



CORE LABORATORIES

ANALYTICAL REPORT

JOB NUMBER: 971758

Prepared For:

BDM International, Inc.
1801 Randolph Street SE
Albuquerque, NM 87106

Attention: Mike Selke

Date: 07/18/97

Linda L. Benkers
Signature

7-18-97

Date

Name: Linda L. Benkers
Title: QA/QC Coordinator

CORE LABORATORIES, INC.
10703 East Bethany Drive
Aurora, CO 80014

PHONE: (303) 751-1780
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BDM

BDM International, Inc.
1801 Randolph Road, SE
MS 10
Albuquerque, NM 87106
(505) 848-5000
FAX: (505) 848-5299

12262

Chain of Custody

Date 6-26-97 Page 1 of 4

Analysis Request			
Sample Number	Matrix	Location	
97062614410	H ₂ O	MW - 95	
9706261530	H ₂ O	downstream	
9706261600	H ₂ O	upstream	
9706261645	H ₂ O	MW - 35	
<p><i>Note: All 3 VOA vials for sample 9706261645 were broken in lab upon receipt.</i></p> <p><i>S. Bunkers 7/1/97</i></p>			
Project Information			
Project Reference	Sample Receipt		
	Total No. of Containers	20	Relinquished By <u>D. Bunkers</u>
Project Director <u>M. Selke</u>	Chain of Custody Seals	<u>N</u>	(Signature) <u>D. Bunkers</u>
Charge Code Nopf3345/3251/202	Rec'd Good Condition/Cold	<u>Y</u>	(Printed Name) <u>D. Bunkers</u>
Shipping ID. No.	Conforms to Record	<u>Y</u>	(Date) <u>7/1/97</u>
Lab No.	Received By		(Company)
3519924730			
Via: Fed Ex	971758		
Special Instructions/Comments:			
Normal TAT, for questions contact Mike Selke @ 505-848-5299			
<p>temp 55°C</p> <p>Mike Selke 4/30/97</p>			
3. Relinquished By			
2. Relinquished By			
<p>1. Relinquished By</p> <p><i>D. Bunkers</i></p>			
3. Relinquished By			
<p>1. Received By (Laboratory)</p> <p><i>M. Selke</i></p>			
2. Received By (Laboratory)			
<p>3. Received By (Laboratory)</p> <p><i>M. Selke</i></p>			
<p>(Signature) <u>M. Selke</u></p> <p>(Printed Name) <u>M. Selke</u></p> <p>(Date) <u>4/30/97</u></p> <p>(Company)</p>			
<p>(Signature) <u>D. Bunkers</u></p> <p>(Printed Name) <u>D. Bunkers</u></p> <p>(Date) <u>4/30/97</u></p> <p>(Company)</p>			
<p>(Signature) <u>D. Bunkers</u></p> <p>(Printed Name) <u>D. Bunkers</u></p> <p>(Date) <u>4/30/97</u></p> <p>(Company)</p>			

Distribution: White, Canary-Laboratory • Pink, BDM

BILL

BDM International, Inc.
1801 Randolph Road, SE
MS 10
Albuquerque, NM 87106
(505) 848-5000
FAX: (505) 848-5299

Chain of Custody

12175

Date 7-11-97 Page / of /

Analysis Request		
Sample Number	Matrix	Location
9707111400	H ₂ O	MW-3
9707111430	H ₂ O	UPSTREAM
9707111500	TEPhlik	
Halogenated Volatiles 601/8010		
Aromatic Volatiles 602/8020 RTEx		
Pesticides PCB 608/8080 RTEx		
Phenols Sub Phenols 604/8040		
Hydrocarbons 610/8310		
Polyndeed Aromatic Compounds 609/8090		
Volatile Compounds GC/MS 624/8240		
Basis/Acid Compounds GC/MS 625/8270		
Total Organic Halides TOC 415/9060		
Perchlorate TOX 9020		
Hydrocarbons 418.1 Periodicum		
TPH/TEX Modelle 8015		
TCLP-Metals TCLC/STLC		
RCRA Metals(g) Priority Pollutant Metals (13)		
CMN Metals (18) TCLC/SRCC		
Oil & Grease Reactivity		
Corrosivity Flash Point		
Chemical Oxygen Demand (COD)		
Number of Containers		

Tony 3.5

Project Information		
Project <u>REXENE</u>	Sample Receipt	Relinquished By
Project Director <u>Mike Selke</u>	Total No. of Containers <u>17</u>	<u>Lance W. Isad</u> <u>7-11-97</u>
Charge Code <u>P/2345-3031-202</u>	Chain of Custody Seals	(Signature) (Time) (Signature) (Time)
Shipping ID. No.	Rec'd Good Condition/Cold	(Printed Name) (Date) (Printed Name) (Date)
	Conforms to Record	(Company) (Company) (Company) (Company)
	Lab No.	1 Received By
		(Signature) (Time) (Signature) (Time)
		(Printed Name) (Date) (Printed Name) (Date)
		(Company) (Company) (Company) (Company)
Via: <u>FED - EA</u>	Special Instructions/Comments:	

John Kelly 7/15/97



CORE LABORATORIES

SAMPLE INFORMATION

Date: 07/18/97

Job Number.: 971758
Customer ..: BDM International, Inc.
Attn.....: Mike Selke

Project Number.....: 95000161
Customer Project ID....: REXENE
Project Description....: BDM Rexene Quarterly Waters

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
971758-1	9706261440	Water	06/26/97	14:40	07/01/97	14:30
971758-2	9706261530	Water	06/26/97	15:30	07/01/97	14:30
971758-3	9706261600	Water	06/26/97	16:00	07/01/97	14:30
971758-4	9706261645	Water	06/26/97	16:45	07/01/97	14:30
971758-5	9707111400	Water	07/11/97	14:00	07/11/97	08:50
971758-6	9707111430	Water	07/11/97	14:30	07/11/97	08:50
971758-7	9707111500	Water	07/11/97	15:00	07/11/97	08:50



CORE LABORATORIES

SAMPLE INFORMATION

Date: 01/16/98

Job Number.: 980052
Customer ...: BDM International, Inc.
Attn.....: Mike Selke

Project Number.....: 95000161
Customer Project ID....: REXENE
Project Description....: BDM Rexene Quarterly Waters

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
980052-1	9801081150 MW95	Water	01/08/98	11:50	01/09/98	09:30
980052-2	9801081205 MW10	Water	01/08/98	12:05	01/09/98	09:30
980052-3	9801081245 DOWNSTREAM	Water	01/08/98	12:45	01/09/98	09:30
980052-4	9801081400 MW6D	Water	01/08/98	14:00	01/09/98	09:30
980052-5	9801081445 MW6S	Water	01/08/98	14:45	01/09/98	09:30
980052-6	9801081530 MW3D	Water	01/08/98	15:30	01/09/98	09:30
980052-7	9801081545 MW3S	Water	01/08/98	15:45	01/09/98	09:30
980052-8	9801081600 RINSATE	Water	01/08/98	16:00	01/09/98	09:30
980052-9	9801081605 UPSTREAM	Water	01/08/98	16:05	01/09/98	09:30
980052-10	9801081615 TRIP BLANK	Water	01/08/98	16:15	01/09/98	09:30

**CORE LABORATORIES**

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261440
Date Sampled.....: 06/26/97
Time Sampled.....: 14:40
Sample Matrix.....: Water

Laboratory Sample ID: 971758-1
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	0.02	0.01	mg/L	07/14/97	gag
EPA 200.7	Arsenic (As), Diss.	0.02	0.01	mg/L	07/14/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/14/97	gag
EPA 200.7	Cadmium (Cd), Diss.	<0.0005	0.0005	mg/L	07/14/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Copper (Cu), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.003	0.003	mg/L	07/14/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	veb
EPA 200.7	Nickel (Ni), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Selenium (Se), Diss.	0.03	0.01	mg/L	07/14/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Zinc (Zn), Diss.	<0.005	0.005	mg/L	07/14/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261440
Date Sampled.....: 06/26/97
Time Sampled.....: 14:40
Sample Matrix.....: Water

Laboratory Sample ID: 971758-1
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261530
Date Sampled.....: 06/26/97
Time Sampled.....: 15:30
Sample Matrix.....: Water

Laboratory Sample ID: 971758-2
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Arsenic (As), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/14/97	gag
EPA 200.7	Cadmium (Cd), Diss.	<0.0005	0.0005	mg/L	07/14/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Copper (Cu), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.003	0.003	mg/L	07/14/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	veb
EPA 200.7	Nickel (Ni), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Selenium (Se), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Zinc (Zn), Diss.	<0.005	0.005	mg/L	07/14/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261530
Date Sampled.....: 06/26/97
Time Sampled.....: 15:30
Sample Matrix.....: Water

Laboratory Sample ID: 971758-2
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/07/97 07/07/97 07/07/97 07/07/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261600
Date Sampled.....: 06/26/97
Time Sampled.....: 16:00
Sample Matrix.....: Water

Laboratory Sample ID: 971758-3
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Arsenic (As), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/14/97	gag
EPA 200.7	Cadmium (Cd), Diss.	<0.0005	0.0005	mg/L	07/14/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Copper (Cu), Diss.	0.010	0.005	mg/L	07/14/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.003	0.003	mg/L	07/14/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	vib
EPA 200.7	Nickel (Ni), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Selenium (Se), Diss.	0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Zinc (Zn), Diss.	0.009	0.005	mg/L	07/14/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9706261645
Date Sampled.....: 06/26/97
Time Sampled.....: 16:45
Sample Matrix.....: Water

Laboratory Sample ID: 971758-4
Date Received.....: 07/01/97
Time Received.....: 14:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
EPA 200.7	Antimony (Sb), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Arsenic (As), Diss.	0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Beryllium (Be), Diss.	<0.001	0.001	mg/L	07/14/97	gag
EPA 200.7	Cadmium (Cd), Diss.	<0.0005	0.0005	mg/L	07/14/97	gag
EPA 200.7	Chromium (Cr), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Copper (Cu), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Lead (Pb), Diss.	<0.02	0.02	mg/L	07/14/97	gag
EPA 245.2	Mercury (Hg), Diss.	<0.0002	0.0002	mg/L	07/10/97	vib
EPA 200.7	Nickel (Ni), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Selenium (Se), Diss.	0.02	0.01	mg/L	07/14/97	gag
EPA 200.7	Silver (Ag), Diss.	<0.005	0.005	mg/L	07/14/97	gag
EPA 200.7	Thallium (Tl), Diss.	<0.01	0.01	mg/L	07/14/97	gag
EPA 200.7	Zinc (Zn), Diss.	0.013	0.005	mg/L	07/14/97	gag
SW-846 3510B	Extraction (Sep. Funnel) SVOC Separatory Funnel Liq/Liq Extraction	Complete			07/03/97	rwm
SW-846 8270	Semivolatile Organics (Client List)					
	Acenaphthene	ND	10	ug/L	07/08/97	dmj
	Acenaphthylene	ND	10	ug/L	07/08/97	dmj
	Anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)anthracene	ND	10	ug/L	07/08/97	dmj
	Benzo(b)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(k)fluoranthene	ND	10	ug/L	07/08/97	dmj
	Benzo(ghi)perylene	ND	10	ug/L	07/08/97	dmj
	Benzo(a)pyrene	ND	10	ug/L	07/08/97	dmj
	Chrysene	ND	10	ug/L	07/08/97	dmj
	Dibenzo(a,h)anthracene	ND	10	ug/L	07/08/97	dmj
	Fluoranthene	ND	10	ug/L	07/08/97	dmj
	Fluorene	ND	10	ug/L	07/08/97	dmj
	Indeno(1,2,3-cd)pyrene	ND	10	ug/L	07/08/97	dmj
	1-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	2-Methylnaphthalene	ND	10	ug/L	07/08/97	dmj
	Naphthalene	ND	10	ug/L	07/08/97	dmj
	Phenanthrene	ND	10	ug/L	07/08/97	dmj
	Pyrene	ND	10	ug/L	07/08/97	dmj

**CORE LABORATORIES**

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9707111400
Date Sampled.....: 07/11/97
Time Sampled.....: 14:00
Sample Matrix.....: Water

Laboratory Sample ID: 971758-5
Date Received.....: 07/11/97
Time Received.....: 08:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/15/97 07/15/97 07/15/97 07/15/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9707111430
Date Sampled.....: 07/11/97
Time Sampled.....: 14:30
Sample Matrix.....: Water

Laboratory Sample ID: 971758-6
Date Received.....: 07/11/97
Time Received.....: 08:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/15/97 07/15/97 07/15/97 07/15/97	vdt vdt vdt vdt



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9707111500
Date Sampled.....: 07/11/97
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 971758-7
Date Received.....: 07/11/97
Time Received.....: 08:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	07/15/97 07/15/97 07/15/97 07/15/97	vdt vdt vdt vdt



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 245-2
 Method Description.: Mercury (CVAA)
 Parameter.....: Mercury (Hg)

Batch.....: 23538
 Units.....: mg/L

Analyst....: veb

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970701H	0.003603		0.004000		90.1	%	90-110	07/10/97 1106
ICB		07107	-0.000001				0.0002		0.0002	07/10/97 1108
MB		0709	0.000017				0.0002		0.0002	07/10/97 1111
SB		970529M	0.004462		0.005000		89.2	%	75-125	07/10/97 1113
MS	971760-1	970529M	0.004295		0.005000	0.000024	85.4	%	80-120	07/10/97 1119
MD	971760-1		0.000021			0.000024	0.000003	A	0.00020000	07/10/97 1121
MB		0709	0.000010				0.0002		0.0002	07/10/97 1125
SB		970529M	0.004953		0.005000		99.1	%	75-125	07/10/97 1127
CCV		960930N	0.005211		0.005000		104.2	%	90-110	07/10/97 1132
CCB		07107	-0.000001				0.0002		0.0002	07/10/97 1134
MS	971757-1	970529M	0.004087		0.005000	0.000086	80.0	%	80-120	07/10/97 1136
MSD	971757-1	970529M	0.004093	0.004087	0.005000	0.000086	80.1	%	80-120	07/10/97 1138
							0.1	R	20	
MD	971757-6		0.000022			0.000035	0.000013	A	0.00020000	07/10/97 1146
CCV		960930N	0.005214		0.005000		104.3	%	90-110	07/10/97 1157
CCB		07107	-0.000002				0.0002		0.0002	07/10/97 1159
CCV		960930N	0.005057		0.005000		101.2	%	90-110	07/10/97 1223
CCB		07107	0.000145				0.0002		0.0002	07/10/97 1225
SB		970529M	0.004313		0.005000		86.3	%	75-125	07/10/97 1227
EB		0707	0.000121				0.0002		0.0002	07/10/97 1229
ED	971620-1		0.000088			0.000108	0.000019	A	0.00020000	07/10/97 1233
MD	971620-2		0.000059			0.000063	0.000003	A	0.00020000	07/10/97 1239
MB		0709	0.000028				0.0002		0.0002	07/10/97 1246
CCV		960930N	0.005156		0.005000		103.1	%	90-110	07/10/97 1248
CCB		07107	0.000068				0.0002		0.0002	07/10/97 1250
SB		970529M	0.004967		0.005000		99.3	%	75-125	07/10/97 1252
LCS		970353	0.004338		0.005130		84.6	%	67.8-132.2	07/10/97 1254
CCV		960930N	0.005178		0.005000		103.6	%	90-110	07/10/97 1307
CCB		07107	0.000058				0.0002		0.0002	07/10/97 1309
MS	971758-1	970529M	0.004575		0.005000	0.000011	91.3	%	80-120	07/10/97 1330
CCV		960930N	0.005200		0.005000		104.0	%	90-110	07/10/97 1345
CCB		07107	0.000129				0.0002		0.0002	07/10/97 1347
MSD	971758-1	970529M	0.004600	0.004575	0.005000	0.000011	91.8	%	80-120	07/10/97 1402
							0.6	R	20	
CCV		960930N	0.005158		0.005000		103.2	%	90-110	07/10/97 1412
CCB		07107	0.000067				0.0002		0.0002	07/10/97 1431
CCV		960930N	0.005202		0.005000		104.1	%	90-110	07/10/97 1437
CCB		07107	0.000054				0.0002		0.0002	07/10/97 1439

Test Method.....: EPA 200-7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Antimony (Sb)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	1.93854		2.00		96.9	%	95-105	07/14/97 0856
ICB		970714T	-0.00072				0.01		0.01	07/14/97 0914
ISB		970708X	0.95269		1.000		95.3	%	80-120	07/14/97 0924
ISB		970701WW	0.81108		1.000		81.1	%	80-120	07/14/97 0952
MD	971758-2		0.00286			0.00112	0.00174	A	0.01000	07/14/97 1019
PDS	971758-3	970630Z	0.99570		1.000	0.00244	99.3	%	75-125	07/14/97 1035
CCV		970513T	2.50075		2.5		100.0	%	95-105	07/14/97 1126



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7

Method Description.: Metals Analysis(ICAP), Trace

Parameter.....: Antimony (Sb)

Batch.....: 23625

Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCB		970714T	-0.00101					0.01		07/14/97 1133
PDS	971770-1	970630Z	0.98816		1.000	0.00114	98.7	% 75-125		07/14/97 1259
CCV		970513T	2.46678		2.5		98.7	% 95-105		07/14/97 1344
CCB		970714T	-0.00050					0.01		07/14/97 1352
PDS	971822-3	970630Z	0.94623		1.000	0.00710	93.9	% 75-125		07/14/97 1430
MD	971812-1		0.00199			0.00435	0.00236	A 0.01000		07/14/97 1440
CCV		970513T	2.53998		2.5		101.6	% 95-105		07/14/97 1504
CCB		970714T	-0.00172					0.01		07/14/97 1516
MD	971841-3		0.00006			-0.00177	0.00183	A 0.01000		07/14/97 1547
PDS	971841-3	970630Z	0.97431		1.000	-0.00177	97.6	% 75-125		07/14/97 1553
CCV		970513T	2.51007		2.5		100.4	% 95-105		07/14/97 1616
CCB		970714T	-0.00045					0.01		07/14/97 1622
CCV		970513T	2.46798		2.5		98.7	% 95-105		07/14/97 1715
CCB		970714T	-0.00149					0.01		07/14/97 1723
MB		0711	0.00393					0.01		07/14/97 1744
LCS		970709H	0.97605		1.00		97.6	% 80-120		07/14/97 1747
LCD		970709H	0.99642	0.97605	1.00		99.6	% 80-120		07/14/97 1750
							2.1	R 20		
CCV		970513T	2.55296		2.5		102.1	% 95-105		07/14/97 1812
CCB		970714T	0.00038					0.01		07/14/97 1821
CCV		970513T	2.50940		2.5		100.4	% 95-105		07/14/97 1919
CCB		970714T	-0.00223					0.01		07/14/97 1921
ISB		970708X	0.99769		1.000		99.8	% 80-120		07/14/97 1950
CCV		970513T	2.44386		2.5		97.8	% 95-105		07/14/97 2008
CCB		970714T	-0.00064					0.01		07/14/97 2017
ISB		970701WW	0.96895		1.000		96.9	% 80-120		07/14/97 2026
CCV		970513T	2.38645		2.5		95.5	% 95-105		07/14/97 2039
CCB		970714T	-0.00060					0.01		07/14/97 2047
ISB		970701WW	0.98825		1.000		98.8	% 80-120		07/14/97 2051
CCV		970513T	2.43780		2.5		97.5	% 95-105		07/14/97 2100
CCB		970714T	-0.00240					0.01		07/14/97 2102

Test Method.....: EPA 200.7

Method Description.: Metals Analysis(ICAP), Trace

Parameter.....: Arsenic (As)

Batch.....: 23625

Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	1.97770		2.00		98.9	% 95-105		07/14/97 0856
ICB		970714T	0.00108					0.01		07/14/97 0914
ISB		970708X	0.91489		1.000		91.5	% 80-120		07/14/97 0924
ISB		970701WW	1.03869		1.000		103.9	% 80-120		07/14/97 0952
MD	971758-2		0.00834			0.00676	0.00158	A 0.01000		07/14/97 1019
PDS	971758-3	970630Z	0.98205		1.000	0.00785	97.4	% 75-125		07/14/97 1035
CCV		970513T	2.50736		2.5		100.3	% 95-105		07/14/97 1126
CCB		970714T	-0.00113					0.01		07/14/97 1133
PDS	971770-1	970630Z	0.97372		1.000	0.00106	97.3	% 75-125		07/14/97 1259
CCV		970513T	2.46078		2.5		98.4	% 95-105		07/14/97 1344
CCB		970714T	0.00075					0.01		07/14/97 1352
PDS	971822-3	970630Z	1.01102		1.000	0.01877	99.2	% 75-125		07/14/97 1430
MD	971812-1		0.00803			0.00651	0.00152	A 0.01000		07/14/97 1440
CCV		970513T	2.55161		2.5		102.1	% 95-105		07/14/97 1504



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Arsenic (As)

Batch.....: 23625
 Units.....: mg/l

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCB		970714T	0.00132					0.01		07/14/97 1516
MD	971841-3		0.00516			0.00073	0.00443	A 0.01000		07/14/97 1547
PDS	971841-3	970630Z	0.95529		1.000	0.00073	95.5	% 75-125		07/14/97 1553
CCV		970513T	2.47661		2.5		99.1	% 95-105		07/14/97 1616
CCB		970714T	0.00166					0.01		07/14/97 1622
CCV		970513T	2.46832		2.5		98.7	% 95-105		07/14/97 1715
CCB		970714T	0.00157					0.01		07/14/97 1723
MB		0711	0.00104					0.01		07/14/97 1744
LCS		970709H	0.98748		1.00		98.7	% 80-120		07/14/97 1747
LCD		970709H	1.00456	0.98748	1.00		100.5	% 80-120		07/14/97 1750
							1.7	R 20		
CCV		970513T	2.56310		2.5		102.5	% 95-105		07/14/97 1812
CCB		970714T	0.00183					0.01		07/14/97 1821
CCV		970513T	2.56954		2.5		102.8	% 95-105		07/14/97 1919
CCB		970714T	0.00116					0.01		07/14/97 1921
ISB		970708X	0.99667		1.000		99.7	% 80-120		07/14/97 1950
CCV		970513T	2.44702		2.5		97.9	% 95-105		07/14/97 2008
CCB		970714T	-0.00031					0.01		07/14/97 2017
ISB		970701WW	0.92192		1.000		92.2	% 80-120		07/14/97 2026
CCV		970513T	2.44469		2.5		97.8	% 95-105		07/14/97 2039
CCB		970714T	0.00022					0.01		07/14/97 2047
ISB		970701WW	0.94418		1.000		94.4	% 80-120		07/14/97 2051
CCV		970513T	2.48235		2.5		99.3	% 95-105		07/14/97 2100
CCB		970714T	0.00270					0.01		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Beryllium (Be)

Batch.....: 23625
 Units.....: mg/l

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	2.00012		2.00		100.0	% 95-105		07/14/97 0856
ICB		970714T	0.00009					0.001		07/14/97 0914
ISB		970708X	0.47023		0.5000		94.0	% 80-120		07/14/97 0924
ISB		970701WW	0.98311		1.000		98.3	% 80-120		07/14/97 0952
MD	971758-2		0.00055			0.00055	0.00000	A 0.00100		07/14/97 1019
PDS	971758-3	970630Z	0.99599		1.000	0.00061	99.5	% 75-125		07/14/97 1035
CCV		970513T	2.44569		2.5		97.8	% 95-105		07/14/97 1126
CCB		970714T	0.00002					0.001		07/14/97 1133
PDS	971770-1	970630Z	0.98600		1.000	0.00000	98.6	% 75-125		07/14/97 1259
CCV		970513T	2.54026		2.5		101.6	% 95-105		07/14/97 1344
CCB		970714T	-0.00000					0.001		07/14/97 1352
PDS	971822-3	970630Z	1.02271		1.000	0.00029	102.2	% 75-125		07/14/97 1430
MD	971812-1		0.00048			0.00060	0.00012	A 0.00100		07/14/97 1440
CCV		970513T	2.57561		2.5		103.0	% 95-105		07/14/97 1504
CCB		970714T	0.00017					0.001		07/14/97 1516
MD	971841-3		0.00019			0.00014	0.00005	A 0.00100		07/14/97 1547
PDS	971841-3	970630Z	0.94724		1.000	0.00014	94.7	% 75-125		07/14/97 1553
CCV		970513T	2.50934		2.5		100.4	% 95-105		07/14/97 1616
CCB		970714T	0.00030					0.001		07/14/97 1622
CCV		970513T	2.59549		2.5		103.8	% 95-105		07/14/97 1715
CCB		970714T	0.00015					0.001		07/14/97 1723



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description: Metals Analysis(ICAP), Trace
 Parameter.....: Beryllium (Be)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
MB		0711	0.00004					0.001		07/14/97 1744
LCS		970709H	1.05560		1.00		105.6	% 80-120		07/14/97 1747
LCD		970709H	1.07568	1.05560	1.00		107.6	% 80-120		07/14/97 1750
						1.9	R 20			
CCV		970513T	2.51279		2.5		100.5	% 95-105		07/14/97 1812
CCB		970714T	0.00019					0.001		07/14/97 1821
CCV		970513T	2.52372		2.5		100.9	% 95-105		07/14/97 1919
CCB		970714T	0.00024					0.001		07/14/97 1921
ISB		970708X	0.51463		0.5000		102.9	% 80-120		07/14/97 1950
CCV		970513T	2.53601		2.5		101.4	% 95-105		07/14/97 2008
CCB		970714T	0.00021					0.001		07/14/97 2017
ISB		970701WW	0.92595		1.000		92.6	% 80-120		07/14/97 2026
CCV		970513T	2.53017		2.5		101.2	% 95-105		07/14/97 2039
CCB		970714T	0.00015					0.001		07/14/97 2047
ISB		970701WW	0.94488		1.000		94.5	% 80-120		07/14/97 2051
CCV		970513T	2.56493		2.5		102.6	% 95-105		07/14/97 2100
CCB		970714T	0.00023					0.001		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description: Metals Analysis(ICAP), Trace
 Parameter.....: Cadmium (Cd)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	1.99332		2.00		99.7	% 95-105		07/14/97 0856
ICB		970714T	-0.00039					0.0006		07/14/97 0914
ISB		970708X	0.86419		1.000		86.4	% 80-120		07/14/97 0924
ISB		970701WW	0.95285		1.000		95.3	% 80-120		07/14/97 0952
MD 971758-2			-0.00057			-0.00058	0.00001	A 0.00060		07/14/97 1019
PDS 971758-3		970630Z	0.93900		1.000	-0.00051	94.0	% 75-125		07/14/97 1035
CCV		970513T	1.01603		1.0		101.6	% 95-105		07/14/97 1126
CCB		970714T	-0.00028					0.0006		07/14/97 1133
PDS 971770-1		970630Z	0.94116		1.000	-0.00102	94.2	% 75-125		07/14/97 1259
MB		0710	-0.00015					0.0006		07/14/97 1316
LCS		970709H	1.15719		1.00		115.7	% 80-120		07/14/97 1322
MD 971815-1			0.00444			0.00457	2.9	R 20		07/14/97 1331
CCV		970513T	1.00230		1.0		100.2	% 95-105		07/14/97 1344
CCB		970714T	-0.00024					0.0006		07/14/97 1352
MS 971816-1		970630Z	1.11175		1.000	-0.00062	111.2	% 80-120		07/14/97 1410
PDS 971822-3		970630Z	1.08237		1.000	0.00312	107.9	% 75-125		07/14/97 1430
MD 971812-1			-0.00196			-0.00160	0.00036	A 0.00060		07/14/97 1440
CCV		970513T	1.01716		1.0		101.7	% 95-105		07/14/97 1504
CCB		970714T	-0.00032					0.0006		07/14/97 1516
MD 971841-3			-0.00028			-0.00045	0.00017	A 0.00060		07/14/97 1547
PDS 971841-3		970630Z	0.89111		1.000	-0.00045	89.2	% 75-125		07/14/97 1553
CCV		970513T	0.96547		1.0		96.5	% 95-105		07/14/97 1616
CCB		970714T	-0.00017					0.0006		07/14/97 1622
CCV		970513T	1.00667		1.0		100.7	% 95-105		07/14/97 1715
CCB		970714T	-0.00019					0.0006		07/14/97 1723
MB		0711	0.00003					0.0006		07/14/97 1744
LCS		970709H	1.04504		1.00		104.5	% 80-120		07/14/97 1747



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Cadmium (Cd)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
LCD	970709H		1.06197	1.04504	1.00		106.2	% 80-120	07/14/97 1750	
						1.6	1.6	R 20		
CCV	970513T		1.04093		1.0		104.1	% 95-105	07/14/97 1812	
CCB	970714T		0.00007					0.0006	07/14/97 1821	
CCV	970513T		1.03584		1.0		103.6	% 95-105	07/14/97 1919	
CCB	970714T		-0.00033					0.0006	07/14/97 1921	
ISB	970708X		0.96716		1.000		96.7	% 80-120	07/14/97 1950	
CCV	970513T		0.99913		1.0		99.9	% 95-105	07/14/97 2008	
CCB	970714T		0.00009					0.0006	07/14/97 2017	
ISB	970701WW		0.90053		1.000		90.1	% 80-120	07/14/97 2026	
CCV	970513T		0.99511		1.0		99.5	% 95-105	07/14/97 2039	
CCB	970714T		-0.00020					0.0006	07/14/97 2047	
ISB	970701WW		0.92001		1.000		92.0	% 80-120	07/14/97 2051	
CCV	970513T		1.00612		1.0		100.6	% 95-105	07/14/97 2100	
CCB	970714T		-0.00021					0.0006	07/14/97 2102	

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Chromium (Cr)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV	970508T		1.97351		2.00		98.7	% 95-105	07/14/97 0856	
ICB	970714T		-0.00040					0.005	07/14/97 0914	
ISB	970708X		0.44944		0.5000		89.9	% 80-120	07/14/97 0924	
ISA	970618W		48.37523		50.000000		96.8	% 80-120	07/14/97 0937	
ISB	970701WW		44.44430		51.00		87.1	% 80-120	07/14/97 0952	
MD 971758-2			0.00114			0.00091	0.00023	A 0.00500	07/14/97 1019	
PDS 971758-3	970630Z		0.92810		1.000	0.00106	92.7	% 75-125	07/14/97 1035	
CCV	970513T		2.53506		2.5		101.4	% 95-105	07/14/97 1126	
CCB	970714T		0.00033					0.005	07/14/97 1133	
PDS 971770-1	970630Z		0.93359		1.000	-0.00098	93.5	% 75-125	07/14/97 1259	
CCV	970513T		2.48323		2.5		99.3	% 95-105	07/14/97 1344	
CCB	970714T		0.00049					0.005	07/14/97 1352	
PDS 971822-3	970630Z		1.00546		1.000	0.00003	100.5	% 75-125	07/14/97 1430	
MD 971812-1			0.00099			0.00031	0.00068	A 0.00500	07/14/97 1440	
CCV	970513T		2.54625		2.5		101.8	% 95-105	07/14/97 1504	
CCB	970714T		-0.00011					0.005	07/14/97 1516	
MD 971841-3			0.00097			-0.00067	0.00164	A 0.00500	07/14/97 1547	
PDS 971841-3	970630Z		0.89308		1.000	-0.00067	89.4	% 75-125	07/14/97 1553	
CCV	970513T		2.46141		2.5		98.5	% 95-105	07/14/97 1616	
CCB	970714T		0.00033					0.005	07/14/97 1622	
CCV	970513T		2.48948		2.5		99.6	% 95-105	07/14/97 1715	
CCB	970714T		-0.00011					0.005	07/14/97 1723	
MB	0711		0.00028					0.005	07/14/97 1744	
LCS	970709H		1.05557		1.00		105.6	% 80-120	07/14/97 1747	
LCD	970709H		1.07275	1.05557	1.00		107.3	% 80-120	07/14/97 1750	
						1.6	1.6	R 20		
CCV	970513T		2.57889		2.5		103.2	% 95-105	07/14/97 1812	
CCB	970714T		0.00037					0.005	07/14/97 1821	
CCV	970513T		2.56754		2.5		102.7	% 95-105	07/14/97 1919	
CCB	970714T		0.00066					0.005	07/14/97 1921	



CORE LABORATORIES

Job Number: 971758

QUALITY CONTROL RESULTS

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Chromium (Cr)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ISB	970708X		0.49230		0.5000		98.5	%	80-120	07/14/97 1950
CCV	970513T		2.48846		2.5		99.5	%	95-105	07/14/97 2008
CCB	970714T		0.00038						0.005	07/14/97 2017
ISA	970618W		47.76492		50.000000		95.5	%	80-120	07/14/97 2020
ISB	970701WW		42.88175		51.00		84.1	%	80-120	07/14/97 2026
CCV	970513T		2.46354		2.5		98.5	%	95-105	07/14/97 2039
CCB	970714T		0.00014						0.005	07/14/97 2047
ISB	970701WW		43.58773		51.00		85.5	%	80-120	07/14/97 2051
CCV	970513T		2.48858		2.5		99.5	%	95-105	07/14/97 2100
CCB	970714T		0.00019						0.005	07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Copper (Cu)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV	970508T		1.90615		2.00		95.3	%	95-105	07/14/97 0856
ICB	970714T		-0.00054						0.005	07/14/97 0914
ISB	970708X		0.47639		0.5000		95.3	%	80-120	07/14/97 0924
ISA	970618W		47.52188		50.000000		95.0	%	80-120	07/14/97 0937
ISB	970701WW		44.38543		51.00		87.0	%	80-120	07/14/97 0952
MD 971758-2			-0.00082			-0.00085	0.00003	A	0.00500	07/14/97 1019
PDS 971758-3	970630Z		0.93329		1.000	0.00965	92.4	%	75-125	07/14/97 1035
CCV	970513T		2.56477		2.5		102.6	%	95-105	07/14/97 1126
CCB	970714T		0.00073						0.005	07/14/97 1133
PDS 971770-1	970630Z		0.92466		1.000	-0.00117	92.6	%	75-125	07/14/97 1259
MB	0710		0.00090						0.005	07/14/97 1316
LCS	970709H		1.07367		1.000		107.4	%	80-120	07/14/97 1322
MD 971815-1			0.25709			0.25871	0.6	R	20	07/14/97 1331
CCV	970513T		2.51461		2.5		100.6	%	95-105	07/14/97 1344
CCB	970714T		0.00048						0.005	07/14/97 1352
MS 971816-1	970630Z		0.83697		1.000	0.00040	83.7	%	80-120	07/14/97 1410
PDS 971822-3	970630Z		0.80700		1.000	0.00951	79.7	%	75-125	07/14/97 1430
MD 971812-1			-0.00270			-0.00238	0.00032	A	0.00500	07/14/97 1440
CCV	970513T		2.54457		2.5		101.8	%	95-105	07/14/97 1504
CCB	970714T		-0.00065						0.005	07/14/97 1516
MD 971841-3			-0.00040			-0.00185	0.00145	A	0.00500	07/14/97 1547
PDS 971841-3	970630Z		0.85908		1.000	-0.00185	86.1	%	75-125	07/14/97 1553
CCV	970513T		2.52830		2.5		101.1	%	95-105	07/14/97 1616
CCB	970714T		-0.00040						0.005	07/14/97 1622
CCV	970513T		2.51349		2.5		100.5	%	95-105	07/14/97 1715
CCB	970714T		-0.00028						0.005	07/14/97 1723
MB	0711		0.00032						0.005	07/14/97 1744
LCS	970709H		1.04868		1.000		104.9	%	80-120	07/14/97 1747
LCD	970709H		1.06536	1.04868	1.000		106.5	%	80-120	07/14/97 1750
							1.6	R	20	
CCV	970513T		2.61158		2.5		104.5	%	95-105	07/14/97 1812
CCB	970714T		-0.00056						0.005	07/14/97 1821
CCV	970513T		2.60286		2.5		104.1	%	95-105	07/14/97 1919
CCB	970714T		-0.00077						0.005	07/14/97 1921
ISB	970708X		0.45484		0.5000		91.0	%	80-120	07/14/97 1950



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Copper (Cu)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCV	970513T		2.53698		2.5		101.5	%	95-105	07/14/97 2008
CCB	970714T		0.00005					0.005		07/14/97 2017
ISA	970618W		49.02013		50.000000		98.0	%	80-120	07/14/97 2020
ISB	970701WW		42.23815		51.00		82.8	%	80-120	07/14/97 2026
CCV	970513T		2.51258		2.5		100.5	%	95-105	07/14/97 2039
CCB	970714T		0.00015					0.005		07/14/97 2047
ISB	970701WW		43.11235		51.00		84.5	%	80-120	07/14/97 2051
CCV	970513T		2.54127		2.5		101.7	%	95-105	07/14/97 2100
CCB	970714T		0.00071					0.005		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Lead (Pb)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV	970508T		1.95178		2.00		97.6	%	95-105	07/14/97 0856
ICB	970714T		0.00093					0.003		07/14/97 0914
ISB	970708X		0.88183		1.000		88.2	%	80-120	07/14/97 0924
ISB	970701WW		0.94056		1.000		94.1	%	80-120	07/14/97 0952
MD 971758-2			0.00049			-0.00104	0.00153	A	0.00300	07/14/97 1019
PDS 971758-3	970630Z		0.93052		1.000	-0.00000	93.1	%	75-125	07/14/97 1035
CCV	970513T		1.00851		1.0		100.9	%	95-105	07/14/97 1126
CCB	970714T		0.00046					0.003		07/14/97 1133
PDS 971770-1	970630Z		0.93158		1.000	0.00192	93.0	%	75-125	07/14/97 1259
MB	0710		0.00151					0.003		07/14/97 1316
LCS	970709H		1.13239		1.00		113.2	%	80-120	07/14/97 1322
CCV	970513T		0.99082		1.0		99.1	%	95-105	07/14/97 1344
CCB	970714T		0.00223					0.003		07/14/97 1352
MD 971815-1			0.00158			0.00055	0.00103	A	0.00300	07/14/97 1402
MS 971816-1	970630Z		1.11146		1.000	-0.00429	111.6	%	80-120	07/14/97 1410
PDS 971822-3	970630Z		1.07338		1.000	0.00424	106.9	%	75-125	07/14/97 1430
MD 971812-1			0.00072			0.00027	0.00045	A	0.00300	07/14/97 1440
CCV	970513T		1.00960		1.0		101.0	%	95-105	07/14/97 1504
CCB	970714T		0.00076					0.003		07/14/97 1516
MD 971841-3			0.00233			0.00127	0.00106	A	0.00300	07/14/97 1547
PDS 971841-3	970630Z		0.86114		1.000	0.00127	86.0	%	75-125	07/14/97 1553
CCV	970513T		0.95081		1.0		95.1	%	95-105	07/14/97 1616
CCB	970714T		0.00251					0.003		07/14/97 1622
CCV	970513T		0.99817		1.0		99.8	%	95-105	07/14/97 1715
CCB	970714T		0.00078					0.003		07/14/97 1723
MB	0711		0.00239					0.003		07/14/97 1744
LCS	970709H		1.03659		1.00		103.7	%	80-120	07/14/97 1747
LCD	970709H		1.05971	1.03659	1.00		106.0	%	80-120	07/14/97 1750
							2.2	R	20	
CCV	970513T		1.03209		1.0		103.2	%	95-105	07/14/97 1812
CCB	970714T		0.00170					0.003		07/14/97 1821
CCV	970513T		1.02344		1.0		102.3	%	95-105	07/14/97 1919
CCB	970714T		0.00182					0.003		07/14/97 1921
ISB	970708X		0.95299		1.000		95.3	%	80-120	07/14/97 1950
CCV	970513T		0.99485		1.0		99.5	%	95-105	07/14/97 2008
CCB	970714T		0.00200					0.003		07/14/97 2017



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Lead (Pb)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ISB		970701WW	0.87524		1.000		87.5	%	80-120	07/14/97 2026
CCV		970513T	0.98626		1.0		98.6	%	95-105	07/14/97 2039
CCB		970714T	0.00197					0.003		07/14/97 2047
ISB		970701WW	0.89569		1.000		89.6	%	80-120	07/14/97 2051
CCV		970513T	1.00169		1.0		100.2	%	95-105	07/14/97 2100
CCB		970714T	0.00152					0.003		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Nickel (Ni)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	2.00885		2.00		100.4	%	95-105	07/14/97 0856
ICB		970714T	-0.00072					0.005		07/14/97 0914
ISB		970708X	0.84887		1.000		84.9	%	80-120	07/14/97 0924
ISA		970618W	50.71559		50.000000		101.4	%	80-120	07/14/97 0937
ISB		970701WW	47.06034		51.00		92.3	%	80-120	07/14/97 0952
MD 971758-2			0.00110			0.00042	0.00068	A	0.00500	07/14/97 1019
PDS 971758-3		970630Z	0.91119		1.000	0.00352	90.8	%	75-125	07/14/97 1035
CCV		970513T	2.56017		2.5		102.4	%	95-105	07/14/97 1126
CCB		970714T	0.00021					0.005		07/14/97 1133
PDS 971770-1		970630Z	0.90344		1.000	-0.00041	90.4	%	75-125	07/14/97 1259
CCV		970513T	2.49491		2.5		99.8	%	95-105	07/14/97 1344
CCB		970714T	0.00031					0.005		07/14/97 1352
PDS 971822-3		970630Z	1.15156		1.000	0.21952	93.2	%	75-125	07/14/97 1430
MD 971812-1			0.04403			0.04446	1.0	R	20	07/14/97 1440
CCV		970513T	2.58543		2.5		103.4	%	95-105	07/14/97 1504
CCB		970714T	-0.00076					0.005		07/14/97 1516
MD 971841-3			0.00103			0.00016	0.00087	A	0.00500	07/14/97 1547
PDS 971841-3		970630Z	0.85965		1.000	0.00016	85.9	%	75-125	07/14/97 1553
CCV		970513T	2.46101		2.5		98.4	%	95-105	07/14/97 1616
CCB		970714T	0.00045					0.005		07/14/97 1622
CCV		970513T	2.53894		2.5		101.6	%	95-105	07/14/97 1715
CCB		970714T	0.00064					0.005		07/14/97 1723
MB		0711	0.00106					0.005		07/14/97 1744
LCS		970709H	1.05513		1.00		105.5	%	80-120	07/14/97 1747
LCD		970709H	1.07493	1.05513	1.00		107.5	%	80-120	07/14/97 1750
								1.9	R	20
CCV		970513T	2.61284		2.5		104.5	%	95-105	07/14/97 1812
CCB		970714T	0.00015					0.005		07/14/97 1821
CCV		970513T	2.60725		2.5		104.3	%	95-105	07/14/97 1919
CCB		970714T	-0.00000					0.005		07/14/97 1921
ISB		970708X	0.89952		1.000		90.0	%	80-120	07/14/97 1950
CCV		970513T	2.51482		2.5		100.6	%	95-105	07/14/97 2008
CCB		970714T	-0.00012					0.005		07/14/97 2017
ISA		970618W	48.08852		50.000000		96.2	%	80-120	07/14/97 2020
ISB		970701WW	43.53677		51.00		85.4	%	80-120	07/14/97 2026
CCV		970513T	2.58168		2.5		103.3	%	95-105	07/14/97 2039
CCB		970714T	-0.00042					0.005		07/14/97 2047
ISB		970701WW	44.60795		51.00		87.5	%	80-120	07/14/97 2051
CCV		970513T	2.42516		2.5		97.0	%	95-105	07/14/97 2100



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Nickel (Ni)

Batch.....: 23625
Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCB		970714T		0.00126					0.005	07/14/97 2102

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Selenium (Se)

Batch.....: 23625
Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	1.96765		2.00		98.4	%	95-105	07/14/97 0856
ICB		970714T	0.00133						0.01	07/14/97 0914
ISB		970708X	0.92686		1.000		92.7	%	80-120	07/14/97 0924
ISB		970701WW	0.95721		1.000		95.7	%	80-120	07/14/97 0952
MD 971758-2			0.00949			0.00498	0.00451	A	0.01000	07/14/97 1019
PDS 971758-3		970630Z	1.00196		1.000	0.01122	99.1	%	75-125	07/14/97 1035
CCV		970513T	2.47869		2.5		99.1	%	95-105	07/14/97 1126
CCB		970714T	0.00318						0.01	07/14/97 1133
PDS 971770-1		970630Z	1.00408		1.000	0.00585	99.8	%	75-125	07/14/97 1259
CCV		970513T	2.43801		2.5		97.5	%	95-105	07/14/97 1344
CCB		970714T	0.00737						0.01	07/14/97 1352
PDS 971822-3		970630Z	1.03005		1.000	0.01946	101.1	%	75-125	07/14/97 1430
MD 971812-1			0.00697			0.00915	0.00218	A	0.01000	07/14/97 1440
CCV		970513T	2.52969		2.5		101.2	%	95-105	07/14/97 1504
CCB		970714T	0.00580						0.01	07/14/97 1516
MD 971841-3			0.01002			0.01008	0.00006	A	0.01000	07/14/97 1547
PDS 971841-3		970630Z	0.98247		1.000	0.01008	97.2	%	75-125	07/14/97 1553
CCV		970513T	2.45278		2.5		98.1	%	95-105	07/14/97 1616
CCB		970714T	0.00720						0.01	07/14/97 1622
CCV		970513T	2.46263		2.5		98.5	%	95-105	07/14/97 1715
CCB		970714T	0.00732						0.01	07/14/97 1723
MB		0711	0.00312						0.01	07/14/97 1744
LCS		970709H	0.89011		1.00		89.0	%	80-120	07/14/97 1747
LCD		970709H	0.91609	0.89011	1.00		91.6	%	80-120	07/14/97 1750
								R	20	
CCV		970513T	2.55418		2.5		102.2	%	95-105	07/14/97 1812
CCB		970714T	0.00491						0.01	07/14/97 1821
CCV		970513T	2.53231		2.5		101.3	%	95-105	07/14/97 1919
CCB		970714T	0.00499						0.01	07/14/97 1921
ISB		970708X	0.99543		1.000		99.5	%	80-120	07/14/97 1950
CCV		970513T	2.44216		2.5		97.7	%	95-105	07/14/97 2008
CCB		970714T	0.00499						0.01	07/14/97 2017
ISB		970701WW	0.89309		1.000		89.3	%	80-120	07/14/97 2026
CCV		970513T	2.41923		2.5		96.8	%	95-105	07/14/97 2039
CCB		970714T	0.00118						0.01	07/14/97 2047
ISB		970701WW	0.90929		1.000		90.9	%	80-120	07/14/97 2051
CCV		970513T	2.46290		2.5		98.5	%	95-105	07/14/97 2100
CCB		970714T	0.00682						0.01	07/14/97 2102



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Silver (Ag)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970428T	0.96279		1.00		96.3	%	95-105	07/14/97 0858
ICB		970714T	0.00189					0.005		07/14/97 0914
ISB		970708X	0.91136		1.000		91.1	%	80-120	07/14/97 0924
ISB		970701WW	0.91872		1.000		91.9	%	80-120	07/14/97 0952
MD 971758-2			0.00257			0.00086	0.00171	A	0.00500	07/14/97 1019
PDS 971758-3		970630Z	0.92316		1.000	0.00074	92.2	%	75-125	07/14/97 1035
CCV		970701T	2.38490		2.500		95.4	%	95-105	07/14/97 1041
CCB		970714T	0.00064					0.005		07/14/97 1133
PDS 971770-1		970630Z	0.91368		1.000	0.00045	91.3	%	75-125	07/14/97 1259
CCV		970701T	2.51125		2.500		100.5	%	95-105	07/14/97 1334
CCB		970714T	0.00059					0.005		07/14/97 1352
PDS 971822-3		970630Z	0.81150		1.000	-0.00593	81.7	%	75-125	07/14/97 1430
MD 971812-1			0.00142			0.00175	0.00033	A	0.00500	07/14/97 1440
CCV		970701T	2.37769		2.500		95.1	%	95-105	07/14/97 1500
CCB		970714T	0.00424					0.005		07/14/97 1516
MD 971841-3			0.00244			-0.00027	0.00271	A	0.00500	07/14/97 1547
PDS 971841-3		970630Z	0.89608		1.000	-0.00027	89.6	%	75-125	07/14/97 1553
CCV		970701T	2.37793		2.500		95.1	%	95-105	07/14/97 1611
CCB		970714T	0.00364					0.005		07/14/97 1622
CCV		970701T	2.52073		2.500		100.8	%	95-105	07/14/97 1709
CCB		970714T	0.00236					0.005		07/14/97 1723
MB		0711	0.00083					0.005		07/14/97 1744
LCS		970709H	1.07825		1.00		107.8	%	80-120	07/14/97 1747
LCD		970709H	1.09935	1.07825	1.00		109.9	%	80-120	07/14/97 1750
							1.9	R	20	
CCV		970701T	2.61914		2.500		104.8	%	95-105	07/14/97 1801
CCB		970714T	0.00397					0.005		07/14/97 1821
CCV		970701T	2.38386		2.500		95.4	%	95-105	07/14/97 1912
CCB		970714T	0.00106					0.005		07/14/97 1921
ISB		970708X	0.92444		1.000		92.4	%	80-120	07/14/97 1950
CCV		970701T	2.42908		2.500		97.2	%	95-105	07/14/97 1954
CCB		970714T	0.00369					0.005		07/14/97 2017
ISB		970701WW	0.97514		1.000		97.5	%	80-120	07/14/97 2026
CCV		970701T	2.47891		2.500		99.2	%	95-105	07/14/97 2031
CCB		970714T	0.00061					0.005		07/14/97 2047
ISB		970701WW	0.98611		1.000		98.6	%	80-120	07/14/97 2051
CCV		970701T	2.49285		2.500		99.7	%	95-105	07/14/97 2054
CCB		970714T	0.00094					0.005		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Thallium (Tl)

Batch.....: 23625
 Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	1.92086		2.00		96.0	%	95-105	07/14/97 0856
ICB		970714T	0.00218					0.01		07/14/97 0914
ISB		970708X	0.91577		1.000		91.6	%	80-120	07/14/97 0924
ISA		970618W	48.06250		50.000000		96.1	%	80-120	07/14/97 0937
ISB		970701WW	45.82416		51.00		89.9	%	80-120	07/14/97 0952
MD 971758-2			-0.00740			-0.00850	0.00110	A	0.01000	07/14/97 1019
PDS 971758-3		970630Z	0.95375		1.000	-0.00464	95.8	%	75-125	07/14/97 1035



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Thallium (Tl)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCV		970513T	1.00605		1.0		100.6	%	95-105	07/14/97 1126
CCB		970714T	-0.00033					0.01		07/14/97 1133
PDS	971770-1	970630Z	0.94760		1.000	-0.00105	94.9	%	75-125	07/14/97 1259
CCV		970513T	0.98403		1.0		98.4	%	95-105	07/14/97 1344
CCB		970714T	0.00224					0.01		07/14/97 1352
PDS	971822-3	970630Z	1.02087		1.000	0.00941	101.1	%	75-125	07/14/97 1430
MD	971812-1		-0.01053			-0.00557	0.00496	A	0.01000	07/14/97 1440
CCV		970513T	1.00196		1.0		100.2	%	95-105	07/14/97 1504
CCB		970714T	-0.00019					0.01		07/14/97 1516
MD	971841-3		-0.00663			-0.00069	0.00594	A	0.01000	07/14/97 1547
PDS	971841-3	970630Z	0.87457		1.000	-0.00069	87.5	%	75-125	07/14/97 1553
CCV		970513T	0.95332		1.0		95.3	%	95-105	07/14/97 1616
CCB		970714T	0.00035					0.01		07/14/97 1622
CCV		970513T	0.99763		1.0		99.8	%	95-105	07/14/97 1715
CCB		970714T	-0.00153					0.01		07/14/97 1723
MB		0711	0.00258					0.01		07/14/97 1744
LCS		970709H	1.01596		1.00		101.6	%	80-120	07/14/97 1747
LCD		970709H	1.03120	1.01596	1.00		103.1	%	80-120	07/14/97 1750
								1.5	R 20	
CCV		970513T	1.01582		1.0		101.6	%	95-105	07/14/97 1812
CCB		970714T	0.00284					0.01		07/14/97 1821
CCV		970513T	1.01334		1.0		101.3	%	95-105	07/14/97 1919
CCB		970714T	0.00056					0.01		07/14/97 1921
ISB		970708X	0.95331		1.000		95.3	%	80-120	07/14/97 1950
CCV		970513T	0.98566		1.0		98.6	%	95-105	07/14/97 2008
CCB		970714T	0.00234					0.01		07/14/97 2017
ISA		970618W	47.64059		50.000000		95.3	%	80-120	07/14/97 2020
ISB		970701WW	43.00976		51.00		84.3	%	80-120	07/14/97 2026
CCV		970513T	0.98529		1.0		98.5	%	95-105	07/14/97 2039
CCB		970714T	-0.00101					0.01		07/14/97 2047
ISB		970701WW	43.51358		51.00		85.3	%	80-120	07/14/97 2051
CCV		970513T	0.99237		1.0		99.2	%	95-105	07/14/97 2100
CCB		970714T	0.00407					0.01		07/14/97 2102

Test Method.....: EPA 200.7
 Method Description.: Metals Analysis(ICAP), Trace
 Parameter.....: Zinc (Zn)

Batch.....: 23625
 Units.....: mg/L

Analyst....: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
ICV		970508T	2.00183		2.00		100.1	%	95-105	07/14/97 0856
ICB		970714T	0.00008					0.005		07/14/97 0914
ISB		970708X	0.96222		1.000		96.2	%	80-120	07/14/97 0924
ISB		970701WW	0.91200		1.000		91.2	%	80-120	07/14/97 0952
MD	971758-2		0.00272			0.00244	0.00028	A	0.00500	07/14/97 1019
PDS	971758-3	970630Z	1.00114		1.000	0.00880	99.2	%	75-125	07/14/97 1035
CCV		970513T	2.54127		2.5		101.7	%	95-105	07/14/97 1126
CCB		970714T	-0.00000					0.005		07/14/97 1133
PDS	971770-1	970630Z	0.98896		1.000	-0.00125	99.0	%	75-125	07/14/97 1259
MB		0710	0.00442					0.005		07/14/97 1316
LCS		970709H	1.12192		1.00		112.2	%	80-120	07/14/97 1322
MD	971815-1		0.79892			0.80522	0.8	R 20		07/14/97 1331



CORE LABORATORIES

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Test Method.....: EPA 200.7
Method Description.: Metals Analysis(ICAP), Trace
Parameter.....: Zinc (Zn)

Batch.....: 23625
Units.....: mg/L

Analyst...: gag

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	Date/Time
CCV		970513T	2.50628		2.5		100.3	%	95-105	07/14/97 1344
CCB		970714T	-0.00000					0.005		07/14/97 1352
MS	971816-1	970630Z	1.02066		1.000	0.00370	101.7	%	80-120	07/14/97 1410
PDS	971822-3	970630Z	1.05274		1.000	0.10732	94.5	%	75-125	07/14/97 1430
MD	971812-1		0.17455			0.17035	2.4	R	20	07/14/97 1440
CCV		970513T	2.54233		2.5		101.7	%	95-105	07/14/97 1504
CCB		970714T	0.00020					0.005		07/14/97 1516
MD	971841-3		0.00172			0.00160	0.00012	A	0.00500	07/14/97 1547
PDS	971841-3	970630Z	0.94407		1.000	0.00160	94.2	%	75-125	07/14/97 1553
CCV		970513T	2.47357		2.5		98.9	%	95-105	07/14/97 1616
CCB		970714T	0.00052					0.005		07/14/97 1622
CCV		970513T	2.51573		2.5		100.6	%	95-105	07/14/97 1715
CCB		970714T	0.00006					0.005		07/14/97 1723
MB		0711	0.00453					0.005		07/14/97 1744
LCS		970709H	1.01574		1.00		101.6	%	80-120	07/14/97 1747
LCD		970709H	1.03509	1.01574	1.00		103.5	%	80-120	07/14/97 1750
							1.9	R	20	
CCV		970513T	2.58611		2.5		103.4	%	95-105	07/14/97 1812
CCB		970714T	0.00122					0.005		07/14/97 1821
CCV		970513T	2.55920		2.5		102.4	%	95-105	07/14/97 1919
CCB		970714T	0.00019					0.005		07/14/97 1921
ISB		970708X	0.99322		1.000		99.3	%	80-120	07/14/97 1950
CCV		970513T	2.48293		2.5		99.3	%	95-105	07/14/97 2008
CCB		970714T	0.00023					0.005		07/14/97 2017
ISB		970701WW	0.92490		1.000		92.5	%	80-120	07/14/97 2026
CCV		970513T	2.44261		2.5		97.7	%	95-105	07/14/97 2039
CCB		970714T	0.00006					0.005		07/14/97 2047
ISB		970701WW	0.93569		1.000		93.6	%	80-120	07/14/97 2051
CCV		970513T	2.47995		2.5		99.2	%	95-105	07/14/97 2100
CCB		970714T	0.00022					0.005		07/14/97 2102



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: SW-846 8020

Method Description.: Volatile Organics -Aromatics

Batch.....: 23419

Analyst ...: vdt

Units.....: ug/L

MB	Method Blank					07/07/97 1109
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	ND					0.5
Ethylbenzene	ND					0.5
Toluene	ND					0.5
Xylenes (total)	ND					0.5

SB	Spiked Blank	T970707B				07/07/97 1143
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	22.079		20.10		109.8	% 39-150
Ethylbenzene	21.131		20.08		105.2	% 32-160
Toluene	21.789		20.08		108.5	% 46-148
Xylenes (total)	62.008		60.26		102.9	% 75-125

SBD	Spiked Blank Duplicate	T970707B				07/07/97 1218
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	22.187	22.079	20.10		110.4	% 39-150
Ethylbenzene	21.261	21.131	20.08		0.5	R 25
Toluene	21.886	21.789	20.08		105.9	% 32-160
Xylenes (total)	63.746	62.008	60.26		0.6	R 25
					109.0	% 46-148
					0.4	R 25
					105.8	% 75-125
					2.8	R 25

Test Method.....: SW-846 8270	Batch.....: 23485	Analyst ...: dmj
Method Description.: Semivolatile Organics (Client List)	Units.....: ug/L	

MB	Method Blank	MB3110				07/08/97 1339
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Acenaphthene	ND					10
Acenaphthylene	ND					10
Anthracene	ND					10
Benzo(a)anthracene	ND					10
Benzo(b)fluoranthene	ND					10
Benzo(k)fluoranthene	ND					10
Benzo(ghi)perylene	ND					10
Benzo(a)pyrene	ND					10
Chrysene	ND					10



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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MB	Method Blank	MB3110			07/08/97	1339
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Dibenzo(a,h)anthracene	ND					10
Fluoranthene	ND					10
Fluorene	ND					10
Indeno(1,2,3-cd)pyrene	ND					10
1-Methylnaphthalene	ND					10
2-Methylnaphthalene	ND					10
Naphthalene	ND					10
Phenanthrene	ND					10
Pyrene	ND					10

LCS	Laboratory Control Sample	B970613A			07/08/97	1437
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Acenaphthene	76.44		100.0	ND	76.4	% 46-118
Pyrene	90.09		100.1	ND	90.0	% 26-127

LCD	Laboratory Control Sample Duplicate	B970613A			07/08/97	1536
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Acenaphthene	77.54	76.44	100.0	ND	77.5	% 46-118
Pyrene	90.19	90.09	100.1	ND	90.1	% 26-127

Test Method.....: SW-846 8020 Method Description.: Volatile Organics -Aromatics	Batch.....: 23655 Units.....: ug/L	Analyst ...: vdt
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MB	Method Blank				07/15/97	1120
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	ND					0.5
Ethylbenzene	ND					0.5
Toluene	ND					0.5
Xylenes (total)	ND					0.5

SB	Spiked Blank	T970715B			07/15/97	1229
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	22.122		20.10		110.1	% 39-150
Ethylbenzene	21.184		20.08		105.5	% 32-160
Toluene	21.819		20.08		108.7	% 46-148
Xylenes (total)	63.032		60.26		104.6	% 75-125



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 971758

Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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SBD	Spiked Blank Duplicate	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits
Benzene		21.404	21.404	20.10		106.5	%	39-150
Ethylbenzene		20.802	20.802	20.08		0.0	R	25
Toluene		21.255	21.255	20.08		103.6	%	32-160
Xylenes (total)		62.346	62.346	60.26		0.0	R	25
						105.9	%	46-148
						0.0	R	25
						103.5	%	75-125
						0.0	R	25



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971758

Report Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Method.....: SW-846 8020
Method Code....: 8020Batch.....: 23419
Analyst.....: vdt

Surrogate	Units
BFB (Surrogate)	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
971757-1	BFB	MB		21.718	20.07	108.2	110-89		07/07/97	1109
		SB		20.738	20.07	103.3	110-89		07/07/97	1143
		SBD		20.801	20.07	103.6	110-89		07/07/97	1218
	2,4,6-Tribromophenol			20.386	20.07	101.6	110-89		07/07/97	1851
				20.131	20.07	100.3	110-89		07/07/97	2010
				19.988	20.07	99.6	110-89		07/07/97	2045
				19.862	20.07	99.0	110-89		07/07/97	2119
				19.735	20.07	98.3	110-89		07/07/97	2154
				19.750	20.07	98.4	110-89		07/07/97	2252
				20.610	20.07	102.7	110-89		07/07/97	2326
			10	19.214	20.07	95.7	110-89		07/08/97	0001

Method.....: SW-846 8270
Method Code....: 8270CBatch.....: 23485
Analyst.....: dmj

Surrogate	Units
2,4,6-Tribromophenol	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
971757-1	2,4,6-Tribromophenol	MB	1.00	77.59	100.51	77	123-10		07/08/97	1339
		LCS	1.00	85.84	100.51	85	123-10		07/08/97	1437
		LCD	1.00	86.45	100.51	86	123-10		07/08/97	1536
	2-Fluorobiphenyl		1.00	87.68	100.51	87	123-10		07/08/97	1634
			1.00	88.65	100.51	88	123-10		07/08/97	1732
			1.00	88.60	100.51	88	123-10		07/08/97	1830
			1.00	88.38	100.51	88	123-10		07/08/97	1928
			1.00	93.09	100.51	93	123-10		07/08/97	2026
			1.00	87.51	100.51	87	123-10		07/08/97	2123
			1.00	86.54	100.51	86	123-10		07/08/97	2220
			1.00	87.74	100.51	87	123-10		07/08/97	2317

Surrogate	Units
2-Fluorobiphenyl	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
971757-1	2-Fluorobiphenyl	MB	1.00	35.84	50.00	72	116-43		07/08/97	1339
		LCS	1.00	35.17	50.00	70	116-43		07/08/97	1437
		LCD	1.00	35.81	50.00	72	116-43		07/08/97	1536
			1.00	42.50	50.00	85	116-43		07/08/97	1634



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971758

Report Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Surrogate	Units
2-Fluorobiphenyl	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
971757-2			1.00	41.98	50.00	84	116-43		07/08/97	1732
971757-3			1.00	41.48	50.00	83	116-43		07/08/97	1830
971757-6			1.00	44.13	50.00	88	116-43		07/08/97	1928
971758-1			1.00	43.56	50.00	87	116-43		07/08/97	2026
971758-2			1.00	37.55	50.00	75	116-43		07/08/97	2123
971758-3			1.00	36.85	50.00	74	116-43		07/08/97	2220
971758-4			1.00	35.54	50.00	71	116-43		07/08/97	2317

Surrogate	Units
2-Fluorophenol	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
	MB		1.00	39.36	99.98	39	100-21		07/08/97	1339
	LCS		1.00	37.72	99.98	38	100-21		07/08/97	1437
	LCD		1.00	38.15	99.98	38	100-21		07/08/97	1536
971757-1			1.00	43.80	99.98	44	100-21		07/08/97	1634
971757-2			1.00	42.57	99.98	43	100-21		07/08/97	1732
971757-3			1.00	44.14	99.98	44	100-21		07/08/97	1830
971757-6			1.00	60.66	99.98	61	100-21		07/08/97	1928
971758-1			1.00	43.72	99.98	44	100-21		07/08/97	2026
971758-2			1.00	38.73	99.98	39	100-21		07/08/97	2123
971758-3			1.00	38.81	99.98	39	100-21		07/08/97	2220
971758-4			1.00	35.99	99.98	36	100-21		07/08/97	2317

Surrogate	Units
Nitrobenzene-d5	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
	MB		1.00	37.53	50.07	75	114-35		07/08/97	1339
	LCS		1.00	36.57	50.07	73	114-35		07/08/97	1437
	LCD		1.00	36.86	50.07	74	114-35		07/08/97	1536
971757-1			1.00	40.45	50.07	81	114-35		07/08/97	1634
971757-2			1.00	40.17	50.07	80	114-35		07/08/97	1732
971757-3			1.00	39.65	50.07	79	114-35		07/08/97	1830
971757-6			1.00	43.36	50.07	87	114-35		07/08/97	1928
971758-1			1.00	39.19	50.07	78	114-35		07/08/97	2026
971758-2			1.00	35.85	50.07	72	114-35		07/08/97	2123
971758-3			1.00	36.41	50.07	73	114-35		07/08/97	2220
971758-4			1.00	33.66	50.07	67	114-35		07/08/97	2317



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 971758

Report Date: 07/18/97

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Surrogate	Units
Phenol-d6	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		MB	1.00	26.92	100.40	27	94-10		07/08/97	1339
		LCS	1.00	29.37	100.40	29	94-10		07/08/97	1437
		LCD	1.00	29.88	100.40	30	94-10		07/08/97	1536
971757-1			1.00	29.10	100.40	29	94-10		07/08/97	1634
971757-2			1.00	28.39	100.40	28	94-10		07/08/97	1732
971757-3			1.00	29.44	100.40	29	94-10		07/08/97	1830
971757-6			1.00	35.74	100.40	36	94-10		07/08/97	1928
971758-1			1.00	31.37	100.40	31	94-10		07/08/97	2026
971758-2			1.00	26.33	100.40	26	94-10		07/08/97	2123
971758-3			1.00	27.05	100.40	27	94-10		07/08/97	2220
971758-4			1.00	25.35	100.40	25	94-10		07/08/97	2317

Surrogate	Units
Terphenyl-d14	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		MB	1.00	46.48	50.02	93	141-33		07/08/97	1339
		LCS	1.00	47.40	50.02	95	141-33		07/08/97	1437
		LCD	1.00	46.86	50.02	94	141-33		07/08/97	1536
971757-1			1.00	48.76	50.02	97	141-33		07/08/97	1634
971757-2			1.00	46.96	50.02	94	141-33		07/08/97	1732
971757-3			1.00	48.09	50.02	96	141-33		07/08/97	1830
971757-6			1.00	50.94	50.02	102	141-33		07/08/97	1928
971758-1			1.00	49.02	50.02	98	141-33		07/08/97	2026
971758-2			1.00	46.99	50.02	94	141-33		07/08/97	2123
971758-3			1.00	46.99	50.02	94	141-33		07/08/97	2220
971758-4			1.00	47.86	50.02	96	141-33		07/08/97	2317

Method.....: SW-846 8020

Batch.....: 23655

Method Code.....: 8020

Analyst.....: vdt

Surrogate	Units
BFB (Surrogate)	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		MB		18.043	20.07	89.9	110-89		07/15/97	1120
		SB		20.989	20.07	104.6	110-89		07/15/97	1229
		SBD		18.017	20.07	89.8	110-89		07/15/97	1305
971758-7				17.931	20.07	89.3	110-89		07/15/97	1422
971758-5				18.115	20.07	90.3	110-89		07/15/97	1457
971758-6				17.868	20.07	89.0	110-89		07/15/97	1532



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/18/97

WATER LIMITS SOIL LIMITS Recovery RPD Recovery RPD

VOLATILE ORGANICS

Methods 602/8020 Surrogate
Bromofluorobenzene 89-110% 78-123%

Methods 602/8020 Spike/Spike Duplicate
Benzene 39-150% 25 75-125% 25
Ethylbenzene 32-160% 25 60-140% 25
Toluene 46-148% 25 70-130% 25
Xylenes 75-125% 25 61-139% 25

Method 8015 Mod. Spike/Spike Duplicate
TVPH 75-125% 20 48-152% 20
TEPH 54-135% 20 54-135% 20

Methods 624/8240/8260 Surrogates
Dibromofluoromethane 86-118% 80-120%
Toluene-(d8) 88-110% 81-117%
4-Bromofluorobenzene 86-115% 74-121%

Method 524.2 Surrogates
4-Bromofluorobenzene 80-120%
1,4-Dichlorobenzene-d4 80-120%

Methods 624/8240 Spike/Spike Duplicate
1,1-Dichloroethene 61-145% 14 59-172% 22
Trichloroethene 71-120% 14 62-137% 24
Benzene 76-127% 11 66-142% 21
Toluene 76-125% 13 59-139% 21
Chlorobenzene 75-130% 13 60-133% 21

Method 8260 Spike/Spike Duplicate
1,1-Dichloroethene 70-130% 14 70-130% 22
Trichloroethene 71-120% 14 70-130% 24
Benzene 76-127% 11 70-130% 21
Toluene 76-125% 13 70-130% 21
Chlorobenzene 75-130% 13 70-130% 21

Method 524.2 Spike/Spike Duplicate
1,1-Dichloroethene 80-120% 14
Trichloroethene 80-120% 14
Benzene 80-120% 11
Toluene 80-120% 13
Chlorobenzene 80-120% 13

PESTICIDES AND PCB'S

Methods 608/8080 Surrogates
Tetrachloro-m-xylene 60-150% 60-150%
4,4'-Dichlorobiphenyl 60-150% 60-150%
Decachlorobiphenyl 60-150% 60-150%

Method 8140 Surrogates
Tributylphosphate 36-152% 36-152%
Triphenylphosphate 36-152% 36-152%



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/18/97

SEMIVOLATILE ORGANICS

	WATER LIMITS Recovery RPD	SOIL LIMITS Recovery RPD
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Methods 625/8270 Surrogates

Nitrobenzene-d5	35-114%	23-120%
2-Fluorobiphenyl	43-116%	30-115%
4-Terphenyl-d14	33-141%	18-137%
Phenol-d6	10-94%	24-113%
2-Fluorophenol	21-100%	25-121%
2,4,6-Tribromophenol	10-123%	19-122%

Methods 625/8270 Spike/Spike Duplicate

Phenol	12-110%	42	26-90%	35
2-Chlorophenol	27-123%	40	25-102%	50
1,4-Dichlorobenzene	36-97%	28	28-104%	27
N-Nitroso-di-n-propylamine	41-116%	38	41-126%	38
1,2,4-Trichlorobenzene	39-98%	28	38-107%	23
4-Chloro-3-methylphenol	23-97%	42	26-103%	33
Acenaphthene	46-118%	31	31-137%	19
4-Nitrophenol	10-80%	50	11-114%	50
2,4-Dintrotoluene	24-96%	38	28-89%	47
Pentachlorophenol	9-103%	50	17-109%	47
Pyrene	26-127%	31	35-142%	36

HERBICIDES

Method 8150 Surrogate

2,4-Dichlorophenylacetic acid	50-150%	50-150%
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Method 8150 Spike/Spike Duplicate

2,4-D	41-126%	25	41-126%	25
2,4,5-T	45-119%	25	45-119%	25



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/18/97

- (1) EPA 600/4-79-020 Methods for Chemical Analysis of Water and Wastes, March 1983
- (2) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986
- (3) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update I, July 1992
- (4) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update II, September 1994
- (5) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIA, August 1993
- (6) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIB, January 1995
- (7) Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985
- (8) Standard Methods for the Examination of Water and Wastewater, 17th Edition, 1989
- (9) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
- (10) EPA 600/4-80-032 Prescribed Procedures For Measurement Of Radioactivity in Drinking Water, August 1980
- (11) EPA 600/8-78-017 Microbiological Methods For Monitoring The Environment, December 1978
- (12) Federal Register, July 1, 1990 (40 CFR Part 136)
- (13) EPA 600/4-88-03 Methods For The Determination of Organics Compounds in Drinking Water, December 1988
- (14) U.S.G.S. Methods For Determination of Inorganic Substances In Water And Fluvial Sediments, Book 5, Chapter A1, 1985
- (15) Federal Register, June 7, 1991 (40 CFR Parts 141 & 142)
- (16) ASTM Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
- (17) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
- (18) ASTM Section 5, Petroleum Products, Lubricants, and Fossil Fuels, Volume 05.05, Gaseous Fuels, Coal, and Coke
- (19) EPA 600/2-78-054 Field and Laboratory Methods Applicable To Overburdens and Mine Soils, March 1978
- (20) ASTM Part 19, Soils and Rocks; Building Stones, 1981



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/18/97

COMMENTS

- a) ND = Not detected. NC = Not calculable due to value(s) lower than the detection limit.
- b) Data in the QA report may differ from final results due to digestion and/or dilution of samples into analytical ranges. Quality control results are reported "as analyzed" within the instruments established calibration range.
- c) The "Time Analyzed" in the QA report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "Date Analyzed" is the actual date of analysis.
- d) Results for soil and sludge samples are reported on a wet weight basis (i.e. not corrected for percent moisture) unless otherwise indicated.

BLANK QC SAMPLE IDENTIFICATION

MB	Method Blank
EB	Extraction Blank
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS	Method (Matrix) Spike
MSD	Method (Matrix) Spike Duplicate
PDS	Post-Digestion Spike
SB	Spike Blank
SBD	Spike Blank Duplicate

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
ICL	Initial Calibration/Laboratory Control Sample
DSC	Distilled Standard Check

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "Technician" using the following codes:

SUBCONTRACT LABORATORY

Core Laboratories - Anaheim, CA	CODE
Core Laboratories - Casper, WY	* AN
Core Laboratories - Corpus Christi, TX	* CA
Core Laboratories - Edison, NJ	* CC
Core Laboratories - Gulf States - Houston, TX	* ED
Core Laboratories - Houston, TX	* HE
Core Laboratories - Indianapolis, IN	* HP
	* IN



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 07/18/97

Core Laboratories - Lake Charles, LA	* LC
Core Laboratories - Long Beach, CA	* LB
Core Laboratories - Tampa, FL	* TP
Core Laboratories - Valparaiso, IN	* VP
Other Subcontract Laboratories	* XX

EXPLANATION OF DATA QUALIFIERS - ORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- J - This qualifier indicates that the value is an estimate. It is used when a compound is determined to be present based on the mass spectral data but at a concentration less than the practical quantitation limit of the method.
- E - This qualifier indicates that a sample result is an estimate because the concentration exceeded the upper calibration range of the instrument.

EXPLANATION OF DATA QUALIFIERS - METALS & INORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- B - This qualifier indicates that the analyte was detected at a level below the reporting limit but greater than or equal to the instrument detection limit.

EXPLANATION OF DATA FLAGS - ALL PARAMETERS

- B - This flag indicates that an analyte is present in the method blank as well as in the sample. The client should consider this when evaluating the data.
- E - This flag indicates the reported value is estimated due to sample matrix interference.
- W - This flag indicates that a post-digestion spike for GFAA analysis is outside quality control limits.
- X - This flag indicates that a surrogate recovery is outside quality control limits.
- Y - This flag indicates a spike or spike duplicate recovery is outside quality control limits.
- Z - This flag indicates a relative percent difference for a spike and spike duplicate is outside quality control limits.
- * - This flag indicates a relative percent difference for a duplicate analysis is outside quality control limits.
- ^ - This flag indicates a percent recovery for a standard is outside quality control limits.



CORE LABORATORIES

ANALYTICAL REPORT

JOB NUMBER: 980052

Prepared For:

BDM International, Inc.
1801 Randolph Street SE
Albuquerque, NM 87106

Attention: Mike Selke

Date: 01/16/98

Michelle M. Weatherford

Signature

1/19/98

Date

Name: Michelle M. Weatherford

Core Laboratories, Inc.
10703 East Bethany Drive
Aurora, CO 80014

Title: Project Coordinator

Phone: (303) 751-1780
Fax: (303) 751-1784

BDM

BDM International, Inc.
1801 Randolph Road, SE
MS 10
Albuquerque, NM 87106
(505) 848-5000
FAX: (505) 848-5299

Chain of Custody

12204

Date 1-8-98 Page 1 Of 1

Analysis Request		
Lab Name	Care Laboratories	
Address	10103 E. Belknap Dr.	
Affiliae Co	80014	
Telephone	303-751-1780	
Samplers (SIGNATURES)		
<i>Diane Shaberry</i>		
Sample Number	Matrix	Location
9801081150	H ₂ O	MW-95
9801081305	H ₂ O	MW-10
9801081345	H ₂ O	downstream
9801081400	H ₂ O	MW-60
9801081445	H ₂ O	MW-65
9801081530	H ₂ O	MW-30
9801081545	H ₂ O	MW-35
9801081600	H ₂ O	Inside
9801081605	H ₂ O	Upstream
9801081615	H ₂ O	Top - Blank
Aromatic Volatiles 601/8010		
Halogenated Volatiles 602/8020		
Pesticides/PCBs 603/8030		
Volatile Compounds 610/8110		
GC/MS 625/8240		
GC/MS 627/8270		
Total Organochlorine Compounds		
(TOC) 415960		
Total Organolead Compounds		
(TOX) 9020		
Hydrocarbons 418.1		
TPH/BTEX		
Modified 8015		
TCLP - Metals		
RCRA Metals (8)		
Priority Pollutant Metals (13)		
CAM Metrics (18)		
TCLC/S/LC		
Flash Point		
Corrosivity		
OIL & Grease		
Chloride Total/Amenable		
Chemical Oxygen Demand (COD)		
Number of Containers		
Project Reference	Total No. of Containers	28
Project Director M. Steele	Chain of Custody Seals	1
Charge Code No. P/1351324-104	Rec'd Good Condition/Cold	25/
Shipping ID. No.	Conforms to Record	
3519124570	Lab No.	980052
Via: Fed - EX		
Special Instructions/Comments: Normal TAT		
Sample Receipt		
Project Information	Relinquished By	
Project Reference	Diane Shaberry (Signature)	
Project Director M. Steele	1-8-98 (Date)	
Charge Code No. P/1351324-104	Diane Shaberry (Printed Name)	
Shipping ID. No.	BDM (Company)	
3519124570	Received By	
Via: Fed - EX		
1. Relinquished By		
Project Reference	Diane Shaberry (Signature)	
Project Director M. Steele	1-8-98 (Date)	
Charge Code No. P/1351324-104	Diane Shaberry (Printed Name)	
Shipping ID. No.	BDM (Company)	
3519124570	Received By (Laboratory)	
Via: Fed - EX		
2. Relinquished By		
Project Reference	Diane Shaberry (Signature)	
Project Director M. Steele	1-8-98 (Date)	
Charge Code No. P/1351324-104	Diane Shaberry (Printed Name)	
Shipping ID. No.	BDM (Company)	
3519124570	Received By (Laboratory)	
Via: Fed - EX		
3. Relinquished By		
Project Reference	Diane Shaberry (Signature)	
Project Director M. Steele	1-8-98 (Date)	
Charge Code No. P/1351324-104	Diane Shaberry (Printed Name)	
Shipping ID. No.	BDM (Company)	
3519124570	Received By (Laboratory)	
Via: Fed - EX		
Distribution: White, Canary-Laboratory • Pink, BDM		



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081150 MW95
Date Sampled.....: 01/08/98
Time Sampled.....: 11:50
Sample Matrix.....: Water

Laboratory Sample ID: 980052-1
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98 01/12/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081205 MW10
Date Sampled.....: 01/08/98
Time Sampled.....: 12:05
Sample Matrix.....: Water

Laboratory Sample ID: 980052-2
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98 01/12/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081245 DOWNSTREAM
Date Sampled.....: 01/08/98
Time Sampled.....: 12:45
Sample Matrix.....: Water

Laboratory Sample ID: 980052-3
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98 01/12/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081400 MW6D
Date Sampled.....: 01/08/98
Time Sampled.....: 14:00
Sample Matrix.....: Water

Laboratory Sample ID: 980052-4
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98 01/12/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081445 MW6S
Date Sampled.....: 01/08/98
Time Sampled.....: 14:45
Sample Matrix.....: Water

Laboratory Sample ID: 980052-5
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND	14 5 5	ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98	maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081530 MW3D
Date Sampled.....: 01/08/98
Time Sampled.....: 15:30
Sample Matrix.....: Water

Laboratory Sample ID: 980052-6
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE	RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND		0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/12/98 01/12/98 01/12/98 01/12/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081545 MW3S
Date Sampled.....: 01/08/98
Time Sampled.....: 15:45
Sample Matrix.....: Water

Laboratory Sample ID: 980052-7
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/13/98 01/13/98 01/13/98 01/13/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081600 RINSATE
Date Sampled.....: 01/08/98
Time Sampled.....: 16:00
Sample Matrix.....: Water

Laboratory Sample ID: 980052-8
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/13/98 01/13/98 01/13/98 01/13/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081605 UPSTREAM
Date Sampled.....: 01/08/98
Time Sampled.....: 16:05
Sample Matrix.....: Water

Laboratory Sample ID: 980052-9
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/13/98 01/13/98 01/13/98 01/13/98	maz maz maz maz



CORE LABORATORIES

LABORATORY TEST RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Customer Sample ID: 9801081615 TRIP BLANK
Date Sampled.....: 01/08/98
Time Sampled.....: 16:15
Sample Matrix.....: Water

Laboratory Sample ID: 980052-10
Date Received.....: 01/09/98
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8020	Volatile Organics -Aromatics Benzene Ethylbenzene Toluene Xylenes (total)	ND ND ND ND	0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L	01/13/98 01/13/98 01/13/98 01/13/98	maz maz maz maz



CORE LABORATORIES

QUALITY CONTROL RESULTS

Job Number: 980052

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: SW-846 8020
Method Description.: Volatile Organics -AromaticsBatch.....: 30156
Units.....: ug/L

Analyst ...: maz

MB	Method Blank					01/12/98 1409
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	ND					0.5
Ethylbenzene	ND					0.5
Toluene	ND					0.5
Xylenes (total)	ND					0.5

SB	Spiked Blank	T980112B				01/13/98 0540
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	21.230		20.10		105.6	% 39-150
Ethylbenzene	23.834		20.08		118.7	% 32-160
Toluene	21.924		20.08		109.2	% 46-148
Xylenes (total)	68.896		60.26		114.3	% 75-125

SBD	Spiked Blank Duplicate	T980112B				01/13/98 0612
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	20.665	21.230	20.10		102.8	% 39-150
Ethylbenzene	22.921	23.834	20.08		114.1	% 32-160
Toluene	21.081	21.924	20.08		105.0	% 46-148
Xylenes (total)	66.757	68.896	60.26		110.8	% 75-125

MS	Matrix Spike	T980112B	980068-1			01/12/98 1839
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	25.179		20.10	2.099	114.8	% 39-150
Ethylbenzene	22.731		20.08	ND	113.2	% 32-160
Toluene	21.286		20.08	ND	106.0	% 46-148
Xylenes (total)	65.873		60.26	ND	109.3	% 75-125

MSD	Matrix Spike Duplicate	T980112B	980068-1			01/12/98 1913
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Benzene	25.334	25.179	20.10	2.099	115.6	% 39-150
Ethylbenzene	23.702	22.731	20.08	ND	118.0	% 32-160



CORE LABORATORIES

Job Number: 980052

QUALITY CONTROL RESULTS

Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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MSD	Matrix Spike Duplicate	T980112B	980068-1		01/12/98	1913
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits
Toluene	21.890	21.286	20.08	ND	109.0 2.8	% 46-148 R 25
Xylenes (total)	68.498	65.873	60.26	ND	113.7 3.9	% 75-125 R 25



CORE LABORATORIES

SURROGATE RECOVERIES REPORT

Job Number.: 980052

Report Date: 01/16/98

CUSTOMER: BDM International, Inc.

PROJECT: REXENE

ATTN: Mike Selke

Method.....: SW-846 8020
Method Code....: 8020Batch.....: 30156
Analyst.....: maz

Surrogate	Units
BFB (Surrogate)	ug/L

Lab ID	Matrix	QC Type	Dilution	Result	True Value	Percent Recovery	Limits	Flag	Date	Time
		MB		19.985	20.08	99.5	89-110		01/12/98	1409
		SB		20.918	20.08	104.2	89-110		01/13/98	0540
		SBD		22.726	20.08	113.2	89-110	X	01/13/98	0612
980068-1				18.997	20.08	94.6	89-110		01/12/98	1521
980068-2				17.155	20.08	85.4	89-110	X	01/12/98	1554
980068-1				17.654	20.08	87.9	89-110	X	01/12/98	1627
980068-2				17.541	20.08	87.4	89-110	X	01/12/98	1700
980068-3				18.516	20.08	92.2	89-110		01/12/98	1733
980068-4				18.044	20.08	89.9	89-110		01/12/98	1806
980068-1	MS			19.033	20.08	94.8	89-110		01/12/98	1839
980068-1	MSD			19.230	20.08	95.8	89-110		01/12/98	1913
980052-1				20.461	20.08	101.9	89-110		01/12/98	2052
980052-2				18.977	20.08	94.5	89-110		01/12/98	2125
980052-3				18.755	20.08	93.4	89-110		01/12/98	2158
980052-4				18.602	20.08	92.6	89-110		01/12/98	2231
980052-5	10			18.316	20.08	91.2	89-110		01/12/98	2304
980052-6				18.754	20.08	93.4	89-110		01/12/98	2337
980052-7				18.482	20.08	92.0	89-110		01/13/98	0010
980052-8				18.593	20.08	92.6	89-110		01/13/98	0043
980052-9				18.047	20.08	89.9	89-110		01/13/98	0116
980052-10				18.890	20.08	94.1	89-110		01/13/98	0149
980056-7				19.495	20.08	97.1	89-110		01/13/98	0328
980056-8				19.297	20.08	96.1	89-110		01/13/98	0401
980056-9				18.850	20.08	93.9	89-110		01/13/98	0434
980056-10				18.746	20.08	93.4	89-110		01/13/98	0507



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/16/98

VOLATILE ORGANICS

Methods 602/8020 Surrogate

Bromofluorobenzene 89-110% 78-123%

Methods 602/8020 Spike/Spike Duplicate

Benzene	39-150%	25	75-125%	25
Ethylbenzene	32-160%	25	60-140%	25
Toluene	46-148%	25	70-130%	25
Xylenes	75-125%	25	61-139%	25

Method 8015 Mod. Spike/Spike Duplicate

TVPH	75-125%	20	48-152%	20
TEPH	54-135%	20	54-135%	20

Methods 624/8240/8260 Surrogates

Dibromofluoromethane	86-118%		80-120%	
Toluene-(d8)	88-110%		81-117%	
4-Bromofluorobenzene	86-115%		74-121%	

Method 524.2 Surrogates

4-Bromofluorobenzene	80-120%	
1,4-Dichlorobenzene-d4	80-120%	

Methods 624/8240 Spike/Spike Duplicate

1,1-Dichloroethene	61-145%	14	59-172%	22
Trichloroethene	71-120%	14	62-137%	24
Benzene	76-127%	11	66-142%	21
Toluene	76-125%	13	59-139%	21
Chlorobenzene	75-130%	13	60-133%	21

Method 8260 Spike/Spike Duplicate

1,1-Dichloroethene	70-130%	14	70-130%	22
Trichloroethene	71-120%	14	70-130%	24
Benzene	76-127%	11	70-130%	21
Toluene	76-125%	13	70-130%	21
Chlorobenzene	75-130%	13	70-130%	21

Method 524.2 Spike/Spike Duplicate

1,1-Dichloroethene	80-120%	14
Trichloroethene	80-120%	14
Benzene	80-120%	11
Toluene	80-120%	13
Chlorobenzene	80-120%	13

PESTICIDES AND PCB'S

Methods 608/8080 Surrogates

Tetrachloro-m-xylene	60-150%		60-150%	
4,4'-Dichlorobiphenyl	60-150%		60-150%	
Decachlorobiphenyl	60-150%		60-150%	

Method 8140 Surrogates

Tributylphosphate	36-152%		36-152%	
Triphenylphosphate	36-152%		36-152%	



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/16/98

	WATER LIMITS		SOIL LIMITS	
	Recovery	RPD	Recovery	RPD

SEMOVOLATILE ORGANICS

Methods 625/8270 Surrogates

Nitrobenzene-d5	35-114%		23-120%	
2-Fluorobiphenyl	43-116%		30-115%	
4-Terphenyl-d14	33-141%		18-137%	
Phenol-d6	10-94%		24-113%	
2-Fluorophenol	21-100%		25-121%	
2,4,6-Tribromophenol	10-123%		19-122%	

Methods 625/8270 Spike/Spike Duplicate

Phenol	12-110%	42	26-90%	35
2-Chlorophenol	27-123%	40	25-102%	50
1,4-Dichlorobenzene	36-97%	28	28-104%	27
N-Nitroso-di-n-propylamine	41-116%	38	41-126%	38
1,2,4-Trichlorobenzene	39-98%	28	38-107%	23
4-Chloro-3-methylphenol	23-97%	42	26-103%	33
Acenaphthene	46-118%	31	31-137%	19
4-Nitrophenol	10-80%	50	11-114%	50
2,4-Dintrotoluene	24-96%	38	28-89%	47
Pentachlorophenol	9-103%	50	17-109%	47
Pyrene	26-127%	31	35-142%	36

HERBICIDES

Method 8150 Surrogate

2,4-Dichlorophenylacetic acid	50-150%		50-150%	
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Method 8150 Spike/Spike Duplicate

2,4-D	41-126%	25	41-126%	25
2,4,5-T	45-119%	25	45-119%	25



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/16/98

- (1) EPA 600/4-79-020 Methods for Chemical Analysis of Water and Wastes, March 1983
- (2) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986
- (3) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update I, July 1992
- (4) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update II, September 1994
- (5) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIA, August 1993
- (6) EPA SW846 Test Methods for Evaluating Solid Waste, Final Update IIB, January 1995
- (7) Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985
- (8) Standard Methods for the Examination of Water and Wastewater, 17th Edition, 1989
- (9) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
- (10) EPA 600/4-80-032 Prescribed Procedures For Measurement Of Radioactivity in Drinking Water, August 1980
- (11) EPA 600/8-78-017 Microbiological Methods For Monitoring The Environment, December 1978
- (12) Federal Register, July 1, 1990 (40 CFR Part 136)
- (13) EPA 600/4-88-03 Methods For The Determination of Organics Compounds in Drinking Water, December 1988
- (14) U.S.G.S. Methods For Determination of Inorganic Substances In Water And Fluvial Sediments, Book 5, Chapter A1, 1985
- (15) Federal Register, June 7, 1991 (40 CFR Parts 141 & 142)
- (16) ASTM Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
- (17) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
- (18) ASTM Section 5, Petroleum Products, Lubricants, and Fossil Fuels, Volume 05.05, Gaseous Fuels, Coal, and Coke
- (19) EPA 600/2-78-054 Field and Laboratory Methods Applicable To Overburdens and Mine Soils, March 1978
- (20) ASTM Part 19, Soils and Rocks; Building Stones, 1981



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/16/98

COMMENTS

- a) ND = Not detected. NC = Not calculable due to value(s) lower than the detection limit.
- b) Data in the QA report may differ from final results due to digestion and/or dilution of samples into analytical ranges. Quality control results are reported "as analyzed" within the instruments established calibration range.
- c) The "Time Analyzed" in the QA report refers to the start time of the analytical batch which may not reflect the actual time of each analysis. The "Date Analyzed" is the actual date of analysis.
- d) Results for soil and sludge samples are reported on a wet weight basis (i.e. not corrected for percent moisture) unless otherwise indicated.

BLANK QC SAMPLE IDENTIFICATION

MB	Method Blank
EB	Extraction Blank
ICB	Initial Calibration Blank
CCB	Continuing Calibration Blank

SPIKE QC SAMPLE IDENTIFICATION

MS	Method (Matrix) Spike
MSD	Method (Matrix) Spike Duplicate
PDS	Post-Digestion Spike
PSD	Post-Digestion Spike Duplicate
SB	Spike Blank
SBD	Spike Blank Duplicate

REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS	Laboratory Control Standard
RS	Reference Standard
ICV	Initial Calibration Verification Standard
CCV	Continuing Calibration Verification Standard
ISA/ISB	ICP Interference Check Sample
ICL	Initial Calibration/Laboratory Control Sample
DSC	Distilled Standard Check
CRI	CRDL Low-Level ICP Standard

DUPLICATE QC SAMPLE IDENTIFICATION

MD	Method (Matrix) Duplicate
ED	Extraction Duplicate
SD	Serial Dilution

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "Technician" using the following codes:

SUBCONTRACT LABORATORY

Core Laboratories - Anaheim, CA
Core Laboratories - Casper, WY
Core Laboratories - Corpus Christi, TX
Core Laboratories - Edison, NJ

CODE

* AN
* CA
* CC
* ED



CORE LABORATORIES

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/16/98

Core Laboratories - Gulf States - Houston, TX	* HE
Core Laboratories - Houston, TX	* HP
Core Laboratories - Indianapolis, IN	* IN
Core Laboratories - Lake Charles, LA	* LC
Core Laboratories - Long Beach, CA	* LB
Core Laboratories - Tampa, FL	* TP
Core Laboratories - Valparaiso, IN	* VP
Other Subcontract Laboratories	* XX

EXPLANATION OF DATA QUALIFIERS - ORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- J - This qualifier indicates that the value is an estimate. It is used when a compound is determined to be present based on the mass spectral data but at a concentration less than the practical quantitation limit of the method.
- E - This qualifier indicates that a sample result is an estimate because the concentration exceeded the upper calibration range of the instrument.

EXPLANATION OF DATA QUALIFIERS - METALS & INORGANIC PARAMETERS

- U - This qualifier indicates that the analyte was analyzed for but not detected.
- B - This qualifier indicates that the analyte was detected at a level below the reporting limit but greater than or equal to the instrument detection limit.

EXPLANATION OF DATA FLAGS - ALL PARAMETERS

- B - This flag indicates that an analyte is present in the method blank as well as in the sample. The client should consider this when evaluating the data.
- E - This flag indicates the reported value is estimated due to sample matrix interference.
- W - This flag indicates that a post-digestion spike for GFAA analysis is outside quality control limits.
- X - This flag indicates that a surrogate recovery is outside quality control limits.
- Y - This flag indicates a spike or spike duplicate recovery is outside quality control limits.
- Z - This flag indicates a relative percent difference for a spike and spike duplicate is outside quality control limits.
- * - This flag indicates a relative percent difference for a duplicate analysis is outside quality control limits.
- This flag indicates a percent recovery for a standard is outside quality control limits.