

**GW - 55**

**MONITORING  
REPORTS**

**DATE:  
2001**

an environmental consulting company

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April 25, 2002

RECEIVED  
APR 03 2002  
Oil Conservation Division  
Environmental Bureau  
New Mexico Energy, Minerals and Natural Resources Dept.

Mr. Wayne Price  
Petroleum Engineering Specialist  
New Mexico Energy, Minerals and Natural Resources Dpt.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Thriftway Bloomfield Refinery  
2001 Annual Groundwater Monitor Report

Dear Mr. Price,

Enclosed please find a copy of the Report entitled "2001 Annual Groundwater Monitor Report" for the above mentioned site.

If you have any questions please do not hesitate to contact me at 505.345.1116.

Sincerely,



Brad Billings  
Billings & Associates, Inc.

Enclosure

Cc: Ms. Terry Griffin/BioTech/Thriftway  
Mr. Denny Foust, Aztec Office, NM Oil Conservation Division

THRIFTWAY REFINERY  
626 Road 5500  
Bloomfield, New Mexico

April 2002

Prepared by

BILLINGS & ASSOCIATES, INC.



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## 2001 ANNUAL GROUNDWATER MONITOR REPORT

Prepared for  
NEW MEXICO OIL CONSERVATION DIVISION  
Mr. Wayne Price, Project Manager, Santa Fe Office  
&  
Mr. Denny Foust, Aztec, Office

RECEIVED  
Apr 13 2002  
Environmental Bureau  
Oil Conservation Division

## TABLE OF CONTENTS

### Sections

- 1.0 INTRODUCTION
- 2.0 ANNUAL MONITORING AND SAMPLING ACTIVITIES
  - 2.1 Groundwater Mesasurement
  - 2.2 Groundwater Sample Collection and Anaylses
  - 2.3 Sample Preservation and Handling
  - 2.4 Sample Transport
  - 2.5 Data Base Historic Laboratory Results
- 3.0 EQUIPMENT DECONTAMINATION
- 4.0 DISCUSSION AND RECOMMENDATIONS
- 5.0 SEPTEMBER 2001 NMOCD REQUESTS

### Figures

- Figure 1 Water Level-Potentiometric Map (1/30, 1/31, and 2/02)
- Figure 2 Benzene Concentration Map
- Figure 3 MTBE Concentration Map
- Figure 4 Conductivity Contour Map
- Figure 4A Chloride Concentration Map
- Figure 4B TDS Concentration Map

### Tables

- Table 1 Summary of Historic Groundwater Monitoring Data
- Table 1A Most Recent Summary of Groundwater Monitoring Data
- Table 2 Summary of Historic Groundwater Benzene and MTBE Laboratory Results
- Table 2A Most Recent Summary of Groundwater Benzene and MTBE Laboratory Results

### Appendices

- Appendix A NMOCD Letter (September 2001)
- Appendix B Air stripper/influent/effluent Laboratory Analysis, QA/QC Data and COC Records
- Appendix B(1) Monitor Well Laboratory Analysis, QA/QC Data and COC Records
- Appendix C Soil Sample Laboratory Analysis, QA/QC Data and COC Records
- Appendix D BioTech (for Thriftway Letter (November 2001)

## **1.0 INTRODUCTION**

Pursuant to and in compliance with the requirements of the New Mexico Oil Conservation Division (NMOCD), Billings & Associates, Inc. (BAI) is pleased to submit the following 2001 Annual Monitoring and Sampling Report for the Thriftway Bloomfield Refinery, located in Bloomfield, N.M. Site is located at 626 County Road 5500.

Submitted report details the monitoring and sampling data activities on refinery property. Water table elevations in monitor wells were collected on select wells in May and July 2001. All wells that could be found and which contained sufficient ground water for measurement, were assessed for depth to water in January and February of 2002. New influent and effluent water samples from the on site air stripper were collected through 2001, and January and February 2002. In September 2001, the NMOCD requested additional information on site aspects regarding Discharge Plan Renewal GW-055. See Appendix A These requests are answered by BioTech (for Thriftway) in a letter dated November 2001. A copy of this letter is included in Appendix D.

## **2.0 MONITORING/SAMPLING ACTIVITIES**

BioTech personnel engaged in monitoring and sampling requirements for the Thriftway Bloomfield Refinery located in Bloomfield, New Mexico. Ground water gaging events occurred on 5/2/01, 5/3/01, 7/30/01, 7/31/01, 1/30/02, 1/31/02 and 2/01/02.

Air stripper influent and effluent samples from operating tower were collected for later laboratory analysis by EPA Method SW 8021B on November 1, 2001, December 4, 2001 and January 31, and February 28, 2002. Influent and effluent samples collected on January 31, 2002 were analyzed for the full suite of Methodologies as outlined below in section 2.2(2.2A). Hard copy of these data sheets, attendant chain of custody information and Quality Control Data are found in Appendix B.

Appendix B(1), contains this same grouping of information on the monitor wells sampled for laboratory analyses in January/February 2002.

Three soil samples were collected from on site soil stockpiles for analysis of reactive cyanide (by method SW-846), reactive sulfide (by method SW-846), ignitability (by method 1010M) and pH (by method 989). Hard copy of these data, sample information and chain of custody sheets are found in Appendix C.

## **2.1 GROUND WATER MEASUREMENT**

At each gaging event, depth to ground water measurements were made and recorded for available monitor wells. A Solonist Probe was used to measure from the survey point at top of casing to identified ground water level. Data was generated to the nearest 100th of a foot. Historic depth to ground water data are summarized in **Table 1**. **Table 1A** displays most recent groundwater table information. Ground water measurements were collected in seven (7) monitor wells (MW's -04, -06, -08, -13, -15, -18 and -22) during the May and July 2001 dates. A total of twenty-eight (28) wells were measured during the January/February 2002 sampling event. These data have been corrected to measured elevations, where available, and were used to generate a potentiometric surface (as of the 2002 sample dates). This information is found on **Figure 1**.

## **2.2 Water Sample Collection**

During transfer of water (influent and effluent) to sample container, care is taken to ensure that no head space or air bubbles remain in sample container and that a meniscus is created at top of sample container. Following closure of sample container, the sample was rotated and agitated, further ensuring that the sample container was void of free air.

During the January/February ground water sampling event, fourteen (14) monitor well locations were sampled for later laboratory analysis following appropriate purge of bore volumes and rebound time allotment. Samples were analyzed for and by the following methods: Alkalinity, Total (method M2320B), Anions by Ion Chromatography (method E300), Aromatic Volatiles by GC/PID (method SW8021B), Conductivity @ 25C (method E120.1), Hardness, Total (method M2340B), ICP Metals, Dissolved (method SW6010B), ICP Metals, Total (method SW6010B), Mercury, total (method SW7470), pH (method E150.1), Polynuclear Aromatic Hydrocarbons (method SW8270C), Total Dissolved Solids (method CALC) and Total Dissolved Solids (method E160.1). All samples were collected as per accepted New Mexico protocol/regulation.

## **2.3 Sample Preservation/Handling**

All sample containers were appropriate for required testing and preserved as necessary for the requested analyses. All samples were handled/delivered as per accepted protocols.

## **2.4 Sample Transport**

Following sample collection, each sample container was labeled for origin, time/date of collection, sample type, identification of sampler, preservative used and the requested laboratory analysis. Each sample was then logged of Chain of Custody data sheets. Samples requiring temperature reduction for shipping/transport were then placed in iced cooler.

## **2.5 Data Base**

Available historic laboratory results are presented in **Table 2**. **Table 2A** details new data base containing sample results not included in Table 2 (for BTEX and MTBE). Data of ICP metals total, mercury, anions, ICP metals dissolved, alkalinity, conductivity, hardness, pH, total dissolved solids (both calculated and in residue), PAH's are found in **B1**.

## **3.0 EQUIPMENT DECONTAMINATION**

To prevent cross-contamination and ensure valid data, BioTech personnel used strict decontamination protocol. For all monitor well measurement and sample collection, the following method for decontaminating equipment was employed:

- Wash with Alconox and distilled water
- Rinse with distilled water
- Wash with Alconox and distilled water
- Double rinse with distilled water

## **4.0 DISCUSSION AND RECOMMENDATIONS**

Developed ground water flow direction indicates sufficient capture of the ground water contamination is being maintained by the currently operating ground water treatment system. This is in general agreement with historical data.

**Figure 2** represents a ground water contour of dissolved benzene as of the January/February 2002 sampling event. **Figure 3** displays the MTBE ground water contour for the same sampling event. **Figures 4, 4A, 4B**, in mapped format, indicate the values for conductivity, chlorides and TDS as of the July 2001 sampling event.

Of the monitor wells sampled, the highest benzene value found was at MW-12 at 28 parts per billion (ppb). The highest MTBE value assessed during the same monitoring event was found at well MW-20 at 670 ppb.

Most recent influent and effluent water samples revealed the following: Influent was assessed at 890 ppb benzene. Effluent was assessed at 0.5 ppb benzene. These data indicate an adequately functional stripper system.

BAI believes the currently operating ground water recovery system is maintaining adequate hydraulic capture.

Overall dissolved ground water contamination data indicates site wide reduction in dissolved contaminant levels as of the January/February 2002 sampling date.

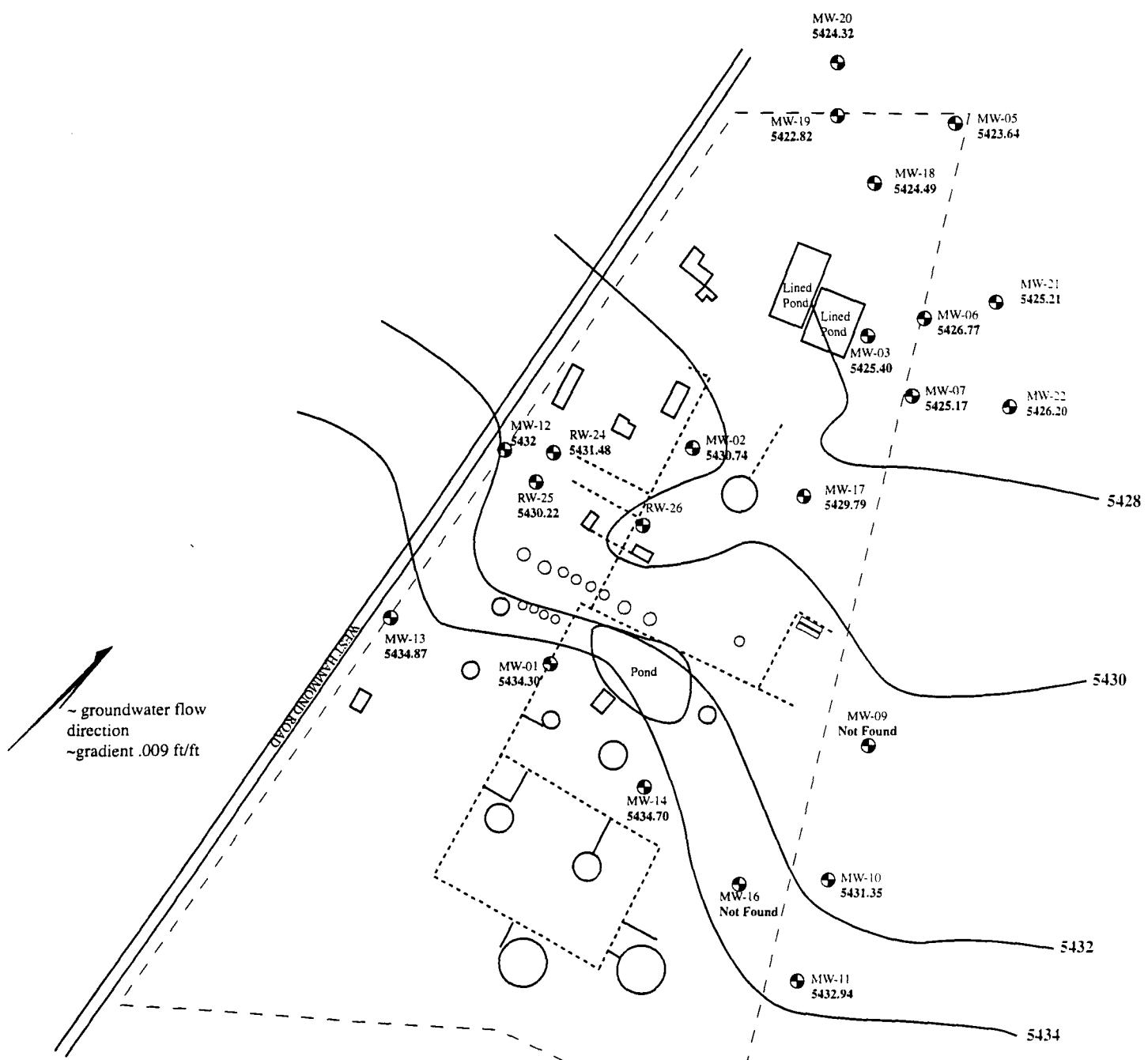
It is BAI's recommendation, based on current and historical data review, no additional work effort is needed beyond continued sampling by BioTech based on approved schedules.

## **5.0 SEPTEMBER 2001 NMOCD REQUESTS**

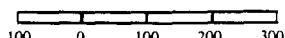
BioTech, on behalf of Thriftway, responded to a number of questions/data requests by the NMOCD in a letter dated November 19, 2001. A copy of this letter from BioTech is presented in **Appendix D**.



Brad Billings  
President  
Billings & Associates, Inc.



Approximate Scale (feet)

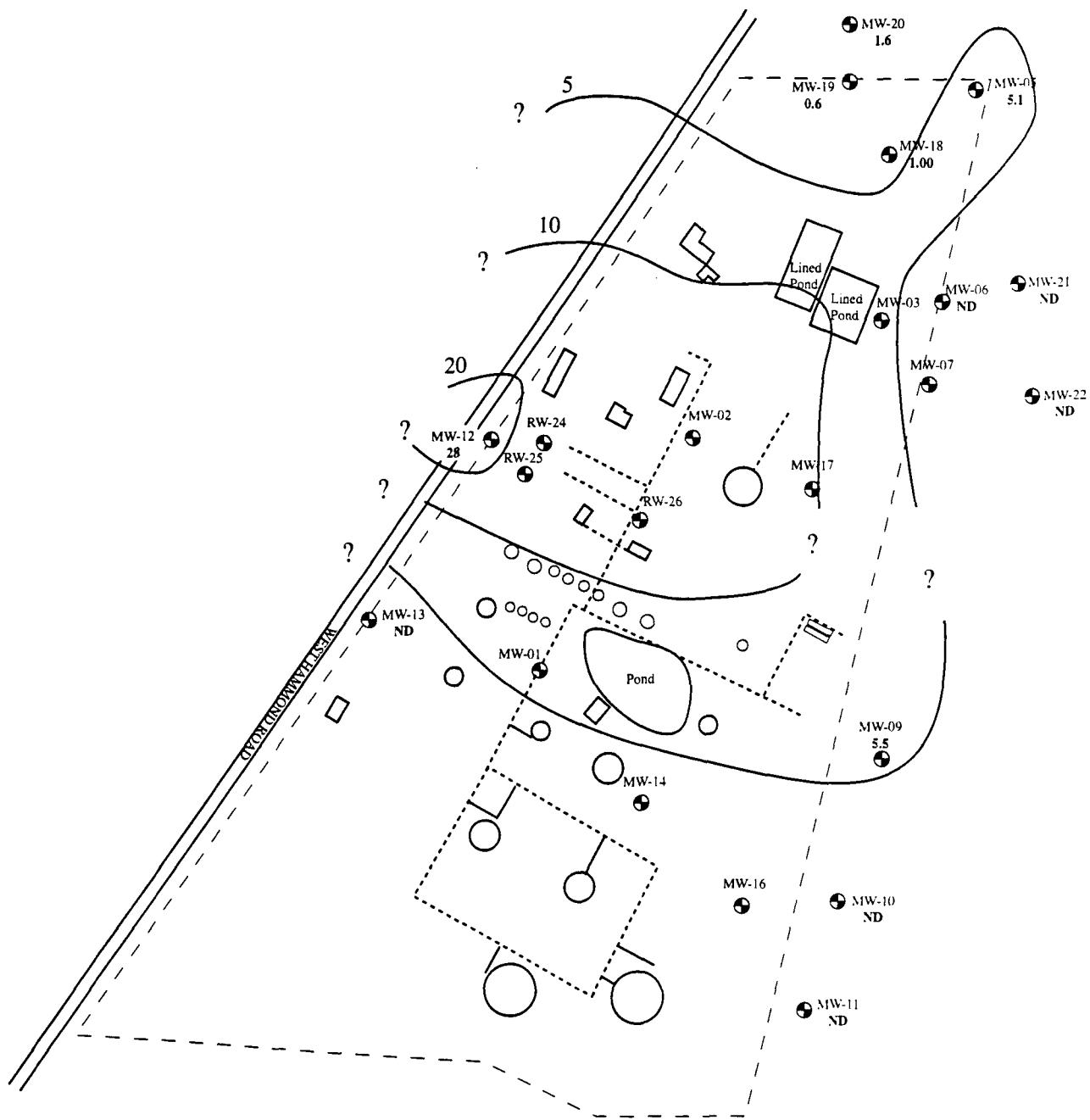


- monitoring well
- - - fence
- - - piping

taken from BioTech April 3, 2000

DRAWN BY: G. Billings	Figure 1 Potentiometric Surface (1/30-31/2002) Site Name: Thriftway Refinery Site Location: 626 RD 5500 Bloomfield, NM	BILLINGS & ASSOCIATES, INC.
DATE: 4/2/2002		
CASE NO:		
UST FACILITY NO:		

→ Z

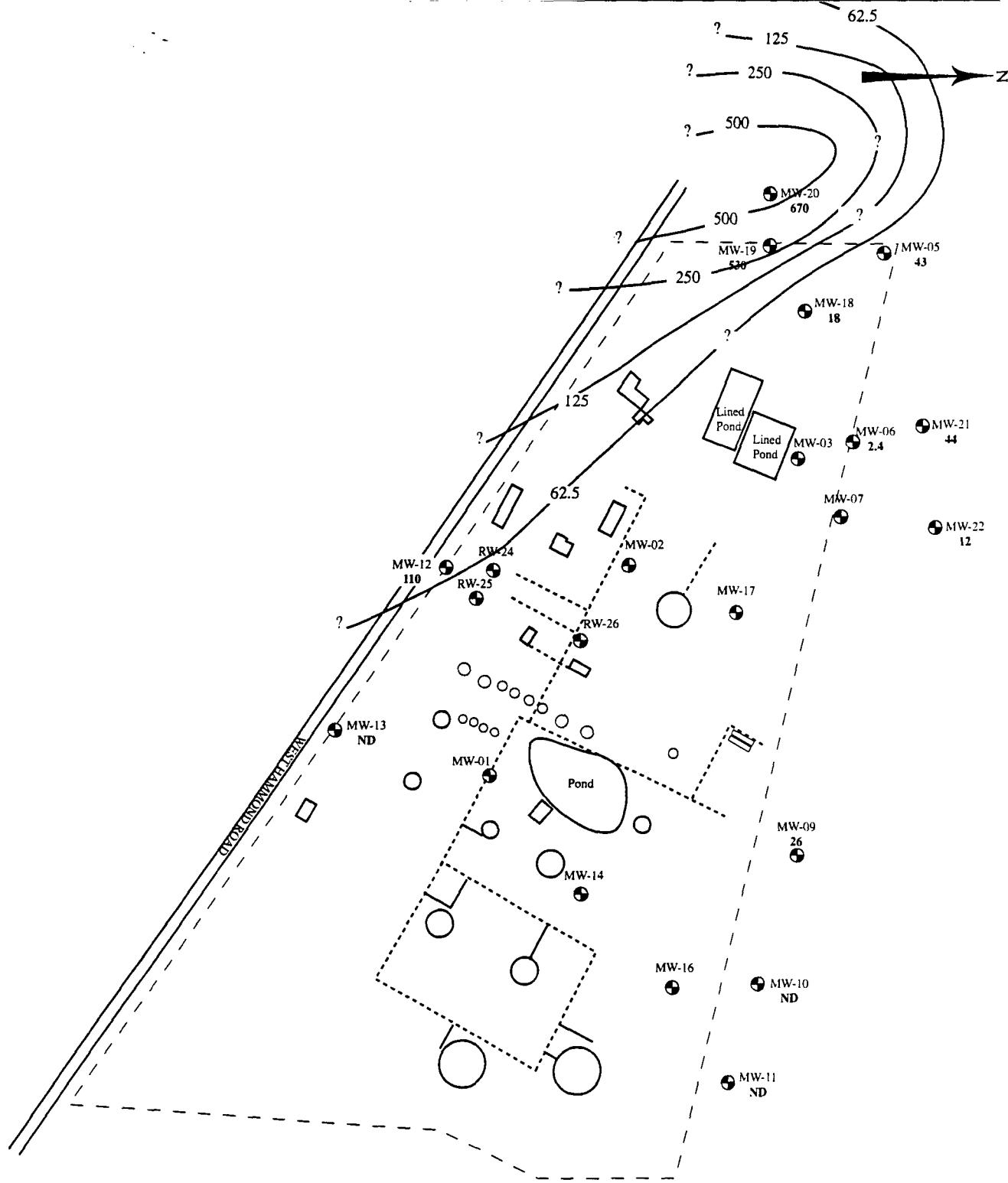


taken from BioTech April 3, 2000

DRAWN BY: G. Billings
DATE: 4/2/2002
CASE NO:
UST FACILITY NO:

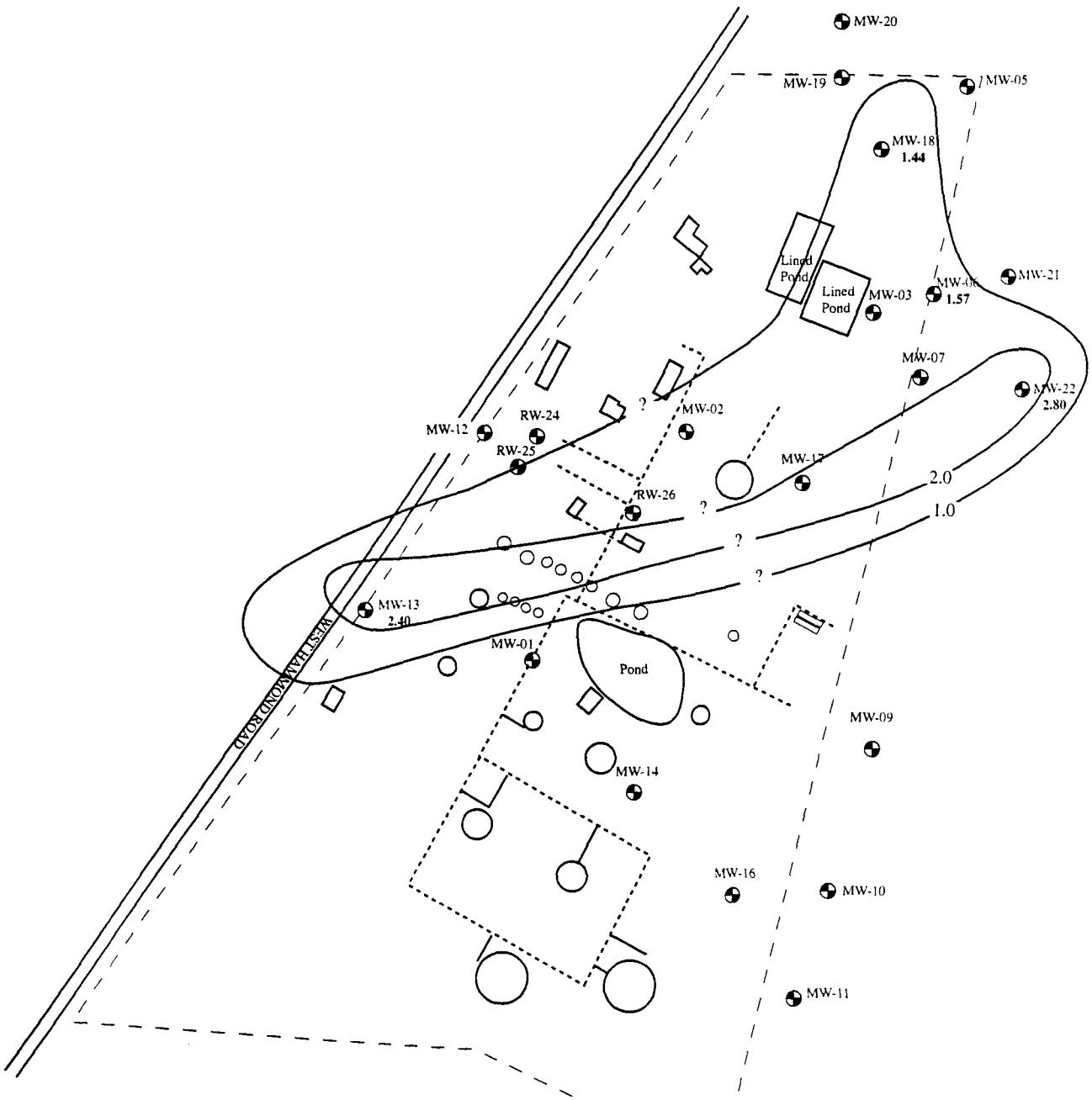
Figure 2  
Benzene Contour (1/30-31/2002 )  
Site Name: Thriftway Refinery  
Site Location: 626 RD 5500  
Bloomfield, NM

BILLINGS & ASSOCIATES, INC.

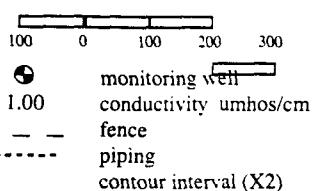


taken from BioTech April 3, 2000

DRAWN BY: G. Billings	Figure 3	BILLINGS & ASSOCIATES, INC.
DATE: 4/2/2002	MTBE Contour (1/30-31/2002 )	
CASE NO:	Site Name: Thriftway Refinery	
UST FACILITY NO:	Site Location: 626 RD 5500	
	Bloomfield, NM	

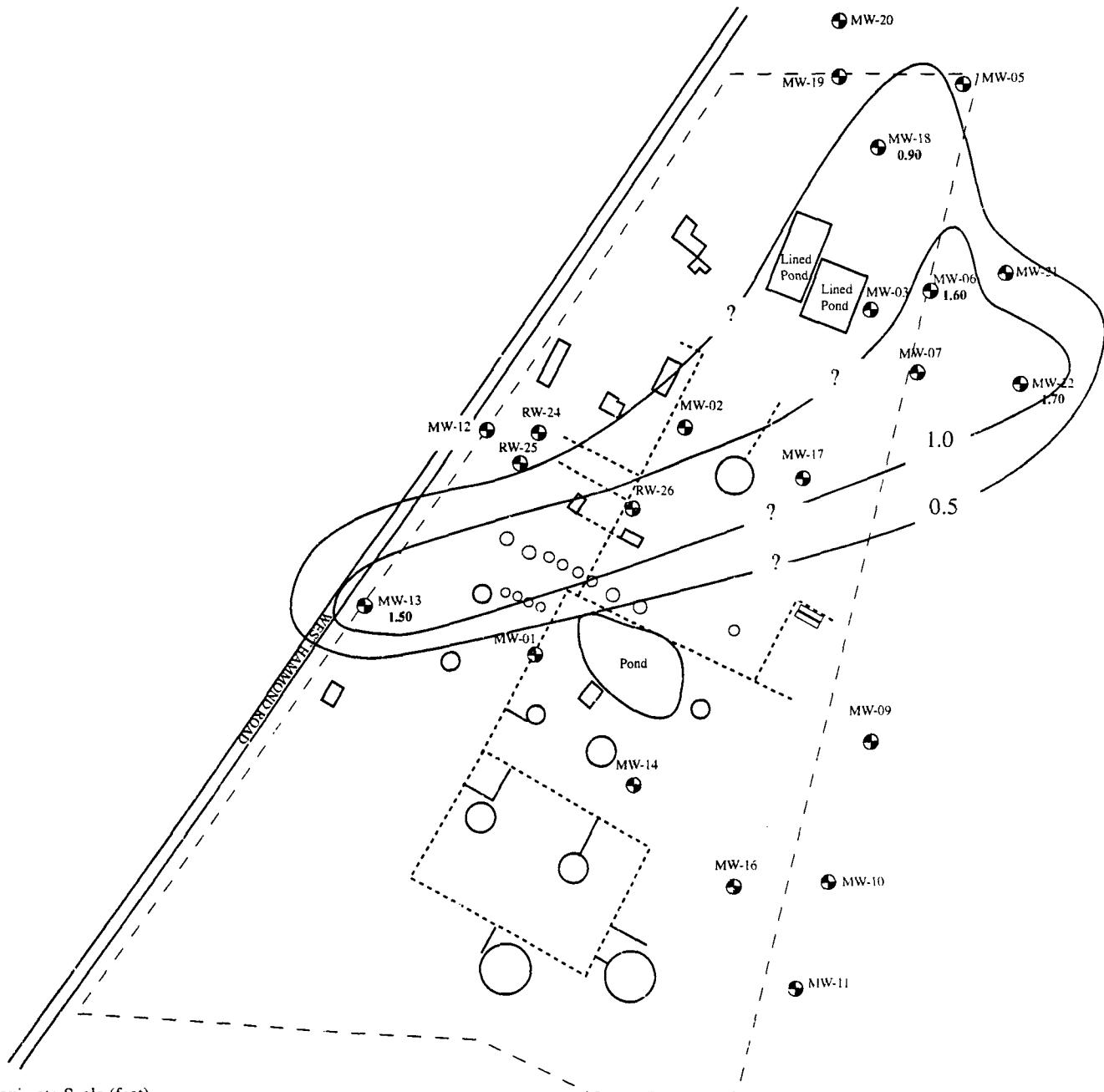


Approximate Scale (feet)



taken from BioTech April 3, 2000

DRAWN BY: G. Billings	Figure 4	
DATE: 4/2/2002	Conductivity Contour (7/30/2001)	
CASE NO:	Site Name: Thriftway Refinery	BILLINGS & ASSOCIATES, INC.
UST FACILITY NO:	Site Location: 626 RD 5500 Bloomfield, NM	



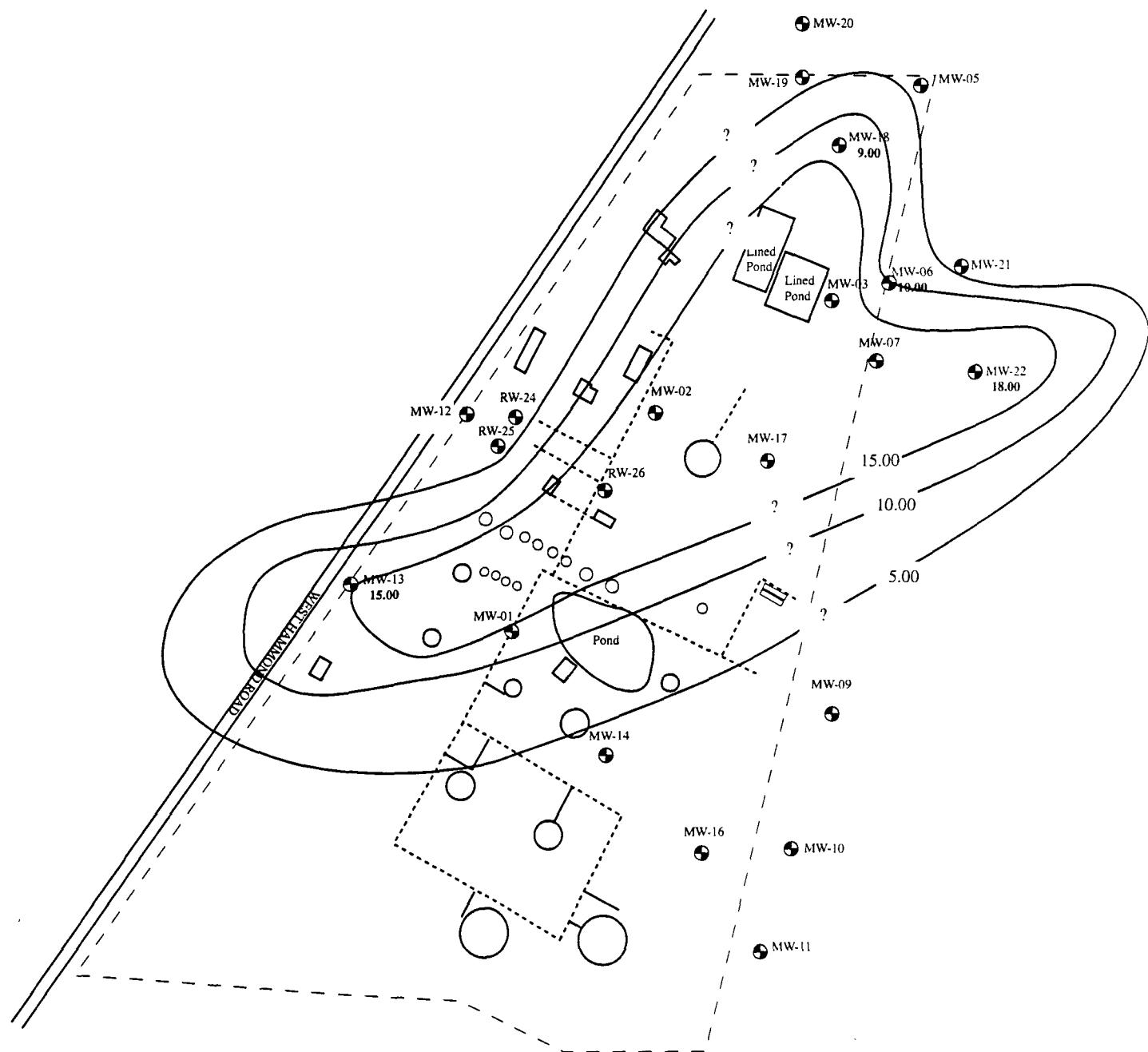
taken from BioTech April 3, 2000

DRAWN BY: G. Billings
DATE: 4/2/2002
CASE NO:
UST FACILITY NO:

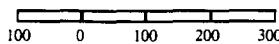
Figure 4 A  
Chloride Contour (7/30/2001)  
Site Name: Thriftway Refinery  
Site Location: 626 RD 5500  
Bloomfield, NM

BILLINGS & ASSOCIATES, INC.

Z



Approximate Scale (feet)



- monitoring well
- - - fence
- - - piping
- 1.00 TDS g/L
- contour interval (by X g/l)

taken from BioTech April 3, 2000

DRAWN BY: G. Billings
DATE: 4/2/2002
CASE NO:
UST FACILITY NO:

Figure 4 B  
TDS Contour (7/30/2001)  
Site Name: Thriftway Refinery  
Site Location: 626 RD 5500  
Bloomfield, NM

BILLINGS & ASSOCIATES, INC.

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TCG elev	A/O	O/W	Product	Prod Elev	alter Ele	dj WL Ele	Accum Pro	Deg. C	pH	DO mg/l	Seamen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
<b>87cc well</b>																			
MW-01	09/23/98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5449.08	15.68	0.00	5433.40	5433.40	5433.40	5433.40	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5449.08	15.62	15.62	5433.46	5433.46	5433.46	5433.46	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5449.08	15.65	15.65	5433.43	5433.43	5433.43	5433.43	1.66	NM	NM	1.90	4.73	NM	NM	NM	NM	NM	NM
	06/18/97	5449.08	15.37	15.37	5433.71	5433.71	5433.71	5433.71	1.66	NM	NM	NM	NM	4.70	NM	NM	NM	NM	NM
	09/24/97	5449.08	15.08	15.08	5434.00	5434.00	5434.00	5434.00	1.66	NM	NM	NM	NM	0.18	4.67	NM	NM	NM	NM
	12/23/97	5449.08	15.08	0.00	5434.00	5434.00	5434.00	5434.00	1.66	NM	NM	NM	NM	0.06	4.59	NM	NM	NM	NM
	04/08/98	5449.08	14.72	0.00	5434.36	5434.36	5434.36	5434.36	1.66	NM	NM	NM	NM	4.63	NM	NM	NM	NM	NM
	06/24/98	5449.08	14.97	0.00	5434.11	5434.11	5434.11	5434.11	1.66	NM	NM	NM	NM	0.11	4.62	NM	NM	NM	NM
	09/23/98	5449.08	15.52	0.00	5433.56	5433.56	5433.56	5433.56	1.66	NM	NM	7.35	0.22	4.99	NM	NM	NM	NM	NM
	12/30/98	5449.08	15.00	15.00	5434.08	5434.08	5434.08	5434.08	1.66	NM	NM	NM	NM	7.10	0.18	4.53	NM	NM	NM
	04/14/99	5449.08	14.75	0.00	5434.33	5434.33	5434.33	5434.33	1.66	NM	NM	NM	NM	7.10	0.28	4.99	NM	NM	NM
	06/03/99	5449.08	14.39	0.00	5434.69	5434.69	5434.69	5434.69	1.66	NM	NM	NM	NM	15.5	7.20	0.42	4.46	NM	NM
	09/09/99	5449.08	14.37	0.00	5434.71	5434.71	5434.71	5434.71	1.66	NM	NM	NM	NM	7.60	7.00	0.20	4.30	NM	NM
	12/30/99	5449.08	14.23	0.00	5434.85	5434.85	5434.85	5434.85	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/05/00	5449.08	13.80	0.00	5435.28	5435.28	5435.28	5435.28	1.66	NM	NM	NM	NM	7.00	NM	NM	NM	NM	3.50
	06/08/00	5449.08	13.72	0.00	5435.36	5435.36	5435.36	5435.36	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5449.08	14.47	0.00	5434.61	5434.61	5434.61	5434.61	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5449.08	14.44	0.00	5434.64	5434.64	5434.64	5434.64	1.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	01/09/01	5442.65	12.16	13.50	1.34	5430.49	5430.49	5430.49	5430.09	0.20	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/01	5442.65	12.35	12.54	0.19	5430.30	5430.30	5430.11	5430.24	0.35	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/97	5442.65	12.18	12.37	0.19	5430.47	5430.28	5430.41	5430.41	0.37	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5442.65	12.11	12.14	0.03	5430.54	5430.51	5430.53	5430.53	0.43	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/97	5442.65	11.86	11.98	0.12	5430.79	5430.67	5430.75	5430.75	0.43	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5442.65	11.64	11.69	0.05	5431.01	5430.96	5431.00	5431.00	0.43	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5442.65	11.75	11.77	0.02	5430.90	5430.88	5430.89	5430.89	0.44	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	06/22/98	5442.65	11.74	11.78	0.04	5430.91	5430.87	5430.90	5430.90	0.45	15.0	NM	NM	NM	NM	NM	NM	NM	NM
	09/23/98	5442.65	12.04	12.04	0.00	5430.61	5430.61	5430.61	5430.61	0.45	16.8	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/98	5442.65	11.60	11.61	0.01	5431.05	5431.04	5431.04	5431.05	0.45	16.8	7.00	7.00	0.15	3.32	NM	NM	NM	NM
	04/14/99	5442.65	11.59	11.60	0.01	5431.06	5431.06	5431.06	5431.06	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5442.65	12.14	0.00	5431.11	5431.11	5431.11	5431.11	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5442.65	11.54	0.00	5431.34	5431.34	5431.34	5431.34	0.45	NM	NM	NM	NM	7.60	NM	3.00	NM	NM	NM
	09/09/99	5442.65	11.31	11.32	0.01	5431.25	5431.25	5431.25	5431.25	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/99	5442.65	11.40	11.40	0.00	5431.25	5431.25	5431.25	5431.25	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/05/00	5442.65	11.32	11.32	0.00	5431.33	5431.33	5431.33	5431.33	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5442.65	12.14	12.14	0.00	5430.51	5430.51	5430.51	5430.51	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5442.65	11.40	11.40	0.00	5431.25	5431.25	5431.25	5431.25	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5442.65	11.60	11.60	0.00	5431.05	5431.05	5431.05	5431.05	0.45	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/96	5431.43	5.17	5.17	0.00	5426.26	5426.26	5426.26	5426.26	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5431.43	4.60	4.72	0.12	5426.83	5426.83	5426.79	5426.79	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/17/97	5431.43	3.44	3.44	0.00	5427.99	5427.99	5427.99	5427.99	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/97	5431.43	3.38	3.38	0.00	5428.05	5428.05	5428.05	5428.05	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5431.43	5.15	5.18	0.03	5426.28	5426.28	5426.27	5426.27	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5431.43	3.42	3.42	0.00	5428.01	5428.01	5428.01	5428.01	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5431.43	4.47	4.47	0.00	5426.96	5426.96	5426.96	5426.96	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/24/98	5431.43	4.30	4.30	0.00	5427.13	5427.13	5427.13	5427.13	0.02	NM	NM	NM	NM	7.16	0.09	6.08	NM	NM
	09/22/98	5431.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/98	5431.43	3.57	3.57	0.00	5427.86	5427.86	5427.86	5427.86	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	O/W	Product	Prod Elev	ater Elev	di WL Eta	Accum Pro	Deg. C.	pH	DO mg/l	Seimen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
04/13/99	533143	5.08	0.00	5426.35	5426.35	0.02	12.1	7.10	0.37	4.63	2.37	NM	NM	NM	NM	NM	NM	NM	
06/03/99	533143	NM	NM	NM	NM	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/05/00	533143	5.16	5.16	0.00	5426.27	5426.27	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/08/00	533143	5.29	5.29	0.00	5426.14	5426.14	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/07/00	533143	5.16	5.20	0.04	5426.27	5426.23	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/11/00	533143	5.42	5.71	0.29	5426.01	5425.72	0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
MW-04	5430.12	5.18	5.18	0.00	5424.94	5424.94	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
03/19/97	5430.12	4.29	4.29	0.00	5425.83	5425.83	0.00	NM	NM	NM	NM	2.70	4.27	NM	NM	NM	NM	NM	
06/17/97	5430.12	4.08	4.08	0.00	5426.04	5426.04	0.00	NM	NM	NM	NM	4.45	NM	NM	NM	NM	NM	NM	
09/24/97	5430.12	4.19	4.19	0.00	5425.93	5425.93	0.00	NM	NM	NM	NM	0.08	5.15	NM	NM	NM	NM	NM	
12/22/97	5430.12	4.31	4.31	0.00	5425.81	5425.81	0.00	NM	NM	NM	NM	0.19	4.17	NM	NM	NM	NM	NM	
04/29/98	WELL DESTROYED																		
04/17/00	WELL LOCATED IT WILL BE SAMPLED THE NEXT QUARTERLY SAMPLING EVENT IN JUNE 2000																		
06/08/00	5430.12	5.04	5.04	0.00	5425.08	5425.08	0.00	15.7	NM	0.09	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/05/00	5430.12	5.40	5.40	0.00	5424.72	5424.72	0.00	20.6	NM	0.25	NM	NM	NM	NM	NM	NM	NM	4.50	NM
12/06/00	5430.12	5.31	5.31	0.00	5424.81	5424.81	0.00	20.6	NM	0.25	NM	NM	NM	NM	NM	NM	NM	4.25	NM
MW-05	10/09/96	5428.97	5.55	5.55	0.00	5423.42	5423.42	0.00	NM	NM	NM	NM	3.26	NM	NM	NM	NM	4.75	NM
12/31/96	5428.97	5.19	5.19	0.00	5423.78	5423.78	0.00	NM	NM	NM	NM	1.90	3.26	NM	NM	NM	NM	NM	
03/19/97	5428.97	4.63	4.63	0.00	5424.34	5424.34	0.00	NM	NM	NM	NM	3.26	NM	NM	NM	NM	NM	NM	
06/17/97	5428.97	4.41	4.41	0.00	5424.58	5424.56	0.00	NM	NM	NM	NM	0.30	3.26	NM	NM	NM	NM	NM	
09/24/97	5428.97	3.77	3.77	0.00	5425.20	5425.20	0.00	NM	NM	NM	NM	3.26	NM	NM	NM	NM	NM	NM	
12/19/97	5428.97	4.37	4.37	0.00	5424.60	5424.60	0.00	NM	NM	NM	NM	0.09	3.26	NM	NM	NM	NM	NM	
04/27/98	5428.97	4.47	4.47	0.00	5424.50	5424.50	0.00	NM	NM	NM	NM	0.06	3.26	NM	NM	NM	NM	NM	
06/24/98	5428.97	4.78	4.78	0.00	5424.19	5424.19	0.00	NM	NM	NM	NM	0.07	3.26	NM	NM	NM	NM	NM	
09/24/98	5428.97	5.22	5.22	0.00	5423.75	5423.75	0.00	NM	NM	NM	NM	8.56	0.09	3.26	NM	NM	NM	NM	
12/29/98	5428.97	4.11	4.11	0.00	5424.86	5424.86	0.00	19.9	8.00	0.09	3.26	NM	NM	NM	NM	NM	NM	NM	
04/12/99	5428.97	4.19	4.19	0.00	5424.78	5424.78	0.00	13.4	8.10	0.12	3.26	NM	NM	NM	NM	NM	NM	NM	
06/02/99	5428.97	4.45	4.45	0.00	5424.52	5424.52	0.00	12.9	8.20	0.10	5.63	NM	NM	NM	NM	NM	NM	NM	
09/08/99	5428.97	4.52	4.52	0.00	5424.45	5424.45	0.00	13.6	8.20	0.13	1.00	NM	NM	NM	NM	NM	NM	NM	
12/29/99	5428.97	4.82	4.82	0.00	5424.15	5424.15	0.00	NM	NM	NM	NM	7.60	NM	NM	NM	NM	NM	NM	
04/03/00	5428.97	4.48	4.48	0.00	5424.49	5424.49	0.00	13.4	8.10	0.12	3.26	NM	NM	NM	NM	NM	NM	NM	
06/08/00	5428.97	4.82	4.82	0.00	5424.15	5424.15	0.00	14.5	8.60	0.08	1.40	NM	NM	NM	NM	NM	5.25	NM	
09/05/00	5428.97	5.30	5.30	0.00	5423.67	5423.67	0.00	17.3	NM	0.17	NM	NM	NM	NM	NM	NM	6.00	NM	
12/06/00	5428.97	5.10	5.10	0.00	5423.87	5423.87	0.00	NM	NM	NM	NM	1.71	4.25	NM	NM	NM	NM	NM	
10/09/96	5430.70	5.28	5.28	0.00	5425.42	5425.42	0.00	NM	NM	NM	NM	0.17	NM	NM	NM	NM	5.00	NM	
12/31/96	5430.70	4.65	4.65	0.00	5426.05	5426.05	0.00	NM	NM	0.40	NM	NM	NM	NM	NM	NM	3.50	NM	
03/19/97	5430.70	3.65	3.65	0.00	5427.05	5427.05	0.00	NM	NM	4.70	4.23	NM	NM	NM	NM	NM	5.25	NM	
06/17/97	5430.70	3.62	3.62	0.00	5427.08	5427.08	0.00	NM	NM	4.07	NM	NM	NM	NM	NM	NM	6.00	NM	
09/24/97	5430.70	4.58	4.58	0.00	5426.12	5426.12	0.00	NM	NM	1.71	4.25	NM	NM	NM	NM	NM	4.25	NM	
12/19/97	5430.70	4.23	4.23	0.00	5426.47	5426.47	0.00	NM	NM	0.21	4.10	NM	NM	NM	NM	NM	5.00	NM	
04/27/98	5430.70	1.14	1.14	0.00	5429.56	5429.56	0.00	NM	NM	4.10	NM	NM	NM	NM	NM	NM	3.50	NM	
06/24/98	5430.70	4.53	4.53	0.00	5426.17	5426.17	0.00	NM	NM	0.14	3.87	NM	NM	NM	NM	NM	5.25	NM	
09/22/98	5430.70	3.62	3.62	0.00	5426.15	5426.15	0.00	NM	NM	7.60	0.12	3.99	NM	NM	NM	NM	NM	6.00	NM
12/30/98	5430.70	3.72	3.72	0.00	5426.98	5426.98	0.00	18.8	7.30	0.19	3.84	NM	NM	NM	NM	NM	4.25	NM	
04/13/99	5430.70	4.67	4.67	0.00	5426.03	5426.03	0.00	13.5	7.60	0.62	3.65	NM	NM	NM	NM	NM	3.50	NM	
06/03/99	5430.70	4.92	4.92	0.00	5425.78	5425.78	0.00	12.6	7.60	0.35	3.60	1.81	NM	NM	NM	NM	NM	3.30	NM
09/09/99	5430.70	4.62	4.62	0.00	5426.08	5426.08	0.00	NM	NM	0.12	3.30	NM	NM	NM	NM	NM	3.00	NM	

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	O/W	Product	Prod Elev	aler Elv	dl WL Elv	Accum Pto	Deg C	pH	DO mg/l	Seimen/m	TDS	ORP	NTU's	% Salinity	Pugged	DEPTH	
MW-07	12/29/99	5430.70	5.09	5.09	0.00	5425.61	5425.61	0.00	13.2	7.10	2.07	NM	NM	NM	NM	5.75	NM			
	04/03/00	5430.70	4.69	4.69	0.00	5426.01	5426.01	0.00	12.3	NM	1.04	NM	NM	NM	NM	4.50	NM			
	06/08/00	5430.70	5.18	5.18	0.00	5425.52	5425.52	0.00	15.1	7.60	0.21	3.60	NM	NM	NM	4.50	NM			
	09/05/00	5430.70	5.26	5.26	0.00	5425.44	5425.44	0.00	20.1	NM	0.25	NM	NM	NM	NM	3.50	NM			
	12/06/00	5430.70	5.20	5.20	0.00	5425.50	5425.50	0.00	20.1	NM	0.25	NM	NM	NM	NM	6.50	NM			
	10/07/99	5431.34	6.29	8.50	0.21	5426.05	5425.84	5425.99	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/30/98	5431.34	7.54	7.54	0.00	5426.80	5426.80	5426.80	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	03/19/97	5431.34	6.55	6.55	0.00	5427.79	5427.79	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	06/18/97	5431.34	6.47	6.47	0.00	5427.87	5427.87	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	09/29/97	5431.34	8.01	8.01	0.00	5426.33	5426.33	5426.33	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM		
MW-08	12/18/97	5434.34	6.61	6.61	0.00	5427.73	5427.73	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	04/29/98	5434.34	7.65	7.65	0.00	5426.69	5426.69	5426.69	0.27	NM	NM	0.01	4.70	NM	NM	NM	NM	NM		
	06/24/98	5434.34	7.54	7.54	0.00	5426.80	5426.80	5426.80	0.27	NM	NM	0.14	4.77	NM	NM	NM	NM	NM		
	09/23/98	5434.34	7.52	7.53	0.01	5426.82	5426.81	5426.82	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/30/98	5434.34	6.57	6.57	0.00	5427.77	5427.77	5427.77	0.27	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	04/14/99	5434.34	7.98	7.98	0.00	5426.36	5426.36	5426.36	0.27	NM	7.40	NM	5.22	2.63	NM	NM	NM	NM		
	06/03/99	5434.34	8.05	8.07	0.02	5426.29	5426.27	5426.28	0.28	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	09/09/99	5434.34	8.03	8.08	0.05	5426.31	5426.26	5426.30	0.30	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/30/99	5434.34	8.05	8.05	0.00	5426.29	5426.29	5426.29	0.30	NM	NM	7.10	NM	NM	NM	NM	2.50	NM		
	04/05/00	5434.34	7.71	7.71	0.00	5426.63	5426.63	5426.63	0.30	NM	NM	NM	NM	NM	NM	NM	5.00	NM		
MW-09	05/08/00	5435.28	8.06	8.06	0.00	5427.22	5427.22	5427.22	0.30	15.0	7.50	0.09	5.50	NM	NM	NM	5.00	NM		
	06/01/00	5435.28	8.99	8.99	0.00	5426.29	5426.29	5426.29	0.30	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/11/00	5435.28	9.11	9.11	0.00	5426.17	5426.17	5426.17	0.30	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	10/08/96	5432.09	Silled In	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/31/96	5432.09	3.14	3.14	0.00	5428.95	5428.95	5428.95	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	03/18/97	5432.09	2.93	2.93	0.00	5429.16	5429.16	5429.16	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	06/16/97	5432.09	3.00	3.00	0.00	5429.09	5429.09	5429.09	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	09/25/97	5432.09	2.68	2.68	0.00	5428.41	5429.41	5428.41	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/22/97	5432.09	3.15	3.15	0.00	5428.94	5428.94	5428.94	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	04/28/98	5432.09	3.27	3.27	0.00	5428.82	5428.82	5428.82	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
MW-09	06/23/98	5432.09	DRY	DRY	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	09/22/98	5432.09	DRY	DRY	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/29/98	5432.09	SILLED IN																	
	04/17/00																			
	06/08/00	5433.04	4.11	4.11	0.00	5428.93	5428.93	5428.93	0.00	12.8	7.40	0.07	5.00	NM	NM	NM	6.00	NM		
	09/06/00	5433.04	4.22	4.22	0.00	5428.82	5428.82	5428.82	0.00	NM	NM	NM	NM	NM	NM	NM	2.00	NM		
	12/07/00	5433.04	4.17	4.17	0.00	5428.87	5428.87	5428.87	0.00	NM	NM	NM	NM	NM	NM	NM	4.50	NM		
	10/08/00	5435.19	4.25	4.25	0.00	5430.94	5430.94	5430.94	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	12/31/96	5435.19	4.10	4.10	0.00	5431.09	5431.09	5431.09	0.00	NM	NM	6.40	7.51	NM	NM	NM	NM	NM		
MW-09	03/18/97	5435.19	4.17	4.17	0.00	5431.02	5431.02	5431.02	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM		
	06/16/97	5435.19	4.27	4.27	0.00	5430.92	5430.92	5430.92	0.00	NM	NM	1.85	7.45	NM	NM	NM	NM	NM		
	09/25/97	5435.19	3.68	3.68	0.00	5431.51	5431.51	5431.51	0.00	NM	NM	NM	NM	NM	NM	NM	2.02	NM		
	12/22/97	5435.19	4.05	4.05	0.00	5431.14	5431.14	5431.14	0.00	NM	NM	1.00	7.15	NM	NM	NM	NM	NM		
	04/28/98	5435.19	4.28	4.28	0.00	5430.91	5430.91	5430.91	0.00	NM	NM	0.88	7.45	NM	NM	NM	NM	NM		
	06/23/98	5435.19	4.53	4.53	0.00	5430.66	5430.66	5430.66	0.00	NM	NM	7.60	0.19	7.32	NM	NM	NM	NM	NM	
	09/22/98	5435.19	4.55	4.55	0.00	5430.64	5430.64	5430.64	0.00	NM	NM	17.1	7.40	0.18	7.15	NM	NM	NM	NM	
	12/29/98	5435.19	3.75	3.75	0.00	5431.44	5431.44	5431.44	0.00	NM	NM	11.9	7.84	4.45	7.84	NM	NM	NM	NM	

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	OW	Product	Prod Elev	alter Ele	dj WL	Ele	Accum Pro	Deg. C	pH	DO mg/l	Seamen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
	04/12/99	5435.19	3.94	0.00	5431.25	5431.25	0.00	10.8	7.70	0.20	7.37	3.36	NM	NM	NM	NM	NM	NM	NM	
	06/02/99	5435.19	4.05	0.00	5431.14	5431.14	0.00	13.1	7.80	0.30	6.60	NM	NM	NM	NM	NM	NM	NM	NM	
	09/01/99	5435.19	4.10	4.10	0.00	5431.09	5431.09	0.00	16.6	7.20	0.37	4.67	2.34	NM	NM	NM	NM	NM	NM	
	12/28/99	5435.19	3.77	3.77	0.00	5431.42	5431.42	0.00	NM	7.30	NM	NM	NM	NM	NM	4.25	NM	NM	NM	
	04/04/00	5435.19	3.70	0.00	5431.49	5431.49	0.00	10.7	NM	3.08	NM	NM	NM	NM	NM	3.75	NM	NM	NM	
	05/08/00	5436.69	5.56	0.00	5431.13	5431.13	0.00	13.2	7.60	0.16	7.40	NM	NM	NM	NM	3.50	NM	NM	NM	
	06/05/00	5436.69	5.42	0.00	5431.27	5431.27	0.00	17.5	NM	0.28	NM	NM	NM	NM	NM	2.00	NM	NM	NM	
	12/01/00	5438.69	5.31	0.00	5431.38	5431.38	0.00	17.5	NM	0.28	NM	NM	NM	NM	NM	5.00	NM	NM	NM	
MW-10	10/08/96	5436.56	4.21	0.00	5432.35	5432.35	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	12/31/96	5436.56	4.01	0.00	5432.55	5432.55	0.00	NM	NM	3.90	NM	7.48	NM	NM	NM	NM	NM	NM	NM	
	03/18/97	5436.56	4.09	4.09	0.00	5432.47	5432.47	0.00	NM	NM	7.46	NM	NM	NM	NM	NM	NM	NM	NM	
	06/16/97	5436.56	4.10	4.10	0.00	5432.46	5432.46	0.00	NM	NM	6.68	7.45	NM	NM	NM	NM	NM	NM	NM	
	09/25/97	5436.56	3.81	3.81	0.00	5432.75	5432.75	0.00	NM	NM	11.15	7.41	NM	NM	NM	NM	NM	NM	NM	
	12/22/97	5436.56	3.98	0.00	5432.58	5432.58	0.00	NM	NM	0.61	7.17	NM	NM	NM	NM	NM	NM	NM	NM	
	04/28/98	5436.56	4.24	4.24	0.00	5432.32	5432.32	0.00	NM	NM	0.22	7.34	NM	NM	NM	NM	NM	NM	NM	
	06/23/98	5436.56	4.49	4.49	0.00	5432.07	5432.07	0.00	NM	NM	7.48	0.16	7.24	NM	NM	NM	NM	NM	NM	
	09/22/98	5436.56	4.54	4.54	0.00	5432.02	5432.02	0.00	17.4	7.40	0.16	7.15	NM	NM	NM	NM	NM	NM	NM	
	12/29/98	5436.56	3.84	3.84	0.00	5432.72	5432.72	0.00	13.2	7.50	0.40	7.44	NM	NM	NM	NM	NM	NM	NM	
	04/12/99	5436.56	3.90	0.00	5432.66	5432.66	0.00	11.0	7.40	0.60	7.06	3.50	NM	NM	NM	NM	NM	NM	NM	
	06/02/99	5436.56	3.98	0.00	5432.58	5432.58	0.00	12.3	7.60	0.30	6.60	NM	NM	NM	NM	NM	NM	NM	NM	
	09/07/99	5436.56	3.90	0.00	5432.66	5432.66	0.00	16.9	7.20	0.26	6.61	3.31	NM	NM	NM	NM	NM	NM	NM	
	12/28/99	5436.56	3.57	0.00	5432.99	5432.99	0.00	NM	7.10	NM	NM	NM	NM	NM	NM	3.75	NM	NM	NM	
	04/03/00	5436.56	3.54	0.00	5433.02	5433.02	0.00	10.4	NM	1.16	NM	NM	NM	NM	NM	2.50	NM	NM	NM	
	08/08/00	5437.78	5.07	0.00	5432.71	5432.71	0.00	NM	NM	13.3	7.70	0.11	7.30	NM	NM	NM	5.50	NM	NM	
	09/05/00	5437.78	5.10	0.00	5432.68	5432.68	0.00	19.1	NM	0.27	NM	NM	NM	NM	NM	2.00	NM	NM	NM	
	12/07/00	5437.78	4.72	4.72	0.00	5433.06	5433.06	0.00	19.1	NM	0.27	NM	NM	NM	NM	3.00	NM	NM	NM	
	10/08/96	5438.65	5.27	0.00	5433.38	5433.38	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	12/31/96	5438.65	5.02	0.00	5433.63	5433.63	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	03/18/97	5438.65	5.01	0.00	5433.64	5433.64	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	06/16/97	5438.65	5.05	0.00	5433.60	5433.60	0.00	NM	NM	NM	NM	6.90	NM	NM	NM	NM	NM	NM	NM	
	09/25/97	5438.65	4.96	0.00	5433.69	5433.69	0.00	NM	NM	6.89	NM	NM	NM	NM	NM	NM	3.00	NM	NM	
	12/22/97	5438.65	4.91	0.00	5433.74	5433.74	0.00	NM	NM	0.30	6.90	NM	NM	NM	NM	NM	5.25	NM	NM	
	04/28/98	5438.65	4.97	0.00	5433.68	5433.68	0.00	NM	NM	0.26	6.90	NM	NM	NM	NM	NM	4.50	NM	NM	
	06/23/98	5438.65	5.23	0.00	5433.42	5433.42	0.00	NM	NM	7.73	0.26	6.73	NM	NM	NM	NM	NM	NM	NM	
	09/22/98	5438.65	5.37	0.00	5433.28	5433.28	0.00	16.0	7.40	0.18	6.76	NM	NM	NM	NM	NM	NM	NM	NM	
	12/29/98	5438.65	4.83	0.00	5433.82	5433.82	0.00	12.7	7.50	0.31	6.70	NM	NM	NM	NM	NM	5.00	NM	NM	
	04/12/99	5438.65	4.83	0.00	5433.82	5433.82	0.00	11.3	7.70	0.17	6.68	3.35	NM	NM	NM	NM	NM	3.00	NM	
	06/02/99	5438.65	4.82	0.00	5433.83	5433.83	0.00	12.5	7.20	0.32	6.10	NM	NM	NM	NM	NM	2.00	NM	NM	
	09/07/99	5438.65	4.99	0.00	5433.66	5433.66	0.00	16.0	7.30	0.32	6.32	3.16	NM	NM	NM	NM	NM	NM	NM	
	12/28/99	5438.65	4.42	0.00	5434.23	5434.23	0.00	NM	7.30	NM	NM	NM	NM	NM	NM	NM	5.00	NM	NM	
	04/03/00	5438.65	4.65	0.00	5434.00	5434.00	0.00	NM	0.13	NM	NM	NM	NM	NM	NM	NM	5.25	NM	NM	
	06/08/00	5439.67	5.18	0.00	5434.49	5434.49	0.00	NM	NM	0.26	6.50	NM	NM	NM	NM	NM	4.50	NM	NM	
	09/06/00	5439.67	5.82	0.00	5433.85	5433.85	0.00	16.1	NM	0.22	NM	NM	NM	NM	NM	NM	2.00	NM	NM	
	12/07/00	5439.67	5.43	0.00	5434.24	5434.24	0.00	16.1	NM	0.22	NM	NM	NM	NM	NM	3.00	NM	NM	NM	
	10/07/96	5446.09	14.15	15.62	1.47	5431.94	5430.47	0.00	28.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	12/30/96	5446.09	14.20	15.80	1.40	5431.89	5430.49	0.00	29.34	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
MW-12	03/17/97	5446.09	14.14	15.39	1.25	5431.95	5431.95	0.00	29.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/I/O	O/W	Product	Prod Elev	atell Elav	dl WI	Elev	Accum Pro	Deg. C	pH	DO mg/l	Sediment/in	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
06/18/97	5446.09	14.23	14.98	0.75	5431.86	5431.11	5431.64	30.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/29/97	5446.09	13.98	14.53	0.55	5432.11	5431.56	5431.95	30.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/18/97	5446.09	13.87	14.39	0.52	5432.22	5431.70	5432.06	30.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/29/98	5446.09	13.73	14.15	0.42	5432.36	5431.94	5432.23	31.20	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/22/98	5446.09	13.89	14.21	0.32	5432.20	5431.88	5432.10	31.77	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/23/98	5446.09	14.18	15.22	1.04	5431.91	5430.87	5431.60	31.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/31/98	5446.09	13.94	14.43	0.49	5432.15	5431.66	5432.00	32.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/14/99	5446.09	13.78	13.94	0.16	5432.31	5432.15	5432.26	32.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/04/99	5446.09	13.68	13.88	0.20	5432.41	5432.21	5432.35	32.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/09/99	5446.09	13.65	13.83	0.18	5432.44	5432.26	5432.39	32.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/30/99	5446.09	13.49	13.77	0.28	5432.60	5432.32	5432.52	32.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/05/00	5446.09	13.23	13.59	0.36	5432.86	5432.59	5432.75	32.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/07/00	5446.09	13.22	13.49	0.27	5432.87	5432.60	5432.79	32.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/07/00	5446.09	13.73	13.90	0.17	5432.36	5432.19	5432.31	32.31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/08/00	5446.09	13.72	13.77	0.05	5432.37	5432.32	5432.38	32.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
10/08/96	5452.12	18.11	0.00	5434.01	5434.01	5434.01	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	5	
12/30/96	5452.12	18.04	0.00	5434.08	5434.08	5434.08	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
03/18/97	5452.12	17.98	17.98	0.00	5434.14	5434.14	5434.14	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/16/97	5452.12	17.93	17.93	0.00	5434.19	5434.19	5434.19	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/23/97	5452.12	17.81	17.81	0.00	5434.31	5434.31	5434.31	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/19/97	5452.12	17.48	0.00	5434.64	5434.64	5434.64	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/24/98	5452.12	17.22	0.00	5434.90	5434.90	5434.90	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/23/98	5452.12	17.48	0.00	5434.64	5434.64	5434.64	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/24/98	5452.12	17.92	0.00	5434.20	5434.20	5434.20	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/29/98	5452.12	17.52	0.00	5434.60	5434.60	5434.60	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/12/99	5452.12	17.24	0.00	5434.88	5434.88	5434.88	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/02/99	5452.12	17.11	17.11	0.00	5435.01	5435.01	5435.01	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/07/99	5452.12	17.12	17.12	0.00	5435.00	5435.00	5435.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/28/99	5452.12	16.83	0.00	5435.29	5435.29	5435.29	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/03/00	5452.12	16.51	0.00	5435.61	5435.61	5435.61	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/08/00	5452.12	16.56	0.00	5435.56	5435.56	5435.56	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/05/00	5452.12	17.10	17.10	0.00	5435.02	5435.02	5435.02	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/07/00	5452.12	16.93	-16.93	-0.00	5435.19	5435.19	5435.19	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
10/07/96	5446.93	13.05	12.97	0.00	5433.88	5433.88	5433.88	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/30/96	5446.93	12.97	12.97	0.00	5433.96	5433.96	5433.96	3.10	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
03/17/97	5446.93	12.73	13.50	0.77	5434.20	5433.43	5433.97	3.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/18/97	5446.93	12.67	13.09	0.42	5434.26	5433.84	5434.13	3.58	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/29/97	5446.93	12.46	12.63	0.17	5434.47	5434.30	5434.42	3.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/18/97	5446.93	12.42	12.45	0.03	5434.51	5434.48	5434.50	3.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/28/98	5446.93	12.24	12.24	0.00	5434.69	5434.69	5434.69	3.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/24/98	5446.93	12.37	12.37	0.00	5434.56	5434.56	5434.56	3.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/23/98	5446.93	12.76	12.76	0.00	5434.15	5434.15	5434.15	3.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/30/98	5446.93	12.48	12.66	0.18	5434.45	5434.45	5434.45	3.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/14/99	5446.93	12.14	12.24	0.10	5434.79	5434.69	5434.76	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/03/99	5446.93	12.02	12.06	0.04	5434.91	5434.87	5434.97	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/08/99	5446.93	11.98	11.98	0.02	5434.97	5434.97	5434.98	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/30/99	5446.93	11.87	11.87	0.00	5435.06	5435.06	5435.06	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	OW	Product	Prod Elev	ater Ele	dr WI Ele	Accum Pro	Deg. C	PH	DO mg/l	Seimen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
MW-15	04/05/00	5446.93	11.61	0.00	5435.32	5435.32	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/08/00	5446.93	12.52	0.00	5434.41	5434.41	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5446.93	11.96	0.00	5434.97	5434.97	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5446.93	11.90	0.00	5435.03	5435.03	3.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/08/96	5449.51	13.86	0.00	5435.65	5435.65	5435.65	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/96	5449.51	13.12	13.72	0.00	5435.79	5435.79	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/18/97	5449.51	13.49	13.49	0.00	5436.02	5436.02	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/17/97	5449.51	13.28	13.28	0.00	5436.23	5436.23	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/26/97	5449.51	12.67	12.67	0.00	5436.84	5436.84	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/22/97	5449.51	12.98	0.00	5436.53	5436.53	5436.53	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/24/98	5449.51	12.73	12.73	0.00	5436.78	5436.78	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/23/98	5449.51	12.94	12.94	0.00	5436.57	5436.57	5436.57	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/24/98	5449.51	13.34	13.34	0.00	5436.17	5436.17	5436.17	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/28/98	5449.51	12.83	12.83	0.00	5436.68	5436.68	5436.68	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/12/99	5449.51	12.50	12.50	0.00	5437.01	5437.01	5437.01	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/02/99	5449.51	12.51	12.51	0.00	5437.00	5437.00	5437.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/07/99	5449.51	12.41	12.41	0.00	5437.10	5437.10	5437.10	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/28/99	5449.51	12.30	12.30	0.00	5437.21	5437.21	5437.21	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/04/00	<b>TOP OF WELL DESTROYED NEEDS RESURVEYING</b>										0.00	12.9	NM	NM	NM	NM	NM	NM	NM
06/08/00	5449.28	11.81	11.81	0.00	5437.47	5437.47	5437.47	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/06/00	5449.28	12.18	12.18	0.00	5437.10	5437.10	5437.10	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/08/00	5449.28	12.13	12.13	0.00	5437.15	5437.15	5437.15	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/08/96	5442.63	9.33	9.33	0.00	5433.30	5433.30	5433.30	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/30/96	5442.63	9.07	9.07	0.00	5433.56	5433.56	5433.56	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
03/19/97	5442.63	8.98	8.98	0.00	5433.65	5433.65	5433.65	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/18/97	5442.63	8.91	8.91	0.00	5433.72	5433.72	5433.72	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/29/97	5442.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/22/97	5442.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/29/98	5442.63	8.77	8.77	0.00	5433.86	5433.86	5433.86	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/24/98	5442.63	8.97	8.97	0.00	5433.66	5433.66	5433.66	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/23/98	5442.63	9.87	9.87	0.00	5432.76	5432.76	5432.76	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/28/98	5442.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/13/99	5442.63	8.61	8.61	0.00	5434.02	5434.02	5434.02	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/02/99	5442.63	8.58	8.58	0.00	5434.05	5434.05	5434.05	0.00	14.5	7.10	0.20	6.60	NM	NM	NM	NM	NM	NM	NM
09/09/99	5442.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/05/00	5442.63	8.34	8.34	0.00	5434.29	5434.29	5434.29	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/08/00	5442.63	7.38	7.38	0.00	5435.25	5435.25	5435.25	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/07/00	5442.63	8.55	8.55	0.00	5434.08	5434.08	5434.08	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/11/00	5442.63	8.33	8.33	0.00	5434.30	5434.30	5434.30	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
10/01/00	5435.57	5.98	6.09	0.11	5429.59	5429.59	5429.59	0.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/30/96	5435.57	5.91	6.30	0.39	5429.66	5429.66	5429.66	0.39	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
03/19/97	5435.57	5.63	5.67	0.04	5429.94	5429.94	5429.94	0.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/18/97	5435.57	5.59	5.59	0.00	5429.98	5429.98	5429.98	0.00	5.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/29/97	5435.57	5.53	5.82	0.29	5429.95	5429.95	5429.95	0.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/18/97	5435.57	5.54	5.78	0.24	5429.03	5429.03	5429.03	0.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
04/29/98	5435.57	5.50	5.99	0.49	5429.07	5429.07	5429.07	0.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/24/98	5435.57	5.60	6.51	0.91	5429.97	5429.97	5429.97	0.91	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
09/24/98	5435.57	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC (mg/L)	AO	OWW (Product)	Pond Elec.	di WL Ele	Accum Pro	Deg. C	DH	Dmgn	Seism/m	TGS	ORP	NTU's	% Salinity	Purged	DEPTH	
09/23/98	5435.57	5.74	6.68	0.94	5429.83	5428.89	5429.55	8.62	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/28/98	5435.57	5.39	5.71	0.32	5430.18	5429.86	5430.08	8.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/14/99	5435.57	5.52	6.00	0.48	5430.05	5429.57	5429.91	9.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/04/99	5435.57	5.49	6.19	0.70	5430.08	5429.38	5429.87	11.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/09/99	5435.57	5.38	5.97	0.59	5430.19	5429.60	5430.01	11.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/30/99	5435.57	5.53	5.86	0.33	5430.04	5429.71	5429.94	11.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	
04/05/00	5435.57	5.36	5.40	0.04	5430.21	5430.17	5430.20	11.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/16/00	5435.57	5.45	5.79	0.34	5430.12	5429.78	5430.02	11.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	
09/07/00	5435.57	5.68	6.00	0.32	5429.89	5429.69	5429.79	11.83	NM	NM	NM	NM	NM	NM	NM	NM	NM	
12/08/00	5435.57	5.73	5.80	0.07	5429.84	5429.77	5429.82	11.83	NM	NM	NM	NM	NM	NM	NM	5.00	NM	
MW-18	10/09/96	5429.10	4.24	4.24	0.00	5424.86	5424.86	5424.86	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
12/30/96	5429.10	4.06	4.06	0.00	5425.04	5425.04	5425.04	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	
03/19/97	5429.10	3.26	0.00	5425.84	5425.84	5425.84	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
06/18/97	5429.10	3.00	0.00	5426.10	5426.10	5426.10	0.00	NM	NM	2.03	4.67	NM	NM	NM	NM	NM	NM	
09/24/97	5429.10	2.50	0.00	5426.60	5426.60	5426.60	0.00	NM	NM	0.76	3.33	NM	NM	NM	NM	NM	NM	
12/23/97	5429.10	3.29	0.00	5425.81	5425.81	5425.81	0.00	NM	NM	NM	2.31	NM	NM	NM	NM	NM	NM	
04/28/98	5429.10	3.42	3.42	0.00	5425.68	5425.68	5425.68	0.00	NM	NM	0.15	4.45	NM	NM	NM	NM	NM	
06/24/98	5429.10	3.72	0.00	5425.38	5425.38	5425.38	0.00	NM	NM	7.51	0.10	4.57	NM	NM	NM	NM	NM	
09/23/98	5429.10	3.94	0.00	5425.16	5425.16	5425.16	0.00	17.7	7.10	0.15	4.44	NM	NM	NM	NM	NM	NM	
12/29/98	5429.10	3.19	3.19	0.00	5425.91	5425.91	5425.91	0.00	11.9	7.70	0.20	3.26	NM	NM	NM	NM	NM	
04/13/99	5429.10	3.68	0.00	5425.42	5425.42	5425.42	0.00	11.7	7.60	0.09	4.68	2.32	NM	NM	NM	NM	NM	
06/03/99	5429.10	3.97	0.00	5425.13	5425.13	5425.13	0.00	13.5	7.90	0.10	4.20	NM	NM	NM	NM	NM	NM	
09/09/99	5429.10	3.81	0.00	5425.29	5425.29	5425.29	0.00	NM	NM	8.00	NM	NM	NM	NM	NM	NM	NM	
12/29/99	5429.10	4.39	4.39	0.00	5424.71	5424.71	5424.71	0.00	13.2	7.10	0.41	3.15	NM	NM	NM	3.15	NM	
04/05/00	5429.10	4.08	0.00	5425.02	5425.02	5425.02	0.00	NM	NM	NM	NM	NM	NM	NM	3.00	NM	NM	
06/08/00	5429.10	4.24	0.00	5424.86	5424.86	5424.86	0.00	13.8	7.90	0.10	3.70	NM	NM	NM	NM	2.25	NM	
09/06/00	5429.10	4.60	0.00	5424.50	5424.50	5424.50	0.00	NM	NM	0.16	NM	NM	NM	NM	2.00	NM	NM	
12/06/00	5429.10	7.30	0.00	5421.80	5421.80	5421.80	0.00	18.7	NM	0.16	NM	NM	NM	NM	4.00	NM	NM	
10/09/00	5428.69	3.70	0.00	5424.99	5424.99	5424.99	0.00	NM	NM	0.00	0.41	NM	NM	NM	NM	3.15	NM	
04/13/00	5428.69	3.77	0.00	5424.92	5424.92	5424.92	0.00	NM	NM	0.00	0.41	NM	NM	NM	NM	3.00	NM	
06/08/00	5428.69	3.32	0.00	5425.37	5425.37	5425.37	0.00	NM	NM	0.00	0.41	NM	NM	NM	NM	2.25	NM	
09/19/00	5428.69	3.32	0.00	5424.50	5424.50	5424.50	0.00	NM	NM	0.00	0.41	NM	NM	NM	NM	2.00	NM	
12/06/00	5429.10	7.30	0.00	5421.80	5421.80	5421.80	0.00	NM	NM	0.00	0.41	NM	NM	NM	NM	4.00	NM	
MW-19	10/09/96	5428.69	3.70	0.00	5424.99	5424.99	5424.99	0.00	NM	NM	0.00	0.41	NM	NM	NM	3.15	NM	
12/30/96	5428.69	3.77	0.00	5424.92	5424.92	5424.92	0.00	NM	NM	0.00	0.41	NM	NM	NM	3.00	NM		
03/19/97	5428.69	3.32	0.00	5425.37	5425.37	5425.37	0.00	NM	NM	0.00	0.41	NM	NM	NM	2.25	NM		
09/06/00	5428.69	3.12	0.00	5425.57	5425.57	5425.57	0.00	NM	NM	0.00	0.41	NM	NM	NM	2.00	NM		
12/29/99	5428.69	3.57	0.00	5425.12	5425.12	5425.12	0.00	18.1	7.80	0.15	4.57	NM	NM	NM	NM	NM		
09/26/97	5428.69	2.36	0.00	5426.33	5426.33	5426.33	0.00	NM	NM	0.15	1.71	NM	NM	NM	NM	NM		
12/23/97	5428.69	2.91	0.00	5425.78	5425.78	5425.78	0.00	NM	NM	0.07	6.24	NM	NM	NM	NM	NM		
04/28/98	5428.69	2.99	0.00	5425.70	5425.70	5425.70	0.00	NM	NM	0.19	6.21	NM	NM	NM	NM	NM		
06/23/98	5428.69	3.38	0.00	5425.31	5425.31	5425.31	0.00	NM	NM	0.30	5.91	NM	NM	NM	NM	NM		
09/22/98	5428.69	3.57	0.00	5425.12	5425.12	5425.12	0.00	18.1	7.80	0.15	4.57	NM	NM	NM	NM	NM		
09/26/99	5428.69	3.19	0.00	5425.50	5425.50	5425.50	0.00	9.7	8.00	0.10	3.25	NM	NM	NM	NM	3.25		
12/29/99	5428.69	3.08	0.00	5425.61	5425.61	5425.61	0.00	12.1	7.60	0.10	4.57	2.31	NM	NM	NM	5.00		
04/13/99	5428.69	3.24	0.00	5425.45	5425.45	5425.45	0.00	NM	NM	0.19	6.21	NM	NM	NM	NM	3.50		
06/03/99	5428.69	3.38	0.00	5425.68	5425.68	5425.68	0.00	NM	NM	0.00	5.91	NM	NM	NM	NM	1.00		
09/09/99	5428.69	3.01	0.00	5425.68	5425.68	5425.68	0.00	NM	NM	0.00	4.57	NM	NM	NM	NM	3.00		
12/29/99	5428.69	2.57	0.00	5426.12	5426.12	5426.12	0.00	10.9	7.30	0.35	NM	NM	NM	NM	NM	3.25		
04/04/00	5428.69	3.60	0.00	5425.98	5425.98	5425.98	0.00	10.0	NM	0.65	NM	NM	NM	NM	NM	5.00		
06/08/00	5428.69	3.92	0.00	5424.77	5424.77	5424.77	0.00	13.3	7.70	0.17	5.70	NM	NM	NM	NM	3.50		
09/06/00	5428.69	3.99	0.00	5424.80	5424.80	5424.80	0.00	19.6	NM	0.20	NM	NM	NM	NM	NM	1.00		
12/06/00	5428.69	5.72	0.00	5424.64	5424.64	5424.64	0.00	NM	NM	NM	NM	NM	NM	NM	NM	3.00		
MW-20	10/08/96	5430.36	5.72	0.00	5424.64	5424.64	5424.64	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/I/O	OWW Product/Elev	alter Elev	dj Wl Els	Accum Pto	Deg. C	pH	DO mg/l	Sediment/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH	
	12/31/96	5430.36	5.74	5.74	0.00	5424.62	5424.62	0.00	NM	0.90	5.33	NM	NM	NM	NM	NM	NM	
03/18/97	5430.36	5.39	5.39	0.00	5424.97	5424.97	0.00	NM	NM	6.26	NM	NM	NM	NM	NM	NM	NM	
06/16/97	5430.36	5.21	5.21	0.00	5425.15	5425.15	0.00	NM	NM	0.26	5.73	NM	NM	NM	NM	NM	NM	
09/24/97	5430.36	4.41	4.41	0.00	5425.95	5425.95	0.00	NM	NM	0.27	3.50	NM	NM	NM	NM	NM	NM	
12/22/97	5430.36	4.90	4.90	0.00	5425.46	5425.46	0.00	NM	NM	0.22	6.52	NM	NM	NM	NM	NM	NM	
04/27/98	5430.36	5.02	5.02	0.00	5425.34	5425.34	0.00	NM	NM	0.31	6.54	NM	NM	NM	NM	NM	NM	
06/23/98	5430.36	5.35	5.35	0.00	5425.01	5425.01	0.00	NM	NM	0.35	6.54	NM	NM	NM	NM	NM	NM	
09/22/98	5430.36	5.67	5.67	0.00	5424.99	5424.99	0.00	17.3	7.00	0.08	5.64	NM	NM	NM	NM	NM	NM	
12/28/98	5430.36	5.02	5.02	0.00	5425.34	5425.34	0.00	8.4	7.00	0.10	5.29	NM	NM	NM	NM	NM	NM	
04/12/99	5430.36	5.02	5.02	0.00	5425.34	5425.34	0.00	11.0	7.30	0.03	7.74	NM	NM	NM	NM	NM	NM	
06/02/99	5430.36	5.19	5.19	0.00	5425.17	5425.17	0.00	NM	7.30	0.00	3.00	NM	NM	NM	NM	NM	NM	
09/08/99	5430.36	4.90	4.90	0.00	5425.46	5425.46	0.00	NM	7.10	0.00	1.85	0.92	NM	NM	NM	NM	NM	NM
12/29/99	5430.36	5.36	5.36	0.00	5425.00	5425.00	0.00	10.3	7.10	0.15	NM	NM	NM	NM	NM	NM	NM	
04/04/00	5430.36	4.49	4.49	0.00	5425.87	5425.87	0.00	9.0	NM	0.29	NM	NM	NM	NM	NM	4.25	NM	
06/08/00	5430.45	5.53	5.53	0.00	5424.92	5424.92	0.00	12.9	7.40	0.12	5.70	NM	NM	NM	NM	5.00	NM	
09/06/00	5430.45	5.87	5.87	0.00	5424.58	5424.58	0.00	18.1	NM	0.12	NM	NM	NM	NM	NM	4.50	NM	
12/08/00	5430.45	5.88	5.88	0.00	5424.57	5424.57	0.00	18.1	NM	0.12	NM	NM	NM	NM	NM	1.00	NM	
MW-21	12/31/96	5428.62	3.56	3.56	0.00	5425.06	5425.06	0.00	NM	NM	1.20	5.07	NM	NM	NM	NM	2.50	NM
	03/18/97	5428.62	2.76	2.76	0.00	5426.86	5426.86	0.00	NM	NM	6.27	NM	NM	NM	NM	NM	NM	NM
	06/17/97	5428.62	2.93	2.93	0.00	5425.69	5425.69	0.00	NM	NM	0.23	7.50	NM	NM	NM	NM	NM	NM
	09/25/97	5428.62	3.03	3.03	0.00	5425.59	5425.59	0.00	NM	NM	0.09	6.05	NM	NM	NM	NM	NM	NM
	12/22/97	5428.62	3.07	3.07	0.00	5425.55	5425.55	0.00	NM	NM	0.40	4.96	NM	NM	NM	NM	NM	NM
	04/27/98	5428.62	3.16	3.16	0.00	5425.46	5425.46	0.00	NM	NM	0.07	5.40	NM	NM	NM	NM	NM	NM
	06/23/98	5428.62	3.72	3.72	0.00	5424.90	5424.90	0.00	NM	7.06	0.07	4.79	NM	NM	NM	NM	NM	NM
	09/24/98	5428.62	3.81	3.81	0.00	5424.81	5424.81	0.00	20.0	7.10	0.15	4.43	NM	NM	NM	NM	NM	NM
	12/28/98	5428.62	2.66	2.66	0.00	5425.96	5425.96	0.00	8.1	7.00	0.31	7.19	NM	NM	NM	NM	NM	NM
	04/12/99	5428.62	2.90	2.90	0.00	5425.72	5425.72	0.00	11.0	7.10	0.25	3.55	NM	NM	NM	NM	NM	NM
	06/02/99	5428.62	3.24	3.24	0.00	5425.38	5425.38	0.00	14.0	7.10	0.09	5.10	NM	NM	NM	NM	NM	NM
	09/08/99	5428.62	3.18	3.18	0.00	5425.44	5425.44	0.00	19.7	6.70	0.24	6.76	NM	NM	NM	NM	NM	NM
	12/29/99	5428.62	3.30	3.30	0.00	5425.32	5425.32	0.00	9.0	6.70	0.16	NM	NM	NM	NM	NM	3.75	NM
	04/04/00	5428.62	2.61	2.61	0.00	5426.01	5426.01	0.00	9.6	NM	0.08	NM	NM	NM	NM	NM	5.00	NM
	06/08/00	5428.62	3.27	3.27	0.00	5425.35	5425.35	0.00	17.5	7.30	0.07	9.10	NM	NM	NM	NM	3.00	NM
	09/06/00	5428.62	3.60	3.60	0.00	5425.02	5425.02	0.00	21.3	NM	0.28	NM	NM	NM	NM	NM	1.00	NM
	12/08/00	5428.62	3.43	3.43	0.00	5425.19	5425.19	0.00	21.3	NM	0.28	NM	NM	NM	NM	NM	3.00	NM
	10/08/00	5430.75	5.35	5.35	0.00	5425.40	5425.40	0.00	NM	NM	0.32	7.97	NM	NM	NM	NM	NM	NM
MW-22	12/31/96	5430.75	4.64	4.64	0.00	5426.11	5426.11	0.00	NM	NM	1.27	8.69	NM	NM	NM	NM	NM	NM
	03/18/97	5430.75	3.88	3.88	0.00	5426.87	5426.87	0.00	NM	NM	1.54	8.91	NM	NM	NM	NM	NM	NM
	06/16/97	5430.75	4.15	4.15	0.00	5426.60	5426.60	0.00	NM	NM	6.49	NM	NM	NM	NM	NM	NM	NM
	09/26/97	5430.75	4.36	4.36	0.00	5426.39	5426.39	0.00	NM	NM	0.21	7.25	NM	NM	NM	NM	NM	NM
	12/22/97	5430.75	4.25	4.25	0.00	5426.50	5426.50	0.00	NM	NM	0.32	7.97	NM	NM	NM	NM	NM	NM
	04/27/98	5430.75	4.31	4.31	0.00	5426.44	5426.44	0.00	NM	NM	1.27	8.69	NM	NM	NM	NM	NM	NM
	06/23/98	5430.75	4.97	4.97	0.00	5425.78	5425.78	0.00	NM	NM	0.27	9.06	NM	NM	NM	NM	NM	NM
	09/24/98	5430.75	5.03	5.03	0.00	5425.72	5425.72	0.00	19.4	7.10	0.11	8.46	NM	NM	NM	NM	NM	NM
	12/28/98	5430.75	3.83	3.83	0.00	5426.92	5426.92	0.00	8.1	7.60	0.84	9.16	NM	NM	NM	NM	NM	NM
	04/12/99	5430.75	4.31	4.31	0.00	5426.44	5426.44	0.00	10.2	7.30	0.22	10.55	NM	NM	NM	NM	NM	NM
MW-23	06/02/99	5430.75	4.53	4.53	0.00	5426.22	5426.22	0.00	13.4	6.90	0.20	6.90	NM	NM	NM	NM	NM	NM
	09/08/99	5430.75	4.28	4.28	0.00	5426.47	5426.47	0.00	18.7	7.20	0.33	12.63	6.31	NM	NM	NM	NM	NM

CONTINUATION

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	O/W	Product	Prod Elev	ater E16	di WL E16	Accum Pro	Deg. C	pH	DO mg/l	Seimen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
MW-26	12/31/98	5447.62	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5447.62	14.81	14.81	5432.81	5432.81	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/04/99	5447.62	14.73	14.73	5432.89	5432.89	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	05/14/00	5447.62	14.18	14.18	5433.44	5433.44	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	08/18/00	5448.74	15.15	15.00	5433.59	5433.59	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5448.74	15.07	15.07	5433.67	5433.67	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5448.74	15.11	15.11	5433.63	5433.63	0.00	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/98	5447.26	DRY	DRY	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5447.26	WELL COVERED	DRY	DRY	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-27	10/07/98	5448.04	DRY	DRY	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5448.04	DRY	DRY	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5448.04	DRY	DRY	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5448.04	NM	NM	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5448.04	NM	NM	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5448.04	NM	NM	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5448.04	NM	NM	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/25/98	5448.04	NM	NM	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5448.04	DRY	DRY	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/98	5448.04	DRY	DRY	NM	NM	NM	NM	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	05/14/00	5448.04	DRY	DRY	DRY	DRY	DRY	DRY	5434.02	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5449.01	DRY	DRY	DRY	DRY	DRY	DRY	5434.02	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5449.01	DRY	DRY	DRY	DRY	DRY	DRY	5434.02	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5449.01	DRY	DRY	DRY	DRY	DRY	DRY	5434.02	8.44	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5448.06	14.98	14.98	0.00	5433.08	5433.08	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5448.06	14.97	14.97	0.00	5433.09	5433.09	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5448.06	14.96	14.96	0.00	5433.10	5433.10	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5448.06	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5448.06	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5448.06	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/28/98	5448.06	14.74	14.74	0.00	5433.32	5433.32	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/24/98	5448.06	14.87	14.87	0.00	5433.19	5433.19	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5448.06	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/98	5448.06	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5448.06	14.76	14.76	0.00	5433.30	5433.30	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/04/99	5448.06	14.55	14.55	0.00	5433.51	5433.51	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5449.07	15.02	15.57	0.55	5434.05	5433.50	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5449.07	15.53	15.92	0.39	5433.54	5433.15	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5449.07	15.53	15.76	0.23	5433.54	5433.31	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5446.90	14.59	14.82	0.23	5432.31	5432.08	0.00	5432.24	7.10	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/96	5446.90	14.65	14.78	0.13	5432.25	5432.12	0.00	5432.21	7.11	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/97	5446.90	14.61	14.69	0.08	5432.29	5432.21	0.00	5432.27	7.11	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5446.90	14.50	14.52	0.02	5432.40	5432.38	0.00	5432.39	7.13	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5446.90	14.36	14.40	0.04	5432.54	5432.54	0.00	5432.53	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5446.90	14.36	14.40	0.04	5432.54	5432.50	0.00	5432.53	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5446.90	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/24/98	5446.90	14.09	14.09	0.00	5432.81	5432.81	0.00	5432.81	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5446.90	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/IQ	OW	Product	Prod Elev	ater Ele	di WL Ele	Accum Pto	Deg. C	pH	DO mg/l	Seamen/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
	12/31/98	5446.90	NM	NM	NM	NM	NM	NM	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5446.90	14.00	14.00	0.00	5432.90	5432.90	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/04/99	5446.90	13.84	0.00	5433.06	5433.06	5433.06	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/00	5447.94	14.38	0.00	5433.56	5433.56	5433.56	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POND	09/07/00	5447.94	14.87	0.00	5433.07	5433.07	5433.07	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5447.94	14.91	0.00	5433.03	5433.03	5433.03	7.14	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/02/99	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/99	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5445.72	13.87	15.34	1.47	5431.85	5430.38	5431.41	103.52	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-24	12/30/96	5445.72	13.94	1.40	5431.78	5430.38	5431.36	104.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/97	5445.72	13.90	14.94	1.04	5431.82	5430.78	5431.51	104.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5445.72	13.77	14.52	0.75	5431.95	5431.20	5431.73	104.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5445.72	13.73	14.25	0.52	5431.99	5431.47	5431.83	104.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5445.72	13.72	14.21	0.49	5432.00	5431.51	5431.85	104.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-25	04/29/98	5445.72	13.55	13.75	0.20	5432.17	5431.97	5432.11	104.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/22/98	5445.72	13.63	14.04	0.41	5432.09	5431.68	5431.97	105.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/23/98	5445.72	13.88	14.88	1.00	5431.84	5430.84	5431.54	105.16	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/05/00	5445.72	13.80	14.42	0.62	5431.92	5431.30	5431.73	105.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5447.73	14.99	14.99	0.00	5432.74	5432.74	5432.74	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-26	09/07/00	5447.73	13.63	13.83	0.20	5432.09	5431.89	5432.03	105.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/04/99	5445.72	13.45	13.57	0.12	5432.27	5432.27	5432.23	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/99	5445.72	13.37	13.43	0.06	5432.35	5432.29	5432.33	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5445.72	13.11	13.11	0.00	5432.61	5432.61	5432.61	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/99	5447.73	14.99	14.99	0.00	5432.74	5432.74	5432.74	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-27	06/18/97	5447.73	15.46	15.46	0.00	5432.27	5432.27	5432.27	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5447.73	15.49	15.49	0.00	5432.24	5432.24	5432.24	105.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/07/96	5446.67	14.84	15.01	0.17	5431.83	5431.66	5431.78	49.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/96	5446.67	14.89	15.02	0.13	5431.78	5431.78	5431.74	49.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/99	5446.67	14.77	15.02	0.25	5431.90	5431.65	5431.83	14.30	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-28	06/18/97	5446.67	14.50	15.29	0.79	5432.17	5431.38	5431.93	49.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5446.67	14.49	14.97	0.48	5432.18	5431.70	5432.04	49.60	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5446.67	14.39	14.54	0.13	5432.28	5432.13	5432.24	49.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5446.67	13.25	13.25	0.00	5433.42	5433.42	5433.42	49.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/27/98	5446.67	14.36	14.38	0.02	5432.31	5432.29	5432.30	49.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-29	09/23/98	5446.67	14.66	15.42	0.76	5432.01	5431.25	5431.78	49.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/98	5446.67	14.44	14.86	0.42	5432.23	5431.81	5432.10	49.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5446.67	14.28	14.31	0.03	5432.39	5432.36	5432.38	49.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/04/99	5446.67	14.16	14.18	0.02	5432.51	5432.49	5432.50	49.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5448.68	16.16	16.16	0.00	5432.52	5432.52	5432.52	49.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-30	12/30/96	5443.98	12.97	13.70	0.73	5431.01	5430.28	5430.79	0.70	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/17/97	5443.98	12.00	12.56	0.56	5431.98	5431.42	5431.81	0.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5443.98	11.60	12.35	0.75	5432.38	5431.63	5432.16	2.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5443.98	11.64	11.77	0.13	5432.34	5432.21	5432.30	2.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5443.98	11.63	11.64	0.01	5432.35	5432.34	5432.35	2.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM

**TABLE 1**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	AIO	OW	Product	Prod Elev	alter Ele	di WL Ele	Accum Pro	Deg. C	pH	DO mg/l	Sediment/m	TDS	ORP	NTU's	% Salinity	Purged DEPTH
	04/29/99	5443.98	11.47	0.00	5432.51	5432.51	2.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/22/98	5443.98	11.59	0.00	5432.39	5432.39	2.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5443.98	NM	NM	NM	NM	2.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/19/98	5443.98	11.65	0.10	5432.33	5432.23	2.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5443.98	11.50	0.00	5432.48	5432.48	2.53	NM	NM	6.90	NM	NM	NM	NM	NM	NM	NM	NM
	06/03/99	5443.98	11.29	0.00	5432.69	5432.69	2.53	NM	NM	6.90	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/99	5443.98	NM	NM	NM	NM	2.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/05/00	5443.98	10.93	0.00	5433.05	5433.05	2.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/08/00	NM	NM	NM	NM	NM	2.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00		13.73	14.33	0.60		3.09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00		13.78	14.38	0.60		3.09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
T-17-1	10/10/96	5452.41	18.05	18.11	0.06	5434.36	5434.30	5434.34	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/96	5452.41	DRY	DRY	DRY	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5452.41	DRY	DRY	DRY	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5452.41	DRY	DRY	DRY	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5452.41	NM	NM	NM	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5452.41	NM	NM	NM	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/79/98	5452.41	NM	NM	NM	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/25/98	5452.41	17.52	17.94	0.42	5434.89	5434.47	5434.76	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5452.41	NM	NM	NM	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/98	5452.41	NM	NM	NM	NM	NM	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/4/99	5452.41	16.35	16.35	0.00	5436.06	5436.06	5436.06	6.40	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/10/99	5452.41	17.30	17.34	0.04	5435.11	5435.07	5435.10	6.41	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/09/99	5452.41	NM	NM	NM	NM	NM	6.41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5452.41	16.68	16.68	0.00	5435.73	5435.73	5435.73	6.41	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/07/00	5452.41	17.25	17.25	0.00	5435.16	5435.16	5435.16	6.41	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/11/00	5452.41	17.20	17.20	0.00	5435.21	5435.21	5435.21	6.41	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/10/96	5453.51	NM	NM	NM	NM	NM	5436.16	5436.16	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/96	5453.51	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5453.51	19.74	19.74	0.00	5433.77	5433.77	5433.77	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5453.51	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5453.51	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5453.51	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5453.51	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	06/16/00	5453.51	WELL DESTROYED															
	10/10/96	5450.98	19.85	19.90	0.05	5431.13	5431.08	5431.12	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/30/96	5450.98	17.16	17.16	0.00	5433.82	5433.82	5433.82	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	03/19/97	5450.98	17.20	17.20	0.00	5433.78	5433.78	5433.78	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/18/97	5450.98	17.38	17.38	0.00	5433.60	5433.60	5433.60	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/29/97	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	12/18/97	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	04/29/98	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	06/25/98	5450.98	16.39	16.39	0.00	5434.59	5434.59	5434.59	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/24/98	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	12/31/98	5450.98	16.70	16.70	0.00	5434.28	5434.28	5434.28	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM
	04/14/99	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM
	06/03/99	5450.98	16.10	16.10	0.00	5434.88	5434.88	5434.88	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM

**TABLE 1**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA**

Well #	Date	TOC elev	A/O	O/W	Product	Prod Elev	Water Ele	dj	WL Ele	Accum Pro	Deg C	pH	DO mg/l	Salinity/m	TDS	ORP	NTU's	% Salinity	Purged	DEPTH
	09/09/99	5450.98	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	06/16/00	5450.88	NM	NM	NM	NM	NM	NM	NM	0.00	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	09/07/00	5452.41	Well is covered need relocating.																	
UST	04/21/95	GALLONS RECOVERED THIS QUARTER								GALLONS	ACUM									
	08/16/95	GALLONS RECOVERED THIS QUARTER								633.25	633.25									
	08/25/95	GALLONS RECOVERED THIS QUARTER								1055.40	1688.65									
	11/12/95	GALLONS RECOVERED THIS QUARTER								0.00	1688.65									
	03/05/96	GALLONS RECOVERED THIS QUARTER								79.16	1767.81									
	06/04/96	GALLONS RECOVERED THIS QUARTER								0.00	1767.81									
	10/19/96	GALLONS RECOVERED THIS QUARTER								250.00	2017.81									
	12/30/96	NO GALLONS RECOVERED THIS QUARTER								2650.00	4661.81									
	03/19/97	NO GALLONS RECOVERED THIS QUARTER								0.00	4661.81									
	06/18/97	NO GALLONS RECOVERED THIS QUARTER								0.00	4661.81									
	07/09/97	NO GALLONS RECOVERED THIS QUARTER								0.00	4661.81									
	10/01/97	GALLONS RECOVERED THIS QUARTER								250.00	4917.81									
	12/18/97	NO GALLONS RECOVERED THIS QUARTER								0.00	4917.81									
	04/29/98	GALLONS RECOVERED THIS QUARTER								250.00	5167.81									
	06/25/98	GALLONS RECOVERED THIS QUARTER								275.00	5442.81									
	09/24/98	NO GALLONS RECOVERED THIS QUARTER								0.00	5442.81									
	12/31/98	NO GALLONS RECOVERED THIS QUARTER								0.00	5442.81									
	04/12/99	NO GALLONS RECOVERED THIS QUARTER								0.00	5442.81									
	06/03/99	GALLONS RECOVERED THIS QUARTER								300.00	5742.81									
	09/09/99	NO GALLONS RECOVERED THIS QUARTER								0.00	5742.81									
	12/30/99	NO GALLONS RECOVERED THIS QUARTER								0.00	5742.81									
	04/05/00	GALLONS RECOVERED THIS QUARTER								350.00	6092.81									
	06/08/00	GALLONS RECOVERED THIS QUARTER								250.00	6342.81									
	09/07/00	GALLONS RECOVERED THIS QUARTER								1000.00	7342.81									
	12/12/00	GALLONS RECOVERED THIS QUARTER								0.00	7342.81									
	01/17/01	GALLONS RECOVERED THIS QUARTER								1600.00	8942.81									

NOTE: NM SIGNIFIES NOT MEASURED  
TOTAL PRODUCT RECOVERED TO 9174.35 GALLONS

**TABLE 1-A**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER MONITOR DATA (MOST RECENT)**

Well	Date	Time	A/O	O/W	Product	Thick	pH	umhos/cm	NTU	DO mg/l	Deg C.	Salinity %	TDS g/L	ORP mv	Purged
MW-01	2.01.02	1244	14.78	14.78											
	2.04.02	1218	9.17	9.18	0.01										
MW-02	2.01.02	1133	11.91	11.91											monitor only
MW-03	2.01.02	1105	6.03	6.03											monitor only
MW-04	5.02.01	1355	4.96	4.96											
	7.30.01	1550	5.72	5.72	6.9	1.41	211	2.15	18	0.8	9	-62	5		
	1.30.02	1501	5.37	5.37											P
MW-05	1.30.02	1523	5.33	5.33											P
MW-06	5.03.01	1026	5.15	5.15											
	7.30.01	1537	5.86	5.86	7.3	1.35	87	5.33	12.7	0.8	9	148	5		
	1.30.02	1547	5.22	5.22											P
MW-07	2.01.02	1042	5.32	5.32											monitor only
MW-08	5.30.01	954	4.05	4.05											
	7.30.01	1515	5.86	5.86	7.1	1.57	14	14.21	20.5	0.9	10	-20	6		
	1.31.02	1042	5.32	5.32											
MW-09	1.30.02														well not found
MW-10	1.31.02	1102	5.21	5.21											P
MW-11	1.31.02	1121	5.71	5.71											P
MW-12	1.31.02	1452	14.09	14.09											P
MW-13	5.03.01	1055	16.59	16.59											
	7.31.01	925	17.19	17.19	7	2.33	85	1.83	14.3	1.4	14	164	5		
	1.31.02	1430	17.25	17.25											P
MW-14	2.01.02	1239	12.22	12.22											monitor only
MW-15	5.03.01	1135	11.89	11.89											
	01.31.02	1142	12.49	12.49	7.3	2.21	145	4.2	12.1	1	10	50	1.4		
MW-16	2.01.02	1300	5.78	5.78											well not found

TABLE 1-A  
THRIFTWAY REFINERY  
SUMMARY OF GROUNDWATER MONITOR DATA (MOST RECENT)

Well	Date	Time	A/O	O/W	Product Thick	pH	umhos/cm	NTU	DO mg/l	Deg C.	Salinity %	TDS g/L	ORP mv	Purged
MW-17	2.01.02	1118	5.78	5.78										monitor only
MW-18	5.02.01	1337	4.32	4.32	7.1	1.46	OR	4.26	17.9	0.8	9	.84	5.2	
	7.31.01	857	4.84	4.84	7.9	1.44	OR	12.55	19.7	0.09	9	-104	5	
	1.30.02	1418	4.61	4.61										P
MW-19	1.31.02	925	5.87	5.87										
MW-20	1.31.02	947	6.04	6.04										P
MW-21	1.30.02	1007	3.41	3.41										P
MW-22	5.02.01	1438	4.01	4.01	6.9	2	268	3.57	18.4	1.2	12	-24	5.2	
	7.31.01	1454	5.25	5.25	6.1	2.8	343	16.1	23.4	1.7	18	-20	5	
	1.31.02	1026	4.55	4.55										P
MW-23	2.01.02	1211	DRY	DRY										
MW-24	2.01.02	1201	16.05	16.05										monitor only
MW-25	2.01.02	1158	15.33	15.33										monitor only
MW-27	2.01.02	1214	DRY	DRY										
MW-28	2.01.02	1227	15.95	15.95										monitor only
MW-29	2.02.02	1216	15.19	15.19										monitor only
RW-24	2.01.02	1151	16.17	16.17										monitor only
RW-25	2.01.02	1154	16.45	16.45										monitor only
RW-26	2.01.02	1142	14.65	14.65										monitor only
T-17-1	2.01.02	1230	17.6	17.6										monitor only
T-17-3	2.01.02	1232												monitor only

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
(bconcentrations in ug/L)

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
EFFLUENT	06/22/94				SYSTEM SHUT DOWN	
	09/20/94	ND	9.3	0.9	ND	0.7
	01/20/95	NS	NS	NS	NS	NS
	04/12/95	7.5	97.5	363.0	278.0	2638.0
	11/12/95	3.2	33.9	12.3	8.9	48.1
	03/05/96	7.0	50.0	21.2	7.1	43.4
	06/04/96	3.5	2.4	0.7	0.9	3.8
	07/18/96	7.4	62.6	43.7	13.1	88.9
	10/09/96	1.2	3.7	ND	1.4	4.4
	12/31/96				SYSTEM SHUT DOWN	
	03/20/97				AIR STRIPPER MODIFIED	
	03/24/97	NM	3.4	1.9	0.9	2.7
	03/28/97	NM	18.7	10.5	5.3	16.0
	04/02/97	NM	5.4	2.6	1.4	4.8
	04/03/97	NM	ND	ND	ND	ND
	04/04/97	NM	ND	ND	ND	0.1
	04/10/97	NM	0.5	0.3	0.2	1.2
	04/18/97	4.8	4.0	0.4	0.4	1.2
	05/30/97				LARGER BLOWER INSTALLED	
	06/09/97	NM	ND	ND	0.5	0.5
	06/27/97	NM	ND	0.2	0.2	0.4
	07/25/97	NM	ND	ND	ND	ND
	07/31/97	NM	ND	ND	ND	ND
	09/03/97	NM	0.8	0.5	1.1	6.2
	12/22/97	NM	122.6	97.2	44.5	131.9
EFFLUENT	02/09/98	5.9	77.5	115.5	47.1	134.1
	02/19/98	10.0	110.0	110.0	46.0	171.0
	02/20/98	5.6	83.0	96.0	46.0	209.0
	02/23/98	13.0	200.0	160.0	81.0	289.0
	03/03/98	30.0	220.0	140.0	84.0	243.0
	03/04/98	22.0	200.0	140.0	80.0	247.0
	03/05/98	17.0	130.0	94.0	56.0	176.0
	03/05/98				SYSTEM SHUT DOWN FOR CLEANING	
	04/24/98	54.0	310.0	410.0	230.0	970.0
	04/28/98	42.0	770.0	350.0	280.0	580.0
	04/28/98				SYSTEM SHUT DOWN FOR TRAY REPAIRS	
	06/11/98		117.0			
	06/12/98		270.0			
	06/15/98		200.0			
	06/17/98				NEW STRIPPER INSTALLATION	
	06/24/98				NEW STRIPPER INSTALLATION	
	09/24/98	6.2	2.6	1.6	ND	2.7
	10/21/98	ND	2.6	1.6	ND	2.7

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
(bconcentrations in ug/L)

Well #	Well A #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	
EFFLUENT	EFFLUENT	11/16/98	ND	ND	ND	ND	2.0	
	EFFLUENT	12/31/98	71.0	9.6	7.7	5.8	21.4	
	EFFLUENT	02/16/99	4.8	1.0	2.6	2.3	8.2	
	EFFLUENT	03/02/99	12.0	2.2	1.5	1.9	6.0	
	EFFLUENT	03/05/99	13.0	2.0	1.3	1.9	5.5	
	EFFLUENT	03/12/99	5.7	1.0	1.9	1.5	7.0	
	EFFLUENT	03/19/99	4.8	1.6	1.4	1.4	5.4	
	EFFLUENT	03/26/99	14.0	2.1	1.1	0.6	6.6	
	EFFLUENT	04/13/99	34.0	50.0	130.0	14.0	81.0	
	EFFLUENT	05/04/99	16.0	0.7	3.6	1.0	4.0	
EFFLUENT	EFFLUENT	06/02/99	21.0	2.3	3.8	2.3	10.4	
	EFFLUENT	07/07/99	14.0	1.9	5.4	0.6	3.5	
	EFFLUENT	08/09/99	ND	ND	1.0	ND	1.2	
	EFFLUENT	09/02/99	ND	0.9	2.6	1.1	4.7	
	EFFLUENT	09/09/99	ND	1.8	9.6	2.6	12.1	
	EFFLUENT	10/04/99	ND	2.8	2.5	1.3	5.7	
	EFFLUENT	11/01/99	2.9	2.6	1.9	2.1	10.3	
	EFFLUENT	12/17/99	11.0	5.5	7.2	3.5	17.0	
	EFFLUENT	12/28/99	6.8	1.9	2.6	2.1	9.5	
	EFFLUENT	02/08/00	8.7	3.3	1.3	1.3	5.7	
EFFLUENT	EFFLUENT	04/03/00	20.0	6.2	1.8	2.6	11.4	
	EFFLUENT	04/17/00	22.0	19.0	4.2	9.0	40.3	
	EFFLUENT	05/08/00	460.0	3100.0	3200.0	660.0	2840.0	
	EFFLUENT	05/08/00	System shut down for cleaning oil found in outlet					
	EFFLUENT	05/22/00	39.0	26.0	19.0	6.4	32.0	
	EFFLUENT	05/22/00	System shut down for cleaning found broken baffels.					
	EFFLUENT	05/26/00	System shut down for repairs.					
	EFFLUENT	05/31/00	4.1	1.7	ND	1.2	2.8	
	EFFLUENT	06/05/00	10.0	3.0	2.1	0.7	4.4	
	EFFLUENT	06/29/00	2.9	1.5	1.8	ND	3.4	
EFFLUENT DUP	EFFLUENT DUP	02/09/98	5.9	77.5	97.2	44.5	131.9	
	EFFLUENT DUP	02/16/99	ND	0.6	2.2	0.8	3.6	
	INFLUENT	INFLUENT	06/22/94	SYSTEM SHUT DOWN				
	INFLUENT	09/20/94	50.0	9670.0	754.0	158.0	633.0	
	INFLUENT	01/20/95	NS	NS	NS	NS	NS	
	INFLUENT	04/12/95	24.5	2060.0	987.0	246.0	1689.0	
	INFLUENT	03/05/96	155.0	6990.0	3570.0	1300.0	6680.0	
	INFLUENT	06/04/96	95.0	4607.7	1794.7	523.8	2254.0	

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	10/09/96	13.2	3116.0	1332.2	504.2	1588.0
	12/31/96		SYSTEM SHUT DOWN			
	03/24/97	NM	2110.0	1011.0	47.0	1279.0
	03/28/97	NM	1827.0	850.0	40.6	1146.0
	04/02/97	NM	1436.0	650.0	361.0	1279.0
	07/31/97	NM	4641.0	4939.0	1128.0	4708.0
	09/24/97	NM	1600.0	923.0	660.0	1529.0
	12/22/97	NM	2078.0	1610.0	729.0	2053.0
	02/09/98	37.0	1761.0	2542.0	963.0	461.0
	06/23/98		SYSTEM SHUT DOWN			
	12/31/98	440.0	1200.0	860.0	760.0	1800.0
	02/16/99	40.0	120.0	270.0	230.0	1000.0
	03/02/99	100.0	650.0	250.0	470.0	890.0
	03/05/99	120.0	760.0	280.0	530.0	1000.0
	03/12/99	140.0	370.0	370.0	440.0	1520.0
	03/19/99	170.0	1100.0	460.0	750.0	1760.0
	03/26/99	140.0	980.0	430.0	710.0	1900.0
	04/13/99	ND	6400.0	16000.0	1600.0	6800.0
	05/04/99	190.0	1200.0	2700.0	860.0	2720.0
	06/02/99	200.0	1200.0	1800.0	900.0	3190.0
	07/07/99	960.0	2600.0	6700.0	1000.0	3230.0
	08/09/99	150.0	840.0	1800.0	670.0	1740.0
	09/02/99	350.0	1300.0	2500.0	720.0	2080.0
	09/09/99	360.0	1800.0	5900.0	1200.0	5000.0
	10/04/99	370.0	2000.0	1600.0	820.0	2960.0
	11/01/99	270.0	1800.0	1000.0	790.0	3300.0
	12/17/99	220.0	1500.0	1700.0	820.0	3560.0
	12/28/99	230.0	1500.0	1300.0	800.0	3400.0
	02/08/00	190.0	1800.0	540.0	640.0	2230.0
	04/03/00	250.0	1900.0	410.0	660.0	2530.0
	04/17/00	230.0	2100.0	440.0	660.0	2440.0
	05/22/00	220.0	2400.0	1800.0	600.0	2460.0
	05/31/00	100.0	1200.0	500.0	530.0	1180.0
	06/05/00	260.0	2400.0	2400.0	680.0	2640.0
	06/29/00	190.0	2200.0	2300.0	760.0	2980.0
	08/03/00	ND	1600.0	740.0	610.0	1870.0
	09/14/00	140.0	1100.0	290.0	530.0	1460.0
	10/09/00	210.0	1600.0	280.0	610.0	2220.0
	11/08/00	180.0	840.0	170.0	520.0	1790.0
	12/07/00	1400.0	1700.0	890.0	560.0	2220.0
MW-01	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/07/96	244.6	255.1	10.9	36.5	192.8

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	12/31/96	219.6	164.0	5.3	9.8	176.6
	03/19/97	NM	45.6	1.3	5.1	39.8
	06/18/97	NM	26.7	0.7	3.8	39.7
	09/24/97	NM	134.9	5.9	15.8	94.7
	12/23/97	NM	58.7	1.6	4.9	94.7
	04/28/98	79.0	58.0	2.8	4.9	21.1
	06/24/98	59.0	14.0	ND	1.4	1.8
	09/23/98	71.0	15.0	ND	1.8	ND
	12/30/98	120.0	120.0	1.4	7.5	25.0
	04/14/99	140.0	190.0	0.8	5.3	4.4
	06/03/99	78.0	29.0	ND	1.1	ND
	09/09/99	73.0	560.0	1.0	21.0	6.7
	12/30/99	46.0	320.0	ND	18.0	5.2
MW-01 DUP	06/03/99	80.0	27.0	ND	1.0	ND
MW-02	03/05/96	664.0	3120.0	53.5	484.0	519.8
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/31/96	FREE PRODUCT FOUND IN WELL				
	03/19/97	FREE PRODUCT FOUND IN WELL				
	06/17/97	FREE PRODUCT FOUND IN WELL				
	09/24/97	FREE PRODUCT FOUND IN WELL				
	12/23/97	FREE PRODUCT FOUND IN WELL				
	04/28/98	FREE PRODUCT FOUND IN WELL				
	06/22/98	FREE PRODUCT FOUND IN WELL				
	09/23/98	150.0	2000.0	40.0	610.0	1120.0
	12/30/98	Product	Product	Product	Product	Product
	04/14/99	Product	Product	Product	Product	Product
	06/03/99	160.0	2000.0	31.0	650.0	1070.0
	09/09/99	Product	Product	Product	Product	Product
	12/30/99	110.0	1900.0	5.6	620.0	670.0
MW-2 DUP	09/23/98	160.0	2300.0	42.0	630.0	1280.0
MW-03	03/05/96	298.0	117.0	5.9	28.2	16.9
	06/04/96	NOT SAMPLED				
	10/09/96	224.7	41.7	4.0	5.8	4.3
	12/31/96	NS	NS	NS	NS	NS
	03/19/97	NS	NS	NS	NS	NS
	06/17/97	NS	NS	NS	NS	NS
	09/24/97	FREE PRODUCT FOUND IN WELL				
	12/23/97	FREE PRODUCT FOUND IN WELL				
	04/28/98	FREE PRODUCT FOUND IN WELL				
	06/24/98	200.0	120.0	ND	8.2	ND
	09/22/98	NS	NS	NS	NS	NS
	12/30/98	NS	NS	NS	NS	NS
	04/13/99	180.0	170.0	1.4	23.0	4.2

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethybenzene	Xylenes
	06/03/99	NS	NS	NS	NS	NS
MW-04	03/05/96	31.5	50.0	5.6	ND	8.3
	06/04/96	35.0	1.0	3.3	3.3	7.0
	10/09/96	33.0	0.9	2.1	2.2	1.2
	12/31/96	27.0	3.5	1.4	1.7	1.6
	03/19/97	NM	21.7	0.5	2.6	2.3
	06/17/97	NM	8.4	1.6	2.2	1.4
	09/24/97	NM	3.7	3.0	5.1	2.0
	12/22/97	NM	3.8	3.1	3.0	1.3
	04/28/98	WELL BURIED BY AZTEC WELL SERVICE				
	06/05/00	20.0	9.4	ND	2.7	ND
MW-05	09/05/00	20.0	22.0	ND	3.6	0.6
	12/06/00	36.0	9.3	ND	ND	ND
	03/05/96	52.9	2.0	0.4	0.6	1.2
	06/04/96	47.2	0.3	ND	0.2	ND
	10/09/96	48.6	0.6	ND	ND	ND
	12/31/96	47.9	4.8	ND	0.2	1.1
	03/19/97	NM	5.8	ND	0.4	0.2
	06/17/97	NM	6.7	0.3	0.5	0.2
	09/24/97	NM	9.6	9.6	9.6	9.6
	12/19/97	NM	8.6	0.3	0.4	ND
MW-05 DUP	04/27/98	56.0	9.2	ND	ND	ND
	06/24/98	56.0	10.0	ND	0.6	ND
	09/21/98	56.0	11.0	ND	ND	ND
	12/29/98	52.0	12.0	ND	0.7	ND
	04/12/99	43.0	6.7	ND	0.5	ND
	06/02/99	56.0	12.0	ND	0.8	ND
	09/08/99	54.0	12.0	0.5	ND	ND
	12/29/99	49.0	10.0	ND	0.6	ND
	04/03/00	51.0	11.0	ND	0.6	ND
	06/05/00	46.0	9.4	ND	ND	ND
MW-06	09/05/00	59.0	11.0	ND	0.6	ND
	12/06/00	44.0	8.4	ND	ND	ND
	06/02/99	57.0	13.0	ND	0.7	ND
	12/29/99	49.0	10.0	ND	0.6	ND
	06/07/00	35.0	6.5	ND	ND	ND
	03/05/96	0.9	0.2	ND	ND	ND
	06/04/96	8.3	1.0	2.5	0.2	0.8
	10/09/96	33.5	1.9	3.7	3.2	1.3
	12/31/96	0.9	0.3	5.4	0.9	1.1
	03/19/97	NM	0.6	0.8	0.8	4.0
	06/17/97	NM	19.1	3.3	2.4	0.3
	09/24/97	NM	20.3	6.2	4.5	1.9

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	12/23/97	NM	ND	ND	ND	ND
	04/27/98	3.7	6.3	0.6	ND	ND
	06/24/98	36.0	20.0	4.8	3.3	ND
	09/22/98	47.0	8.5	1.8	4.5	3.6
	12/30/98	2.8	ND	ND	ND	ND
	04/13/99	4.4	5.6	ND	ND	ND
	06/03/99	47.0	29.0	0.5	2.9	1.2
	09/09/99	64.0	24.0	0.8	4.3	1.9
	12/29/99	1.3	ND	ND	ND	ND
	04/03/00	1.6	ND	ND	ND	ND
	06/06/00	33.0	7.6	ND	1.9	ND
	09/05/00	59.0	10.0	ND	2.7	1.9
	12/06/00	1.8	ND	ND	ND	ND
MW-07	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/31/96	FREE PRODUCT FOUND IN WELL				
	03/19/97	NOT SAMPLED				
	06/17/97	NOT SAMPLED				
	09/24/97	NOT SAMPLED				
	12/23/97	NOT SAMPLED				
	04/28/98	NOT SAMPLED				
	06/24/98	190.0	240.0	1.1	444.0	97.4
	09/24/98	Sheen	Sheen	Sheen	Sheen	Sheen
	12/30/98	Sheen	Sheen	Sheen	Sheen	Sheen
	04/14/99	260.0	30.0	6.8	24.0	162.0
	06/03/99	Product	Product	Product	Product	Product
	09/09/99	Product	Product	Product	Product	Product
	12/30/99	300.0	9.3	ND	16.0	101.7
	04/05/00	320.0	10.0	ND	7.2	44.9
	06/06/00	310.0	4.7	ND	7.9	28.0
	12/06/00	NOT SAMPLED				
MW-07 DUP	12/30/99	300.0	13.0	ND	22.0	162.0
MW-08	03/05/96	DRY				
	06/03/96	SILTED IN TO 3.8 FEET BELOW GRADE				
	10/09/96	SILTED IN TO 3.8 FEET BELOW GRADE				
	12/31/96	35.8	ND	ND	ND	ND
	03/18/97	NM	NM	NM	NM	NM
	06/16/97	SILTED IN TO 3.6 FEET BELOW GRADE				
	09/25/97	NM	ND	ND	ND	ND
	12/22/97	NM	1.2	ND	ND	ND
	04/28/98	42.0	3.6	0.6	0.6	ND
	06/23/98	DRY				

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
(bconcentrations in ug/L)

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	09/22/98	DRY				
	12/29/98	SILTED IN TO 1.5 FEET BELOW GRADE				
	06/06/00	190.0	1.3	ND	ND	ND
	09/06/00	250.0	1.1	ND	ND	ND
	12/07/00	240.0	1.9	ND	ND	ND
MW-09	03/05/96	16.8	0.8	0.3	1.1	1.3
	06/03/96	15.8	0.4	ND	ND	ND
	10/09/96	16.5	ND	ND	ND	ND
	12/31/96	7.2	ND	ND	ND	ND
	03/18/97	NM	ND	ND	ND	0.3
	06/16/97	NM	ND	ND	ND	ND
	09/25/97	NM	ND	ND	ND	ND
	12/22/97	NM	ND	ND	ND	ND
	04/28/98	ND	ND	ND	ND	ND
	06/23/98	11.0	ND	ND	ND	ND
	09/22/98	19.0	ND	ND	ND	ND
	12/29/98	3.8	ND	ND	ND	ND
	04/12/99	3.0	ND	ND	ND	ND
	06/02/99	4.0	ND	ND	ND	ND
	09/07/99	18.0	ND	ND	ND	ND
	12/28/99	14.0	ND	ND	ND	ND
	04/04/00	5.3	ND	ND	ND	ND
	06/06/00	5.6	ND	ND	ND	ND
	09/05/00	9.0	ND	ND	ND	ND
	12/07/00	ND	ND	ND	ND	ND
MW-09 DUP	06/07/00	6.9	ND	ND	ND	ND
MW-10	03/05/96	ND	1.0	ND	0.9	0.4
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/31/96	ND	ND	ND	ND	ND
	03/18/97	NM	ND	ND	ND	ND
	06/16/97	NM	ND	ND	ND	ND
	09/25/97	NM	ND	ND	ND	ND
	12/22/97	NM	ND	ND	ND	ND
	04/28/98	ND	ND	ND	ND	ND
	06/23/98	ND	ND	ND	ND	ND
	09/22/98	ND	ND	ND	ND	ND
	12/29/98	ND	ND	ND	ND	ND
	04/12/99	ND	ND	ND	ND	ND
	06/02/99	ND	ND	ND	ND	ND
	09/07/99	ND	ND	ND	ND	ND
	12/28/99	ND	ND	ND	ND	ND
	04/03/00	ND	ND	ND	ND	ND

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	06/06/00	ND	ND	ND	ND	ND
	09/05/00	ND	ND	ND	ND	ND
	12/07/00	ND	ND	ND	ND	ND
MW-11	03/05/96	ND	ND	ND	ND	0.3
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/31/96	ND	ND	ND	ND	ND
	03/18/97	NM	ND	ND	ND	ND
	06/16/97	NM	ND	ND	ND	ND
	09/25/97	NM	ND	ND	ND	ND
	12/22/97	NM	ND	ND	ND	ND
	04/28/98	ND	ND	ND	ND	ND
	06/23/98	ND	ND	ND	ND	ND
	09/22/98	ND	ND	ND	ND	ND
	12/29/98	ND	ND	ND	ND	ND
	04/12/99	ND	ND	ND	ND	ND
	06/02/99	ND	ND	ND	ND	ND
	09/07/99	ND	ND	ND	ND	ND
	12/28/99	ND	ND	ND	ND	ND
	04/03/00	ND	ND	ND	ND	ND
	06/06/00	ND	ND	ND	ND	ND
	09/06/00	ND	ND	ND	ND	ND
	12/07/00	ND	ND	ND	ND	ND
MW-12	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/31/96	FREE PRODUCT FOUND IN WELL				
	03/18/97	FREE PRODUCT FOUND IN WELL				
	06/18/97	FREE PRODUCT FOUND IN WELL				
	09/25/97	FREE PRODUCT FOUND IN WELL				
	12/22/97	FREE PRODUCT FOUND IN WELL				
	04/28/98	FREE PRODUCT FOUND IN WELL				
	06/24/98	FREE PRODUCT FOUND IN WELL				
	09/23/98	Product	Product	Product	Product	Product
	12/30/98	Product	Product	Product	Product	Product
	04/12/99	Product	Product	Product	Product	Product
	06/02/99	Product	Product	Product	Product	Product
	04/05/00	180.0	9.9	0.6	50.0	114.5
	12/08/00	150.0	20.0	1.0	35.0	72.4
MW-13	03/05/96	ND	ND	ND	ND	0.5
	06/04/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/30/96	ND	ND	ND	ND	ND

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	03/18/97	NM	ND	ND	ND	ND
	06/16/97	NM	ND	ND	ND	ND
	09/23/97	NM	ND	ND	ND	ND
	12/19/97	NM	ND	ND	ND	ND
	04/24/98	ND	ND	ND	ND	ND
	06/23/98	ND	ND	ND	ND	ND
	09/21/98	ND	ND	ND	ND	ND
	12/29/98	ND	ND	ND	ND	ND
	04/12/99	ND	ND	ND	ND	ND
	06/02/99	ND	ND	ND	ND	ND
	09/07/99	ND	ND	ND	ND	ND
	12/28/99	ND	ND	ND	ND	ND
	04/03/00	ND	ND	ND	ND	ND
	06/05/00	ND	ND	ND	ND	ND
	09/05/00	ND	ND	ND	ND	ND
	12/07/00	ND	ND	ND	ND	ND
MW-14	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	103.7	7698.8	361.7	2107.7	2917.8
	12/30/96	94.8	6673.5	179.4	857.3	940.5
	03/19/97	NOT SAMPLED				
	06/18/97	NOT SAMPLED				
	09/23/97	NOT SAMPLED				
	12/19/97	NOT SAMPLED				
	04/28/98	69.0	2900.0	800.0	1100.0	1940.0
	06/24/98	89.0	2000.0	150.0	1100.0	360.0
	09/23/98	87.0	950.0	91.0	780.0	256.0
	12/30/98	Product	Product	Product	Product	Product
	04/12/99	Product	Product	Product	Product	Product
	06/02/99	Product	Product	Product	Product	Product
	09/09/99	Product	Product	Product	Product	Product
	12/30/99	85.0	780.0	470.0	1600.0	1660.0
MW-15	03/05/96	ND	1.6	0.4	3.8	3.5
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/30/96	ND	ND	ND	ND	ND
	03/18/97	NM	ND	ND	ND	ND
	06/17/97	NM	ND	ND	ND	ND
	09/26/97	NM	ND	ND	ND	ND
	12/22/97	NM	ND	ND	ND	ND
	04/24/98	ND	ND	ND	ND	ND
	06/23/98	ND	ND	ND	ND	ND
	09/21/98	ND	ND	ND	ND	ND

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	12/28/98	ND	ND	ND	ND	ND
	04/12/99	ND	ND	ND	ND	ND
	06/02/99	ND	ND	ND	ND	ND
	09/07/99	ND	ND	ND	ND	ND
	12/28/99	ND	ND	ND	ND	ND
	04/04/00	ND	ND	ND	ND	ND
	06/07/00	ND	ND	ND	ND	ND
	09/06/00	ND	ND	ND	ND	ND
	12/08/00	ND	ND	ND	ND	ND
MW-16	03/05/96	ND	ND	ND	ND	ND
	06/04/96	NOT SAMPLED				
	10/09/96	ND	ND	ND	ND	ND
	12/30/96	ND	ND	ND	ND	ND
	03/19/97	NOT SAMPLED				
	06/18/97	NOT SAMPLED				
	09/23/97	NOT SAMPLED				
	12/19/97	NOT SAMPLED				
	06/24/98	ND	ND	ND	ND	ND
	09/23/98	NS	NS	NS	NS	NS
	12/30/98	ND	ND	ND	ND	ND
	04/12/99	NS	NS	NS	NS	NS
	06/03/99	ND	ND	ND	ND	ND
	09/09/99	NS	NS	NS	NS	NS
	12/30/99	NS	NS	NS	NS	NS
MW-16 DUP	12/30/98	ND	ND	ND	ND	ND
MW-17	03/05/96	FREE PRODUCT FOUND IN WELL				
	06/04/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/30/96	FREE PRODUCT FOUND IN WELL				
	03/18/97	FREE PRODUCT FOUND IN WELL				
	06/18/97	FREE PRODUCT FOUND IN WELL				
	09/23/97	FREE PRODUCT FOUND IN WELL				
	12/22/97	FREE PRODUCT FOUND IN WELL				
	04/28/98	FREE PRODUCT FOUND IN WELL				
	06/23/98	FREE PRODUCT FOUND IN WELL				
	09/23/98	FREE PRODUCT FOUND IN WELL				
	12/29/98	Product	Product	Product	Product	Product
	04/12/99	Product	Product	Product	Product	Product
	06/03/99	Product	Product	Product	Product	Product
	09/09/99	Product	Product	Product	Product	Product
	12/30/99	Product	Product	Product	Product	Product
	04/05/00	Product	Product	Product	Product	Product
	06/16/00	Product	Product	Product	Product	Product

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-18	03/05/96	53.0	6.8	2.4	1.8	14.1
	06/04/96	36.8	136.4	2.5	6.6	4.7
	10/09/96	31.9	60.1	1.1	1.5	0.7
	12/31/96	43.1	176.0	1.9	1.3	0.7
	03/19/97	NM	150.9	2.4	0.6	2.1
	06/18/97	NM	34.0	2.1	1.2	0.2
	09/24/97	NM	33.2	2.3	3.4	1.4
	12/23/97	NM	63.8	1.2	4.2	0.8
	04/28/98	56.0	68.0	3.9	6.8	2.2
	06/24/98	60.0	150.0	0.8	13.0	2.1
	09/22/98	74.0	76.0	3.6	12.0	2.5
	12/29/98	56.0	31.0	1.2	5.1	1.0
	04/13/99	35.0	27.0	0.6	3.1	ND
	06/03/99	80.0	36.0	0.9	4.2	1.2
	09/09/99	10.0	12.0	ND	2.3	ND
	12/29/99	42.0	30.0	0.5	2.6	ND
	04/05/00	41.0	68.0	0.7	4.2	1.2
	06/07/00	69.0	62.0	ND	6.7	ND
	09/06/00	18.0	12.0	0.6	0.5	ND
	12/06/00	16.0	4.0	ND	ND	ND
MW-18 DUP	09/09/99	10.0	13.0	ND	2.5	ND
MW-19	03/05/96	80.6	6.1	2.8	24.9	55.3
	06/04/96	80.5	15.3	2.8	92.9	150.5
	10/09/96	11.1	1.4	3.0	39.5	58.0
	12/30/96	65.7	17.9	3.5	43.0	62.5
	03/19/97	NM	24.6	4.1	164.1	352.2
	06/17/97	NM	8.1	2.4	96.7	160.5
	09/26/97	NM	0.8	1.8	11.7	11.0
	12/23/97	NM	36.9	3.8	244.0	357.4
	04/28/98	98.0	44.0	3.4	190.0	280.8
	06/23/98	130.0	60.0	7.0	280.0	341.9
	09/22/98	46.0	13.0	2.2	31.0	4.0
	12/29/98	37.0	14.0	ND	43.0	23.0
	04/13/99	36.0	0.7	ND	1.7	ND
	06/03/99	45.0	7.6	0.9	35.0	16.2
	09/09/99	1.7	ND	ND	0.6	ND
	12/29/99	170.0	39.0	0.5	110.0	55.0
	04/04/00	ND	ND	ND	1.2	1.7
	06/06/00	200.0	50.0	ND	83.0	24.0
	09/06/00	74.0	1.1	ND	1.8	ND
	12/06/00	110.0	4.4	ND	10.0	6.3
MW-20	03/05/96	133.4	3.6	16.8	3.3	21.8
	06/03/96	106.3	11.4	3.8	0.8	1.4

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	10/09/96	73.3	2.5	11.5	7.5	4.4
	12/31/96	53.3	2.7	14.3	9.5	5.7
	03/18/97	NM	2.3	2.2	4.4	3.2
	06/16/97	NM	1.4	4.4	4.0	4.2
	09/24/97	NM	1.7	4.5	3.8	2.4
	12/22/97	NM	4.5	6.7	9.3	6.8
	04/27/98	83.0	6.8	9.4	18.0	20.1
	06/23/98	91.0	4.8	7.5	7.0	3.6
	09/22/98	60.0	2.6	ND	5.8	ND
	12/28/98	71.0	4.0	ND	1.7	ND
	04/12/99	80.0	7.8	ND	2.4	1.9
	06/02/99	86.0	5.8	4.7	3.7	ND
	09/08/99	20.0	1.1	ND	ND	ND
	12/29/99	95.0	5.7	ND	2.5	ND
	04/04/00	12.0	ND	ND	ND	ND
	06/07/00	120.0	1.7	ND	1.9	1.1
	09/06/00	59.0	2.6	ND	16.0	7.6
	12/08/00	120.0	0.7	ND	ND	ND
DUPLICATE	12/08/00	110.0	0.6	ND	ND	ND
MW-21	03/05/96	82.0	6.0	2.0	29.3	6.1
	06/03/96	82.1	0.4	0.3	1.1	0.9
	10/09/96	46.0	0.7	ND	0.5	0.3
	12/31/96	51.3	ND	ND	0.5	0.2
	03/18/97	NM	0.3	ND	0.4	ND
	06/17/97	NM	ND	ND	0.2	ND
	09/25/97	NM	ND	0.4	0.9	0.4
	12/22/97	NM	1.3	1.5	2.4	0.8
	04/27/98	49.0	2.1	1.4	ND	ND
	06/23/98	80.0	ND	ND	1.8	0.5
	09/21/98	91.0	ND	ND	ND	ND
	12/28/98	81.0	ND	ND	1.1	ND
	04/12/99	92.0	ND	ND	ND	ND
	06/02/99	120.0	2.6	ND	0.6	ND
	09/08/99	100.0	ND	ND	ND	ND
	12/29/99	64.0	ND	ND	ND	ND
	04/04/00	44.0	ND	ND	ND	ND
	06/06/00	37.0	ND	ND	ND	ND
	09/06/00	36.0	ND	ND	ND	ND
	12/08/00	32.0	ND	ND	ND	ND
MW-21 DUP	09/08/99	98.0	ND	ND	ND	ND
	04/04/00	45.0	ND	ND	ND	ND
MW-22	03/05/96	36.7	ND	ND	0.2	0.4
	06/03/96	25.3	ND	ND	ND	0.4

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
(bconcentrations in ug/L)

Well #	Well A #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	MW-22	10/09/96	22.9	ND	ND	ND	ND
	MW-22	12/31/96	22.1	ND	ND	ND	ND
	MW-22	03/18/97	NM	ND	ND	ND	ND
	MW-22	06/16/97	NM	ND	ND	ND	ND
	MW-22	09/26/97	NM	ND	ND	ND	ND
	MW-22	12/22/97	NM	ND	ND	ND	ND
	MW-22	04/27/98	18.0	ND	ND	ND	ND
	MW-22	06/23/98	24.0	ND	ND	ND	ND
	MW-22	09/21/98	28.0	ND	ND	ND	ND
	MW-22	12/28/98	28.0	ND	ND	ND	ND
	MW-22	04/12/99	27.0	ND	ND	ND	ND
	MW-22	06/02/99	29.0	ND	ND	ND	ND
	MW-22	09/08/99	24.0	ND	ND	ND	ND
	MW-22	12/29/99	19.0	ND	ND	ND	ND
	MW-22	04/04/00	10.0	ND	ND	ND	ND
	MW-22	06/06/00	4.9	ND	ND	ND	ND
	MW-22	09/06/00	5.3	ND	ND	ND	ND
	MW-22	12/08/00	6.4	ND	ND	ND	ND
MW-23	MW-23	03/05/96	DRY	DRY	DRY	DRY	DRY
	MW-23	06/04/96	NS	NS	NS	NS	NS
	MW-23	10/09/96	NS	NS	NS	NS	NS
	MW-23	12/31/96	NS	NS	NS	NS	NS
	MW-23	03/18/97	NS	NS	NS	NS	NS
	MW-23	06/18/97	NS	NS	NS	NS	NS
	MW-23	09/25/97	NS	NS	NS	NS	NS
	MW-23	12/19/97	NS	NS	NS	NS	NS
	MW-23	04/27/98	NS	NS	NS	NS	NS
	MW-23	06/23/98	NS	NS	NS	NS	NS
	MW-23	09/22/98	NS	NS	NS	NS	NS
	MW-23	12/30/98	NS	NS	NS	NS	NS
	MW-23	06/02/99	NS	NS	NS	NS	NS
	MW-23	06/08/99	NS	NS	NS	NS	NS
	MW-23	05/14/00	NS	NS	NS	NS	NS
	MW-23	12/07/00	NS	NS	NS	NS	NS
MW-24	MW-24	10/09/96	25.6	231.7	144.1	122.5	988.8
	MW-24	12/31/96	NS	NS	NS	NS	NS
	MW-24	03/18/97	NS	NS	NS	NS	NS
	MW-24	06/18/97	NS	NS	NS	NS	NS
	MW-24	09/25/97	NS	NS	NS	NS	NS
	MW-24	12/19/97	NS	NS	NS	NS	NS
	MW-24	04/27/98	NS	NS	NS	NS	NS
	MW-24	06/25/98	84.0	640.0	65.0	130.0	820.0
	MW-24	09/22/98	NS	NS	NS	NS	NS

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in  $\mu\text{g/L}$ )**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
	12/30/98	NS	NS	NS	NS	NS
	04/12/99	NS	NS	NS	NS	NS
	06/02/99	NS	NS	NS	NS	NS
	09/09/99	NS	NS	NS	NS	NS
	04/04/00	NS	NS	NS	NS	NS
	12/07/00	NS	NS	NS	NS	NS
MW-25	03/05/96	DRY	DRY	DRY	DRY	DRY
	06/04/96	NS	NS	NS	NS	NS
	10/09/96	1.0	39.9	11.3	7.4	14.3
	12/31/96	NS	NS	NS	NS	NS
	03/18/97	NS	NS	NS	NS	NS
	06/18/97	NS	NS	NS	NS	NS
	09/25/97	NS	NS	NS	NS	NS
	12/19/97	NS	NS	NS	NS	NS
	06/25/98	3.2	32.0	58.0	8.5	91.0
	09/22/98	NS	NS	NS	NS	NS
	12/30/98	NS	NS	NS	NS	NS
	04/12/99	NS	NS	NS	NS	NS
	06/02/99	NS	NS	NS	NS	NS
	04/04/00	NS	NS	NS	NS	NS
	12/07/00	NS	NS	NS	NS	NS
MW-29	09/24/98	NS	NS	NS	NS	NS
	12/31/98	NS	NS	NS	NS	NS
	04/14/99	NS	NS	NS	NS	NS
	06/02/99	NS	NS	NS	NS	NS
	12/07/00	NS	NS	NS	NS	NS
POND	04/13/99	5.0	ND	ND	0.6	ND
	06/02/99	4.6	ND	ND	ND	ND
	09/09/99	ND	ND	ND	ND	ND
	12/28/99	5.7	2.1	2.5	3.5	12.1
	12/07/00	NS	NS	NS	NS	NS
RW-26	06/03/99	520.0	2500.0	470.0	190.0	1350.0
RW-26	12/07/00	NS	NS	NS	NS	NS
T-17-3	06/25/98	670.0	3300.0	150.0	220.0	510.0
	09/22/98	NS	NS	NS	NS	NS
	12/30/98	NS	NS	NS	NS	NS
	04/12/99	NS	NS	NS	NS	NS
	06/02/99	NS	NS	NS	NS	NS
	12/07/00	NS	NS	NS	NS	NS

**TABLE 2**  
**SUMMARY OF MTBE AND BTEX LABORATORY ANALYSIS**  
**THRIFTWAY REFINERY, BLOOMFIELD, NEW MEXICO**  
**(concentrations in ug/L)**

Well #	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes

NM SIGNIFIES NOT MEASURED

NS SIGNIFIES NOT SAMPLED

**TABLE 2-A**  
**THRIFTWAY REFINERY**  
**SUMMARY OF GROUNDWATER BENZENE & MTBE**

	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
Influent (refinery)	5.30.01	200	940	79	290	920
	7.31.01	250	1600	210	520	1610
	11.01.01	270	1200	430	430	1290
	12.4.01		520	240	430	1130
	1.31.02	200	520	120	360	850
	2.28.02	150	890	90	370	1030
Effluent(refinery)	5.30.01	5.6	<0.50	<0.50	<0.50	<1.50
	7.31.01	<1.00	0.9	<0.50	<0.50	1.1
	11.01.01	21	4.7	10	3.9	18.5
	12.04.01		<0.50	<0.50	0.6	<1.50
	1.31.02	2.3	0.8	5.1	1.8	8.5
MW-01	2.4.02	Product				
MW-05	1.30.02	43	5.1	<0.50	<0.50	<1.50
MW-06	1.30.02	2.5	<0.50	<0.50	<0.50	<1.50
MW-08	1.30.02	<1.00	<0.05	<0.50	<0.50	<1.50
MW-09	1.30.02	26	5.5	1.6	1.7	<1.50
MW-11	1.30.02	<1.00	<0.50	<0.50	<0.50	<1.50
MW-12	1.30.02	110	28	1.8	54	104.6
MW-13	1.30.02	<1.00	<0.50	<0.50	<0.50	<1.50
MW-15	1.30.02	<1.00	<0.50	<0.50	<0.50	<1.50
MW-18	1.30.02	18	1	<0.50	<0.50	<1.50
MW-19	1.30.02	530	0.6	0.9	0.8	<1.50
MW-20	1.30.02	670	1.6	3.7	6.3	1.2
MW-21	1.30.02	44	<0.50	<0.50	<0.50	<1.50
MW-22	1.30.02	12	<0.50	<0.50	<0.50	<1.50

**APPENDIX A**  
**NMOCD Letter (September 2001)**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

September 26, 2001

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 5357 7591**

Ms. Terry Griffin  
Thriftway Marketing Corporation  
710 East 20th Street  
Farmington, NM, 87401

Re: Discharge Plan GW-055 Renewal  
Thriftway Marketing Corporation-Formal Bloomfield Refinery

Dear Ms. Griffin:

The New Mexico Oil Conservation Division (OCD) conducted a discharge plan inspection on June 29, 2001 for the above captioned facility. Per your request, the results of the inspection is enclosed and OCD requires Thriftway Marketing Corporation to address the following issues before discharge plan renewal:

1. Below-grade sumps were noted to contain oily waste (see pictures #3,4 and #10).
2. The old land farm located on the north side of the property (see pictures #5).
3. The on-site producing well water tank was full and requires emptying (see pictures #6 and #7). *DAVID H ARRINGTON*
4. Tank # 184 was leaking (see pictures 12 and 13) and valve seals on tank #14 were leaking. Tank #19 was noted to have oily trash around it.
5. Please demonstrate the integrity of the wastewater ponds. (See picture #9).

OCD may require additional actions to be taken along with additional operating conditions in the discharge plan. Also, Thriftway Marketing Corporation is hereby required to submit a completed discharge plan for OCD review by November 26, 2001.

If you have any questions please do not hesitate to contact me at 505-476-3487.

Sincerely,

Wayne Price-Pet. Engr. Spec.  
cc: OCD Aztec Office

Attachments-1

**APPENDIX B**  
**Air stripper/influent/effluent Laboratory Analyses**  
**QA/QC Data and COC records**



OFF: (505) 325-5667  
FAX: (505) 327-1496

LAB: (505) 325-1556  
FAX: (505) 327-1496

March 07, 2002

Terry Griffin  
BioTech Remediation, Inc.  
510 Airport Drive, Suite 104  
Farmington, NM 87401  
TEL: (505) 327-4965  
FAX: (505) 564-3604

RE: Thriftway Refinery Air Stripper

Order No.: 0202036

Dear Terry Griffin,

On Site Technologies, LTD. received 2 samples on 02/28/2002 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

*Heidi Reese*  
Heidi Reese

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: [ONSITE@ONSITELTD.COM](mailto:ONSITE@ONSITELTD.COM)

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FAX: (505) 327-1496



LAB: (505) 325-1556  
FAX: (505) 327-1496

## On Site Technologies, LTD.

Date: 07-Mar-02

CLIENT: BioTech Remediation, Inc.  
Project: Thriftway Refinery Air Stripper  
Lab Order: 0202036

## CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

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## ANALYTICAL REPORT

Date: 07-Mar-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Refinery Air Stripper
Work Order:	0202036	Client Sample ID:	Influent
Lab ID:	0202036-01A	Matrix:	AQUEOUS
Project:	Thriftway Refinery Air Stripper	Collection Date:	02/28/2002 7:40:00 AM
		COC Record:	11712

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	150	10		µg/L	10	03/01/2002
Benzene	890	5		µg/L	10	03/01/2002
Toluene	90	5		µg/L	10	03/01/2002
Ethylbenzene	370	5		µg/L	10	03/01/2002
m,p-Xylene	910	10		µg/L	10	03/01/2002
o-Xylene	120	5		µg/L	10	03/01/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf: - Surrogate

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LAB: (505) 325-1556  
FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 07-Mar-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Refinery Air Stripper
Work Order:	0202036	Client Sample ID:	Effluent
Lab ID:	0202036-02A	Matrix:	AQUEOUS
Project:	Thriftway Refinery Air Stripper	Collection Date:	02/28/2002 7:51:00 AM
		COC Record:	11712

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	6.1	1		µg/L	1	03/01/2002
Benzene	0.5	0.5		µg/L	1	03/01/2002
Toluene	0.6	0.5		µg/L	1	03/01/2002
Ethylbenzene	0.8	0.5		µg/L	1	03/01/2002
m,p-Xylene	1.8	1		µg/L	1	03/01/2002
o-Xylene	ND	0.5		µg/L	1	03/01/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf: - Surrogate

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1 of 1

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
 Work Order: 0202036  
 Project: Thriftway Refinery Air Stripper

Date: 07-Mar-02

**QC SUMMARY REPORT**  
 Method Blank

Sample ID: MB_020301	Batch ID: GC-1_020301	Test Code: SW8021B	Units: µg/L	Analysis Date: 03/01/2002			Prep Date:					
Client ID:		Run ID:	GC-1_020301A				SeqNo:	48217				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		ND	0.5									J
Ethylbenzene		.092	0.5									
m,p-Xylene		ND	1									
Methyl tert-Butyl Ether		ND	1									
o-Xylene		ND	0.5									
Toluene		.0755	0.5									
1,4-Difluorobenzene		106.2	0									
4-Bromochlorobenzene		118.7	0									
Fluorobenzene		107	0									

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.

Work Order: 0202036

Project: Thriftway Refinery Air Stripper

Date: 07-Mar-02

## QC SUMMARY REPORT

### Sample Matrix Spike

Sample ID: 0202036-01AMS		Batch ID: GC-1_02020301		Test Code: SW8021B		Units: µg/L		Analysis Date: 03/01/2002		Prep Date:	
Client ID:	Influent	Run ID:	GC-1_02020301A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
				Benzene	1256	5	400	893	90.8%	70	130
				Ethylbenzene	740.5	5	400	371	92.4%	70	130
				m,p-Xylene	1667	10	800	909.8	94.7%	70	130
				Methyl tert-Butyl Ether	566.4	10	400	153	103.3%	70	130
				o-Xylene	491.6	5	400	117.2	93.6%	70	130
				Toluene	449	5	400	89.86	89.8%	70	130
				1,4-Difluorobenzene	1044	0	1100	0	95.0%	70	130
				4-Bromochlorobenzene	1162	0	1100	0	105.7%	70	130
				Fluorobenzene	1054	0	1100	0	95.9%	70	130
Sample ID: 0202036-01AMSD		Batch ID: GC-1_02020301		Test Code: SW8021B		Units: µg/L		Analysis Date: 03/01/2002		Prep Date:	
Client ID:	Influent	Run ID:	GC-1_02020301A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
				Benzene	1241	5	400	893	87.1%	70	130
				Ethylbenzene	732.2	5	400	371	90.3%	70	130
				m,p-Xylene	1650	10	800	909.8	92.5%	70	130
				Methyl tert-Butyl Ether	587	10	400	153	108.5%	70	130
				o-Xylene	487.7	5	400	117.2	92.6%	70	130
				Toluene	452.3	5	400	89.86	90.6%	70	130
				1,4-Difluorobenzene	1050	0	1100	0	95.4%	70	130
				4-Bromochlorobenzene	1165	0	1100	0	105.9%	70	130
				Fluorobenzene	1057	0	1100	0	96.1%	70	130

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202036  
**Project:** Thriftway Refinery Air Stripper

Date: 07-Mar-02

**QC SUMMARY REPORT**  
 Laboratory Control Spike - generic

Sample ID: <b>LCS_020301</b>	Batch ID: <b>GC-1_020301</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: <b>03/01/2002</b>	SeqNo: <b>48216</b>	Prep Date: <b></b>
Client ID:	Run ID: <b>0202036</b>	Run ID: <b>GC-1_020301A</b>	PQL	SPK value	SPK Ref Val	%REC
Analyte	Result					LowLimit
Benzene	36.94	0.5	40	0	92.4%	80
Ethylbenzene	38.42	0.5	40	0.092	95.8%	80
m,p-Xylene	76.65	1	80	0	95.8%	80
Methyl tert-Butyl Ether	38.68	1	40	0	96.7%	80
o-Xylene	37.73	0.5	40	0	94.3%	80
Toluene	36.66	0.5	40	0.0755	91.5%	80
1,4-Difluorobenzene	105.6	0	110	0	96.0%	70
4-Bromochlorobenzene	120.1	0	110	0	109.2%	70
Fluorobenzene	106.4	0	110	0	96.7%	70

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**On Site Technologies, LTD.**

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202036  
**Project:** Thriftway Refinery Air Stripper

Date: 07-Mar-02

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Sample ID: CCV1_020301	Batch ID: GC-1_020301	Test Code: SW8021B	Units: µg/L	Analysis Date: 03/01/2002			Prep Date:				
Client ID:	Run ID:	GC-1_020301A		SeqNo:	48213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.72	0.5	20	0	93.6%	85	115				
Ethylbenzene	19.44	0.5	20	0	97.2%	85	115				
m,p-Xylene	38.99	1	40	0	97.5%	85	115				
Methyl tert-Butyl Ether	19.24	1	20	0	96.2%	85	115				
o-Xylene	18.92	0.5	20	0	94.6%	85	115				
Toluene	18.51	0.5	20	0	92.5%	85	115				
1,4-Difluorobenzene	105.4	0	110	0	95.9%	70	130				
4-Bromochlorobenzene	119.3	0	110	0	108.5%	70	130				
Fluorobenzene	106.8	0	110	0	97.1%	70	130				
Sample ID: CCV2_020301	Batch ID: GC-1_020301	Test Code: SW8021B	Units: µg/L	Analysis Date: 03/01/2002			Prep Date:				
Client ID:	Run ID:	GC-1_020301A		SeqNo:	48214						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.47	0.5	20	0	92.4%	85	115				
Ethylbenzene	19.16	0.5	20	0	95.8%	85	115				
m,p-Xylene	38.48	1	40	0	96.2%	85	115				
Methyl tert-Butyl Ether	19.95	1	20	0	97.5%	85	115				
o-Xylene	18.86	0.5	20	0	94.3%	85	115				
Toluene	18.38	0.5	20	0	91.9%	85	115				
1,4-Difluorobenzene	106.2	0	110	0	96.6%	70	130				
4-Bromochlorobenzene	118.5	0	110	0	107.7%	70	130				
Fluorobenzene	107	0	110	0	97.2%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202036  
**Project:** Thriftway Refinery Air Stripper

**QC SUMMARY REPORT**  
Continuing Calibration Verification Standard

Sample ID: <b>ccv3_020301</b>	Batch ID: <b>GC-1_020301</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: <b>03/01/2002</b>	Prep Date:					
Client ID:	Run ID: <b>GC-1_020301A</b>	PQL	SPK value	SPK Ref Val	SeqNo:					
Analyte	Result			%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.97	0.5	40	0	92.4%	85	115			
Ethylbenzene	38.2	0.5	40	0	95.5%	85	115			
m,p-Xylene	76.2	1	80	0	95.3%	85	115			
Methyl tert-Butyl Ether	38.09	1	40	0	95.2%	85	115			
o-Xylene	37.67	0.5	40	0	94.2%	85	115			
Toluene	36.71	0.5	40	0	91.8%	85	115			
1,4-Difluorobenzene	104.9	0	110	0	95.4%	70	130			
4-Bromochlorobenzene	116.8	0	110	0	106.2%	70	130			
Fluorobenzene	106.3	0	110	0	96.6%	70	130			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202036  
**Project:** Thriftway Refinery Air Stripper  
**Test No:** SW8021B

**QC SUMMARY REPORT**  
**SURROGATE RECOVERIES**  
**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ					
0202029-15A	98.7	107	107					
0202029-16A	97	108	98.3					
0202029-19A	97.1	104	98.9					
0202029-20A	97.4	112	95.6					
0202029-21A	94.4	105	95.7					
0202029-23A	95	105	95.5					
0202029-25A	98.7	104	99.7					
0202029-26A	96.4	105	99.2					
0202029-28A	95.7	105	97.2					
0202029-31A	98	107	98.9					
0202029-32A	96.5	108	98					
0202029-33A	97	105	98.6					
0202029-34A	96.6	108	98.3					
0202031-01A	97.7	106	98.3					
0202031-02A	94.9	102	96.1					
0202031-03A	95.4	104	96					
0202032-01A	96.1	105	96.7					
0202036-01A	95.5	105	95.9					
0202036-01AMS	95	106	95.8					
0202036-01AMSD	95.4	106	96.1					
0202036-02A	96.6	106	97.5					
CCV1_020301	95.8	108	97					
CCV2_020301	96.6	108	97.2					
CCV3_020301	95.4	106	96.6					
LCS_020301	96	109	96.7					
MB_020301	96.6	108	97.3					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

\* Surrogate recovery outside acceptance limits

The logo for On Site Technologies, Ltd. features the company name "ON SITE" in a bold, sans-serif font, positioned inside a large, stylized five-pointed star outline. To the right of the star, the words "TECHNOLOGIES, LTD." are written vertically in a smaller, all-caps font.

# CHAIN OF CUSTODY RECORD

**612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499  
LAB: (505) 325-5667 • FAX: (505) 327-1496**

TECHNOLOGIES, LTD.

11712

Date: \_\_\_\_\_

Page: / of /



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FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Influent
Lab ID:	0202003-16A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 3:19:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	200	10		µg/L	10	02/11/2002
Benzene	520	5		µg/L	10	02/11/2002
Toluene	120	5		µg/L	10	02/11/2002
Ethylbenzene	360	5		µg/L	10	02/11/2002
m,p-Xylene	740	10		µg/L	10	02/11/2002
o-Xylene	110	5		µg/L	10	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.039	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
<b>E300</b>						
Chloride	204	15		mg/L	250	02/14/2002
Sulfate	1520	20		mg/L	250	02/14/2002
Bromide	0.36	0.04		mg/L	1	02/17/2002
Fluoride	0.51	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
<b>SW6010B</b>						
Calcium 317.933	357	0.1		mg/L	10	02/12/2002
Magnesium 285.213	56	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.4	0.62		mg/L	10	02/12/2002
Sodium 589.592	880	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
<b>M2320 B</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	910	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	910	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
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R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surrt. - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Influent
Lab ID:	0202003-16A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 3:19:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				
Specific Conductance	4710	2		µS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				
Hardness (As CaCO <sub>3</sub> )	1120	1		mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b>		<b>E150.1</b>				
pH	7.12	2		pH units	1	Analyst: HNR 02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				
Total Dissolved Solids (Residue, Filterable)	3610	40		mg/L	1	Analyst: HNR 02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				
Total Dissolved Solids (Calculated)	3570	5		mg/L	1	Analyst: HNR 02/23/2002

Qualifiers: PQL - Practical Quantitation Limit  
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R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf. - Surrogate

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FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	Air Stripper Effluent
<b>Lab ID:</b>	0202003-17A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/31/2002 3:25:00 PM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	2.3	1		µg/L	1	02/11/2002
Benzene	0.8	0.5		µg/L	1	02/11/2002
Toluene	5.1	0.5		µg/L	1	02/11/2002
Ethylbenzene	1.8	0.5		µg/L	1	02/11/2002
m,p-Xylene	6.8	1		µg/L	1	02/11/2002
o-Xylene	1.7	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	0.034	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.039	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
<b>E300</b>						
Chloride	881	15		mg/L	250	02/14/2002
Sulfate	1490	20		mg/L	250	02/14/2002
Bromide	0.33	0.04		mg/L	1	02/17/2002
Fluoride	0.53	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
<b>SW6010B</b>						
Calcium 317.933	350	0.1		mg/L	10	02/12/2002
Magnesium 285.213	55.1	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.46	0.62		mg/L	10	02/12/2002
Sodium 589.592	866	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
<b>M2320 B</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

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LAB: (505) 325-1556  
FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Effluent
Lab ID:	0202003-17A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 3:25:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>	<b>E120.1</b>					Analyst: HNR
Specific Conductance	5960	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1100	1		mg/L	1	02/23/2002
<b>PH</b>	<b>E150.1</b>					Analyst: HNR
pH	3.01	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	3890	40		mg/L	1	02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					Analyst: HNR
Total Dissolved Solids (Calculated)	3650	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
ND - Not Detected at Practical Quantitation Limit      R - RPD outside accepted recovery limits  
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B - Analyte detected in the associated Method Blank      Surr: - Surrogate

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2 of 2



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December 13, 2001

Terry Griffin  
BioTech Remediation, Inc.  
710 E. 20th, Suite 400  
Farmington, NM 87401  
TEL: (505) 327-4965  
FAX (505) 564-3604

RE: Thiftway Refinery Air Stripper

Order No.: 0112006

Dear Terry Griffin,

On Site Technologies, LTD. received 2 samples on 12/4/2001 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "JC".

David Cox

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: [ONSITE@ONSITELTD.COM](mailto:ONSITE@ONSITELTD.COM)

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FAX: (505) 327-1496

## On Site Technologies, LTD.

Date: 13-Dec-01

**CLIENT:** BioTech Remediation, Inc.  
**Project:** Thiftway Refinery Air Stripper  
**Lab Order:** 0112006

## CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).



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## ANALYTICAL REPORT

Date: 13-Dec-01

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thiftway Refinery Air Stripper
Work Order:	0112006	Client Sample ID:	Stripper Influent
Lab ID:	0112006-01A	Matrix:	AQUEOUS
Project:	Thiftway Refinery Air Stripper	Collection Date:	12/4/2001 10:20:00 AM
		COC Record:	11334

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Benzene	520	10		µg/L	20	12/5/2001
Toluene	240	10		µg/L	20	12/5/2001
Ethylbenzene	430	10		µg/L	20	12/5/2001
m,p-Xylene	970	20		µg/L	20	12/5/2001
o-Xylene	160	10		µg/L	20	12/5/2001

Analyst: DDM

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surf. - Surrogate

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LAB: (505) 325-1556  
FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 13-Dec-01

Client: BioTech Remediation, Inc.  
Work Order: 0112006  
Lab ID: 0112006-02A Matrix: AQUEOUS  
Project: Thiftway Refinery Air Stripper

Client Sample Info: Thiftway Refinery Air Stripper  
Client Sample ID: Stripper Effluent  
Collection Date: 12/4/2001 10:25:00 AM  
COC Record: 11334

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Benzene	ND	0.5		µg/L	1	12/5/2001
Toluene	ND	0.5		µg/L	1	12/5/2001
Ethylbenzene	0.6	0.5		µg/L	1	12/5/2001
m,p-Xylene	ND	1		µg/L	1	12/5/2001
o-Xylene	ND	0.5		µg/L	1	12/5/2001

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr. - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

# On Site Technologies, LTD.

Date: 13-Dec-01

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0112006

**Project:** Thifway Refinery Air Stripper

## QC SUMMARY REPORT

Method Blank

Sample ID: MB_011205	Batch ID: GC-1_011205	Test Code: SW8021B	Units: µg/L									
Client ID:		Run ID:	GC-1_011205A									
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC						
Benzene		ND	0.5									
Ethylbenzene		ND	0.5									
m,p-Xylene		ND	1									
Methyl Isobutyl Ether		ND	1									
o-Xylene		ND	0.5									
Toluene		ND	0.5									
1,4-Difluorobenzene		103.3	0									
4-Bromochlorobenzene		110.9	0									
Fluorobenzene		104.6	0									

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analytic detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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# On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0112006

**Project:** Thistway Refinery Air Stripper

Date: 13-Dec-01

## QC SUMMARY REPORT

### Sample Matrix Spike

Sample ID: 0111041-18AMS	Batch ID: GC-1_011205	Test Code: SW8021B	Units: µg/L	Analysis Date 12/5/2001			Prep Date: 12/5/01			
Client ID:	Run ID:	GC-1_011205A		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	SeqNo:	45678				
Benzene	471.4	5	400	108	90.8%	78	117			
Ethylbenzene	1443	5	400	1079	90.9%	79	121			
m,p-Xylene	772.5	10	800	10.85	95.2%	80	115			
Methyl tert-Butyl Ether	471.6	10	400	52.08	104.9%	84	114			
o-Xylene	392.8	5	400	1.982	97.7%	88	116			
Toluene	375	5	400	14.49	90.1%	88	113			
1,4-Difluorobenzene	1027	0	1100	0	93.4%	77	112			
4-Bromochlorobenzene	1175	0	1100	0	106.8%	88	116			
Fluorobenzene	1036	0	1100	0	94.2%	87	102			
Sample ID: 0111041-18AMSD	Batch ID: GC-1_011205	Test Code: SW8021B	Units: µg/L	Analysis Date 12/5/2001			Prep Date: 12/5/01			
Client ID:	Run ID:	GC-1_011205A		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	SeqNo:	45679				
Benzene	462	5	400	108	88.5%	78	117	471.4	2.0%	6
Ethylbenzene	1400	5	400	1079	80.3%	79	121	1443	3.0%	7
m,p-Xylene	751.6	10	800	10.85	92.6%	80	115	772.5	2.7%	6
Methyl tert-Butyl Ether	471.6	10	400	52.08	104.9%	84	114	471.6	0.0%	5
o-Xylene	384	5	400	1.982	95.5%	88	116	392.8	2.3%	5
Toluene	364	5	400	14.49	87.4%	88	113	375	3.0%	6
1,4-Difluorobenzene	1033	0	1100	0	94.0%	77	112	0	0.0%	0
4-Bromochlorobenzene	1121	0	1100	0	101.9%	88	116	0	0.0%	0
Fluorobenzene	1039	0	1100	0	94.4%	87	102	0	0.0%	0

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# On Site Technologies, LTD.

Date: 13-Dec-01

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0112006

**Project:** Thifway Refinery Air Stripper

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_011205	Batch ID: GC-1_011205	Test Code: SW8021B	Units: µg/L									
Client ID:		Run ID: GC-1_011205A										
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC						
Benzene	36.77	0.5	40	0	91.9%	80	120					
Ethylbenzene	37.15	0.5	40	0	92.9%	80	120					
m,p-Xylene	76.82	1	80	0	96.0%	80	120					
Methyl tert-Butyl Ether	39.15	1	40	0	97.9%	80	120					
o-Xylene	38.57	0.5	40	0	96.4%	80	120					
Toluene	36.74	0.5	40	0	91.9%	80	120					
1,4-Difluorobenzene	102.6	0	110	0	93.2%	77	112					
4-Bromochlorobenzene	115.1	0	110	0	104.6%	88	116					
Fluorobenzene	104	0	110	0	94.5%	87	102					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

# On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0112006  
**Project:** Thistway Refinery Air Stripper

Date: 13-Dec-01

## QC SUMMARY REPORT

### Continuing Calibration Verification Standard

Client ID:	Sample ID: CCV1_011205	Batch ID: GC-1_011205	Test Code: SW8021B	Units: µg/L	Analysis Date 12/5/2001			Prep Date: 12/5/01									
					Run ID: 0112006	GC-1_011205A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.29	0.5	20	0			91.4%		85		115						
Ethylbenzene	18.2	0.5	20	0			91.0%		85		115						
m,p-Xylene	37.46	1	40	0			93.6%		85		115						
Methyl tert-Butyl Ether	20.57	1	20	0			102.9%		85		115						
o-Xylene	19.34	0.5	20	0			96.7%		85		115						
Toluene	18.22	0.5	20	0			91.1%		85		115						
1,4-Difluorobenzene	101.3	0	110	0			92.1%		77		112						
4-Bromochlorobenzene	113	0	110	0			102.7%		88		116						
Fluorobenzene	104	0	110	0			94.6%		87		102						
Sample ID: CCV2_011205		Batch ID: GC-1_011205		Test Code: SW8021B		Units: µg/L		Analysis Date 12/5/2001			Prep Date: 12/5/01						
Client ID:					Run ID: 0112006	GC-1_011205A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	17.78	0.5	20	0			88.9%		85		115						
Ethylbenzene	17.61	0.5	20	0			88.0%		85		115						
m,p-Xylene	36.38	1	40	0			90.9%		85		115						
Methyl tert-Butyl Ether	19.78	1	20	0			98.9%		85		115						
o-Xylene	18.89	0.5	20	0			94.5%		85		115						
Toluene	17.57	0.5	20	0			87.8%		85		115						
1,4-Difluorobenzene	103.2	0	110	0			93.9%		77		112						
4-Bromochlorobenzene	113.2	0	110	0			102.9%		88		116						
Fluorobenzene	104.5	0	110	0			95.0%		87		102						

Qualifiers:

N.D. - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1 of 7

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0112006  
**Project:** Thistway Refinery Air Stripper

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Sample ID: CCV3_011205		Batch ID: GC-1_011205		Test Code: SW8021B		Units: µg/L		Analysis Date: 12/5/2001		Prep Date: 12/5/01		
Client ID:	Run ID:	Client ID:	Run ID:	Test Code:	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	36.24	0.5	40	0	90.6%	85	115					
Ethylbenzene	35.87	0.5	40	0	89.7%	85	115					
m,p-Xylene	74.89	1	80	0	93.6%	85	115					
Methyl tert-Butyl Ether	39.42	1	40	0	98.6%	85	115					
o-Xylene	37.59	0.5	40	0	94.0%	85	115					
Toluene	35.71	0.5	40	0	89.3%	85	115					
1,4-Difluorobenzene	101.7	0	110	0	92.5%	77	112					
4-Bromochlorobenzene	111.4	0	110	0	101.3%	88	116					
Fluorobenzene	104	0	110	0	94.6%	87	102					
Sample ID: CCV4_011205		Batch ID: GC-1_011205		Test Code: SW8021B		Units: µg/L		Analysis Date: 12/5/2001		Prep Date: 12/5/01		
Client ID:	Run ID:	Client ID:	Run ID:	Test Code:	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	37.63	0.5	40	0	94.1%	85	115					
Ethylbenzene	37.36	0.5	40	0	93.4%	85	115					
m,p-Xylene	77.55	1	80	0	96.9%	85	115					
Methyl tert-Butyl Ether	41.1	1	40	0	102.7%	85	115					
o-Xylene	38.75	0.5	40	0	96.9%	85	115					
Toluene	37.44	0.5	40	0	93.6%	85	115					
1,4-Difluorobenzene	103	0	110	0	93.6%	77	112					
4-Bromochlorobenzene	111.7	0	110	0	101.5%	88	116					
Fluorobenzene	104.6	0	110	0	95.1%	87	102					

Qualifiers:

N/D - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0112006  
**Project:** Thiftway Refinery Air Stripper  
**Test No:** SW8021B

**QC SUMMARY REPORT**  
**SURROGATE RECOVERIES**  
**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ				
0111041-15A	98.4	103	100				
0111041-18A	95.3	116	96.1				
0111041-18AMS	93.4	107	94.2				
0111041-18AMSD	94	102	94.4				
0111041-22A	96.6	111	99.6				
0111041-23A	97.7	111	97.7				
0111041-24A	90.3	111	90.3				
0111041-25A	92.9	101	95.3				
0111041-28A	91.6	104	94				
0111041-29A	96.7	106	96.5				
0111041-30A	95.8	108	98.4				
0111041-31A	92	113	97				
0112002-01A	92.4	102	94.5				
0112006-01A	93.2	103	94.2				
0112006-02A	94.2	102	95.8				
CCV1_011205	92.1	103	94.6				
CCV2_011205	93.8	103	95				
CCV3_011205	92.5	101	94.6				
CCV4_011205	93.6	102	95.1				
LCS_011205	93.2	105	94.5				
MB_011205	93.9	101	95.1				

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	77-112
4BCBZ	= 4-Bromochlorobenzene	88-116
FLBZ	= Fluorobenzene	87-102

\* Surrogate recovery outside acceptance limits

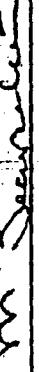
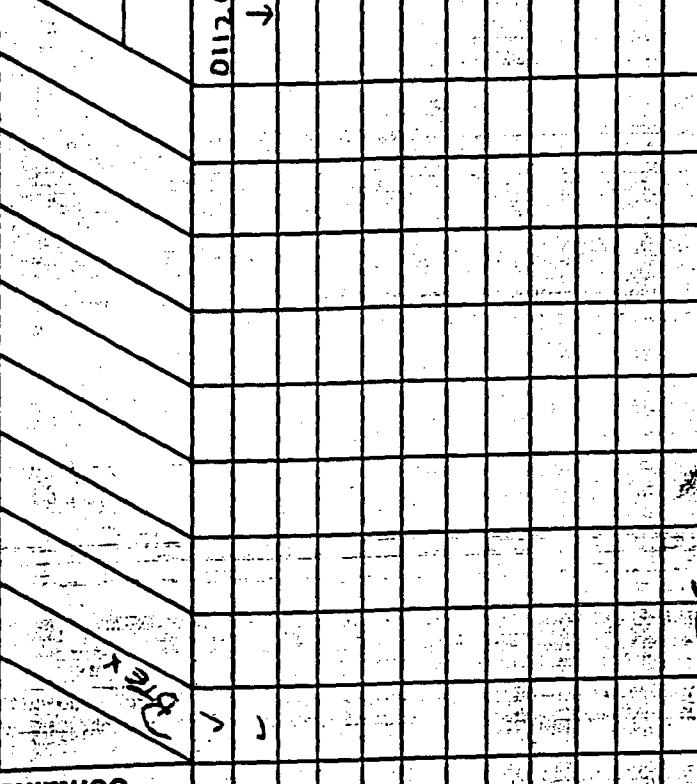
11334

# CHAIN OF CUSTODY RECORD



EDUCATIONAL

**612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87489  
LAB: (505) 325-5667 • FAX: (505) 327-1496**

Purchase Order No.:		Project No. 810-A-2510		Title	
<b>INVOICE TO</b>	Name	Company		Mailing Address	
	Company <u>BioTech International</u>	Dept.	City, State, Zip		Telephone No.
	<u>Address 710 E. 25th Suite 400</u>				
	<u>City, State, Zip Farmington, NM 87401</u>				Telefax No.
<b>PROJECT LOCATION:</b>					
<u>Three way Boringay - A. S. St. poor</u> <u>Bloomfield NM</u>					
<b>SAMPLER'S SIGNATURE:</b>					
					
<b>ANALYSIS REQUESTED</b>					
					
<b>RESULTS TO</b>					
Number of Containers		LAB ID			
SAMPLE IDENTIFICATION		DATE	TIME	MATRIX	PRES.
<u>A. S. Stepper</u>		12-4-04	0930	H2O	ALL
<u>Relinquished</u>		..	1035	..	..
<u>A. S. Stepper EC Human</u>		..	..	..	..
<b>RELINQUISHED BY:</b> <u>John Stepper</u> <b>Received by:</b> <u>John Stepper</u> <b>Date/Time:</b> <u>12/11/04 1630</u>					
<b>RELINQUISHED BY:</b> <u>John Stepper</u> <b>Received by:</b> <u>John Stepper</u> <b>Date/Time:</b> <u>12/11/04 1630</u>					
<b>RELINQUISHED BY:</b> <u>John Stepper</u> <b>Received by:</b> <u>John Stepper</u> <b>Date/Time:</b> <u>12/11/04 1630</u>					
<b>Method of Shipment:</b> <u>Priority Mail</u> <b>Date:</b> <u>12/11/04</u>					
<b>Special Instructions / Remarks:</b> <u>24-48 Hours</u> <b>Date/Time:</b> <u>12/11/04 1630</u>					
<b>Special Instructions / Remarks:</b> <u>10 Working Days</u> <b>Date/Time:</b> <u>12/11/04 1630</u>					
<b>Special Instructions / Remarks:</b> <u>By Date</u> <b>Date:</b> <u>12/11/04</u>					
<b>Authorized by:</b> <u>John Stepper</u> <b>Date:</b> <u>12/11/04</u> <b>(Client Signature Must Accompany Request!)</b>					



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November 12, 2001

Terry Griffin  
BioTech Remediation, Inc.  
710 E. 20th, Suite 400  
Farmington, NM 87401  
TEL: (505) 327-4965  
FAX (505) 564-3604

RE: Thriftway Refinery Air Stripper

Order No.: 0111001

Dear Terry Griffin,

On Site Technologies, LTD. received 2 samples on 11/01/2001 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox".

David Cox



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## On Site Technologies, LTD.

Date: 12-Nov-01

**CLIENT:** BioTech Remediation, Inc.  
**Project:** Thriftway Refinery Air Stripper  
**Lab Order:** 0111001

## CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).



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## ANALYTICAL REPORT

Date: 12-Nov-01

**Client:** BioTech Remediation, Inc.  
**Work Order:** 0111001  
**Lab ID:** 0111001-01A    **Matrix:** AQUEOUS  
**Project:** Thriftway Refinery Air Stripper

**Client Sample Info:** Thriftway Refinery Air Stripper  
**Client Sample ID:** Stripper Influent  
**Collection Date:** 11/01/2001 1:03:00 PM  
**COC Record:** 11623

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	270	20		µg/L	20	11/04/2001
Benzene	1200	10		µg/L	20	11/04/2001
Toluene	430	10		µg/L	20	11/04/2001
Ethybenzene	430	10		µg/L	20	11/04/2001
m,p-Xylene	1100	20		µg/L	20	11/04/2001
o-Xylene	190	10		µg/L	20	11/04/2001

Analyst: HR

**Qualifiers:** PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
ND - Not Detected at Practical Quantitation Limit      R - RPD outside accepted recovery limits  
J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
B - Analyte detected in the associated Method Blank      Surr: - Surrogate

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## ANALYTICAL REPORT

Date: 12-Nov-01

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery Air Stripper
Work Order:	0111001	Client Sample ID:	Stripper Effluent
Lab ID:	0111001-02A	Matrix:	AQUEOUS
Project:	Thriftway Refinery Air Stripper	Collection Date:	11/01/2001 1:10:00 PM
		COC Record:	11623

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	21	1		µg/L	1	11/04/2001
Benzene	4.7	0.5		µg/L	1	11/04/2001
Toluene	10	0.5		µg/L	1	11/04/2001
Ethylbenzene	3.9	0.5		µg/L	1	11/04/2001
m,p-Xylene	15	1		µg/L	1	11/04/2001
o-Xylene	3.5	0.5		µg/L	1	11/04/2001

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
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J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
B - Analyte detected in the associated Method Blank      Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0111001  
**Project:** Thriftway Refinery Air Stripper

Date: 12-Nov-01

**QC SUMMARY REPORT**

Method Blank

Sample ID: MB_011104	Batch ID: GC-1_011104	Test Code: SW8021B	Units: µg/L	Analysis Date 11/04/2001	Prep Date:	SeqNo:	44955	%RPD	RPD Limit	Qual
Client ID:	Run ID:	GC-1_011104B	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	J
Analyte	Result									J
Benzene	ND		0.5							
Ethylbenzene	.1518		0.5							
m,p-Xylene	ND		1							
Methyl tert-Butyl Ether	ND		1							
o-Xylene	.4809		0.5							
Toluene	.3892		0.5							

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0111001  
**Project:** Thrifway Refinery Air Stripper

## QC SUMMARY REPORT

### Sample Matrix Spike

Date: 12-Nov-01

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD		RPDLimit	Qual	
									Analysis Date	SeqNo:			
Benzene	1941	10	800	1200	92.6%	78	117						
Ethylbenzene	1187	10	800	430	94.6%	79	121						
m,p-Xylene	2630	20	1600	1100	95.7%	80	115						
Methyl tert-Butyl Ether	1012	20	800	270	92.8%	84	114						
o-Xylene	901.1	10	800	190	88.9%	88	116						
Toluene	1237	10	800	430	100.9%	88	113						
<b>Sample ID: 0111001-01AMS</b>		<b>Batch ID: GC-1_011104</b>		<b>Test Code: SW8021B</b>		<b>Units: µg/L</b>		<b>Analysis Date 11/04/2001</b>		<b>SeqNo: 44956</b>		<b>Prep Date:</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD		RPDLimit	Qual	
									Analysis Date	SeqNo:			
Benzene	2032	10	800	1200	104.1%	78	117	1941			4.6%	6	
Ethylbenzene	1254	10	800	430	103.1%	79	121	1187			5.5%	7	
m,p-Xylene	2778	20	1600	1100	104.9%	80	115	2630			5.5%	6	
Methyl tert-Butyl Ether	1032	20	800	270	95.2%	84	114	1012			1.9%	5	
o-Xylene	967.2	10	800	190	97.1%	88	116	901.1			7.1%	5	
Toluene	1262	10	800	430	104.0%	88	113	1237			2.0%	6	

Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
Work Order: 0111001  
Project: Thriftway Refinery Air Stripper

Date: 12-Nov-01

## QC SUMMARY REPORT

### Laboratory Control Spike - generic

Sample ID: LCS_011104	Batch ID: GC-1_011104	Test Code: SWB021B	Units: µg/l	Analysis Date 11/04/2001			Prep Date:		
Client ID:	Run ID: 0111001	Run ID: GC-1_011104B		SeqNo:	44954		%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	
Benzene	40.21	0.5	40	0	100.5%	92	113		
Ethylbenzene	40.1	0.5	40	0.1518	99.9%	94	114		
m,p-Xylene	82.48	1	80	0	103.1%	92	111		
Methyl tert-Butyl Ether	40.02	1	40	0	100.1%	91	112		
o-Xylene	40.69	0.5	40	0.4809	100.5%	97	112		
Toluene	40.48	0.5	40	0.3892	100.2%	95	111		

Qualifiers:

ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

# On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0111001  
**Project:** Thrifway Refinery Air Stripper

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1_011104 Batch ID: GC-1_011104 Test Code: SW8021B Units: µg/L								Analysis Date 11/04/2001 Prep Date:				
Client ID:	Run ID:	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte												
Benzene		21.23	0.5	20	0	106.2%	85	115				
Ethylbenzene		21.28	0.5	20	0	106.4%	85	115				
m,p-Xylene		43.84	1	40	0	109.6%	85	115				
Methyl tert-Butyl Ether		19.13	1	20	0	95.6%	85	115				
o-Xylene		20.95	0.5	20	0	104.8%	85	115				
Toluene		21.79	0.5	20	0	109.0%	85	115				
1,4-Difluorobenzene		107.8	0	110	0	98.0%	77	112				
4-Bromochlorobenzene		115.6	0	110	0	105.1%	88	116				
Fluorobenzene		107.5	0	110	0	97.7%	87	102				
Sample ID: CCV2_011104 Batch ID: GC-1_011104 Test Code: SW8021B Units: µg/L								Analysis Date 11/04/2001 Prep Date:				
Client ID:	Run ID:	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte												
Benzene		40.18	0.5	40	0	100.5%	85	115				
Ethylbenzene		40.45	0.5	40	0	101.1%	85	115				
m,p-Xylene		82.78	1	80	0	103.5%	85	115				
Methyl tert-Butyl Ether		37.71	1	40	0	94.3%	85	115				
o-Xylene		40.28	0.5	40	0	100.7%	85	115				
Toluene		41.12	0.5	40	0	102.8%	85	115				
1,4-Difluorobenzene		106.1	0	110	0	96.4%	77	112				
4-Bromochlorobenzene		116.9	0	110	0	106.3%	88	116				
Fluorobenzene		106	0	110	0	96.4%	87	102				

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 12-Nov-01

CLIENT: BioTech Remediation, Inc.  
Work Order: 0111001  
Project: Thriftway Refinery Air Stripper  
Test No: SW8021B

**QC SUMMARY REPORT**  
**SURROGATE RECOVERIES**  
**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ						
0111001-01A	94.3	105	95.4						
0111001-01AMS	97.5	115	94.1						
0111001-01AMSD	95.2	105	95.7						
0111001-02A	97.2	111	100						
0111003-01A	98.6	107	98.2						
CCV1_011104	98	105	97.7						
CCV2_011104	96.4	106	96.4						
LCS_011104	97.1	106	97.8						
MB_011104	95.5	102	96.5						

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	77-112
4BCBZ	= 4-Bromochlorobenzene	88-116
FLBZ	= Fluorobenzene	87-102

\* Surrogate recovery outside acceptance limits





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## ANALYTICAL REPORT

Date: 11-Jun-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0105003	<b>Client Sample ID:</b>	Air Stripper Effluent
<b>Lab ID:</b>	0105003-13A	<b>Collection Date:</b>	05/03/2001 12:49:00 PM
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>COC Record:</b>	11171-11172

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	5.6	1		µg/L	1	05/10/2001
Benzene	ND	0.5		µg/L	1	05/10/2001
Toluene	ND	0.5		µg/L	1	05/10/2001
Ethylbenzene	ND	0.5		µg/L	1	05/10/2001
m,p-Xylene	ND	1		µg/L	1	05/10/2001
o-Xylene	ND	0.5		µg/L	1	05/10/2001
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Bromide	0.35	0.2		mg/L	5	05/15/2001
Chloride	840	59		mg/L	990	05/15/2001
Fluoride	0.6	0.25		mg/L	5	05/15/2001
Sulfate	1400	79		mg/L	990	05/15/2001
<b>CALCIUM, DISSOLVED</b>						
Calcium	310	50		mg/L	200	05/20/2001
<b>IRON, DISSOLVED</b>						
Iron	ND	0.1		mg/L	1	05/20/2001
<b>POTASSIUM, DISSOLVED</b>						
Potassium	4.3	0.5		mg/L	2	05/17/2001
<b>MAGNESIUM, DISSOLVED</b>						
Magnesium	46	5		mg/L	20	05/20/2001
<b>SODIUM, DISSOLVED</b>						
Sodium	770	62.5		mg/L	250	05/17/2001
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	27	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Total (As CaCO <sub>3</sub> )	27	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
<b>CONDUCTIVITY @ 25C</b>						
Specific Conductance	5220	2		µS/cm	1	05/05/2001
<b>HARDNESS, TOTAL</b>						
Hardness (As CaCO <sub>3</sub> )	950	1		mg/L	1	05/20/2001
<b>PH</b>						
pH	7.31	2		pH units	1	05/02/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
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 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 Sur: - Surrogate

1 of 2

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## ANALYTICAL REPORT

Date: 11-Jun-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0105003	<b>Client Sample ID:</b>	Air Stripper Effluent
<b>Lab ID:</b>	0105003-13A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM		
		<b>Collection Date:</b>	05/03/2001 12:49:00 PM
		<b>COC Record:</b>	11171-11172

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SPECIFIC GRAVITY</b>		<b>M2710 F</b>				
Specific Gravity	1.004	0.001		Units	1	Analyst: HR 05/05/2001
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				
Total Dissolved Solids (Residue, Filterable)	3710	40		mg/L	1	Analyst: HR 05/05/2001
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				
Total Dissolved Solids (Calculated)	3330	5		mg/L	1	Analyst: HR 05/20/2001

**Qualifiers:** PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
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## ANALYTICAL REPORT

Date: 11-Jun-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0105003	<b>Client Sample ID:</b>	Air Stripper Influent
<b>Lab ID:</b>	0105003-12A	<b>Collection Date:</b>	05/03/2001 12:40:00 PM
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>COC Record:</b>	11171-11172

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	200	10		µg/L	10	05/10/2001
Benzene	940	5		µg/L	10	05/10/2001
Toluene	78	5		µg/L	10	05/10/2001
Ethylbenzene	290	5		µg/L	10	05/10/2001
m,p-Xylene	700	10		µg/L	10	05/10/2001
o-Xylene	120	5		µg/L	10	05/10/2001
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Bromide	0.34	0.2		mg/L	5	05/15/2001
Chloride	200	59		mg/L	990	05/15/2001
Fluoride	0.56	0.25		mg/L	5	05/15/2001
Sulfate	1400	79		mg/L	990	05/15/2001
<b>CALCIUM, DISSOLVED</b>						
Calcium	300	50		mg/L	200	05/20/2001
<b>IRON, DISSOLVED</b>						
Iron	ND	0.1		mg/L	1	05/20/2001
<b>POTASSIUM, DISSOLVED</b>						
Potassium	4.3	0.5		mg/L	2	05/17/2001
<b>MAGNESIUM, DISSOLVED</b>						
Magnesium	46	5		mg/L	20	05/20/2001
<b>SODIUM, DISSOLVED</b>						
Sodium	750	62.5		mg/L	250	05/17/2001
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	920	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
Alkalinity, Total (As CaCO <sub>3</sub> )	920	5		mg/L CaCO <sub>3</sub>	1	05/12/2001
<b>CONDUCTIVITY @ 25°C</b>						
Specific Conductance	4570	2		µS/cm	1	05/05/2001
<b>HARDNESS, TOTAL</b>						
Hardness (As CaCO <sub>3</sub> )	930	1		mg/L	1	05/20/2001
<b>PH</b>						
pH	7.20	2		pH units	1	05/02/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 11-Jun-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0105003	<b>Client Sample ID:</b>	Air Stripper Influent
<b>Lab ID:</b>	0105003-12A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM		
		<b>Collection Date:</b>	05/03/2001 12:40:00 PM
		<b>COC Record:</b>	11171-11172

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SPECIFIC GRAVITY</b> Specific Gravity	1.004	M2710 F 0.001		Units	1	Analyst: HR 05/05/2001
<b>TOTAL DISSOLVED SOLIDS</b> Total Dissolved Solids (Residue, Filterable)	3690	E160.1 40		mg/L	1	Analyst: HR 05/05/2001
<b>TOTAL DISSOLVED SOLIDS</b> Total Dissolved Solids (Calculated)	3230	CALC 5		mg/L	1	Analyst: HR 05/20/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 13-Sep-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0108001	<b>Client Sample ID:</b>	Air Stripper-Effluent
<b>Lab ID:</b>	0108001-15A	<b>Collection Date:</b>	07/31/2001 2:33:00 PM
<b>Project:</b>	Thriftway Refinery-Quarterly; Bloomfield, NM	<b>COC Record:</b>	11266

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1		µg/L	1	08/03/2001
Benzene	0.9	0.5		µg/L	1	08/03/2001
Toluene	ND	0.5		µg/L	1	08/03/2001
Ethylbenzene	ND	0.5		µg/L	1	08/03/2001
m,p-Xylene	1.1	1		µg/L	1	08/03/2001
o-Xylene	ND	0.5		µg/L	1	08/03/2001
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	2000	15		mg/L	250	08/05/2001
Sulfate	1200	20		mg/L	250	08/05/2001
Bromide	0.36	0.04		mg/L	1	08/05/2001
Fluoride	0.7	0.05		mg/L	1	08/05/2001
<b>CALCIUM, DISSOLVED</b>						
Calcium	290	50		mg/L	200	08/31/2001
<b>POTASSIUM, DISSOLVED</b>						
Potassium	6.2	2.5		mg/L	10	08/31/2001
<b>MAGNESIUM, DISSOLVED</b>						
Magnesium	46	5		mg/L	20	08/31/2001
<b>SODIUM, DISSOLVED</b>						
Sodium	800	100		mg/L	400	09/04/2001
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Total (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
<b>CONDUCTIVITY @ 25C</b>						
Specific Conductance	14300	2		µS/cm	1	08/01/2001
<b>HARDNESS, TOTAL</b>						
Hardness (As CaCO <sub>3</sub> )	910	1		mg/L	1	08/31/2001
<b>PH</b>						
pH	ND	2		pH units	1	08/01/2001
<b>TOTAL DISSOLVED SOLIDS</b>						
Total Dissolved Solids (Residue, Filterable)	3640	40		mg/L	1	08/05/2001
<b>TOTAL DISSOLVED SOLIDS</b>						
Total Dissolved Solids (Calculated)	4370	5		mg/L	1	08/31/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
 B - Analyte detected in the presence of a blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

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20 of 25  
16 of 17

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## ANALYTICAL REPORT

Date: 13-Sep-01

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0108001	Client Sample ID:	Air Stripper-Effluent
Lab ID:	0108001-15A	Matrix:	AQUEOUS
Project:	Thriftway Refinery-Quarterly; Bloomfield, NM	COC Record:	11266

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.01		mg/L	1	09/04/2001
Barium	0.054	0.008		mg/L	1	09/04/2001
Cadmium	ND	0.001		mg/L	1	09/04/2001
Chromium	ND	0.002		mg/L	1	09/04/2001
Lead	ND	0.005		mg/L	1	09/04/2001
Selenium	ND	0.004		mg/L	1	09/04/2001
Silver	ND	0.001		mg/L	1	09/04/2001
<b>MERCURY, TOTAL</b>						
Mercury	E245.1					Analyst: HR
	ND	0.0002		mg/L	1	08/11/2001

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the presence of a spike

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

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21 of 25  
17 of 17

45



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## ANALYTICAL REPORT

Date: 13-Sep-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0108001	<b>Client Sample ID:</b>	Air Stripper-Influent
<b>Lab ID:</b>	0108001-14A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery-Quarterly; Bloomfield, NM	<b>Collection Date:</b>	07/31/2001 2:31:00 PM
		<b>COC Record:</b>	11266

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>	<b>SW8021B</b>					<b>Analyst: DM</b>
Methyl tert-Butyl Ether	250	20		µg/L	20	08/03/2001
Benzene	1600	10		µg/L	20	08/03/2001
Toluene	210	10		µg/L	20	08/03/2001
Ethylbenzene	520	10		µg/L	20	08/03/2001
m,p-Xylene	1500	20		µg/L	20	08/03/2001
o-Xylene	110	10		µg/L	20	08/03/2001
<b>ANIONS BY ION CHROMATOGRAPHY</b>	<b>E300</b>					<b>Analyst: HR</b>
Chloride	220	15		mg/L	250	08/05/2001
Sulfate	1200	20		mg/L	250	08/05/2001
Bromide	0.28	0.04		mg/L	1	08/05/2001
Fluoride	0.65	0.05		mg/L	1	08/05/2001
<b>CALCIUM, DISSOLVED</b>	<b>E215.1</b>					<b>Analyst: DC</b>
Calcium	38	5		mg/L	20	08/31/2001
<b>POTASSIUM, DISSOLVED</b>	<b>E258.1</b>					<b>Analyst: DC</b>
Potassium	6.1	2.5		mg/L	10	08/31/2001
<b>MAGNESIUM, DISSOLVED</b>	<b>E242.1</b>					<b>Analyst: DC</b>
Magnesium	42	5		mg/L	20	08/31/2001
<b>SODIUM, DISSOLVED</b>	<b>E273.1</b>					<b>Analyst: HR</b>
Sodium	780	100		mg/L	400	09/04/2001
<b>ALKALINITY, TOTAL</b>	<b>M2320 B</b>					<b>Analyst: HR</b>
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	1140	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
Alkalinity, Total (As CaCO <sub>3</sub> )	1140	5		mg/L CaCO <sub>3</sub>	1	08/01/2001
<b>CONDUCTIVITY @ 25°C</b>	<b>E120.1</b>					<b>Analyst: HR</b>
Specific Conductance	4450	2		µS/cm	1	08/01/2001
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					<b>Analyst: DC</b>
Hardness (As CaCO <sub>3</sub> )	270	1		mg/L	1	08/31/2001
<b>pH</b>	<b>E150.1</b>					<b>Analyst: HR</b>
pH	7.26	2		pH units	1	08/01/2001
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					<b>Analyst: HR</b>
Total Dissolved Solids (Residue, Filterable)	3320	40		mg/L	1	08/05/2001
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					<b>Analyst: DC</b>
Total Dissolved Solids (Calculated)	2940	5		mg/L	1	08/31/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
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 B - Analyte detected in the sample but outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

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14 of 25 17



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## ANALYTICAL REPORT

Date: 13-Sep-01

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0108001	<b>Client Sample ID:</b>	Air Stripper-Influent
<b>Lab ID:</b>	0108001-14A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery-Quarterly; Bloomfield, NM		
		<b>Collection Date:</b>	07/31/2001 2:31:00 PM
		<b>COC Record:</b>	11266

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.01		mg/L	1	09/04/2001
Barium	0.054	0.008		mg/L	1	09/04/2001
Cadmium	ND	0.001		mg/L	1	09/04/2001
Chromium	ND	0.002		mg/L	1	09/04/2001
Lead	ND	0.005		mg/L	1	09/04/2001
Selenium	ND	0.004		mg/L	1	09/04/2001
Silver	ND	0.001		mg/L	1	09/04/2001
<b>MERCURY, TOTAL</b>						
Mercury	ND	E245.1	0.0002	mg/L	1	Analyst: HR 08/11/2001

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
 B - Analyte detected in the presence of Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

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15 of 2517

APPENDIX B(1)  
Monitor Well Laboratory Analyses,  
QA/QC Data and COC Records



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February 28, 2002

Terry Griffin  
BioTech Remediation, Inc.  
510 Airport Drive, Suite 104  
Farmington, NM 87401  
TEL: (505) 327-4965  
FAX: (505) 564-3604

RE: Thriftway Refinery; Bloomfield, NM

Order No.: 0202003

Dear Terry Griffin,

On Site Technologies, LTD. received 18 samples on 02/01/2002 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Alkalinity, Total (M2320 B)  
Anions by Ion Chromatography (E300)  
Aromatic Volatiles by GC/PID (SW8021B)  
Conductivity @ 25C (E120.1)  
Hardness, Total (M2340 B)  
ICP Metals, Dissolved (SW6010B)  
ICP Metals, Total (SW6010B)  
Mercury, Total (SW7470)  
pH (E150.1)  
Polynuclear Aromatic Hydrocarbons (SW8270C)  
Total Dissolved Solids (CALC)  
Total Dissolved Solids (E160.1)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Heidi Reese

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



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## On Site Technologies, LTD.

Date: 28-Feb-02

CLIENT: BioTech Remediation, Inc.  
Project: Thriftway Refinery; Bloomfield, NM  
Lab Order: 0202003

## CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

Cation-Anion Balance: 0202003-01C; Thriftway Refinery, MW-18

Total Cation-Anion = 85.66 meq/L

Difference Cation-Anion = 7.07 meq/L

% Difference = 8.3 %

Cation-Anion Balance: 0202003-02C; Thriftway Refinery, MW-09

Total Cation-Anion = 97.27 meq/L

Difference Cation-Anion = 5.73 meq/L

% Difference = 5.9 %

Cation-Anion Balance: 0202003-03C; Thriftway Refinery, MW-05

Total Cation-Anion = 111.21 meq/L

Difference Cation-Anion = 7.96 meq/L

% Difference = 7.2 %

Cation-Anion Balance: 0202003-04C; Thriftway Refinery, MW-06

Total Cation-Anion = 88.13 meq/L

Difference Cation-Anion = 6.09 meq/L

% Difference = 6.9 %

Cation-Anion Balance: 0202003-05C; Thriftway Refinery, MW-19

Total Cation-Anion = 141.02 meq/L

Difference Cation-Anion = 7.67 meq/L

% Difference = 5.4 %

**CLIENT:** BioTech Remediation, Inc.  
**Project:** Thriftway Refinery; Bloomfield, NM  
**Lab Order:** 0202003

## CASE NARRATIVE

Cation-Anion Balance: 0202003-06C; Thriftway Refinery, MW-20

Total Cation-Anion = 139.87 meq/L  
Difference Cation-Anion = 10.35 meq/L  
% Difference = 7.4 %

Cation-Anion Balance: 0202003-07C; Thriftway Refinery, MW-21

Total Cation-Anion = 184.8 meq/L  
Difference Cation-Anion = 8.77 meq/L  
% Difference = 4.7 %

Cation-Anion Balance: 0202003-08C; Thriftway Refinery, MW-22

Total Cation-Anion = 212.24 meq/L  
Difference Cation-Anion = 11.43 meq/L  
% Difference = 5.4 %

Cation-Anion Balance: 0202003-09C; Thriftway Refinery, MW-08

Total Cation-Anion = 185.45 meq/L  
Difference Cation-Anion = 8.17 meq/L  
% Difference = 4.4 %

Cation-Anion Balance: 0202003-10C; Thriftway Refinery, MW-10

Total Cation-Anion = 164.85 meq/L  
Difference Cation-Anion = 7.14 meq/L  
% Difference = 4.3 %

Cation-Anion Balance: 0202003-11C; Thriftway Refinery, MW-10 DUP

Total Cation-Anion = 165.26 meq/L  
Difference Cation-Anion = 6.61 meq/L  
% Difference = 4.0 %

Cation-Anion Balance: 0202003-12C; Thriftway Refinery, MW-11

Total Cation-Anion = 141.16 meq/L  
Difference Cation-Anion = 5.53 meq/L  
% Difference = 3.9 %

Cation-Anion Balance: 0202003-13C; Thriftway Refinery, MW-15

Total Cation-Anion = 138.31 meq/L  
Difference Cation-Anion = 6.9 meq/L  
% Difference = 5.0 %

Cation-Anion Balance: 0202003-14C; Thriftway Refinery, MW-13

Total Cation-Anion = 162.00 meq/L  
Difference Cation-Anion = 8.96 mea/L

**CLIENT:** BioTech Remediation, Inc.  
**Project:** Thriftway Refinery; Bloomfield, NM  
**Lab Order:** 0202003

## CASE NARRATIVE

% Difference = 5.5 %

Cation-Anion Balance: 0202003-15C; Thriftway Refinery, MW-12

Total Cation-Anion = 175.34 meq/L

Difference Cation-Anion = 8.83 meq/L

% Difference = 5.0 %

Cation-Anion Balance: 0202003-16C; Thriftway Refinery, Stripper Influent

Total Cation-Anion = 113.15 meq/L

Difference Cation-Anion = 8.47 meq/L

% Difference = 7.5 %

Cation-Anion Balance: 0202003-17C; Thriftway Refinery, Stripper Effluent

Total Cation-Anion = 115.68 meq/L

Difference Cation-Anion = 3.88 meq/L

% Difference = 3.4 %



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## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-18
<b>Lab ID:</b>	0202003-01A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/30/2002 2:18:00 PM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	18	1		µg/L	1	02/05/2002
Benzene	1	0.5		µg/L	1	02/05/2002
Toluene	ND	0.5		µg/L	1	02/05/2002
Ethylbenzene	ND	0.5		µg/L	1	02/05/2002
m,p-Xylene	ND	1		µg/L	1	02/05/2002
o-Xylene	ND	0.5		µg/L	1	02/05/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	0.059	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.149	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	158	6.1		mg/L	100	02/11/2002
Sulfate	649	8.2		mg/L	100	02/11/2002
Bromide	0.56	0.04		mg/L	1	02/14/2002
Fluoride	0.35	0.05		mg/L	1	02/14/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	58.3	0.1		mg/L	10	02/12/2002
Magnesium 285.213	25.4	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.99	0.62		mg/L	10	02/12/2002
Sodium 589.592	948	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	1300	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	1300	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

**Qualifiers:** PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 Surr: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-18
Lab ID:	0202003-01A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 2:18:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>			<b>E120.1</b>			
Specific Conductance	3920	2		uS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>			<b>M2340 B</b>			
Hardness (As CaCO <sub>3</sub> )	250	1		mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b>			<b>E150.1</b>			
pH	7.65	2		pH units	1	Analyst: HNR 02/04/2002
Temperature	21	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>E160.1</b>			
Total Dissolved Solids (Residue, Filterable)	2730	40		mg/L	1	Analyst: HNR 02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>CALC</b>			
Total Dissolved Solids (Calculated)	2620	5		mg/L	1	Analyst: HNR 02/23/2002

**Qualifiers:** PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Sur: - Surrogate

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2 of 2



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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-09
Lab ID:	0202003-02A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 3:01:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	26	1		µg/L	1	Analyst: DDM 02/11/2002
Benzene	5.5	0.5		µg/L	1	02/11/2002
Toluene	1.6	0.5		µg/L	1	02/11/2002
Ethylbenzene	1.7	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	0.023	0.008		mg/L	1	Analyst: DJC 02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.094	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	Analyst: DJC 02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	140	60		mg/L	1020	Analyst: HNR 02/11/2002
Sulfate	1370	80		mg/L	1020	02/11/2002
Bromide	0.22	0.04		mg/L	1	02/14/2002
Fluoride	0.44	0.05		mg/L	1	02/14/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	228	0.1		mg/L	10	Analyst: DJC 02/12/2002
Magnesium 285.213	31.4	0.07		mg/L	10	02/12/2002
Potassium 766.490	5.16	0.62		mg/L	10	02/12/2002
Sodium 589.592	860	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	810	5		mg/L CaCO <sub>3</sub>	1	Analyst: HNR 02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	810	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-09
Lab ID:	0202003-02A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 3:01:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				
Specific Conductance	4140	2		uS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				
Hardness (As CaCO <sub>3</sub> )	700	1		mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b>		<b>E150.1</b>				
pH	7.17	2		pH units	1	Analyst: HNR 02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				
Total Dissolved Solids (Residue, Filterable)	3170	40		mg/L	1	Analyst: HNR 02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				
Total Dissolved Solids (Calculated)	3120	5		mg/L	1	Analyst: HNR 02/23/2002

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B - Analyte detected in the associated Method Blank      Surr. - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-05
Lab ID:	0202003-03A	Collection Date:	01/30/2002 3:23:00 PM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	43	1		µg/L	1	02/11/2002
Benzene	5.1	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.062	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
<b>E300</b>						
Chloride	188	12		mg/L	250	02/11/2002
Sulfate	1570	16		mg/L	250	02/11/2002
Bromide	0.39	0.04		mg/L	1	02/14/2002
Fluoride	0.65	0.05		mg/L	1	02/14/2002
<b>ICP METALS, DISSOLVED</b>						
<b>SW6010B</b>						
Calcium 317.933	51.4	0.1		mg/L	10	02/12/2002
Magnesium 285.213	15	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.19	0.62		mg/L	10	02/12/2002
Sodium 589.592	1280	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
<b>M2320 B</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	830	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	830	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-05
Lab ID:	0202003-03A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 3:23:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				
Specific Conductance	5100	2		µS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				
Hardness (As CaCO <sub>3</sub> )	190	1		mg/L	1	Analyst: HNR 02/23/2002
<b>pH</b>		<b>E150.1</b>				
pH	7.95	2		pH units	1	Analyst: HNR 02/04/2002
Temperature	21	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				
Total Dissolved Solids (Residue, Filterable)	3680	40		mg/L	1	Analyst: HNR 02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				
Total Dissolved Solids (Calculated)	3610	5		mg/L	1	Analyst: HNR 02/23/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-06
<b>Lab ID:</b>	0202003-04A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/30/2002 3:47:00 PM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	2.4	1		µg/L	1	02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.013	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
E300						
Chloride	53.2	12		mg/L	200	02/11/2002
Sulfate	1220	16		mg/L	200	02/11/2002
Bromide	0.28	0.04		mg/L	1	02/14/2002
Fluoride	0.5	0.05		mg/L	1	02/14/2002
<b>ICP METALS, DISSOLVED</b>						
SW6010B						
Calcium 317.933	170	0.1		mg/L	10	02/12/2002
Magnesium 285.213	29.1	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.99	0.62		mg/L	10	02/12/2002
Sodium 589.592	830	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
M2320 B						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	860	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	860	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-06
Lab ID:	0202003-04A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 3:47:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				Analyst: HNR
Specific Conductance	3870	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	540	1		mg/L	1	02/23/2002
<b>PH</b>		<b>E150.1</b>				Analyst: HNR
pH	7.54	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	2900	40		mg/L	1	02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				Analyst: HNR
Total Dissolved Solids (Calculated)	2820	5		mg/L	1	02/23/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-19
<b>Lab ID:</b>	0202003-05A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/31/2002 9:25:00 AM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	530	5		µg/L	5	02/12/2002
Benzene	0.6	0.5		µg/L	1	02/11/2002
Toluene	0.9	0.5		µg/L	1	02/11/2002
Ethylbenzene	0.8	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.042	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
E300						
Chloride	143	30		mg/L	505	02/11/2002
Sulfate	2260	40		mg/L	505	02/11/2002
Fluoride	0.38	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
SW6010B						
Calcium 317.933	425	0.1		mg/L	10	02/12/2002
Magnesium 285.213	83.6	0.07		mg/L	10	02/12/2002
Potassium 766.490	5.67	0.62		mg/L	10	02/12/2002
Sodium 589.592	1060	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
M2320 B						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	950	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	950	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

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 Surr: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-19
Lab ID:	0202003-05A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 9:25:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				Analyst: HNR
Specific Conductance	5560	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1400	1		mg/L	1	02/23/2002
<b>PH</b>		<b>E150.1</b>				Analyst: HNR
pH	7.3	2		pH units	1	02/04/2002
Temperature	21	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	4690	40		mg/L	1	02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				Analyst: HNR
Total Dissolved Solids (Calculated)	4550	5		mg/L	1	02/23/2002

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Surf: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-20
<b>Lab ID:</b>	0202003-06A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/31/2002 9:47:00 AM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	670	5		µg/L	5	02/12/2002
Benzene	1.6	0.5		µg/L	1	02/11/2002
Toluene	3.7	0.5		µg/L	1	02/11/2002
Ethylbenzene	6.3	0.5		µg/L	1	02/11/2002
m,p-Xylene	1.2	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	0.019	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.129	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
<b>E300</b>						
Chloride	105	30		mg/L	500	02/11/2002
Sulfate	2180	40		mg/L	500	02/11/2002
Bromide	0.7	0.04		mg/L	1	02/17/2002
Fluoride	0.5	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
<b>SW6010B</b>						
Calcium 317.933	533	0.1		mg/L	10.2	02/12/2002
Magnesium 285.213	79.3	0.071		mg/L	10.2	02/12/2002
Potassium 766.490	3.89	0.63		mg/L	10.2	02/12/2002
Sodium 589.592	963	0.19		mg/L	10.2	02/12/2002
<b>ALKALINITY, TOTAL</b>						
<b>M2320 B</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	1000	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	1000	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
 ND - Not Detected at Practical Quantitation Limit  
 J - Analyte detected below Practical Quantitation Limit  
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 Sur: - Surrogate

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LAB: (505) 325-1556  
FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-20
Lab ID:	0202003-06A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 9:47:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				Analyst: HNR
Specific Conductance	5430	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1660	1		mg/L	1	02/23/2002
<b>PH</b>		<b>E150.1</b>				Analyst: HNR
pH	6.9	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	4610	40		mg/L	1	02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				Analyst: HNR
Total Dissolved Solids (Calculated)	4460	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-21
Lab ID:	0202003-07A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM		
		Collection Date:	01/31/2002 10:07:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	44	1		µg/L	1	02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.016	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	109	60		mg/L	1015	02/11/2002
Sulfate	3630	80		mg/L	1015	02/11/2002
Bromide	0.35	0.04		mg/L	1	02/17/2002
Fluoride	0.48	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	373	0.1		mg/L	10	02/12/2002
Magnesium 285.213	65.6	0.07		mg/L	10	02/12/2002
Potassium 766.490	5.1	0.62		mg/L	10	02/12/2002
Sodium 589.592	1670	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	570	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	570	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-21
Lab ID:	0202003-07A	Collection Date:	01/31/2002 10:07:00 AM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CONDUCTIVITY @ 25C	E120.1					Analyst: HNR
Specific Conductance	7380	2		µS/cm	1	02/14/2002
HARDNESS, TOTAL	M2340 B					Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1200	1		mg/L	1	02/23/2002
PH	E150.1					Analyst: HNR
pH	7.05	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
TOTAL DISSOLVED SOLIDS	E160.1					Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	6350	40		mg/L	1	02/06/2002
TOTAL DISSOLVED SOLIDS	CALC					Analyst: HNR
Total Dissolved Solids (Calculated)	6200	5		mg/L	1	02/23/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-22
<b>Lab ID:</b>	0202003-08A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/31/2002 10:26:00 AM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	12	1		µg/L	1	Analyst: DDM 02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	Analyst: DJC 02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	0.145	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.018	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	Analyst: DJC 02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	160	30		mg/L	500	Analyst: HNR 02/11/2002
Sulfate	4290	40		mg/L	500	02/11/2002
Bromide	0.93	0.04		mg/L	1	02/17/2002
Fluoride	0.44	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	466	0.1		mg/L	10	Analyst: DJC 02/12/2002
Magnesium 285.213	80.5	0.07		mg/L	10	02/12/2002
Potassium 766.490	7.15	0.62		mg/L	10	02/12/2002
Sodium 589.592	1880	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	400	5		mg/L CaCO <sub>3</sub>	1	Analyst: HNR 02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	400	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-22
Lab ID:	0202003-08A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 10:26:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>	<b>E120.1</b>					Analyst: HNR
Specific Conductance	8450	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1500	1		mg/L	1	02/23/2002
<b>PH</b>	<b>E150.1</b>					Analyst: HNR
pH	6.97	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	7420	40		mg/L	1	02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					Analyst: HNR
Total Dissolved Solids (Calculated)	7120	5		mg/L	1	02/23/2002

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
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	B - Analyte detected in the associated Method Blank	Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-08
Lab ID:	0202003-09A	Collection Date:	01/31/2002 10:42:00 AM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1	μg/L	1		02/11/2002
Benzene	ND	0.5	μg/L	1		02/11/2002
Toluene	ND	0.5	μg/L	1		02/11/2002
Ethylbenzene	ND	0.5	μg/L	1		02/11/2002
m,p-Xylene	ND	1	μg/L	1		02/11/2002
o-Xylene	ND	0.5	μg/L	1		02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008	mg/L	1		02/08/2002
Selenium	ND	0.006	mg/L	1		02/08/2002
Lead	ND	0.004	mg/L	1		02/08/2002
Cadmium	ND	0.001	mg/L	1		02/08/2002
Barium	0.107	0.002	mg/L	1		02/08/2002
Chromium	ND	0.028	mg/L	1		02/08/2002
Silver	ND	0.001	mg/L	1		02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001	mg/L	1		02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
E300						
Chloride	76.5	30	mg/L	500		02/14/2002
Sulfate	3900	40	mg/L	500		02/14/2002
Bromide	0.28	0.04	mg/L	1		02/17/2002
Fluoride	0.84	0.05	mg/L	1		02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	435	0.1	mg/L	10		02/12/2002
Magnesium 285.213	71	0.07	mg/L	10		02/12/2002
Potassium 766.490	3.82	0.62	mg/L	10		02/12/2002
Sodium 589.592	1590	0.19	mg/L	10		02/12/2002
<b>ALKALINITY, TOTAL</b>						
M2320 B						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	320	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Hydroxide	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	320	5	mg/L CaCO <sub>3</sub>	1		02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-08
Lab ID:	0202003-09A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 10:42:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				Analyst: HNR
Specific Conductance	7320	2		µS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1380	1		mg/L	1	02/23/2002
<b>pH</b>		<b>E150.1</b>				Analyst: HNR
pH	7.38	2		pH units	1	02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	6440	40		mg/L	1	02/06/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				Analyst: HNR
Total Dissolved Solids (Calculated)	6270	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
ND - Not Detected at Practical Quantitation Limit      R - RPD outside accepted recovery limits  
J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
B - Analyte detected in the associated Method Blank      Surrogate - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-10
Lab ID:	0202003-10A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 11:02:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1		µg/L	1	02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.043	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	77.8	30.3		mg/L	505	02/14/2002
Sulfate	3460	40.4		mg/L	505	02/14/2002
Bromide	0.44	0.04		mg/L	1	02/17/2002
Fluoride	0.71	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	409	0.1		mg/L	10	02/12/2002
Magnesium 285.213	55.6	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.5	0.62		mg/L	10	02/12/2002
Sodium 589.592	1400	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	280	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	280	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

**Client:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Lab ID:** 0202003-10A      **Matrix:** AQUEOUS  
**Project:** Thriftway Refinery; Bloomfield, NM

**Client Sample Info:** Thriftway Refinery  
**Client Sample ID:** MW-10  
**Collection Date:** 01/31/2002 11:02:00 AM  
**COC Record:** 11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>			<b>E120.1</b>			Analyst: HNR
Specific Conductance	6580	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>			<b>M2340 B</b>			Analyst: HNR
Hardness (As CaCO3)	1250	1		mg/L	1	02/23/2002
<b>PH</b>			<b>E150.1</b>			Analyst: HNR
pH	7.3	2		pH units	1	02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>E160.1</b>			Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	5660	40		mg/L	1	02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>CALC</b>			Analyst: HNR
Total Dissolved Solids (Calculated)	5580	5		mg/L	1	02/23/2002

<b>Qualifiers:</b>	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surf: - Surrogate

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FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

<b>Client:</b>	BioTech Remediation, Inc.	<b>Client Sample Info:</b>	Thriftway Refinery
<b>Work Order:</b>	0202003	<b>Client Sample ID:</b>	MW-10 Duplicate
<b>Lab ID:</b>	0202003-11A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	Thriftway Refinery; Bloomfield, NM	<b>Collection Date:</b>	01/31/2002 11:02:00 AM
		<b>COC Record:</b>	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1		µg/L	1	Analyst: DDM 02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
		<b>SW6010B</b>				Analyst: DJC
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.045	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	Analyst: DJC 02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
		<b>E300</b>				Analyst: HNR
Chloride	79.8	30.3		mg/L	505	02/14/2002
Sulfate	3480	40.4		mg/L	505	02/14/2002
Bromide	0.41	0.04		mg/L	1	02/17/2002
Fluoride	0.7	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
		<b>SW6010B</b>				Analyst: DJC
Calcium 317.933	409	0.1		mg/L	10.1	02/12/2002
Magnesium 285.213	54.8	0.071		mg/L	10.1	02/12/2002
Potassium 766.490	4.64	0.63		mg/L	10.1	02/12/2002
Sodium 589.592	1400	0.19		mg/L	10.1	02/12/2002
<b>ALKALINITY, TOTAL</b>						
		<b>M2320 B</b>				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	280	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	280	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

**Qualifiers:** PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
 ND - Not Detected at Practical Quantitation Limit      R - RPD outside accepted recovery limits  
 J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
 B - Analyte detected in the associated Method Blank      Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



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FAX: (505) 327-1496

## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-10 Duplicate
Lab ID:	0202003-11A	Collection Date:	01/31/2002 11:02:00 AM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CONDUCTIVITY @ 25C	E120.1					
Specific Conductance	6580	2		uS/cm	1	02/14/2002
HARDNESS, TOTAL	M2340 B					
Hardness (As CaCO <sub>3</sub> )	1250	1		mg/L	1	02/23/2002
PH	E150.1					
pH	7.3	2		pH units	1	02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
TOTAL DISSOLVED SOLIDS	E160.1					
Total Dissolved Solids (Residue, Filterable)	5710	40		mg/L	1	02/07/2002
TOTAL DISSOLVED SOLIDS	CALC					
Total Dissolved Solids (Calculated)	5600	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
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2 of 2

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-11
Lab ID:	0202003-12A	Collection Date:	01/31/2002 11:21:00 AM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1	μg/L	1		02/11/2002
Benzene	ND	0.5	μg/L	1		02/11/2002
Toluene	ND	0.5	μg/L	1		02/11/2002
Ethylbenzene	ND	0.5	μg/L	1		02/11/2002
m,p-Xylene	ND	1	μg/L	1		02/11/2002
o-Xylene	ND	0.5	μg/L	1		02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	0.026	0.008	mg/L	1		02/08/2002
Selenium	ND	0.006	mg/L	1		02/08/2002
Lead	ND	0.004	mg/L	1		02/08/2002
Cadmium	ND	0.001	mg/L	1		02/08/2002
Barium	0.216	0.002	mg/L	1		02/08/2002
Chromium	ND	0.028	mg/L	1		02/08/2002
Silver	ND	0.001	mg/L	1		02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001	mg/L	1		02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	64.1	30.3	mg/L	505		02/14/2002
Sulfate	2980	40.4	mg/L	505		02/14/2002
Bromide	0.27	0.04	mg/L	1		02/17/2002
Fluoride	0.63	0.05	mg/L	1		02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	422	0.1	mg/L	10.2		02/12/2002
Magnesium 285.213	30.9	0.071	mg/L	10.2		02/12/2002
Potassium 766.490	6.04	0.63	mg/L	10.2		02/12/2002
Sodium 589.592	1140	0.19	mg/L	10.2		02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	240	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Hydroxide	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	240	5	mg/L CaCO <sub>3</sub>	1		02/09/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
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- TECHNOLOGY BLENDING INDUSTRY

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-11
Lab ID:	0202003-12A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 11:21:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>		<b>E120.1</b>				
Specific Conductance	5630	2		µS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>		<b>M2340 B</b>				
Hardness (As CaCO <sub>3</sub> )	1180	1		mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b>		<b>E150.1</b>				
pH	7.35	2		pH units	1	Analyst: HNR 02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>E160.1</b>				
Total Dissolved Solids (Residue, Filterable)	4880	40		mg/L	1	Analyst: HNR 02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>		<b>CALC</b>				
Total Dissolved Solids (Calculated)	4790	5		mg/L	1	Analyst: HNR 02/23/2002

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2 of 2

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-15
Lab ID:	0202003-13A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 11:42:00 AM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1	μg/L	1		02/11/2002
Benzene	ND	0.5	μg/L	1		02/11/2002
Toluene	ND	0.5	μg/L	1		02/11/2002
Ethylbenzene	ND	0.5	μg/L	1		02/11/2002
m,p-Xylene	ND	1	μg/L	1		02/11/2002
o-Xylene	ND	0.5	μg/L	1		02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	0.008	0.008	mg/L	1		02/08/2002
Selenium	ND	0.006	mg/L	1		02/08/2002
Lead	ND	0.004	mg/L	1		02/08/2002
Cadmium	ND	0.001	mg/L	1		02/08/2002
Barium	0.488	0.002	mg/L	1		02/08/2002
Chromium	ND	0.028	mg/L	1		02/08/2002
Silver	ND	0.001	mg/L	1		02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001	mg/L	1		02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	182	30.3	mg/L	505		02/14/2002
Sulfate	2750	40.4	mg/L	505		02/14/2002
Bromide	1.15	0.04	mg/L	1		02/17/2002
Fluoride	0.78	0.05	mg/L	1		02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	524	0.1	mg/L	10		02/12/2002
Magnesium 285.213	47.2	0.07	mg/L	10		02/12/2002
Potassium 766.490	4.59	0.62	mg/L	10		02/12/2002
Sodium 589.592	976	0.19	mg/L	10		02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	200	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Hydroxide	ND	5	mg/L CaCO <sub>3</sub>	1		02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	200	5	mg/L CaCO <sub>3</sub>	1		02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
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Surf: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-15
Lab ID:	0202003-13A	Collection Date:	01/31/2002 11:42:00 AM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>	<b>E120.1</b>					Analyst: HNR
Specific Conductance	5500	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1500	1		mg/L	1	02/23/2002
<b>pH</b>	<b>E150.1</b>					Analyst: HNR
pH	7.35	2		pH units	1	02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	4860	40		mg/L	1	02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					Analyst: HNR
Total Dissolved Solids (Calculated)	4600	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit  
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S - Spike Recovery outside accepted recovery limits  
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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-13
Lab ID:	0202003-14A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 2:30:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1		µg/L	1	02/11/2002
Benzene	ND	0.5		µg/L	1	02/11/2002
Toluene	ND	0.5		µg/L	1	02/11/2002
Ethylbenzene	ND	0.5		µg/L	1	02/11/2002
m,p-Xylene	ND	1		µg/L	1	02/11/2002
o-Xylene	ND	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.006	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
Chloride	80.5	30		mg/L	500	02/14/2002
Sulfate	3320	40		mg/L	500	02/14/2002
Bromide	0.22	0.04		mg/L	1	02/17/2002
Fluoride	0.93	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
Calcium 317.933	483	0.1		mg/L	10.1	02/12/2002
Magnesium 285.213	67.5	0.071		mg/L	10.1	02/12/2002
Potassium 766.490	5.63	0.63		mg/L	10.1	02/12/2002
Sodium 589.592	1280	0.19		mg/L	10.1	02/12/2002
<b>ALKALINITY, TOTAL</b>						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	310	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	310	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-13
Lab ID:	0202003-14A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 2:30:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b> Specific Conductance	<b>E120.1</b> 6340		2	uS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b> Hardness (As CaCO <sub>3</sub> )	<b>M2340 B</b> 1480		1	mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b> pH	<b>E150.1</b> 7.15		2	pH units	1	Analyst: HNR 02/04/2002
Temperature	22		0.	pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b> Total Dissolved Solids (Residue, Filterable)	<b>E160.1</b> 5680		40	mg/L	1	Analyst: HNR 02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b> Total Dissolved Solids (Calculated)	<b>CALC</b> 5420		5	mg/L	1	Analyst: HNR 02/23/2002

Qualifiers: PQL - Practical Quantitation Limit  
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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-12
Lab ID:	0202003-15A	Collection Date:	01/31/2002 2:52:00 PM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	110	1		µg/L	1	02/11/2002
Benzene	28	0.5		µg/L	1	02/11/2002
Toluene	1.8	0.5		µg/L	1	02/11/2002
Ethylbenzene	54	0.5		µg/L	1	02/11/2002
m,p-Xylene	100	1		µg/L	1	02/11/2002
o-Xylene	4.6	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.078	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
E300						
Chloride	97.5	30		mg/L	500	02/14/2002
Sulfate	3100	40		mg/L	500	02/14/2002
Bromide	0.28	0.04		mg/L	1	02/17/2002
Fluoride	1.23	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
SW6010B						
Calcium 317.933	396	0.1		mg/L	10.2	02/12/2002
Magnesium 285.213	74.2	0.071		mg/L	10.2	02/12/2002
Potassium 766.490	4.02	0.63		mg/L	10.2	02/12/2002
Sodium 589.592	1520	0.19		mg/L	10.2	02/12/2002
<b>ALKALINITY, TOTAL</b>						
M2320 B						
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	970	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	970	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf: - Surrogate

1 of 2

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	MW-12
Lab ID:	0202003-15A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>			<b>E120.1</b>			
Specific Conductance	6890	2		µS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>			<b>M2340 B</b>			
Hardness (As CaCO <sub>3</sub> )	1290	1		mg/L	1	02/23/2002
<b>PH</b>			<b>E150.1</b>			
pH	7.08	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>E160.1</b>			
Total Dissolved Solids (Residue, Filterable)	5860	40		mg/L	1	02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>			<b>CALC</b>			
Total Dissolved Solids (Calculated)	5780	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
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J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
B - Analyte detected in the associated Method Blank      Surrogate

2 of 2

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Influent
Lab ID:	0202003-16A	Collection Date:	01/31/2002 3:19:00 PM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	200	10		µg/L	10	02/11/2002
Benzene	520	5		µg/L	10	02/11/2002
Toluene	120	5		µg/L	10	02/11/2002
Ethylbenzene	360	5		µg/L	10	02/11/2002
m,p-Xylene	740	10		µg/L	10	02/11/2002
o-Xylene	110	5		µg/L	10	02/11/2002
<b>ICP METALS, TOTAL</b>						
			<b>SW6010B</b>			Analyst: DJC
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	ND	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.039	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
			<b>SW7470</b>			Analyst: DJC
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
			<b>E300</b>			Analyst: HNR
Chloride	204	15		mg/L	250	02/14/2002
Sulfate	1520	20		mg/L	250	02/14/2002
Bromide	0.36	0.04		mg/L	1	02/17/2002
Fluoride	0.51	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
			<b>SW6010B</b>			Analyst: DJC
Calcium 317.933	357	0.1		mg/L	10	02/12/2002
Magnesium 285.213	56	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.4	0.62		mg/L	10	02/12/2002
Sodium 589.592	880	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
			<b>M2320 B</b>			Analyst: HNR
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	910	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	910	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surr: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Influent
Lab ID:	0202003-16A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 3:19:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>	<b>E120.1</b>					Analyst: HNR
Specific Conductance	4710	2		uS/cm	1	02/14/2002
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					Analyst: HNR
Hardness (As CaCO <sub>3</sub> )	1120	1		mg/L	1	02/23/2002
<b>PH</b>	<b>E150.1</b>					Analyst: HNR
pH	7.12	2		pH units	1	02/04/2002
Temperature	23	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	3610	40		mg/L	1	02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					Analyst: HNR
Total Dissolved Solids (Calculated)	3570	5		mg/L	1	02/23/2002

Qualifiers: PQL - Practical Quantitation Limit      S - Spike Recovery outside accepted recovery limits  
ND - Not Detected at Practical Quantitation Limit      R - RPD outside accepted recovery limits  
J - Analyte detected below Practical Quantitation Limit      E - Value above quantitation range  
B - Analyte detected in the associated Method Blank      Surrogate

2 of 2

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Effluent
Lab ID:	0202003-17A	Collection Date:	01/31/2002 3:25:00 PM
Project:	Thriftway Refinery; Bloomfield, NM	COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	2.3	1		µg/L	1	02/11/2002
Benzene	0.8	0.5		µg/L	1	02/11/2002
Toluene	5.1	0.5		µg/L	1	02/11/2002
Ethylbenzene	1.8	0.5		µg/L	1	02/11/2002
m,p-Xylene	6.8	1		µg/L	1	02/11/2002
o-Xylene	1.7	0.5		µg/L	1	02/11/2002
<b>ICP METALS, TOTAL</b>						
		<b>SW6010B</b>				Analyst: DJC
Arsenic	ND	0.008		mg/L	1	02/08/2002
Selenium	ND	0.006		mg/L	1	02/08/2002
Lead	0.034	0.004		mg/L	1	02/08/2002
Cadmium	ND	0.001		mg/L	1	02/08/2002
Barium	0.039	0.002		mg/L	1	02/08/2002
Chromium	ND	0.028		mg/L	1	02/08/2002
Silver	ND	0.001		mg/L	1	02/08/2002
<b>MERCURY, TOTAL</b>						
		<b>SW7470</b>				Analyst: DJC
Mercury	ND	0.001		mg/L	1	02/04/2002
<b>ANIONS BY ION CHROMATOGRAPHY</b>						
		<b>E300</b>				Analyst: HNR
Chloride	881	15		mg/L	250	02/14/2002
Sulfate	1490	20		mg/L	250	02/14/2002
Bromide	0.33	0.04		mg/L	1	02/17/2002
Fluoride	0.53	0.05		mg/L	1	02/17/2002
<b>ICP METALS, DISSOLVED</b>						
		<b>SW6010B</b>				Analyst: DJC
Calcium 317.933	350	0.1		mg/L	10	02/12/2002
Magnesium 285.213	55.1	0.07		mg/L	10	02/12/2002
Potassium 766.490	4.46	0.62		mg/L	10	02/12/2002
Sodium 589.592	866	0.19		mg/L	10	02/12/2002
<b>ALKALINITY, TOTAL</b>						
		<b>M2320 B</b>				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Hydroxide	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002
Alkalinity, Total (As CaCO <sub>3</sub> )	ND	5		mg/L CaCO <sub>3</sub>	1	02/09/2002

Qualifiers: PQL - Practical Quantitation Limit  
ND - Not Detected at Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surf: - Surrogate

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## ANALYTICAL REPORT

Date: 18-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Air Stripper Effluent
Lab ID:	0202003-17A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/31/2002 3:25:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>CONDUCTIVITY @ 25C</b>	<b>E120.1</b>					
Specific Conductance	5960	2		uS/cm	1	Analyst: HNR 02/14/2002
<b>HARDNESS, TOTAL</b>	<b>M2340 B</b>					
Hardness (As CaCO <sub>3</sub> )	1100	1		mg/L	1	Analyst: HNR 02/23/2002
<b>PH</b>	<b>E150.1</b>					
pH	3.01	2		pH units	1	02/04/2002
Temperature	22	0.		pH units	1	02/04/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>E160.1</b>					
Total Dissolved Solids (Residue, Filterable)	3890	40		mg/L	1	Analyst: HNR 02/07/2002
<b>TOTAL DISSOLVED SOLIDS</b>	<b>CALC</b>					
Total Dissolved Solids (Calculated)	3650	5		mg/L	1	Analyst: HNR 02/23/2002

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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## ANALYTICAL REPORT

Date: 28-Feb-02

Client:	BioTech Remediation, Inc.	Client Sample Info:	Thriftway Refinery
Work Order:	0202003	Client Sample ID:	Trip Blank
Lab ID:	0202003-18A	Matrix:	AQUEOUS
Project:	Thriftway Refinery; Bloomfield, NM	Collection Date:	01/30/2002 12:15:00 PM
		COC Record:	11711

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>						
Methyl tert-Butyl Ether	ND	1		µg/L	1	02/05/2002
Benzene	ND	0.5		µg/L	1	02/05/2002
Toluene	ND	0.5		µg/L	1	02/05/2002
Ethylbenzene	ND	0.5		µg/L	1	02/05/2002
m,p-Xylene	ND	1		µg/L	1	02/05/2002
o-Xylene	ND	0.5		µg/L	1	02/05/2002

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surrogate - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

## On Site Technologies, LTD.

Date: 28-Feb-02

**CLIENT:** BioTech Remediation, Inc.

Work Order: 0202003

**Project:** Thriftway Refinery, Bloomfield, NM

QC SUMMARY REPORT									
Method Blank									
Sample ID:	MB_020211	Batch ID:	300_W-02/11/	Test Code:	E300	Units:	mg/L	Analysis Date: 02/11/2002	
Client ID:	0202003	Run ID:	IC-761_020211A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Chloride	.006	ND	0.05						
Sulfate	ND	ND	0.05						
Sample ID:	MB_020214	Batch ID:	300_W-02/14/	Test Code:	E300	Units:	mg/L	Analysis Date: 02/14/2002	
Client ID:	0202003	Run ID:	IC-761_020214A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Bromide	ND	ND	0.05						
Chloride	ND	ND	0.05						
Fluoride	ND	ND	0.025						
Sulfate	ND	ND	0.05						
Sample ID:	MB_020217	Batch ID:	300_W-02/17/	Test Code:	E300	Units:	mg/L	Analysis Date: 02/17/2002	
Client ID:	0202003	Run ID:	IC-761_020217A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Bromide	ND	ND	0.05						
Fluoride	ND	ND	0.025						

**Qualifiers:**

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits

**S - Spike Recovery outside accepted recovery limits**

**R - RPD outside accepted recovery limits**

**B - Analyte detected in the associated Method Blank**

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Sample Duplicate

Sample ID:	0202003-08CD	Batch ID:	300_W-0211/	Test Code:	E300	Units:	mg/L			Analysis Date:	02/11/2002	Prep Date:
Client ID:	MW-22	Run ID:	IC-761_020211A							SeqNo:	47712	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		168.5	25	0	0	0.0%	0	0	160.5	4.9%	5	
Sulfate		4285	25	0	0	0.0%	0	0	4292	0.2%	4	
Sample ID:	0202003-02CD	Batch ID:	300_W-0214/	Test Code:	E300	Units:	mg/L			Analysis Date:	02/14/2002	Prep Date:
Client ID:	MW-09	Run ID:	IC-761_020214A							SeqNo:	47734	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide		.229	0.05	0	0	0.0%	0	0	0.222	3.1%	15	
Fluoride		.445	0.025	0	0	0.0%	0	0	0.441	0.9%	15	
Sample ID:	0202003-17CD	Batch ID:	300_W-0214/	Test Code:	E300	Units:	mg/L			Analysis Date:	02/14/2002	Prep Date:
Client ID:	Air Stripper Efflu	Run ID:	IC-761_020214A							SeqNo:	47728	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride		882.8	12.5	0	0	0.0%	0	0	880.8	0.2%	5	
Sulfate		1480	12.5	0	0	0.0%	0	0	1487	0.5%	4	
Sample ID:	0202003-06CD	Batch ID:	300_W-0217/	Test Code:	E300	Units:	mg/L			Analysis Date:	02/17/2002	Prep Date:
Client ID:	MW-20	Run ID:	IC-761_020217A							SeqNo:	47820	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide		.677	0.05	0	0	0.0%	0	0	0.706	4.2%	15	
Fluoride		.506	0.025	0	0	0.0%	0	0	0.504	0.4%	15	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Sample Matrix Spike

Analysis Date: 02/11/2002										Prep Date:		
Analysis Date: 02/14/2002										Prep Date:		
Analysis Date: 02/17/2002										Prep Date:		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	RPDLimit	Qual
Chloride	2.368	0.05	2.453	0.137	90.9%	80	121					
Sulfate	3.632	0.05	2.453	1.344	93.3%	87	110					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	RPDLimit	Qual
Bromide	2.404	0.05	2.476	0	97.1%	80	120					
Chloride	2.446	0.05	2.476	0.158	92.4%	80	121					
Fluoride	1.164	0.025	1.238	0	94.0%	80	120					
Sulfate	9.367	0.05	2.476	6.897	99.8%	87	110					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	RPDLimit	Qual
Bromide	3.125	0.05	2.513	0.7	96.5%	80	120					
Fluoride	1.709	0.025	1.257	0.5	96.2%	80	120					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_020211		Batch ID: 300_W-02/11/ Test Code: E300		Units: mg/L		Analysis Date: 02/11/2002		Prep Date:	
Client ID:		Run ID: IC-761_020211A				SeqNo:			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Chloride		2.241	0.05	2.448	0.006	91.3%	90	104	
Sulfate		2.331	0.05	2.448	0	95.2%	90	105	
Sample ID: LCS_020214		Batch ID: 300_W-02/14/ Test Code: E300		Units: mg/L		Analysis Date: 02/14/2002		Prep Date:	
Client ID:		Run ID: IC-761_020214A				SeqNo:			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Bromide		2.471	0.05	2.486	0	99.4%	90	110	
Chloride		2.325	0.05	2.486	0.006	93.3%	90	104	
Fluoride		1.174	0.025	1.243	0	94.4%	90	110	
Sulfate		2.48	0.05	2.486	0	99.8%	90	105	
Sample ID: LCS_020217		Batch ID: 300_W-02/17/ Test Code: E300		Units: mg/L		Analysis Date: 02/17/2002		Prep Date:	
Client ID:		Run ID: IC-761_020217A				SeqNo:			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Bromide		2.456	0.05	2.481	0	99.0%	90	110	
Fluoride		1.182	0.025	1.24	0	95.3%	90	110	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
CCV1_020211	300_W-02/11/	E300	mg/L										
Client ID:	0202003	Run ID:	IC-761_020211A										
Analyte	Result												
Chloride	4.697	0.05	4.964	0	94.6%	90	110						
Sulfate	4.83	0.05	4.964	0	97.3%	90	110						
CCV2_020211	300_W-02/11/	E300	mg/L										
Client ID:	0202003	Run ID:	IC-761_020211A										
Analyte	Result												
Chloride	4.719	0.05	4.964	0	95.1%	90	110						
Sulfate	4.889	0.05	4.964	0	98.5%	90	110						
CCV1_020214	300_W-02/14/	E300	mg/L										
Client ID:	0202003	Run ID:	IC-761_020214A										
Analyte	Result												
Bromide	5.021	0.05	4.981	0	100.8%	90	110						
Chloride	4.794	0.05	4.981	0	96.2%	90	110						
Fluoride	2.414	0.025	2.49	0	96.9%	90	110						
Sulfate	4.863	0.05	4.981	0	97.6%	90	110						
CCV2_020214	300_W-02/14/	E300	mg/L										
Client ID:	0202003	Run ID:	IC-761_020214A										
Analyte	Result												
Bromide	4.937	0.05	4.981	0	99.1%	90	110						
Chloride	4.812	0.05	4.981	0	96.6%	90	110						
Fluoride	2.421	0.025	2.49	0	97.2%	90	110						
Sulfate	4.886	0.05	4.981	0	98.1%	90	110						

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thrifway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
 Continuing Calibration Verification Standard

Sample ID:	CCV3_020214	Batch ID:	300_W-0214/	Test Code:	E300	Units:	mg/L				Analysis Date:	02/14/2002	Prep Date:
Client ID:		Run ID:	IC-761_020214A								SeqNo:	47738	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromide		4.998	0.05	4.981	0	100.3%	90	110					
Chloride		4.867	0.05	4.981	0	97.7%	90	110					
Fluoride		2.462	0.025	2.49	0	98.9%	90	110					
Sulfate		4.931	0.05	4.981	0	99.0%	90	110					
Sample ID:	CCV1_020217	Batch ID:	300_W-0217/	Test Code:	E300	Units:	mg/L				Analysis Date:	02/17/2002	Prep Date:
Client ID:		Run ID:	IC-761_020217A								SeqNo:	47808	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromide		5.019	0.05	4.974	0	100.9%	90	110					
Fluoride		2.436	0.025	2.487	0	97.9%	90	110					
Sample ID:	CCV2_020211	Batch ID:	300_W-0217/	Test Code:	E300	Units:	mg/L				Analysis Date:	02/17/2002	Prep Date:
Client ID:		Run ID:	IC-761_020217A								SeqNo:	47822	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromide		5.117	0.05	4.974	0	102.9%	90	110					
Fluoride		2.506	0.025	2.487	0	100.8%	90	110					
Sample ID:	CCV3_020217	Batch ID:	300_W-0217/	Test Code:	E300	Units:	mg/L				Analysis Date:	02/17/2002	Prep Date:
Client ID:		Run ID:	IC-761_020217A								SeqNo:	47826	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Bromide		5.133	0.05	4.974	0	103.2%	90	110					
Fluoride		2.505	0.025	2.487	0	100.7%	90	110					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
Work Order: 0202003  
Project: Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

QC SUMMARY REPORT  
Method Blank

Sample ID: MBLK_020212	Batch ID: 6010B_CATI	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/12/2002				Prep Date:		
Client ID:		Run ID: ICP_1_020212A		SeqNo:	47841			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Calcium 317.933	ND	0.01								
Magnesium 285.213	ND	0.007								
Potassium 766.490	ND	0.062								
Sodium 589.592	ND	0.019								

Qualifiers:

ND - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
 Work Order: 0202003  
 Project: Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
 Sample Duplicate

Sample ID: 0202003-01CD		Batch ID: 6010B_CATI	Test Code: SW6010B	Units: mg/L		Analysis Date: 02/12/2002		Prep Date:	
Client ID:	MW-18	0202003	Run ID: ICP_1_020212A	SeqNo:	47849	%REC	LowLimit	HighLimit	RPD Ref Val
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC			
Calcium	317.933	58.6	0.099	0	0	0.0%	0	0	58.31
Magnesium	285.213	25.59	0.069	0	0	0.0%	0	0	25.41
Potassium	766.490	4.792	0.61	0	0	0.0%	0	0	4.991
Sodium	589.592	94.9	0.19	0	0	0.0%	0	0	948.3
Sample ID: 0202003-14CD		Batch ID: 6010B_CATI	Test Code: SW6010B	Units: mg/L		Analysis Date: 02/12/2002		Prep Date:	
Client ID:	MW-13	0202003	Run ID: ICP_1_020212A	SeqNo:	47865	%REC	LowLimit	HighLimit	RPD Ref Val
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC			
Calcium	317.933	487.9	0.1	0	0	0.0%	0	0	483.5
Magnesium	285.213	67.91	0.07	0	0	0.0%	0	0	67.48
Potassium	766.490	5.682	0.62	0	0	0.0%	0	0	5.634
Sodium	589.592	1252	0.19	0	0	0.0%	0	0	1282

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Sample Matrix Spike

Sample ID: 0202003-06CMS	Batch ID: 6010B_CAT1	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/12/2002				Prep Date:		
Client ID: MW-20	Run ID: 0202003	Run ID: ICP_1_020212A		SeqNo:	47855			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Calcium 317.933	1048	0.1	507.2	532.7	101.7%	75	125			E
Magnesium 285.213	150.7	0.071	69.34	79.34	102.9%	75	125			E
Potassium 766.490	9.407	0.63	4.975	3.888	110.9%	75	125			E
Sodium 589.592	2038	0.19	999.2	963.5	107.6%	75	125			E
Sample ID: 0202003-06CMSD	Batch ID: 6010B_CAT1	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/12/2002				Prep Date:		
Client ID: MW-20	Run ID: 0202003	Run ID: ICP_1_020212A		SeqNo:	47856			%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Calcium 317.933	1040	0.099	511.6	532.7	99.2%	75	125	1048	0.8%	20
Magnesium 285.213	153.5	0.069	73.79	79.34	100.6%	75	125	150.7	1.9%	20
Potassium 766.490	9.341	0.61	5.023	3.888	108.5%	75	125	9.407	0.7%	20
Sodium 589.592	1986	0.19	1016	963.5	100.6%	75	125	2038	2.6%	20

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Laboratory Control Spike - generic

Sample ID: LCS_020212	Batch ID: 6010B_CAT1	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/12/2002				Prep Date:		
Client ID:		Run ID: ICP_1_020212A		SeqNo:	47845			%RPD	RPD Limit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Calcium 317.933	51.69	0.01	48.61	0	106.3%	75	125			
Magnesium 285.213	5.456	0.007	5.168	0	105.6%	75	125			
Potassium 766.490	1.006	0.062	0.9989	0	100.7%	75	125			
Sodium 589.592	50.84	0.019	50.48	0	100.7%	75	125			
Sample ID: LCSD_020212	Batch ID: 6010B_CAT1	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/12/2002				Prep Date:		
Client ID:		Run ID: ICP_1_020212A		SeqNo:	47846			%RPD	RPD Limit	Qual
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val		
Calcium 317.933	52.15	0.01	50.39	0	103.5%	75	125	51.69	0.9%	20
Magnesium 285.213	5.36	0.007	5.051	0	106.1%	75	125	5.456	1.8%	20
Potassium 766.490	.9867	0.062	0.9998	0	98.7%	75	125	1.006	1.9%	20
Sodium 589.592	50.68	0.019	51.65	0	98.1%	75	125	50.84	0.3%	20

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**On Site Technologies, LTD.**

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0202003

**Project:** Thriftway Refinery; Bloomfield, NM

**Sample ID:** CCB\_020212      **Batch ID:** 6010B\_CAT1      **Test Code:** SW6010B      **Units:** mg/L  
**Client ID:** 0202003      **Run ID:** ICP\_1\_020212A      **Analysis Date:** 02/12/2002  
**Analyte**

Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	Prep Date:
Calcium 317.933	ND	0.01									
Magnesium 285.213	ND	0.007									
Potassium 766.490	ND	0.062									
Sodium 589.592	ND	0.019									

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

**QC SUMMARY REPORT**  
Continuing Calibration Blank

**Date:** 28-Feb-02

B - Analyte detected in the associated Method Blank

## On Site Technologies, LTD.

**CLIENT:** Bio Tech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/12/2002			Prep Date:				
Client ID:		Run ID:	mg/L	SeqNo:	47843						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium 317.933	.9776	0.01	1.005	0	97.3%	90	110				
Magnesium 285.213	1.05	0.007	1.018	0	103.1%	90	110				
Potassium 766.490	1.89	0.062	2.017	0	93.7%	90	110				
Sodium 589.592	.9402	0.019	1.008	0	93.2%	90	110				
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/12/2002			Prep Date:				
Client ID:		Run ID:	mg/L	SeqNo:	47869						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium 317.933	1.002	0.01	1	0	100.1%	90	110				
Magnesium 285.213	.9991	0.007	1.018	0	98.1%	90	110				
Potassium 766.490	1.955	0.062	2.017	0	96.9%	90	110				
Sodium 589.592	1.02	0.019	1.008	0	101.2%	90	110				
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/12/2002			Prep Date:				
Client ID:		Run ID:	mg/L	SeqNo:	47870						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium 317.933	1.008	0.01	1	0	100.7%	90	110				
Magnesium 285.213	1.014	0.007	1.018	0	99.6%	90	110				
Potassium 766.490	1.964	0.062	2.017	0	97.4%	90	110				
Sodium 589.592	1.054	0.019	1.008	0	104.5%	90	110				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

## QC SUMMARY REPORT

### Continuing Calibration Verification Standard

Sample ID: <b>CCV4_020212</b>	Batch ID: <b>6010B_CATI</b>	Test Code: <b>SW6010B</b>	Units: mg/L	Analysis Date: 02/12/2002	Prep Date:
Client ID:	Run ID: <b>0202003</b>	Run ID: <b>ICP_1_020212A</b>		SeqNo: <b>47871</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Calcium 317.933	1.007	0.01	1	0	100.6%
Magnesium 285.213	.9988	0.007	1.018	0	98.1%
Potassium 766.490	1.964	0.062	2.017	0	97.4%
Sodium 589.592	1.045	0.019	1.008	0	103.6%

Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.

Work Order: 0202003

Project: Thriftway Refinery; Bloomfield, NM

Sample ID: ICV\_020212 Batch ID: 6010B\_CAT1 Test Code: SW6010B Units: mg/L

Client ID:	0202003	Run ID:	ICP_1_020212A	Analysis Date:	02/12/2002	Prep Date:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium 317.933	9.971	0.01	10.06	0	99.1%	90	110				
Magnesium 285.213	11.12	0.007	10.31	0	107.8%	90	110				
Potassium 766.490	9.628	0.062	10.04	0	95.9%	90	110				
Sodium 589.592	9.983	0.019	10.2	0	97.9%	90	110				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

Date: 28-Feb-02

QC SUMMARY REPORT

Initial Calibration Verification Standard

B - Analyte detected in the associated Method Blank

**On Site Technologies, LTD.**

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0202003

**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
Method Blank

Sample ID: MBLK_0202005	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/08/2002	Prep Date: 02/05/2002						
Client ID: 0202003	Run ID: ICP_1_020208A			SeqNo: 47776							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.008									
Barium	ND	0.002									
Cadmium	ND	0.001									
Chromium	ND	0.028									
Lead	ND	0.004									
Selenium	ND	0.006									
Silver	ND	0.001									

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**On Site Technologies, LTD.**

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
**Sample Duplicate**

Date: 28-Feb-02

Sample ID: 0202003-04BD		Batch ID: 6010B_AQ-R- Test Code: SW6010B		Units: mg/L		Analysis Date: 02/08/2002		Prep Date: 02/05/2002	
Client ID:	MW-06	Run ID:	ICP_1_02020208A	SeqNo:	47787	%REC	SPK Ref Val	SPK value	PQL
Arsenic		ND	0.008	0	0	0.0%	0	0	0.002
Barium		.0122	0.002	0	0	0.0%	0	0	0.0128
Cadmium		ND	0.001	0	0	0.0%	0	0	4.8%
Chromium		ND	0.028	0	0	0.0%	0	0	0.0%
Lead		ND	0.004	0	0	0.0%	0	0	0.0%
Selenium		ND	0.006	0	0	0.0%	0	0	0.0%
Silver		ND	0.001	0	0	0.0%	0	0	0.0%
Sample ID: 0202003-15BD		Batch ID: 6010B_AQ-R- Test Code: SW6010B		Units: mg/L		Analysis Date: 02/08/2002		Prep Date: 02/05/2002	
Client ID:	MW-12	Run ID:	ICP_1_02020208A	SeqNo:	47800	%REC	SPK Ref Val	SPK value	PQL
Arsenic		.0018	0.008	0	0	0.0%	0	0	0.0029
Barium		.0782	0.002	0	0	0.0%	0	0	0.0776
Cadmium		ND	0.001	0	0	0.0%	0	0	0.0%
Chromium		.0161	0.028	0	0	0.0%	0	0	0.0158
Lead		ND	0.004	0	0	0.0%	0	0	0.0%
Selenium		ND	0.006	0	0	0.0%	0	0	0.0%
Silver		ND	0.001	0	0	0.0%	0	0	0.0%

Qualifiers:

J - Analyte detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

QC SUMMARY REPORT										Sample Matrix Spike			
Sample ID: 0202003-03BMS					Batch ID: 6010B_AQ-R- Test Code: SW6010B Units: mg/L					Analysis Date: 02/08/2002			Prep Date: 02/05/2002
Client ID: MW-05		Run ID: ICP_1_020208A			SeqNo: 47784								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	RPDLimit	Qual	
Arsenic	.19	0.008	0.1993	0	95.3%	75	125						
Barium	.2286	0.002	0.1993	0.062	83.6%	75	125						
Cadmium	.1924	0.001	0.1993	0	96.5%	75	125						
Chromium	.1738	0.028	0.1993	0	87.2%	75	125						
Lead	.169	0.004	0.1993	0	84.8%	75	125						
Selenium	.1862	0.006	0.1993	0	93.4%	75	125						
Silver	.0474	0.001	0.0498	0	95.2%	75	125						
Sample ID: 0202003-03BMSD	Batch ID: 6010B_AQ-R- Test Code: SW6010B	Units: mg/L	Analysis Date: 02/08/2002			Prep Date: 02/05/2002							
Client ID: MW-05	Run ID: ICP_1_020208A	SeqNo: 47785											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	RPDLimit	Qual	
Arsenic	.1891	0.008	0.1989	0	95.1%	75	125	0.19	0.5%	20			
Barium	.231	0.002	0.1989	0.062	85.0%	75	125	0.2286	1.0%	20			
Cadmium	.1946	0.001	0.1989	0	97.8%	75	125	0.1924	1.1%	20			
Chromium	.1779	0.028	0.1989	0	89.4%	75	125	0.1738	2.3%	20			
Lead	.1714	0.004	0.1989	0	86.2%	75	125	0.169	1.4%	20			
Selenium	.1885	0.006	0.1989	0	94.8%	75	125	0.1862	1.2%	20			
Silver	.0469	0.001	0.0497	0	94.4%	75	125	0.0474	1.1%	20			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 28-Feb-02

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**

Sample Matrix Spike

Sample ID: 0202003-12BMS	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/08/2002	Prep Date: 02/05/2002
Client ID: MW-11	Run ID: 0202003	Run ID: ICP_1_0202008A		SeqNo: 47796	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Arsenic	.2233	0.008	0.1996	0.026	98.8%
Barium	.3723	0.002	0.1996	0.216	78.3%
Cadmium	.1911	0.001	0.1996	0.00021	95.6%
Chromium	.185	0.028	0.1996	0.0066	89.4%
Lead	.1617	0.004	0.1996	0	81.0%
Selenium	.1858	0.006	0.1996	0	93.1%
Silver	.0504	0.001	0.0499	0	101.0%

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

QC SUMMARY REPORT										Laboratory Control Spike - generic			
								Analysis Date: 02/08/2002				Prep Date: 02/05/2002	
Sample ID:	Batch ID:	Test Code:	Units:	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPD Limit	Qual
Client ID:	0202003	Run ID:	ICP_1_020202BA										
Analyte	Result												
Arsenic	.2215	0.008	0.2364	0	93.7%	75	125						
Barium	.2249	0.002	0.2364	0	95.1%	75	125						
Cadmium	.2273	0.001	0.2364	0	96.2%	75	125						
Chromium	.2286	0.028	0.2364	0	96.7%	75	125						
Lead	.2252	0.004	0.2364	0	95.3%	75	125						
Selenium	.2163	0.006	0.2364	0	91.5%	75	125						
Silver	.0574	0.001	0.0591	0	97.1%	75	125						
Sample ID:	Batch ID: 6010B_AQ-R-	Test Code:	SW6010B	Units:	mg/L								
Client ID:	0202003	Run ID:	ICP_1_020202BA										
Analyte	Result												
Arsenic	.2248	0.008	0.2384	0	94.3%	75	125	0.2215	1.5%	20			
Barium	.2274	0.002	0.2384	0	95.4%	75	125	0.2249	1.1%	20			
Cadmium	.2294	0.001	0.2384	0	96.2%	75	125	0.2273	0.9%	20			
Chromium	.2284	0.028	0.2384	0	95.8%	75	125	0.2286	0.1%	20			
Lead	.226	0.004	0.2384	0	94.8%	75	125	0.2252	0.4%	20			
Selenium	.2212	0.006	0.2384	0	92.8%	75	125	0.2163	2.2%	20			
Silver	.058	0.001	0.0596	0	97.3%	75	125	0.0574	1.0%	20			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** Bio Tech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Sample ID: CCB_020208	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/08/2002				Prep Date: 02/05/2002				
Client ID:		Run ID:	ICP_1_020208A	SeqNo:	47775	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.008	0	0	0.0%	0	0	0	0	0	0	
Barium	ND	0.002	0	0	0.0%	0	0	0	0	0	0	
Cadmium	ND	0.001	0	0	0.0%	0	0	0	0	0	0	
Chromium	ND	0.028	0	0	0.0%	0	0	0	0	0	0	
Lead	ND	0.004	0	0	0.0%	0	0	0	0	0	0	
Selenium	ND	0.006	0	0	0.0%	0	0	0	0	0	0	
Silver	ND	0.001	0	0	0.0%	0	0	0	0	0	0	
Sample ID: CCB2_020208	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L	Analysis Date: 02/08/2002				Prep Date: 02/05/2002				
Client ID:		Run ID:	ICP_1_020208A	SeqNo:	47803	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.008	0	0	0.0%	0	0	0	0	0	0	
Barium	ND	0.002	0	0	0.0%	0	0	0	0	0	0	
Cadmium	ND	0.001	0	0	0.0%	0	0	0	0	0	0	
Chromium	ND	0.028	0	0	0.0%	0	0	0	0	0	0	
Lead	ND	0.004	0	0	0.0%	0	0	0	0	0	0	
Selenium	ND	0.006	0	0	0.0%	0	0	0	0	0	0	
Silver	ND	0.001	0	0	0.0%	0	0	0	0	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

Date: 28-Feb-02

## QC SUMMARY REPORT

Continuing Calibration Blank

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
Continuing Calibration Blank

Sample ID: CCB3_020208	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L			Analysis Date: 02/08/2002		Prep Date: 02/05/2002
Client ID:		Run ID: ICP_1_020208A			SeqNo:	47872		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Arsenic	ND	0.008	0	0	0.0%	0	0	
Barium	ND	0.002	0	0	0.0%	0	0	
Cadmium	ND	0.001	0	0	0.0%	0	0	
Chromium	ND	0.028	0	0	0.0%	0	0	
Lead	.0008	0.004	0	0	0.0%	0	0	
Selenium	ND	0.006	0	0	0.0%	0	0	
Silver	ND	0.001	0	0	0.0%	0	0	
<hr/>								
Sample ID: CCB4_020208	Batch ID: 6010B_AQ-R-	Test Code: SW6010B	Units: mg/L			Analysis Date: 02/08/2002		Prep Date: 02/05/2002
Client ID:		Run ID: ICP_1_020208A			SeqNo:	47873		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Arsenic	ND	0.008	0	0	0.0%	0	0	
Barium	ND	0.002	0	0	0.0%	0	0	
Cadmium	ND	0.001	0	0	0.0%	0	0	
Chromium	ND	0.028	0	0	0.0%	0	0	
Lead	.001	0.004	0	0	0.0%	0	0	
Selenium	ND	0.006	0	0	0.0%	0	0	
Silver	ND	0.001	0	0	0.0%	0	0	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J

On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0202003

**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
Continuing Calibration Verification Standard

Sample ID: CCV1_020208		Batch ID: 6010B_AQ-R- Test Code: SW6010B		Units: mg/L		Analysis Date: 02/08/2002		Prep Date: 01/28/2002						
Client ID:		Run ID:	ICP_1_020208A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	.9947	0.008	1.018	0	97.7%	90	110							
Barium	.099	0.002	0.1018	0	97.2%	90	110							
Cadmium	.1983	0.001	0.2001	0	99.1%	90	110							
Chromium	.4916	0.028	0.5104	0	96.3%	90	110							
Lead	.9687	0.004	1	0	96.8%	90	110							
Selenium	.5003	0.006	0.509	0	98.3%	90	110							
Silver	.0501	0.001	0.0509	0	98.4%	90	110							
Sample ID: CCV2_020208		Batch ID: 6010B_AQ-R- Test Code: SW6010B		Units: mg/L		Analysis Date: 02/08/2002		Prep Date: 01/28/2002						
Client ID:		Run ID:	ICP_1_020208A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.03	0.008	1.018	0	101.2%	90	110							
Barium	.1029	0.002	0.1018	0	101.1%	90	110							
Cadmium	.202	0.001	0.2001	0	100.9%	90	110							
Chromium	.5206	0.028	0.5104	0	102.0%	90	110							
Lead	.999	0.004	1	0	99.9%	90	110							
Selenium	.504	0.006	0.509	0	99.0%	90	110							
Silver	.0516	0.001	0.0509	0	101.4%	90	110							

Qualifiers:

ND - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Client ID:	CCV3_020208	Batch ID:	6010B_AQ-R-	Test Code:	SW6010B	Units:	mg/L	Analysis Date:	02/08/2002	Prep Date:	01/28/2002
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.025	0.008	1.018	0	100.7%	90	110				
Barium	.1041	0.002	0.1018	0	102.3%	90	110				
Cadmium	.2028	0.001	0.2001	0	101.3%	90	110				
Chromium	.5387	0.028	0.5104	0	105.5%	90	110				
Lead	.9968	0.004	1	0	99.6%	90	110				
Selenium	.5091	0.006	0.509	0	100.0%	90	110				
Silver	.0541	0.001	0.0509	0	106.3%	90	110				

Client ID:	CCV4_020208	Batch ID:	6010B_AQ-R-	Test Code:	SW6010B	Units:	mg/L	Analysis Date:	02/08/2002	Prep Date:	01/28/2002
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.01	0.008	1.018	0	99.2%	90	110				
Barium	.1035	0.002	0.1018	0	101.7%	90	110				
Cadmium	.1991	0.001	0.2001	0	99.5%	90	110				
Chromium	.5371	0.028	0.5104	0	105.2%	90	110				
Lead	.9794	0.004	1	0	97.9%	90	110				
Selenium	.5015	0.006	0.509	0	98.5%	90	110				
Silver	.0534	0.001	0.0509	0	104.9%	90	110				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
Work Order: 0202003  
Project: Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
Initial Calibration Verification Standard

Sample ID:	ICV_0202008	Batch ID:	6010B_AQ-R-	Test Code:	SW6010B	Units:	mg/L	Analysis Date: 02/08/2002			Prep Date: 02/07/2002		
Client ID:	0202003	Run ID:	ICP_1_0202008A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result											
Arsenic		.602	0.008	0.6441	0	0	93.5%	90	90	110			
Barium		.5915	0.002	0.6441	0	0	91.8%	90	90	110			
Cadmium		.5928	0.001	0.6441	0	0	92.0%	90	90	110			
Chromium		.5938	0.028	0.6441	0	0	92.2%	90	90	110			
Lead		.5909	0.004	0.6441	0	0	91.7%	90	90	110			
Selenium		.5962	0.006	0.6441	0	0	92.6%	90	90	110			
Silver		.1515	0.001	0.161	0	0	94.1%	90	90	110			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Method Blank

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/05/2002			Prep Date: 02/05/2002							
Client ID:		Run ID:	µg/L	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
		0202003		Benzene	.0915	0.5						J		
				Ethylbenzene	.1083	0.5						J		
				m,p-Xylene	.2734	1						J		
				Methyl tert-Butyl Ether	ND	1						J		
				o-Xylene	.1621	0.5						J		
				Toluene	.2481	0.5						J		
				1,4-Difluorobenzene	106.8	0								
				4-Bromochlorobenzene	114.5	0								
				Fluorobenzene	109	0								
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/11/2002			Prep Date:							
Client ID:		Run ID:	µg/L	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
		0202003		Benzene	.020211	GC-1_020211A						J		
				Ethylbenzene	.0653	0.5						J		
				m,p-Xylene	.0914	0.5						J		
				Methyl tert-Butyl Ether	.153	1						J		
				o-Xylene	.121	1						J		
				Toluene	.3372	0.5						J		
				1,4-Difluorobenzene	.2565	0.5						J		
				4-Bromochlorobenzene	106.7	0						J		
				Fluorobenzene	119.9	0						J		
					107.9	0						J		

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

# QC SUMMARY REPORT

Method Blank

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Sample ID: <b>MB_020212</b>	Batch ID: <b>GC-1_020212</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: <b>02/12/2002</b>			Prep Date:					
Client ID:		Run ID: <b>GC-1_020212A</b>		SeqNo:	<b>47596</b>							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		ND		0.5								
Ethylbenzene		ND		0.5								
m,p-Xylene		ND		1								
Methyl tert-Butyl Ether		ND		1								
o-Xylene		ND		0.5								
Toluene		.1217		0.5								
1,4-Difluorobenzene		107.6		0								
4-Bromochlorobenzene		115.9		0								
Fluorobenzene		109.8		0								

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID:	0201032-18AMS	Batch ID:	GC-1_020205	Test Code:	SW8021B	Units:	µg/L	Analysis Date: 02/05/2002			Prep Date: 02/05/2002		
Client ID:		Run ID:	GC-1_020205A	SeqNo:	47301			LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC							
Benzene		28130	250	20000	8800	96.6%	70	130					
Ethylbenzene		20380	250	20000	590	99.0%	70	130					
m,p-Xylene		40800	500	40000	1000	99.5%	70	130					
Methyl tert-Butyl Ether		78840	500	20000	60000	94.2%	70	130					
o-Xylene		20000	250	20000	460	97.7%	70	130					
Toluene		20420	250	20000	1100	96.6%	70	130					
1,4-Difluorobenzene		52530	0	55000	0	95.5%	70	130					
4-Bromochlorobenzene		57630	0	55000	0	104.8%	70	130					
Fluorobenzene		53680	0	55000	0	97.6%	70	130					
Sample ID:	0201032-18AMS	Batch ID:	GC-1_020205	Test Code:	SW8021B	Units:	µg/L	Analysis Date: 02/05/2002			Prep Date: 02/05/2002		
Client ID:		Run ID:	GC-1_020205A	SeqNo:	47302								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene		27880	250	20000	8800	95.4%	70	130	28130	0.9%	15		
Ethylbenzene		20170	250	20000	590	97.9%	70	130	20380	1.0%	15		
m,p-Xylene		40440	500	40000	1000	98.6%	70	130	40800	0.9%	15		
Methyl tert-Butyl Ether		79280	500	20000	60000	96.4%	70	130	78840	0.6%	15		
o-Xylene		19740	250	20000	460	96.4%	70	130	20000	1.3%	15		
Toluene		20140	250	20000	1100	95.2%	70	130	20420	1.4%	15		
1,4-Difluorobenzene		52950	0	55000	0	96.3%	70	130	0	0.0%	0		
4-Bromochlorobenzene		57960	0	55000	0	105.4%	70	130	0	0.0%	0		
Fluorobenzene		53490	0	55000	0	97.3%	70	130	0	0.0%	0		

Qualifiers:

NID - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

1 / 1 / 1

**QC SUMMARY REPORT**

**Sample Matrix Spike**

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0202003

**Project:** Thriftway Refinery; Bloomfield, NM

Sample ID: 0202003-16AMS		Batch ID: GC-1_020211		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/11/2002		Prep Date:				
Client ID:	Air Stripper Influence	Run ID:	GC-1_020211A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	897.8	5	400	521.7	94.0%	70	130							
Ethylbenzene	756.2	5	400	363.1	98.3%	70	130							
m,p-Xylene	1542	10	800	743.6	99.8%	70	130							
Methyl tert-Butyl Ether	586.2	10	400	200.2	96.5%	70	130							
o-Xylene	500.6	5	400	114.1	96.6%	70	130							
Toluene	502.8	5	400	122.2	95.2%	70	130							
1,4-Difluorobenzene	1044	0	1100	0	94.9%	70	130							
4-Bromochlorobenzene	1187	0	1100	0	107.9%	70	130							
Fluorobenzene	1064	0	1100	0	96.7%	70	130							
Sample ID: 0202003-16AMS		Batch ID: GC-1_020211		Test Code: SW8021B		Units: µg/L		Analysis Date: 02/11/2002		Prep Date:				
Client ID:	Air Stripper Influence	Run ID:	GC-1_020211A	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	883	5	400	521.7	90.3%	70	130	897.8	897.8	1.7%	15			
Ethylbenzene	742.7	5	400	363.1	94.9%	70	130	756.2	756.2	1.8%	15			
m,p-Xylene	1514	10	800	743.6	96.2%	70	130	1542	1542	1.8%	15			
Methyl tert-Butyl Ether	603.6	10	400	200.2	100.9%	70	130	586.2	586.2	2.9%	15			
o-Xylene	493.2	5	400	114.1	94.8%	70	130	500.6	500.6	1.5%	15			
Toluene	490.3	5	400	122.2	92.0%	70	130	502.8	502.8	2.5%	15			
1,4-Difluorobenzene	1043	0	1100	0	94.8%	70	130	0	0	0.0%	0			
4-Bromochlorobenzene	1182	0	1100	0	107.5%	70	130	0	0	0.0%	0			
Fluorobenzene	1060	0	1100	0	96.3%	70	130	0	0	0.0%	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

✓

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
**Sample Matrix Spike**

Analysis Date: 02/12/2002										Prep Date:	
SeqNo: 47597											
Sample ID:	Batch ID:	Test Code:	Run ID:	Units: µg/L	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Client ID:	MW-19	0202003	GC-1_020212A								
Analyte		Result	PQL	SPK value	SPK Ref Val						
Benzene		187.4	2.5	200	0.6197	93.4%	70	130			
Ethylbenzene		194.4	2.5	200	0.8553	96.8%	70	130			
m,p-Xylene		388.3	5	400	0	97.1%	70	130			
Methyl tert-Butyl Ether		735.6	5	200	542.1	96.7%	70	130			
o-Xylene		190.8	2.5	200	0.2514	95.3%	70	130			
Toluene		188.3	2.5	200	0.9085	93.7%	70	130			
1,4-Difluorobenzene		522.3	0	550	0	95.0%	70	130			
4-Bromochlorobenzene		606.2	0	550	0	110.2%	70	130			
Fluorobenzene		535.2	0	550	0	97.3%	70	130			
Sample ID:	Batch ID:	Test Code:	Run ID:	Units: µg/L							
Client ID:	MW-19	0202003	GC-1_020212A								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
Benzene		184.5	2.5	200	0.6197	91.9%	70	130	187.4	1.6%	15
Ethylbenzene		191.5	2.5	200	0.8553	95.3%	70	130	194.4	1.5%	15
m,p-Xylene		382.7	5	400	0	95.7%	70	130	388.3	1.4%	15
Methyl tert-Butyl Ether		731.2	5	200	542.1	94.5%	70	130	735.6	0.6%	15
o-Xylene		188.1	2.5	200	0.2514	93.9%	70	130	190.8	1.4%	15
Toluene		185.4	2.5	200	0.9085	92.2%	70	130	188.3	1.6%	15
1,4-Difluorobenzene		521.2	0	550	0	94.8%	70	130	0	0.0%	0
4-Bromochlorobenzene		603.5	0	550	0	109.7%	70	130	0	0.0%	0
Fluorobenzene		535.4	0	550	0	97.4%	70	130	0	0.0%	0

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted quantitation limits

B - Analyte detected in the associated Method Blank

**On Site Technologies, LTD.**

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
**Laboratory Control Spike - generic**

Sample ID: <b>LCS_020205</b>	Batch ID: <b>GC-1_020205</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: 02/05/2002				Prep Date: 02/05/2002						
Client ID:	Run ID:	<b>GC-1_020205A</b>		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38	0.5	40	0.0915		94.8%		80		120				
Ethylbenzene	39.1	0.5	40	0.1083		97.5%		80		120				
m,p-Xylene	78.74	1	80	0.2734		98.1%		80		120				
Methyl tert-Butyl Ether	38.1	1	40	0		95.2%		80		120				
o-Xylene	38.47	0.5	40	0.1621		95.8%		80		120				
Toluene	37.88	0.5	40	0.2481		94.1%		80		120				
1,4-Difluorobenzene	106.4	0	110	0		96.7%		70		130				
4-Bromochlorobenzene	115.2	0	110	0		104.7%		70		130				
Fluorobenzene	107.4	0	110	0		97.6%		70		130				
Sample ID: <b>LCS_020211</b>	Batch ID: <b>GC-1_020211</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: 02/11/2002				Prep Date:						
Client ID:	Run ID:	<b>GC-1_020211A</b>		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.91	0.5	40	0.0653		97.1%		80		120				
Ethylbenzene	39.9	0.5	40	0.0914		99.5%		80		120				
m,p-Xylene	80.02	1	80	0.153		99.8%		80		120				
Methyl tert-Butyl Ether	40.89	1	40	0.121		101.9%		80		120				
o-Xylene	39.28	0.5	40	0.3372		97.3%		80		120				
Toluene	38.36	0.5	40	0.2565		95.3%		80		120				
1,4-Difluorobenzene	105.4	0	110	0		95.8%		70		130				
4-Bromochlorobenzene	120.1	0	110	0		109.2%		70		130				
Fluorobenzene	107.1	0	110	0		97.4%		70		130				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

I - rfr?

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

Sample ID: <b>LCS_020212</b>	Batch ID: <b>GC-1_020212</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: 02/12/2002		
Client ID:	Run ID: <b>0202003</b>	GC-1_020212A	PQL	SPK value	SPK Ref Val	%REC
Analyte	Result					SeqNo:
Benzene	38.17	0.5	40	0	95.4%	80
Ethybenzene	39.25	0.5	40	0	98.1%	80
m,p-Xylene	78.7	1	80	0	98.4%	80
Methyl tert-Butyl Ether	40.26	1	40	0	100.7%	80
o-Xylene	38.46	0.5	40	0	96.1%	80
Toluene	37.7	0.5	40	0.1217	93.9%	80
1,4-Difluorobenzene	106.2	0	110	0	96.6%	70
4-Bromochlorobenzene	126.3	0	110	0	114.8%	70
Fluorobenzene	107.9	0	110	0	98.1%	70

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## On Site Technologies, LTD.

**CLIENT:** Bio Tech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Continuing Calibration Verification Standard

Sample ID: CCV1_020205	Batch ID: GC-1_020205	Test Code: SW8021B	Units: µg/L	Analysis Date: 02/05/2002			Prep Date: 02/05/2002		
Client ID:		Run ID: GC-1_020205A		SeqNo:	47296				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Benzene	19.49	0.5	20	0	97.5%	85	115		
Ethylbenzene	20.01	0.5	20	0	100.1%	85	115		
m,p-Xylene	40.66	1	40	0	101.7%	85	115		
Methyl tert-Butyl Ether	19.48	1	20	0	97.4%	85	115		
o-Xylene	19.74	0.5	20	0	98.7%	85	115		
Toluene	19.42	0.5	20	0	97.1%	85	115		
1,4-Difluorobenzene	106.9	0	110	0	97.2%	70	130		
4-Bromochlorobenzene	115.2	0	110	0	104.7%	70	130		
Fluorobenzene	108.7	0	110	0	98.8%	70	130		
Sample ID: CCV2_020205	Batch ID: GC-1_020205	Test Code: SW8021B	Units: µg/L	Analysis Date: 02/05/2002			Prep Date: 02/05/2002		
Client ID:		Run ID: GC-1_020205A		SeqNo:	47297				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Benzene	19.28	0.5	20	0	96.4%	85	115		
Ethylbenzene	19.66	0.5	20	0	98.3%	85	115		
m,p-Xylene	39.71	1	40	0	99.3%	85	115		
Methyl tert-Butyl Ether	19.13	1	20	0	95.7%	85	115		
o-Xylene	19.3	0.5	20	0	96.5%	85	115		
Toluene	19.21	0.5	20	0	96.1%	85	115		
1,4-Difluorobenzene	106.3	0	110	0	96.6%	70	130		
4-Bromochlorobenzene	115.6	0	110	0	105.1%	70	130		
Fluorobenzene	108.8	0	110	0	98.9%	70	130		

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted quantitation limits

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Sample ID: **CCV3\_020205** Batch ID: **GC-1\_020205** Test Code: **SW8021B** Units: **µg/L**

Client ID: **0202003** Run ID: **GC-1\_020205A**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.22	0.5	40	0	95.6%	85	115				
Ethylbenzene	39.71	0.5	40	0	99.3%	85	115				
m,p-Xylene	79.17	1	80	0	99.0%	85	115				
Methyl tert-Butyl Ether	38.07	1	40	0	95.2%	85	115				
o-Xylene	38.68	0.5	40	0	96.7%	85	115				
Toluene	38.24	0.5	40	0	95.6%	85	115				
1,4-Difluorobenzene	105.2	0	110	0	95.7%	70	130				
4-Bromochlorobenzene	114	0	110	0	103.6%	70	130				
Fluorobenzene	106.9	0	110	0	97.2%	70	130				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.73	0.5	20	0	98.7%	85	115				
Ethylbenzene	20.16	0.5	20	0	100.8%	85	115				
m,p-Xylene	40.61	1	40	0	101.5%	85	115				
Methyl tert-Butyl Ether	20.94	1	20	0	104.7%	85	115				
o-Xylene	19.95	0.5	20	0	99.7%	85	115				
Toluene	19.49	0.5	20	0	97.5%	85	115				
1,4-Difluorobenzene	106.5	0	110	0	96.8%	70	130				
4-Bromochlorobenzene	119.4	0	110	0	108.6%	70	130				
Fluorobenzene	107.4	0	110	0	97.6%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

7 of 5

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Sample ID: ccv2_020211	Batch ID: GC-1_020211	Test Code: SW8021B	Units: µg/L				Analysis Date: 02/11/2002	Prep Date:				
Client ID: 0202003	Run ID: GC-1_020211A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	SeqNo:
Analyte	Result											47582
Benzene	19.24	0.5	20	0	96.2%	85	115					
Ethylbenzene	19.67	0.5	20	0	98.4%	85	115					
m,p-Xylene	39.42	1	40	0	98.6%	85	115					
Methyl tert-Butyl Ether	20.69	1	20	0	103.5%	85	115					
o-Xylene	19.36	0.5	20	0	96.8%	85	115					
Toluene	18.97	0.5	20	0	94.9%	85	115					
1,4-Difluorobenzene	106.4	0	110	0	96.8%	70	130					
4-Bromochlorobenzene	119.6	0	110	0	108.7%	70	130					
Fluorobenzene	107.7	0	110	0	97.9%	70	130					
Sample ID: CCV3_020211	Batch ID: GC-1_020211	Test Code: SW8021B	Units: µg/L				Analysis Date: 02/11/2002	Prep Date:				
Client ID: 0202003	Run ID: GC-1_020211A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	SeqNo:
Analyte	Result											47583
Benzene	37.86	0.5	40	0	94.7%	85	115					
Ethylbenzene	38.64	0.5	40	0	96.6%	85	115					
m,p-Xylene	77.37	1	80	0	96.7%	85	115					
Methyl tert-Butyl Ether	40.27	1	40	0	100.7%	85	115					
o-Xylene	38.01	0.5	40	0	95.0%	85	115					
Toluene	37.34	0.5	40	0	93.3%	85	115					
1,4-Difluorobenzene	106	0	110	0	96.3%	70	130					
4-Bromochlorobenzene	119.3	0	110	0	108.5%	70	130					
Fluorobenzene	107.1	0	110	0	97.4%	70	130					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

Sample ID:	CCV4_020211	Batch ID:	GC-1_020211	Test Code:	SW8021B	Units:	µg/L	Analysis Date: 02/11/2002			Prep Date:	
Client ID:	0202003	Run ID:	GC-1_020211A					SeqNo:	47588			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.9	0.5	40	0	92.3%	85	115					
Ethylbenzene	37.38	0.5	40	0	93.5%	85	115					
m,p-Xylene	74.67	1	80	0	93.3%	85	115					
Methyl tert-Butyl Ether	39.87	1	40	0	99.7%	85	115					
o-Xylene	37.08	0.5	40	0	92.7%	85	115					
Toluene	36.26	0.5	40	0	90.6%	85	115					
1,4-Difluorobenzene	105.7	0	110	0	96.1%	70	130					
4-Bromochlorobenzene	119	0	110	0	108.2%	70	130					
Fluorobenzene	107.6	0	110	0	97.9%	70	130					
Sample ID:	CCV1_020212	Batch ID:	GC-1_020212	Test Code:	SW8021B	Units:	µg/L	Analysis Date: 02/12/2002			Prep Date:	
Client ID:	0202003	Run ID:	GC-1_020212A					SeqNo:	47593			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.94	0.5	20	0	99.7%	85	115					
Ethylbenzene	20.35	0.5	20	0	101.8%	85	115					
m,p-Xylene	41.07	1	40	0	102.7%	85	115					
Methyl tert-Butyl Ether	20.78	1	20	0	103.9%	85	115					
o-Xylene	19.93	0.5	20	0	99.7%	85	115					
Toluene	19.65	0.5	20	0	98.3%	85	115					
1,4-Difluorobenzene	106.7	0	110	0	97.0%	70	130					
4-Bromochlorobenzene	118.9	0	110	0	108.1%	70	130					
Fluorobenzene	108.4	0	110	0	98.5%	70	130					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

**QC SUMMARY REPORT**  
**Continuing Calibration Verification Standard**

**CLIENT:** BioTech Remediation, Inc.

**Work Order:** 0202003

**Project:** Thriftway Refinery; Bloomfield, NM

Sample ID: <b>CCV2_020212</b>	Batch ID: <b>GC-1_020212</b>	Test Code: <b>SW8021B</b>	Units: <b>µg/L</b>	Analysis Date: <b>02/12/2002</b>			Prep Date:					
Client ID: <b>0202003</b>	Run ID: <b>GC-1_020212A</b>	Result	PQL	SPK value	SPK Ref Val	%REC	SeqNo: <b>47594</b>					
Analyte							LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.59	0.5	20	0	98.0%	85	85	115				
Ethylbenzene	19.94	0.5	20	0	99.7%	85	85	115				
m,p-Xylene	40.26	1	40	0	100.6%	85	85	115				
Methyl tert-Butyl Ether	20.7	1	20	0	103.5%	85	85	115				
$\alpha$ -Xylene	19.59	0.5	20	0	98.0%	85	85	115				
Toluene	19.27	0.5	20	0	96.4%	85	85	115				
1,4-Difluorobenzene	106.9	0	110	0	97.2%	70	70	130				
4-Bromochlorobenzene	119	0	110	0	108.2%	70	70	130				
Fluorobenzene	108.3	0	110	0	98.4%	70	70	130				

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

I - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM  
**Test No:** SW8021B

**QC SUMMARY REPORT**  
**SURROGATE RECOVERIES**  
**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ						
0201032-02A	98	105	99.6						
0201032-03A	97.6	105	99.5						
0201032-04A	94.8	102	97						
0201032-05A	98.2	106	99.3						
0201032-06A	97.4	105	99.4						
0201032-07A	96.8	103	99.6						
0201032-08A	97.6	105	99.9						
0201032-09A	99.9	110	101						
0201032-10A	95.5	104	98						
0201032-11A	98.1	106	99.9						
0201032-12A	98	105	101						
0201032-13A	97.2	105	110						
0201032-14A	97.6	105	99.4						
0201032-15A	96.6	106	99.6						
0201032-16A	95.5	130	99.2						
0201032-17A	97.1	102	99.1						
0201032-18A	96.4	105	98.3						
0201032-18AMS	95.5	105	97.6						
0201032-18AMSD	96.3	105	97.2						
0201035-01A	94.5	134 *	96.6						
0202003-01A	96.5	104	98.7						
0202003-02A	95.3	103	97						
0202003-03A	96.6	108	98.2						
0202003-04A	97	109	99.2						
0202003-05A	96.6	110	98.2						
0202003-05AMS	95	110	97.3						
0202003-05AMSD	94.8	110	97.4						

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

\* Surrogate recovery outside acceptance limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM  
**Test No:** SW8021B

**QC SUMMARY REPORT**  
**SURROGATE RECOVERIES**  
**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ					
0202003-06A	95.9	107	98.6					
0202003-07A	97.1	108	98.8					
0202003-08A	96.5	113	98.8					
0202003-09A	97.6	115	99					
0202003-10A	97	112	98.9					
0202003-11A	98	110	99.7					
0202003-12A	97.5	110	99.3					
0202003-13A	97.1	109	99					
0202003-14A	97.2	109	99.2					
0202003-15A	95.3	113	97.8					
0202003-16A	96.1	108	97.4					
0202003-16AMS	94.9	108	96.7					
0202003-16AMSD	94.8	107	96.3					
0202003-17A	97.3	108	98.9					
0202003-18A	97	104	99.9					
0202006-01A	94.1	107	97					
0202006-02A	91	103	93.8					
0202006-03A	96.9	109	98.8					
CCV1_020205	97.2	105	98.8					
CCV1_020211	96.8	108	97.6					
CCV1_020212	97	108	98.5					
CCV2_020205	96.6	105	98.9					
CCV2_020211	96.8	109	97.9					
CCV2_020212	97.2	108	98.4					
CCV3_020205	95.7	104	97.2					
CCV3_020211	96.3	108	97.4					
CCV4_020211	96.1	108	97.9					
LCS_020205	96.7	105	97.6					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

\* Surrogate recovery outside acceptance limits

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM  
**Test No:** SW8021B

**QC SUMMARY REPORT  
SURROGATE RECOVERIES**

**Aromatic Volatiles by GC/PID**

Sample ID	14FBZ	4BCBZ	FLBZ					
LCS_020211	95.8	109	97.4					
LCS_020212	96.6	115	98.1					
MB_020205	97.1	104	99.1					
MB_020211	97	109	98.1					
MB_020212	97.8	105	99.9					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

\* Surrogate recovery outside acceptance limits

On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thrifway Refinery; Bloomfield, NM

Date: 28-Feb-02  
QC SUMMARY REPORT  
Method Blank

Sample ID: MBLK_020204	Batch ID: HG_CTW-02/	Test Code: SW7470	Units: mg/L	Analysis Date: 02/04/2002	Prep Date: 02/04/2002
Client ID:	Run ID:	AA_020204A		SeqNo:	47501
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Mercury	ND	0.001			

Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
Sample Duplicate

Sample ID:	0201007-02AD	Batch ID:	HG_CTW-02I	Test Code:	SW7470	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:	0202003	Run ID:	AA_020204A	SeqNo:	47507						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.001	0	0	0.0%	0	0	0	0.0%	20	
Sample ID:	0202003-13BD	Batch ID:	HG_CTW-02I	Test Code:	SW7470	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:	MW-15	Run ID:	AA_020204A	SeqNo:	47524						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.001	0	0	0.0%	0	0	0	0.0%	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

T - T

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Sample Matrix Spike

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/04/2002			Prep Date: 02/04/2002		
Client ID:	Run ID:		mg/L	SeqNo:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Mercury	.01417	0.001	0.014	0	101.2%	70	130		
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/04/2002			Prep Date: 02/04/2002		
Client ID:	Run ID:		mg/L	SeqNo:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Mercury	.01423	0.001	0.014	0	101.6%	70	130	0.01417	0.4%
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/04/2002			Prep Date: 02/04/2002		
Client ID:	Run ID:		mg/L	SeqNo:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD
Mercury	.0139	0.001	0.014	0	99.3%	70	130		

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
Work Order: 0202003  
Project: Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/04/2002			Prep Date: 02/04/2002		
Client ID:		Run ID:	mg/L	SeqNo:			%RPD	RPDLimit	Qual
		AA_020204A							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	
Mercury	.03388	0.001	0.029	0	116.8%	70	130		
Sample ID:	Batch ID:	Test Code:	Units:	SeqNo:	Analysis Date: 02/04/2002			Prep Date: 02/04/2002	
Client ID:		Run ID:	mg/L						
		AA_020204A							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	
Mercury	.02874	0.001	0.03	0	95.8%	70	130	0.03388	16.4% 20

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## On Site Technologies, LTD.

CLIENT: BioTech Remediation, Inc.  
Work Order: 0202003  
Project: Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:		Run ID:			SeqNo:			
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Mercury		.03038	0.001	0.0299	0	101.6%	80	120
Sample ID:	Batch ID:	Test Code:	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:		Run ID:			SeqNo:			
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Mercury		.02749	0.001	0.03	0	91.6%	80	120
Sample ID:	Batch ID:	Test Code:	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:		Run ID:			SeqNo:			
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Mercury		.03229	0.001	0.03	0	107.6%	80	120
Sample ID:	Batch ID:	Test Code:	Units:	mg/L	Analysis Date:	02/04/2002	Prep Date:	02/04/2002
Client ID:		Run ID:			SeqNo:			
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Mercury		.03092	0.001	0.03	0	103.1%	80	120

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.

0202003

**Work Order:** Thriftway Refinery; Bloomfield, NM

**Project:** Method Blank

Date: 28-Feb-02

## QC SUMMARY REPORT

Method Blank

Sample ID: MBlank	Batch ID: API_0202003	Test Code: E160.1	Units: mg/L	Analysis Date: 02/06/2002			Prep Date:				
Client ID:	Run ID:	WET CHEM_020206A		SeqNo:	47255						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	28	40									J
Sample ID: MBlank	Batch ID: API_0202003	Test Code: E160.1	Units: mg/L								
Client ID:	Run ID:	WET CHEM_020207A		SeqNo:	47311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	26	40									J
Sample ID: MBlank	Batch ID: API_0202003	Test Code: M2320_B	Units: mg/L CaCO3								
Client ID:	Run ID:	WET CHEM_020209A		SeqNo:	47356						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	3.2	5									J
Alkalinity, Carbonate (As CaCO3)	ND	5									
Alkalinity, Hydroxide	ND	5									
Alkalinity, Total (As CaCO3)	3.2	5									J
Sample ID: MBlank	Batch ID: API_0202003	Test Code: E120.1	Units: uS/cm								
Client ID:	Run ID:	WET CHEM_020214A		SeqNo:	47649						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	ND	2									

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

Sample Duplicate

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date: 02/07/2002			Prep Date:				
Client ID:		Run ID:		SeqNo:							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	14960	40	0	0	0.0%	0	0	14820	0.9%	8	
Sample ID: 0202003-01CD	Batch ID: API_0202003	Test Code: E160.1	Units: mg/L	Caco3	Analysis Date: 02/07/2002			Prep Date:			
Client ID: MW-18	0202003	Run ID: WET CHEM_020209A		SeqNo:	47359						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1336	5	0	0	0.0%	0	0	1330	0.5%	6	
Alkalinity, Carbonate (As CaCO3)	ND	5	0	0	0.0%	0	0	0	0.0%	6	
Alkalinity, Hydroxide	ND	5	0	0	0.0%	0	0	0	0.0%	6	
Alkalinity, Total (As CaCO3)	1336	5	0	0	0.0%	0	0	1330	0.5%	6	
Sample ID: 0202003-02CD	Batch ID: API_0202003	Test Code: E160.1	Units: mg/L	Analysis Date: 02/06/2002			Prep Date:				
Client ID: MW-09	0202003	Run ID: WET CHEM_020206A		SeqNo:	47259						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera)	3160	40	0	0	0.0%	0	0	3168	0.3%	8	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

1 ~ 51

## On Site Technologies, LTD.

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NM

Date: 28-Feb-02

## QC SUMMARY REPORT

### Laboratory Control Spike - generic

Sample ID:	Batch ID:	Test Code:	Units:	mg/L		Analysis Date:	02/06/2002	Prep Date:
Client ID:		Run ID:	WET CHEM_	020206A		SeqNo:	47256	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Dissolved Solids (Residue, Filtera)	266	40	316	28	75.3%	75	125	
Sample ID: LCS 3047	Batch ID: API_0202003	Test Code: E160.1	Units: mg/L			Analysis Date:	02/07/2002	Prep Date:
Client ID:	0202003	Run ID:	WET CHEM_	020207A		SeqNo:	47312	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Total Dissolved Solids (Residue, Filtera)	304	40	316	26	88.0%	75	125	
Sample ID: LCS 3048	Batch ID: API_0202003	Test Code: E150.1	Units: pH units			Analysis Date:	02/04/2002	Prep Date:
Client ID:	0202003	Run ID:	WET CHEM_	020204B		SeqNo:	47164	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
pH	8.119	2	8.17	0	99.4%	90	110	
Sample ID: LCS 3048	Batch ID: API_0202003	Test Code: E150.1	Units: pH units			Analysis Date:	02/04/2002	Prep Date:
Client ID:	0202003	Run ID:	WET CHEM_	020204B		SeqNo:	47175	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
pH	8.15	2	8.17	0	99.8%	90	110	
Sample ID: LCS 3048	Batch ID: API_0202003	Test Code: E150.1	Units: pH units			Analysis Date:	02/04/2002	Prep Date:
Client ID:	0202003	Run ID:	WET CHEM_	020204B		SeqNo:	47184	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
pH	8.126	2	8.17	0	99.5%	90	110	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

I - r/r

**CLIENT:** BioTech Remediation, Inc.  
**Work Order:** 0202003  
**Project:** Thriftway Refinery; Bloomfield, NJ

**QC SUMMARY REPORT**  
**Laboratory Control Spike - generic**

Sample ID:	Batch ID:	Test ID:	Test Code:	Units:	Analysis Date:	Prep Date:					
Client ID:		Run ID:	WET CHEM_020209A		SeqNo:	47357					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	184	5	185	3	97.8%	96	101				
Sample ID: <b>LCS 3049</b>	Batch ID: <b>API_0202003</b>	Test Code: <b>M2320_B</b>	Units: mg/L CaCO3		Analysis Date: 02/09/2002	Prep Date:					
Client ID:	0202003	Run ID:	WET CHEM_020209A		SeqNo:	47368					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	184	5	185	3	97.8%	96	101				
Sample ID: <b>LCS 3049</b>	Batch ID: <b>API_0202003</b>	Test Code: <b>E120.1</b>	Units: uS/cm		Analysis Date: 02/14/2002	Prep Date:					
Client ID:	0202003	Run ID:	WET CHEM_020214A		SeqNo:	47650					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	742	2	738	0	100.5%	90	110				
Sample ID: <b>LCS 3049</b>	Batch ID: <b>API_0202003</b>	Test Code: <b>E120.1</b>	Units: uS/cm		Analysis Date: 02/14/2002	Prep Date:					
Client ID:	0202003	Run ID:	WET CHEM_020214A		SeqNo:	47661					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	744	2	738	0	100.8%	90	110				
Sample ID: <b>LCS 3049</b>	Batch ID: <b>API_0202003</b>	Test Code: <b>E120.1</b>	Units: uS/cm		Analysis Date: 02/14/2002	Prep Date:					
Client ID:	0202003	Run ID:	WET CHEM_020214A		SeqNo:	47669					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	742	2	738	0	100.5%	90	110				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

# TestAmerica

INCORPORATED

2/ 9/02

ON SITE TECHNOLOGIES, LTD. 3130

DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project . The Laboratory Project number is 270579.  
An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Page 1 Collection Date
0202003-01D	02-A17239	1/30/02
0202003-02D	02-A17240	1/30/02
0202003-03D	02-A17241	1/30/02
0202003-04D	02-A17242	1/30/02
0202003-05D	02-A17243	1/31/02
0202003-06D	02-A17244	1/31/02
0202003-07D	02-A17245	1/31/02
0202003-08D	02-A17246	1/31/02
0202003-09D	02-A17247	1/31/02
0202003-10D	02-A17248	1/31/02
0202003-11D	02-A17249	1/31/02
0202003-12D	02-A17250	1/31/02
0202003-13D	02-A17251	1/31/02
0202003-14D	02-A17252	1/31/02
0202003-15D	02-A17253	1/31/02
0202003-16D	02-A17254	1/31/02
0202003-17D	02-A17255	1/31/02

# TestAmerica

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Sample Identification

Page 2

Lab Number

Collection Date

These results relate only to the items tested.  
This report shall not be reproduced except in full and with  
permission of the laboratory.

Report Approved By:



Report Date: 2/ 9/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Jennifer P. Flynn, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17239  
 Sample ID: 0202003-01D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:  
 Thriftway Refinery; MW-18

Date Collected: 1/30/02  
 Time Collected: 14:18  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

z1262

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Fluoranthene	0.00700	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Pyrene	0.00500	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522
Phenanthrene	0.0140	mg/l	0.00500	1	2/ 8/02	18:54	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's		990. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17239  
Sample ID: 0202003-01D  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	84.	24. - 128.
BNA Surr-2-Fluorobiphenyl	84.	33. - 118.
BNA Surr-Terphenyl-d14	94.	27. - 142.
BNA Surr-Phenol-d5	41.	1. - 72.
BNA Surr-2-Fluorophenol	57.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	101.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17240  
 Sample ID: 0202003-02D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-09

Date Collected: 1/30/02  
 Time Collected: 13:59  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

*NS  
2/28/02*

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	19:30	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted Wt/Vol	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17240  
Sample ID: 0202003-02D  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	81.	24. - 128.
BNA Surr-2-Fluorobiphenyl	81.	33. - 118.
BNA Surr-Terphenyl-d14	95.	27. - 142.
BNA Surr-Phenol-d5	52.	1. - 72.
BNA Surr-2-Fluorophenol	74.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	118.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17241  
 Sample ID: 0202003-03D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Date Collected: 1/30/02  
 Time Collected: 15:23  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Thriftway Refinery; MW-05

*2/25/02*

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	20:07	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted	Wt/Vol	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml		2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17241  
Sample ID: 0202003-03D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	85.	24. - 128.
BNA Surr-2-Fluorobiphenyl	84.	33. - 118.
BNA Surr-Terphenyl-d14	104.	27. - 142.
BNA Surr-Phenol-d5	53.	1. - 72.
BNA Surr-2-Fluorophenol	77.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	122.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17242  
 Sample ID: 0202003-04D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-06

*2/28/02*

Date Collected: 1/30/02  
 Time Collected: 15:47  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil	Analysis		Analyst	Method	Batch
				Factor	Date	Time			
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	20:43	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
BNA's	990. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17242  
Sample ID: 0202003-04D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	85.	24. - 128.
BNA Surr-2-Fluorobiphenyl	86.	33. - 118.
BNA Surr-Terphenyl-d14	108.	27. - 142.
BNA Surr-Phenol-d5	53.	1. - 72.
BNA Surr-2-Fluorophenol	75.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	127.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17243  
 Sample ID: 0202003-05D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-19

Date Collected: 1/31/02  
 Time Collected: 9:25  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

1/31/02

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	21:19	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	990. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17243  
Sample ID: 0202003-05D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	91.	24. - 128.
BNA Surr-2-Fluorobiphenyl	86.	33. - 118.
BNA Surr-Terphenyl-d14	90.	27. - 142.
BNA Surr-Phenol-d5	58.	1. - 72.
BNA Surr-2-Fluorophenol	82.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	119.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17244  
 Sample ID: 0202003-06D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-20

*WS  
2/28/02*

Date Collected: 1/31/02  
 Time Collected: 9:47  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Acenaphthene	0.0310	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Fluoranthene	0.00600	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Fluorene	0.0140	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	21:56	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	990. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17244  
Sample ID: 0202003-06D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	98.	24. - 128.
BNA Surr-2-Fluorobiphenyl	91.	33. - 118.
BNA Surr-Terphenyl-d14	107.	27. - 142.
BNA Surr-Phenol-d5	74. #	1. - 72.
BNA Surr-2-Fluorophenol	102. #	1. - 99.
BNA Surr-2,4,6-Tribromophenol	140.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17245  
Sample ID: 0202003-07D  
Sample Type: Water  
Site ID:

Project:  
Project Name:  
Sampler:

Thriftway Refinery; MW-21

2/8/02

Date Collected: 1/31/02  
Time Collected: 10:07  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	22:32	LMcDaniel	8270C	2522

8270 surrogates outside QC limits due to sample matrix.

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17245  
Sample ID: 0202003-07D  
Project:  
Page 2

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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	107.	24. - 128.
BNA Surr-2-Fluorobiphenyl	101.	33. - 118.
BNA Surr-Terphenyl-d14	112.	27. - 142.
BNA Surr-Phenol-d5	66.	1. - 72.
BNA Surr-2-Fluorophenol	91.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	154.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

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## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-22

Lab Number: 02-A17246  
 Sample ID: 0202003-08D  
 Sample Type: Water  
 Site ID:

Date Collected: 1/31/02  
 Time Collected: 10:26  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	23:09	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted Wt/Vol	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 02-A17246  
Sample ID: 0202003-08D  
Project:  
Page 2

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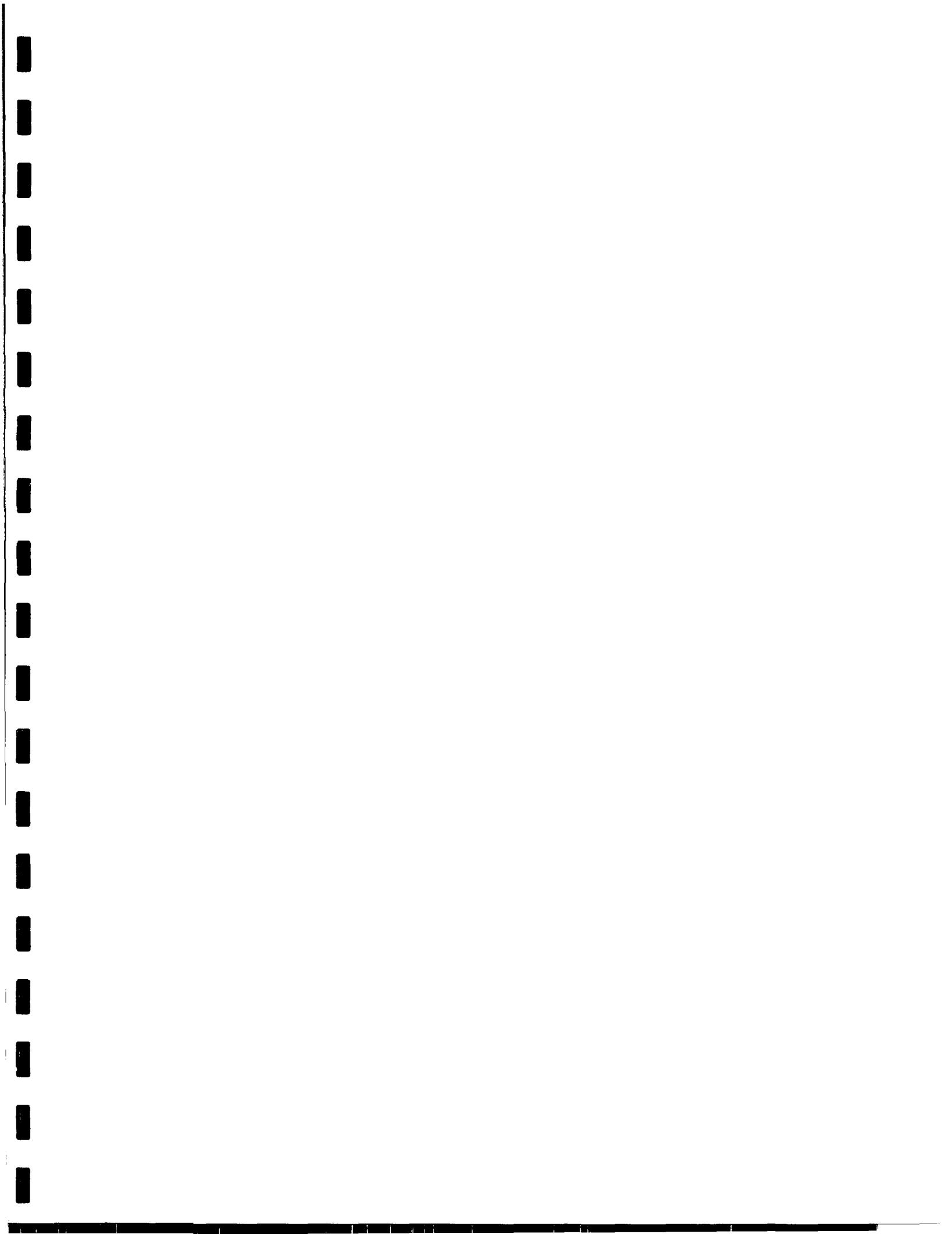
Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	94.	24. - 128.
BNA Surr-2-Fluorobiphenyl	93.	33. - 118.
BNA Surr-Terphenyl-d14	104.	27. - 142.
BNA Surr-Phenol-d5	55.	1. - 72.
BNA Surr-2-Fluorophenol	78.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	143.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.



# TestAmerica

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## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17247  
 Sample ID: 0202003-09D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-08

Date Collected: 1/31/02  
 Time Collected: 10:42  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

2/28/02

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 8/02	23:45	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's		975. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17247  
Sample ID: 0202003-09D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	92.	24. - 128.
BNA Surr-2-Fluorobiphenyl	91.	33. - 118.
BNA Surr-Terphenyl-d14	86.	27. - 142.
BNA Surr-Phenol-d5	55.	1. - 72.
BNA Surr-2-Fluorophenol	76.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	127.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17248  
 Sample ID: 0202003-10D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Date Collected: 1/31/02  
 Time Collected: 11:02  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Thriftway Refinery; MW-10

2/28/02

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	0:22	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Wt/Vol	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's		975. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

## ANALYTICAL REPORT

Laboratory Number: 02-A17248  
Sample ID: 0202003-10D  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	98.	24. - 128.
BNA Surr-2-Fluorobiphenyl	97.	33. - 118.
BNA Surr-Terphenyl-d14	105.	27. - 142.
BNA Surr-Phenol-d5	54.	1. - 72.
BNA Surr-2-Fluorophenol	76.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	127.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17249  
 Sample ID: 0202003-11D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-10 Dup

Date Collected: 1/31/02  
 Time Collected: 11:02  
 Date Received: 2/ 5/02  
 Time Received: 9:00

Page: 1

2/28/02

Analyte	Result	Units	Report	Dil	Analysis		Analysis		Method	Batch
			Limit	Factor	Date	Time	Analyst	Method		
<b>*ORGANIC PARAMETERS*</b>										
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Dibenz(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	0:58	LMcDaniel	8270C	2522	

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
BNA's	985. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17249  
Sample ID: 0202003-11D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	83.	24. - 128.
BNA Surr-2-Fluorobiphenyl	83.	33. - 118.
BNA Surr-Terphenyl-d14	91.	27. - 142.
BNA Surr-Phenol-d5	43.	1. - 72.
BNA Surr-2-Fluorophenol	63.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	103.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17250  
 Sample ID: 0202003-12D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-11

2/22/02

Date Collected: 1/31/02  
 Time Collected: 11:21  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	1:35	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted Wt/Vol	Extract Vol	Date	Time	Analyst	Method
BNA's	985. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17250  
Sample ID: 0202003-12D  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	94.	24. - 128.
BNA Surr-2-Fluorobiphenyl	92.	33. - 118.
BNA Surr-Terphenyl-d14	103.	27. - 142.
BNA Surr-Phenol-d5	58.	1. - 72.
BNA Surr-2-Fluorophenol	79.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	125.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17251  
Sample ID: 0202003-13D  
Sample Type: Water  
Site ID:

Project:  
Project Name:  
Sampler:

Thriftway Refinery; MW-15

Date Collected: 1/31/02  
Time Collected: 11:42  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Dibenz(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	2:12	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17251  
Sample ID: 0202003-13D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	96.	24. - 128.
BNA Surr-2-Fluorobiphenyl	91.	33. - 118.
BNA Surr-Terphenyl-d14	80.	27. - 142.
BNA Surr-Phenol-d5	53.	1. - 72.
BNA Surr-2-Fluorophenol	77.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	119.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17252  
 Sample ID: 0202003-14D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Thriftway Refinery; MW-13

Date Collected: 1/31/02  
 Time Collected: 14:30  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Analyte	Result	Units	Report	Dil	Analysis		Analyst	Method	Batch
			Limit	Factor	Date	Time			
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	2:48	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Wt/Vol		Date	Time	Analyst	Method
	Extracted	Extract Vol				
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17252  
Sample ID: 0202003-14D  
Project:  
Page 2

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	86.	24. - 128.
BNA Surr-2-Fluorobiphenyl	85.	33. - 118.
BNA Surr-Terphenyl-d14	97.	27. - 142.
BNA Surr-Phenol-d5	42.	1. - 72.
BNA Surr-2-Fluorophenol	61.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	102.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17253  
Sample ID: 0202003-15D  
Sample Type: Water  
Site ID:

Project:  
Project Name:  
Sampler:

Date Collected: 1/31/02  
Time Collected: 14:52  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

Thriftway Refinery; MW-12

2/2/02

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	0.0720	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Anthracene	0.00700	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Fluoranthene	0.0330	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Fluorene	0.0180	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Pyrene	0.0210	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522
Phenanthrene	0.0670	mg/l	0.00500	1	2/ 9/02	3:25	LMcDaniel	8270C	2522

8270 surrogate outside QC limit due to sample matrix.

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17253  
Sample ID: 0202003-15D  
Project:  
Page 2

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### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

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Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	98.	24. - 128.
BNA Surr-2-Fluorobiphenyl	68.	33. - 118.
BNA Surr-Terphenyl-d14	108.	27. - 142.
BNA Surr-Phenol-d5	53.	1. - 72.
BNA Surr-2-Fluorophenol	73.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	160. #	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17254  
Sample ID: 0202003-16D  
Sample Type: Water  
Site ID:

Project:  
Project Name:  
Sampler:

Date Collected: 1/31/02  
Time Collected: 15:19  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

Thriftway Refinery; Air Stripper Influent

✓  
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Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
Naphthalene	0.0630	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Fluorene	0.0100	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	4:01	LMcDaniel	8270C	2522

8270 surrogate outside QC limits due to sample matrix.

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17254  
Sample ID: 0202003-16D  
Project:  
Page 2

---

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

---

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	84.	24. - 128.
BNA Surr-2-Fluorobiphenyl	76.	33. - 118.
BNA Surr-Terphenyl-d14	96.	27. - 142.
BNA Surr-Phenol-d5	43.	1. - 72.
BNA Surr-2-Fluorophenol	7.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	124.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
 DAVE COX  
 612 E. MURRAY DRIVE  
 FARMINGTON, NM 87401

Lab Number: 02-A17255  
 Sample ID: 0202003-17D  
 Sample Type: Water  
 Site ID:

Project:  
 Project Name:  
 Sampler:

Date Collected: 1/31/02  
 Time Collected: 15:25  
 Date Received: 2/ 5/02  
 Time Received: 9:00  
 Page: 1

Thriftway Refinery; Air Stripper Effluent

2/28/02

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
<b>*ORGANIC PARAMETERS*</b>									
Naphthalene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Acenaphthene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Fluorene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Benzo(a)anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Benzo(a)pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Benzo(b)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Benzo(k)fluoranthene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Chrysene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Dibenzo(a,h)anthracene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Indeno(1,2,3-cd)pyrene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Acenaphthylene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Benzo(g,h,i)perylene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522
Phenanthrene	ND	mg/l	0.00500	1	2/ 9/02	4:37	LMcDaniel	8270C	2522

### Sample Extraction Data

Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
BNA's	980. ml	1.0 ml	2/ 5/02		D.Yeager	3510/625

Sample report continued . . .

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

Laboratory Number: 02-A17255  
Sample ID: 0202003-17D  
Project:  
Page 2

Surrogate	% Recovery	Target Range
BNA Surr-Nitrobenzene-d5	97.	24. - 128.
BNA Surr-2-Fluorobiphenyl	89.	33. - 118.
BNA Surr-Terphenyl-d14	104.	27. - 142.
BNA Surr-Phenol-d5	56.	1. - 72.
BNA Surr-2-Fluorophenol	79.	1. - 99.
BNA Surr-2,4,6-Tribromophenol	126.	45. - 157.

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

**PROJECT QUALITY CONTROL DATA**  
**Project Number:**  
**Page: 1**

**Matrix Spike Recovery**

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C.	Batch	Spike
<b>**UST ANALYSIS**</b>									
Naphthalene	mg/l	< 0.00100	0.0310	0.0500	62	51. - 122.	2522	blank	
Acenaphthene	mg/l	< 0.00100	0.0350	0.0500	70	52. - 126.	2522	blank	
Anthracene	mg/l	< 0.00100	0.0450	0.0500	90	55. - 129.	2522	blank	
Fluoranthene	mg/l	< 0.00100	0.0470	0.0500	94	55. - 133.	2522	blank	
Fluorene	mg/l	< 0.00100	0.0380	0.0500	76	53. - 131.	2522	blank	
Pyrene	mg/l	< 0.00100	0.0490	0.0500	98	52. - 134.	2522	blank	
Benzo(a)anthracene	mg/l	< 0.00100	0.0480	0.0500	96	53. - 135.	2522	blank	
Benzo(a)pyrene	mg/l	< 0.00100	0.0480	0.0500	96	54. - 137.	2522	blank	
Benzo(b)fluoranthene	mg/l	< 0.00100	0.0390	0.0500	78	44. - 138.	2522	blank	
Benzo(k)fluoranthene	mg/l	< 0.00100	0.0510	0.0500	102	52. - 142.	2522	blank	
Chrysene	mg/l	< 0.00100	0.0490	0.0500	98	52. - 142.	2522	blank	
Dibenzo(a,h)anthracene	mg/l	< 0.00200	0.0490	0.0500	98	31. - 155.	2522	blank	
Indeno(1,2,3-cd)pyrene	mg/l	< 0.00200	0.0460	0.0500	92	30. - 154.	2522	blank	
Acenaphthylene	mg/l	< 0.00100	0.0350	0.0500	70	52. - 129.	2522	blank	
Benzo(g,h,i)perylene	mg/l	< 0.00200	0.0520	0.0500	104	21. - 165.	2522	blank	
Phenanthrene	mg/l	< 0.00100	0.0430	0.0500	86	54. - 128.	2522	blank	
BNA Surr-Nitrobenzene-d5	% Rec				79	24. - 128.	2522		
BNA Surr-2-Fluorobiphenyl	% Rec				78	33. - 118.	2522		
BNA Surr-Terphenyl-d14	% Rec				104	27. - 142.	2522		
BNA Surr-Phenol-d5	% Rec				54	1. - 72.	2522		
BNA Surr-2-Fluorophenol	% Rec				74	1. - 99.	2522		
BNA Surr-2,4,6-Tribromopheno%	Rec				112	45. - 157.	2522		

**Matrix Spike Duplicate**

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Naphthalene	mg/l	0.0310	0.0320	3.17	41.	2522
Acenaphthene	mg/l	0.0350	0.0360	2.82	40.	2522

Project QC continued . . .

# TestAmerica

INCORPORATED

PROJECT QUALITY CONTROL DATA  
 Project Number:  
 Page: 2

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
Anthracene	mg/l	0.0450	0.0460	2.20	40.	2522
Fluoranthene	mg/l	0.0470	0.0480	2.11	40.	2522
Fluorene	mg/l	0.0380	0.0390	2.60	40.	2522
Pyrene	mg/l	0.0490	0.0490	0.00	41.	2522
Benzo(a)anthracene	mg/l	0.0480	0.0490	2.06	41.	2522
Benzo(a)pyrene	mg/l	0.0480	0.0480	0.00	43.	2522
Benzo(b)fluoranthene	mg/l	0.0390	0.0390	0.00	42.	2522
Benzo(k)fluoranthene	mg/l	0.0510	0.0510	0.00	41.	2522
Chrysene	mg/l	0.0490	0.0500	2.02	40.	2522
Dibenzo(a,h)anthracene	mg/l	0.0490	0.0490	0.00	45.	2522
Indeno(1,2,3-cd)pyrene	mg/l	0.0460	0.0460	0.00	44.	2522
Acenaphthylene	mg/l	0.0350	0.0360	2.82	41.	2522
Benzo(g,h,i)perylene	mg/l	0.0520	0.0520	0.00	45.	2522
Phenanthrene	mg/l	0.0430	0.0450	4.55	39.	2522
BNA Surr-Nitrobenzene-d5	% Rec		79.			2522
BNA Surr-2-Fluorobiphenyl	% Rec		77.			2522
BNA Surr-Terphenyl-d14	% Rec		104.			2522
BNA Surr-Phenol-d5	% Rec		51.			2522
BNA Surr-2-Fluorophenol	% Rec		71.			2522
BNA Surr-2,4,6-Tribromophenol	% Rec		114.			2522

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
<b>**UST PARAMETERS**</b>						
Naphthalene	mg/l	0.0500	0.0340	68	52 - 121	2522
Acenaphthene	mg/l	0.0500	0.0380	76	53 - 125	2522
Anthracene	mg/l	0.0500	0.0450	90	54 - 130	2522
Fluoranthene	mg/l	0.0500	0.0470	94	56 - 133	2522
Fluorene	mg/l	0.0500	0.0400	80	53 - 131	2522
Pyrene	mg/l	0.0500	0.0480	96	54 - 133	2522

Project QC continued . . .

# TestAmerica

INCORPORATED

**PROJECT QUALITY CONTROL DATA**  
**Project Number:**  
**Page: 3**

**Laboratory Control Data**

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Benzo(a)anthracene	mg/l	0.0500	0.0480	96	54 - 134	2522
Benzo(a)pyrene	mg/l	0.0500	0.0470	94	55 - 136	2522
Benzo(b)fluoranthene	mg/l	0.0500	0.0390	78	45 - 136	2522
Benzo(k)fluoranthene	mg/l	0.0500	0.0490	98	55 - 139	2522
Chrysene	mg/l	0.0500	0.0490	98	52 - 141	2522
Dibenzo(a,h)anthracene	mg/l	0.0500	0.0510	102	37 - 148	2522
Indeno(1,2,3-cd)pyrene	mg/l	0.0500	0.0480	96	34 - 150	2522
Acenaphthylene	mg/l	0.0500	0.0380	76	52 - 129	2522
Benzo(g,h,i)perylene	mg/l	0.0500	0.0540	108	28 - 156	2522
Phenanthrene	mg/l	0.0500	0.0440	88	55 - 128	2522
BNA Surr-Nitrobenzene-d5	% Rec			84	24 - 128	2522
BNA Surr-2-Fluorobiphenyl	% Rec			82	33 - 118	2522
BNA Surr-Terphenyl-d14	% Rec			100	27 - 142	2522
BNA Surr-Phenol-d5	% Rec			53	1 - 72	2522
BNA Surr-2-Fluorophenol	% Rec			75	1 - 99	2522
BNA Surr-2,4,6-Tribromophenol	% Rec			113	45 - 157	2522

**Blank Data**

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
<b>**UST PARAMETERS**</b>					
Naphthalene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Acenaphthene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Anthracene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Fluoranthene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Fluorene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Pyrene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Benzo(a)anthracene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Benzo(a)pyrene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Benzo(b)fluoranthene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Benzo(k)fluoranthene	< 0.00100	mg/l	2522	2/ 8/02	14:21

Project QC continued . . .

## PROJECT QUALITY CONTROL DATA

Project Number:

Page: 4

### Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Chrysene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Dibenzo(a,h)anthracene	< 0.00200	mg/l	2522	2/ 8/02	14:21
Indeno(1,2,3-cd)pyrene	< 0.00200	mg/l	2522	2/ 8/02	14:21
Acenaphthylene	< 0.00100	mg/l	2522	2/ 8/02	14:21
Benzo(g,h,i)perylene	< 0.00200	mg/l	2522	2/ 8/02	14:21
Phenanthrene	< 0.00100	mg/l	2522	2/ 8/02	14:21
BNA Surr-Nitrobenzene-d5	67.	% Rec	2522	2/ 8/02	14:21
BNA Surr-2-Fluorobiphenyl	68.	% Rec	2522	2/ 8/02	14:21
BNA Surr-Terphenyl-d14	101.	% Rec	2522	2/ 8/02	14:21
BNA Surr-Phenol-d5	46.	% Rec	2522	2/ 8/02	14:21
BNA Surr-2-Fluorophenol	65.	% Rec	2522	2/ 8/02	14:21
BNA Surr-2,4,6-Tribromophenol	95.	% Rec	2522	2/ 8/02	14:21

\* - Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 270579

**On Site Technologies, LTD.**

612 E. Murray Drive  
Farmington, NM 87401  
(505) 325-2432

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

170516

## Subcontractor:

Test America, Inc.  
2960 Foster Creighton Drive

TEL: (800) 765-0980  
FAX: (615) 726-3404

Nashville, TN 37204-0566

Acct #: 3130

04-Feb-02

## Requested Tests

Sample ID	Matrix	Collection Date	Bottle Type	SW8270C
0202003-01D	Aqueous	01/30/2002 2:18:00 PM	1LAMGU	1
0202003-02D	Aqueous	01/30/2002 3:01:00 PM	1LAMGU	1
0202003-03D	Aqueous	01/30/2002 3:23:00 PM	1LAMGU	1
0202003-04D	Aqueous	01/30/2002 3:47:00 PM	1LAMGU	1
0202003-05D	Aqueous	01/31/2002 9:25:00 AM	1LAMGU	1
0202003-06D	Aqueous	01/31/2002 9:47:00 AM	1LAMGU	1
0202003-07D	Aqueous	01/31/2002 10:07:00 AM	1LAMGU	1
0202003-08D	Aqueous	01/31/2002 10:26:00 AM	1LAMGU	1
0202003-09D	Aqueous	01/31/2002 10:42:00 AM	1LAMGU	1
0202003-10D	Aqueous	01/31/2002 11:02:00 AM	1LAMGU	1
0202003-11D	Aqueous	01/31/2002 11:02:00 AM	1LAMGU	1
0202003-12D	Aqueous	01/31/2002 11:21:00 AM	1LAMGU	1
0202003-13D	Aqueous	01/31/2002 11:42:00 AM	1LAMGU	1
0202003-14D	Aqueous	01/31/2002 2:30:00 PM	1LAMGU	1
0202003-15D	Aqueous	01/31/2002 2:52:00 PM	1LAMGU	1
0202003-16D	Aqueous	01/31/2002 3:19:00 PM	1LAMGU	1
0202003-17D	Aqueous	01/31/2002 3:25:00 PM	1LAMGU	1

## Comments:

Please analyze seventeen (17) water samples for PAH\_8270.

Date/Time	Received by:	Date/Time	Received by:
2/4/02 1530	C. W.H.	2/5/02 0900	
Relinquished by: D. Madsen	Relinquished by: C. W.H.	Relinquished by: C. W.H.	Received by: C. W.H.

17231  
40  
41  
42  
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46  
47  
48  
49  
50  
51  
52  
53  
54  
17255

# TESTAMERICA, INC.-NASHVILLE

## COOLER RECEIPT FORM

Client: On Site Tech LTD BC# 270579

Cooler Received On: 2.5.02 And Opened On: 2.5.02 By: Chris Wilmoth

C. W  
(Signature)

1. Temperature of Cooler when opened 4° Degrees Celsius
2. Were custody seals on outside of cooler?.....YES...NO  
a. If yes, how many, what kind and where: 1 Front
3. Were custody seals on containers and intact?.....NO...YES
4. Were the seals intact, signed, and dated correctly?.....YES...NO
5. Were custody papers inside cooler?.....YES...NO
6. Were custody papers properly filled out (ink,signed,etc)?.....YES...NO
7. Did you sign the custody papers in the appropriate place?.....YES...NO
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)?.....YES...NO
10. Did all bottles arrive in good condition( unbroken)?.....YES...NO
11. Were all bottle labels complete (#,date,signed,pres,etc)?.....YES...NO
12. Did all bottle labels and tags agree with custody papers?.....YES...NO
13. Were correct bottles used for the analysis requested?.....YES...NO
14. a. Were VOA vials received?.....YES...NO  
b. Was there any observable head space present in any VOA vial?.....NO...YES
15. Was sufficient amount of sample sent in each bottle?.....YES...NO
16. Were correct preservatives used?.....YES...NO
17. Was residual chlorine present?.....NO...YES
18. Corrective action taken, if necessary:

See attached for resolution

**On Site Technologies, LTD.**

612 E. Murray Drive  
Farmington, NM 87401  
(505) 325-2432

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

## Subcontractor:

Test America, Inc.  
2960 Foster Creighton Drive  
Nashville, TN 37204-0566

TEL: (800) 765-0980  
FAX: (615) 726-3404

Acct #: 3130

04-Feb-02

Sample ID	Matrix	Collection Date	Bottle Type	SWB270C	Requested Tests
0202003-01D	Aqueous	01/30/2002 2:18:00 PM	1LAMGU	1	
0202003-02D	Aqueous	01/30/2002 3:01:00 PM	1LAMGU	1	
0202003-03D	Aqueous	01/30/2002 3:23:00 PM	1LAMGU	1	
0202003-04D	Aqueous	01/30/2002 3:47:00 PM	1LAMGU	1	
0202003-05D	Aqueous	01/31/2002 9:25:00 AM	1LAMGU	1	
0202003-06D	Aqueous	01/31/2002 9:47:00 AM	1LAMGU	1	
0202003-07D	Aqueous	01/31/2002 10:07:00 AM	1LAMGU	1	
0202003-08D	Aqueous	01/31/2002 10:26:00 AM	1LAMGU	1	
0202003-09D	Aqueous	01/31/2002 10:42:00 AM	1LAMGU	1	
0202003-10D	Aqueous	01/31/2002 11:02:00 AM	1LAMGU	1	
0202003-11D	Aqueous	01/31/2002 11:02:00 AM	1LAMGU	1	
0202003-12D	Aqueous	01/31/2002 11:21:00 AM	1LAMGU	1	
0202003-13D	Aqueous	01/31/2002 11:42:00 AM	1LAMGU	1	
0202003-14D	Aqueous	01/31/2002 2:30:00 PM	1LAMGU	1	
0202003-15D	Aqueous	01/31/2002 2:52:00 PM	1LAMGU	1	
0202003-16D	Aqueous	01/31/2002 3:19:00 PM	1LAMGU	1	
0202003-17D	Aqueous	01/31/2002 3:25:00 PM	1LAMGU	1	

## Comments:

Please analyze seventeen (17) water samples for PAH, 8270.

Relinquished by: Dan D. Martin  
Relinquished by: \_\_\_\_\_

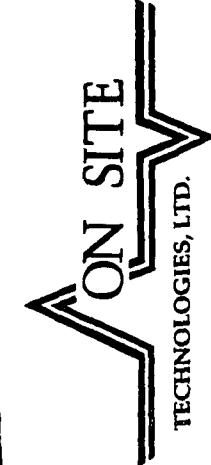
Date/Time: 2/4/02 1530  
Received by: \_\_\_\_\_

Date/Time

# **CHAIN OF CUSTODY RECORD**

卷之三

**612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499  
LAB: (505) 325-5667 • FAX: (505) 327-1496**



# CHAIN OF CUSTODY RECORD

11507

Date: \_\_\_\_\_  
Page: \_\_\_\_\_ of \_\_\_\_\_612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499  
LAB: (505) 325-5667 • FAX: (505) 327-1496

Purchase Order No.:		Project No.		Name		Title	
Name	Company	Dept.		Company	Mailing Address		
TO INVOICE SEND	Address			City, State, Zip	Telephone No.	Telefax No.	
PROJECT LOCATION:							
SAMPLER'S SIGNATURE:							
SAMPLE IDENTIFICATION							
Number of Containers							
RESULTS TO							
ANALYSIS REQUESTED							
LAB ID							
Special Instructions / Remarks:							
Authorized by: _____ (Client Signature Must Accompany Request)		Date _____		Date/Time _____		Date/Time _____	
Relinquished by: _____		Date/Time _____		Received by: _____		Date/Time _____	
Relinquished by: _____		Date/Time _____		Received by: _____		Date/Time _____	
Relinquished by: _____		Date/Time _____		Received by: _____		Date/Time _____	
Method of Shipment:		Rush	24-48 Hours	10 Working Days	By Date		

**APPENDIX C**  
**Soil Sample Laboratory Analyses**  
**QA/QC Data and COC Records**

OFF: (505) 325-5667  
FAX: (505) 327-1496



LAB: (505) 325-1556  
FAX: (505) 327-1496

February 23, 2002

Terry Griffin  
BioTech Remediation, Inc.  
510 Airport Drive, Suite 104  
Farmington, NM 87401  
TEL: (505) 327-4965  
FAX (505) 564-3604

RE: Stockpiled Soils

Order No.: 0202005

Dear Terry Griffin,

On Site Technologies, LTD. received 3 samples on 02/01/2002 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Cyanide, Reactive (SW7.3.3.2)  
Ignitability (SW1010)  
Soil and Waste pH (SW9045C)  
Sulfide, Reactive (SW7.3.4.2)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Cox'.

David Cox



OFF: (505) 325-5667  
FAX: (505) 327-1496

LAB: (505) 325-1556  
FAX: (505) 327-1496

## On Site Technologies, LTD.

Date: 23-Feb-02

---

**CLIENT:** BioTech Remediation, Inc.  
**Project:** Stockpiled Soils  
**Lab Order:** 0202005

---

## CASE NARRATIVE

---

Three soil samples were sub-contracted to Test America for analysis.

# TestAmerica

INCORPORATED

2/12/02

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project  
. The Laboratory Project number is 270584.  
An executed copy of the chain of custody and the sample receipt form are also included as an addendum to this report.

Sample Identification	Lab Number	Collection Date
0202005-01A	02-A17267	2/ 1/02
0202005-02A	02-A17268	2/ 1/02
0202005-03A	02-A17269	2/ 1/02

These results relate only to the items tested.  
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: mae z. sun Report Date: 2/12/02

Paul E. Lane, Jr., Lab Director  
Michael H. Dunn, M.S., Technical Director  
Johnny A. Mitchell, Dir. Technical Serv.  
Eric S. Smith, Assistant Technical Director  
Jennifer P. Flynn, Technical Services

Gail A. Lage, Technical Serv.  
Glenn L. Norton, Technical Serv.  
Kelly S. Comstock, Technical Serv.  
Pamela A. Langford, Technical Serv.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17267  
Sample ID: 0202005-01A  
Sample Type: Soil  
Site ID:

Project:  
Project Name:  
Sampler:

Stockpile Soils; 701 Soil Bore Cuttings

Tuba City

Date Collected: 2/ 1/02  
Time Collected: 14:24  
Date Received: 2/ 5/02  
Time Received: 9:00

Page: 1

2/23/02

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Base

### \*GENERAL CHEMISTRY PARAMETERS\*

Reactive Cyanide	ND	mg/kg	50.0	50.0	1	2/ 6/02	21:00	Abdullatef	SW-846
Reactive Sulfide	ND	mg/kg	100.	100.	1	2/ 6/02	21:00	Abdullatef	SW-846
Ignitability	NOT IGNITABLE UP TO 200F					2/12/02	14:00	T. Beverly	1010M
pH	9.30	pH units			1	2/ 7/02	18:30	B. Powell	9045

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

Flash point/ignitability reported to the nearest 10 deg F.

All results reported on a wet weight basis.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17268  
Sample ID: 0202005-02A  
Sample Type: Soil  
Site ID:

Project: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Sampler: \_\_\_\_\_  
Stockpile Soils; Refinery Tank #23 Excavation

Date Collected: 2/ 1/02  
Time Collected: 14:40  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

NS  
2/21/02

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	B
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

### \*GENERAL CHEMISTRY PARAMETERS\*

Reactive Cyanide	ND	mg/kg	50.0	50.0	1	2/ 6/02	21:00	Abdullatef	SW-846
Reactive Sulfide	ND	mg/kg	100.	100.	1	2/ 6/02	21:00	Abdullatef	SW-846
Ignitability	NOT IGNITABLE UP TO 200F					2/12/02	14:00	T. Beverly	1010M
pH	8.10	pH units			1	2/ 7/02	18:30	B. Powell	9045

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

Flash point/ignitability reported to the nearest 10 deg F.

All results reported on a wet weight basis.

End of Sample Report.

# TestAmerica

INCORPORATED

## ANALYTICAL REPORT

ON SITE TECHNOLOGIES, LTD. 3130  
DAVE COX  
612 E. MURRAY DRIVE  
FARMINGTON, NM 87401

Lab Number: 02-A17269  
Sample ID: 0202005-03A  
Sample Type: Soil  
Site ID:

Project:  
Project Name:  
Sampler:

Date Collected: 2/ 1/02  
Time Collected: 14:46  
Date Received: 2/ 5/02  
Time Received: 9:00  
Page: 1

Stockpile Soils; Refinery North Side Stockpile

2/28/02

Analyte	Result	Units	Report Limit	Quan Limit	Dil Factor	Date	Time	Analyst	Method	Ba

### \*GENERAL CHEMISTRY PARAMETERS\*

Reactive Cyanide	ND	mg/kg	50.0	50.0	1	2/ 6/02	21:00	Abdullatef	SW-846	1
Reactive Sulfide	ND	mg/kg	100.	100.	1	2/ 6/02	21:00	Abdullatef	SW-846	1
Ignitability	NOT IGNITABLE UP TO 200F					2/12/02	14:00	T. Beverly	1010M	5
pH	8.50	pH units			1	2/ 7/02	18:30	B. Powell	9045	8

### LABORATORY COMMENTS:

ND - Not detected at the report limit.

# - Recovery outside Laboratory historical or method prescribed limits.

Flash point/ignitability reported to the nearest 10 deg F.

All results reported on a wet weight basis.

End of Sample Report.

**PROJECT QUALITY CONTROL DATA**

**Project Number:**

**Page: 1**

# - Value outside Laboratory historical or method prescribed QC limits.

## SAMPLE NONCONFORMANCE/COC REVISION FORM

TestAmerica

Nashville Division

270584

DATE RECEIVED 2.5.02ACCT NO. 3130COMPANY OST LTD

Relinquished by:	Date/Time:	Received by:	Date/Time
CW	2.5.02 1420	✓ ✓	2-5/2:22 P
✓ ✓	2-5/5:40 p.	CW	2-6.02 800
Relinquished by:	Date/Time:	Received by:	Date/Time:

PROBLEM(S):

FOC/TOC?

METALS LIST?

TPH METHOD?

TCLP WHAT?

EDB METHOD?

HERB LIST- LONG OR SHORT?

NEED LIST OF COMPOUNDS:

8260 INSTEAD OF 8021?

TEMPERATURE UPON RECEIPT

SATURDAY DELIVERY MARKED?

ICE -- OR-- NO ICE??

FIELD TEST- OUT OF HOLD

NO COC - PLEASE FAX

NO ANALYSIS REQUESTED

DOCUMENTATION LEVEL?

OUT OF HOLDING TIME-- TEST

OTHER: We don't do steel plate ~~coast~~ any more, we do pH.  
OK?

RESOLUTION: Rew pH

CONTACTED	DATE/TIME	EMAIL	LEFT MESSAGE
Martin			
Dave Hox	5 Feb 02		

# TESTAMERICA, INC.-NASHVILLE

## COOLER RECEIPT FORM

Client: O-siti Tech LTD BC# 270584

Cooler Received On: 2.5.02 And Opened On: 2.5.02 By: Chris Wilmoth

C.W.M.

(Signature)

1. Temperature of Cooler when opened 4 Degrees Celsius
2. Were custody seals on outside of cooler?..... YES...NO

  - a. If yes, how many, what kind and where: 1 Front

3. Were custody seals on containers and intact?.....NO...YES
4. Were the seals intact, signed, and dated correctly?..... YES...NO
5. Were custody papers inside cooler?..... YES...NO
6. Were custody papers properly filled out (ink,signed,etc)?..... YES...NO
7. Did you sign the custody papers in the appropriate place?..... YES...NO
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Was sufficient ice used (if appropriate)?..... YES...NO
10. Did all bottles arrive in good condition( unbroken)?..... YES...NO
11. Were all bottle labels complete (#,date,signed,pres,etc)?..... YES...NO
12. Did all bottle labels and tags agree with custody papers?..... YES...NO
13. Were correct bottles used for the analysis requested?..... YES...NO
14. a. Were VOA vials received?..... YES...NO  
b. Was there any observable head space present in any VOA vial?.....NO...YES
15. Was sufficient amount of sample sent in each bottle?..... YES...NO
16. Were correct preservatives used?..... YES...NO
17. Was residual chlorine present?.....NO...YES
18. Corrective action taken, if necessary:

See attached for resolution

# CHAIN-OF-CUSTODY RECORD

612 E. Murray Drive  
Farmington, NM 87401  
(505) 325-2432

## Subcontractor:

Test America, Inc.  
2960 Foster Creighton Drive

Nashville, TN 37204-0566

TEL: (800) 765-0980  
FAX: (615) 726-3404

Acct #: 3130

04-Feb-02

Sample ID      Matrix      Collection Date      Bottle Type

		02/01/2002 2:24:00 PM	40ZG	1	SW9045C	Cyanide	Requested Tests
		02/01/2002 2:40:00 PM	40ZG	1	SW 7.3.3.2	Solids	
		02/01/2002 2:46:00 PM	40ZG	1	SW 7.3.4.2		
0202005-01A	Soil						17267
0202005-02A	Soil						68
0202005-03A	Soil						17269

Comments:

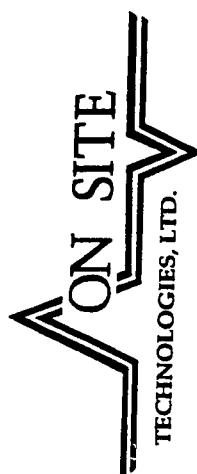
Please analyze three (3) soils for RCI.

Relinquished by: David D. Maysden      Date/Time: 2/4/02 1530  
Relinquished by: C. Wilt      Received by: 2.5.02 C. 900

Date/Time

11508

# **CHAIN OF CUSTODY RECORD**



TECHNOLOGIES, LTD.

**6112 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499  
LAB: (505) 325-5667 • FAX: (505) 327-1496**

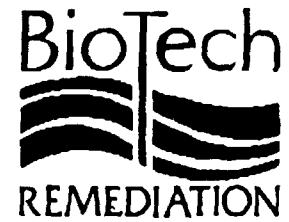
Purchase Order No.:

chase Order No.: Project No.

LAB: (505) 325-5667 • FAX: (505) 327-1496

Page: \_\_\_\_\_ of \_\_\_\_\_

APPENDIX D  
Bio Tech/Thriftway Letter (November 2001)



November 19, 2001

710 E. 20th Street, Suite 400  
Farmington, New Mexico 87401  
Off (505) 327-4965  
Fax (505) 564-3604

Mr. Wayne Price  
Petroleum Engineering Specialist  
New Mexico Energy, Minerals and Natural Resources Dpt.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Discharge Plan Renewal GW-055  
Thriftway Bloomfield Refinery

Dear Mr. Price:

Thriftway has contracted with BioTech Remediation Inc., to prepare and submit all necessary documentation required for approval for the Thriftway Bloomfield Refinery Discharge Plan GW-55.

The following text addresses the issues noted in your letter of September 26, 2001. The items will be addressed in the same order as presented in the reference letter.

1. The below grade sumps which contain oily waste at Tank #11 and Tank #12 will be cleaned out at the December 2001 Sampling and Monitoring event.
2. The soils located on the north side of the property will be sampled at the year end Quarterly Sampling and Monitoring event and the results will be published within the annual report. If the soils remain above regulatory limits, the soils will be removed to an approved land farm.
3. The on-site production well belongs to Arrington Oil out of Midland, Texas. Any work that is required there should be directed to Arrington Oil.
4. The valve on Tank #23 (reference in your letter as Tank #184), which was leaking, has been repaired and the stained soils will be sampled at the Quarterly Sampling and Monitoring event in December and will be removed and transported to an approved land farm upon receipt of analysis.
5. BioTech is in the process of contracting with The Snow Company, out of Albuquerque, New Mexico, to inspect the lagoon liners. Schedules permitting, the inspection should take place shortly after the first of the year and results will be published within the required Annual Report.

November 19, 2001

Mr. Wayne Price

Page 2

Enclosed also is a letter which Brad Billings, with Billings and Associates, Inc., has prepared reviewing the most current data for the refinery with recommendations for remedial options for this discharge permit renewal.

I have also enclosed a check for \$50.00 to satisfy the ground water permit fee. I believe that with this submittal, the permit application is complete. However, if you find that additional information is required, please contact me at 505-327-4965.

Respectfully,



Terry Griffin  
Project Administrator

Enclosures (2)

CC: File  
Thriftway Company  
Brad Billings, Billings and Associates