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REPORTS

DATE:

2002

Olson, William

From: Andrew Parker [andrew@rthicksconsult.com]
Sent: Thursday, March 20, 2003 11:06 AM
To: Dennis Riding; wolson@state.nm.us
Subject: 2002 Annual Report Maverik Refinery

Mr. Olsen:

Attached is the 2002 annual ground water report for the Maverik Refinery in Kirtland, NM. Please contact me at 505-266-5004 or via email with any questions or comments.

That's all,

Andrew Parker
Hicks Consultants

R.T. HICKS CONSULTANTS, LTD.

219 Central NW ▲ Suite 266 ▲ Albuquerque, NM 87102 ▲ 505.266.5004 ▲ Fax: 505.246.1818

March 20, 2003

Mr. William Olsen
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr
Santa Fe, NM 87505

**RE: Annual 2002 Groundwater Monitoring and Sampling Event
Former Maverik Refinery Tank Farm
Kirtland, New Mexico**

Dear Mr. Olsen:

On behalf of Maverik Country Stores, Inc. (Maverik), R.T. Hicks Consultants, Ltd. is submitting this 2002 Groundwater Monitoring and Sampling Report for the former Maverik Refinery in Kirtland, New Mexico. This report represents the annual sampling event conducted on December 19, 2002. If you any questions or concerns, please do not hesitate to call me at (505) 266-5004.



Andrew Parker
Associate Scientist

Maverik Refinery Tank Farm:
2002 Ground Water Monitoring Report

Prepared for:
MAVERIK COUNTRY STORES, INC.
880 West Center Street
North Salt Lake, UT 84054

March 20, 2003

R. T. Hicks Consultants, Ltd.
219 Central NW Suite 266
Albuquerque, NM 87102

R.T. HICKS CONSULTANTS, LTD.

1.0 Introduction

This report presents the results for the 2002 annual ground water monitoring and sampling event conducted at the Former Maverik Refinery Tank Farm, located in Kirtland, New Mexico. Semi-annual ground water monitoring was conducted at the site through 1998. Annual groundwater monitoring began in 1999 and has continued until the present. The 2002 ground water monitoring and sampling event constituted the fourth annual monitoring event since semi-annual monitoring was discontinued at the end of 1998.

R. T. Hicks Consultants (Hicks Consultants) conducted ground water monitoring and sampling on behalf of Maverik Country Stores, Inc. on December 19, 2002.

2.0 Description of Field Activities

Hicks Consultants completed field work as described in Section 5 of the 1998 Annual Groundwater Monitoring Report and agreed upon with modifications in a letter from the Oil Conservation Division dated March 19, 1999.

2.1 Ground Water Measurement

On December 19, 2002, we measured the depth to ground water and total well depth measurements at the following monitoring wells:

- Located outside the slurry wall impoundment: MW-9, MW-10, MW-14, MW-16, MW-18, MW-19, MW-20, and MW-21.
- Located inside the slurry wall impoundment: MW-17 and MW-22.

We did not sample or collect well depth data from MW-1, MW-2, and MW-15. Historically, MW-1 and MW-2 were not sampled and MW-15 demonstrated hydrocarbon concentrations below laboratory detection limits.

We measured depth to groundwater and total well depth using an electronic oil-water interface probe. The probe was properly decontaminated prior to and after each measurement at each ground water monitoring well. Table 1 summarizes the corrected ground water level elevations.

2.2 Groundwater Sampling and Analysis

The additional field activities for ground water monitoring included measurement of temperature, specific conductivity, and dissolved oxygen in addition to collecting representative ground water samples. We completed ground water sampling activities in accordance with the standard United States Environmental Protection Agency (USEPA) protocols.

We purged three casing volumes from the monitoring wells with the exception of MW-17, MW-18, MW-19, MW-21, and MW-22; these wells bailed dry. We recorded field parameter measurements and water quality observations in a field book. After purging, we collected samples from the wells using a disposable bailer. Field personnel delivered the samples to Assaigai Analytical Laboratories under strict chain-of-custody procedures for analyses of benzene, ethylbenzene, toluene, xylenes (BTEX), and 1,1 Dichloroethane using EPA Method 8260.

R.T. HICKS CONSULTANTS, LTD.

3.0 Summary of Monitoring and Sampling Results

3.1 Fluid Level Measurements

Table 1 presents historic ground water elevation data. Because the ground water elevations did not change significantly and the potentiometric surface is essentially the same as in previous submissions, we did not include a potentiometric surface map. Groundwater flow direction is generally to the southeast, which is typical of past observations. The ground water gradient is approximately 0.01 feet/foot.

December 2002 fluid level measurements demonstrate that water levels are approximately the same as those measured during the December 2001 annual monitoring event. During the December 2002 event, we did not observe free product in MW-17. However, a strong hydrocarbon odor was present. Water table fluctuations likely contribute to the sporadic presence of product observed in monitoring wells within the slurry wall.

3.2 Water Quality Analyses

Table 2 summarizes water quality monitoring results for the December 2002 annual sampling event. Appendix A contains the laboratory analytical report for the 2002 annual event.

Laboratory analyses detected no analytes in any of the wells outside the slurry wall. This is consistent with past results. Historically, monitoring wells MW-17 and MW-22 located within the confines of the slurry wall demonstrate elevated hydrocarbon levels. Analytical results from MW-17 illustrate the continuation of a decreasing hydrocarbon trend; we believe this trend is likely due to the cumulative effect of biodegradation within the aquifer and volatilization of BTEX from the unsaturated zone. However, results from MW-22 reported an increase in BTEX values. This is likely due to the fluctuating levels of free product within the slurry wall.

4.0 Conclusions and Recommendations

Data indicate that the slurry wall has maintained its integrity and is performing its planned function of containing the gasoline-affected ground water. BTEX and 1,1 Dichloroethane were not detected in monitoring wells down gradient from the slurry wall. Historical data suggest that natural attenuation of organic contaminants in the ground water at the site is likely occurring. Maverik will continue the annual groundwater sampling and reporting program.

TABLES

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
Outside Slurry Wall						
MW-1	01/01/92	5,205.75	5,207.24	10.90	0	5,196.34
	06/01/92	5,205.75	5,207.24	8.40	0	5,198.84
	08/01/92	5,205.75	5,207.24	6.00	0	5,201.24
	12/01/92	5,205.75	5,207.24	8.00	0	5,199.24
	03/01/93	5,205.75	5,207.24	12.30	0	5,194.94
	05/01/93	5,205.75	5,207.24	NM	0	NM
	11/01/93	5,205.75	5,207.24	NM	0	NM
	05/01/94	5,205.75	5,207.24	NM	0	NM
	10/01/94	5,205.75	5,207.24	NM	0	NM
	05/01/95	5,205.75	5,207.24	NM	0	NM
	10/01/95	5,205.75	5,207.24	NM	0	NM
	05/01/96	5,205.75	5,207.24	NM	0	NM
	10/01/96	5,205.75	5,207.24	10.97	0	5,196.27
	06/24/97	5,205.75	5,207.24	13.58	0	5,193.66
	10/18/97	5,205.75	5,207.24	11.87	0	5,195.37
	05/05/98	5,205.75	5,207.24	16.17	0	5,191.07
	12/01/98	5,205.75	5,207.24	NM	NM	NM
	10/14/99	5,205.75	5,207.24	10.66	0	5,196.58
	10/01/00	5,205.75	5,207.24	NM	NM	NM
MW-2	01/01/92	5,195.25	5,196.93	3.80	0	5,193.13
	06/01/92	5,195.25	5,196.93	4.40	0	5,192.53
	08/01/92	5,195.25	5,196.93	3.80	0	5,193.13
	12/01/92	5,195.25	5,196.93	2.50	0	5,194.43
	03/01/93	5,195.25	5,196.93	4.50	0	5,192.43
	05/01/93	5,195.25	5,196.93	NM	0	NM
	11/01/93	5,195.25	5,196.93	NM	0	NM
	05/01/94	5,195.25	5,196.93	NM	0	NM
	10/01/94	5,195.25	5,196.93	NM	0	NM
	05/01/95	5,195.25	5,196.93	NM	0	NM
	10/01/95	5,195.25	5,196.93	NM	0	NM
	05/01/96	5,195.25	5,196.93	NM	0	NM
	10/01/96	5,195.25	5,196.93	5.99	0	5,190.94
	06/01/97	5,195.25	5,196.93	7.51	0	5,189.42
	10/01/97	5,195.25	5,196.93	6.66	0	5,190.27
	05/05/98	5,195.25	5,196.93	8.22	0	5,188.71
	12/01/98	5,195.25	5,196.93	NM	NM	NM
	10/14/99	5,195.25	5,196.93	6.51	0	5,190.42
	10/01/00	5,195.25	5,196.93	NM	NM	NM
MW-9	01/01/92	5,189.33	5,191.22	1.50	0	5,189.72
	06/01/92	5,189.33	5,191.22	2.30	0	5,188.92
	08/01/92	5,189.33	5,191.22	1.80	0	5,189.42
	12/01/92	5,189.33	5,191.22	0.60	0	5,190.62
	03/01/93	5,189.33	5,191.22	1.80	0	5,189.42
	05/01/93	5,189.33	5,191.22	NM	0	NM
	11/01/93	5,189.33	5,191.22	1.30	0	5,189.92
	05/01/94	5,189.33	5,191.22	NM	0	NM
	10/01/94	5,189.33	5,191.22	2.03	0	5,189.19
	05/01/95	5,189.33	5,191.22	NM	0	NM
	10/01/95	5,189.33	5,191.22	4.22	0	5,187.00
	05/01/96	5,189.33	5,191.22	NM	0	NM
	10/01/96	5,189.33	5,191.22	3.88	0	5,187.34
	06/01/97	5,189.33	5,191.22	5.59	0	5,185.63
	10/01/97	5,189.33	5,191.22	5.06	0	5,186.16
	05/05/98	5,189.33	5,191.22	5.89	0	5,185.33
	12/01/98	5,189.33	5,191.22	3.96	0	5,187.26
	10/14/99	5,189.33	5,191.22	4.82	0	5,186.40
	10/01/00	5,189.33	5,191.22	NM	NM	NM
	12/19/01	5,189.33	5,191.22	4.23	0	5,186.99
	12/19/02	5,189.33	5,191.22	4.20	0	5,187.02

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
MW-10	01/01/92	5,187.47	5,189.30	1.60	0	5,187.70
	06/01/92	5,187.47	5,189.30	2.70	0	5,186.60
	08/01/92	5,187.47	5,189.30	2.90	0	5,186.40
	12/01/92	5,187.47	5,189.30	0.90	0	5,188.40
	03/01/93	5,187.47	5,189.30	1.60	0	5,187.70
	05/01/93	5,187.47	5,189.30	2.80	0	5,186.50
	11/01/93	5,187.47	5,189.30	1.80	0	5,187.50
	05/01/94	5,187.47	5,189.30	4.47	0	5,184.83
	10/01/94	5,187.47	5,189.30	2.97	0	5,186.33
	05/01/95	5,187.47	5,189.30	4.42	0	5,184.88
	10/01/95	5,187.47	5,189.30	4.60	0	5,184.70
	05/01/96	5,187.47	5,189.30	4.28	0	5,185.02
	10/01/96	5,187.47	5,189.30	4.23	0	5,185.07
	06/01/97	5,187.47	5,189.30	5.37	0	5,183.93
	10/01/97	5,187.47	5,189.30	4.90	0	5,184.40
	05/05/98	5,187.47	5,189.30	5.52	0	5,183.78
	12/01/98	5,187.47	5,189.30	3.76	0	5,185.54
	10/14/99	5,187.47	5,189.30	4.85	0	5,184.45
	10/01/00	5,187.47	5,189.30	3.93	0	5,185.37
	12/19/01	5,187.47	5,189.30	4.22	0	5,185.08
	12/19/02	5,187.47	5,189.30	3.80	0	5,185.50
MW-13	01/01/92	5,187.56	5,187.76	NM	0	NM
	06/01/92	5,187.56	5,187.76	2.80	0	5,184.96
	08/01/92	5,187.56	5,187.76	2.70	0	5,185.06
	12/01/92	5,187.56	5,187.76	1.10	0	5,186.66
	03/01/93	5,187.56	5,187.76	1.70	0	5,186.06
	05/01/93	5,187.56	5,187.76	NM	0	NM
	11/01/93	5,187.56	5,187.76	1.40	0	5,186.36
	05/01/94	5,187.56	5,187.76	NM	0	NM
	10/01/94	5,187.56	5,187.76	2.91	0	5,184.85
	05/01/95	5,187.56	5,187.76	NM	0	NM
	10/01/95	5,187.56	5,187.76	3.23	0	5,184.53
	05/01/96	5,187.56	5,187.76	NM	0	NM
	10/01/96	5,187.56	5,187.76	2.52	0	5,185.24
	06/01/97	5,187.56	5,187.76	4.08	0	5,183.68
	10/01/97	5,187.56	5,187.76	4.12	0	5,183.64
	05/05/98	5,187.56	5,187.76	4.03	0	5,183.73
	12/01/98	5,187.56	5,187.76	2.17	0	5,185.59
Well Destroyed	10/14/99	5,187.56	5,187.76	NA	0	NA
MW-14	01/01/92	5,190.70	5,194.47	2.10	0	5,192.37
	06/01/92	5,190.70	5,194.47	4.10	0	5,190.37
	08/01/92	5,190.70	5,194.47	4.20	0	5,190.27
	12/01/92	5,190.70	5,194.47	0.70	0	5,193.77
	03/01/93	5,190.70	5,194.47	2.20	0	5,192.27
	05/01/93	5,190.70	5,194.47	NM	0	NM
	11/01/93	5,190.70	5,194.47	1.70	0	5,192.77
	05/01/94	5,190.70	5,194.47	NM	0	NM
	10/01/94	5,190.70	5,194.47	4.27	0	5,190.20
	05/01/95	5,190.70	5,194.47	NM	0	NM
	10/01/95	5,190.70	5,194.47	8.09	0	5,186.38
	05/01/96	5,190.70	5,194.47	NM	0	NM
	10/01/96	5,190.70	5,194.47	7.52	0	5,186.95
	06/01/97	5,190.70	5,194.47	8.95	0	5,185.52
	10/01/97	5,190.70	5,194.47	8.87	0	5,185.60
	05/05/98	5,190.70	5,194.47	9.02	0	5,185.45
	12/01/98	5,190.70	5,194.47	6.74	0	5,187.73
	10/14/99	5,190.70	5,194.47	8.21	0	5,186.26
	10/01/00	5,190.70	5,194.47	7.30	Slight Sheen	5,187.17
	12/19/02	5,190.70	5,194.47	7.00	0	5,187.47

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
MW-15	01/01/92	5,185.40	5,188.80	0.80	0	5,188.00
	06/01/92	5,185.40	5,188.80	2.20	0	5,186.60
	08/01/92	5,185.40	5,188.80	2.40	0	5,186.40
	12/01/92	5,185.40	5,188.80	0.10	0	5,188.70
	03/01/93	5,185.40	5,188.80	0.60	0	5,188.20
	05/01/93	5,185.40	5,188.80	NM	0	NM
	11/01/93	5,185.40	5,188.80	0.60	0	5,188.20
	05/01/94	5,185.40	5,188.80	NM	0	NM
	10/01/94	5,185.40	5,188.80	1.86	0	5,186.94
	05/01/95	5,185.40	5,188.80	NM	0	NM
	10/01/95	5,185.40	5,188.80	5.79	0	5,183.01
	05/01/96	5,185.40	5,188.80	NM	0	NM
	10/01/96	5,185.40	5,188.80	5.32	0	5,183.48
	06/01/97	5,185.40	5,188.80	6.07	0	5,182.73
	10/01/97	5,185.40	5,188.80	5.57	0	5,183.23
	05/05/98	5,185.40	5,188.80	5.53	0	5,183.27
	12/01/98	5,185.40	5,188.80	4.39	0	5,184.41
	10/14/99	5,185.40	5,188.80	5.86	0	5,182.94
	10/01/00	5,185.40	5,188.80	NM	NM	NM
MW-16	01/01/92	5,193.74	5,194.98	3.40	0	5,191.58
	06/01/92	5,193.74	5,194.98	4.50	0	5,190.48
	08/01/92	5,193.74	5,194.98	3.30	0	5,191.68
	12/01/92	5,193.74	5,194.98	1.90	0	5,193.08
	03/01/93	5,193.74	5,194.98	4.00	0	5,190.98
	05/01/93	5,193.74	5,194.98	NM	0	NM
	11/01/93	5,193.74	5,194.98	3.00	0	5,191.98
	05/01/94	5,193.74	5,194.98	NM	0	NM
	10/01/94	5,193.74	5,194.98	4.53	0	5,190.45
	05/01/95	5,193.74	5,194.98	NM	0	NM
	10/01/95	5,193.74	5,194.98	6.03	0	5,188.95
	05/01/96	5,193.74	5,194.98	NM	0	NM
	10/01/96	5,193.74	5,194.98	7.61	0	5,187.37
	06/01/97	5,193.74	5,194.98	7.72	0	5,187.26
	10/01/97	5,193.74	5,194.98	7.20	0	5,187.78
	05/05/98	5,193.74	5,194.98	8.36	0	5,186.62
	12/01/98	5,193.74	5,194.98	5.58	0	5,189.40
	10/14/99	5,193.74	5,194.98	6.72	0	5,188.26
	10/01/00	5,193.74	5,194.98	5.76	0	5,189.22
	12/19/01	5,193.74	5,194.98	5.85	0	5,189.13
	12/19/02	5,193.74	5,194.98	5.95	0	5,189.03
MW-18	01/01/92	5,199.14	5,201.75	NM	0	NM
	06/01/92	5,199.14	5,201.75	7.10	0	5,194.65
	08/01/92	5,199.14	5,201.75	5.00	0	5,196.75
	12/01/92	5,199.14	5,201.75	4.50	0	5,197.25
	03/01/93	5,199.14	5,201.75	6.70	0	5,195.05
	05/01/93	5,199.14	5,201.75	7.10	0	5,194.65
	11/01/93	5,199.14	5,201.75	5.20	0	5,196.55
	05/01/94	5,199.14	5,201.75	9.58	0	5,192.17
	10/01/94	5,199.14	5,201.75	8.60	0	5,193.15
	05/01/95	5,199.14	5,201.75	11.82	0	5,189.93
	10/01/95	5,199.14	5,201.75	10.69	0	5,191.06
	05/01/96	5,199.14	5,201.75	11.81	0	5,189.94
	10/01/96	5,199.14	5,201.75	10.35	0	5,191.40
	06/01/97	5,199.14	5,201.75	12.46	0	5,189.29
	10/01/97	5,199.14	5,201.75	11.96	0	5,189.79
	05/05/98	5,199.14	5,201.75	13.72	0	5,188.03
	12/01/98	5,199.14	5,201.75	10.37	0	5,191.38
	10/14/99	5,199.14	5,201.75	11.51	Slight Sheen	5,190.24
	10/01/00	5,199.14	5,201.75	10.48	Slight Sheen	5,191.27
	12/19/01	5,199.14	5,201.75	10.61	Slight Sheen	5,191.14
	12/19/02	5,199.14	5,201.75	11.10	0	5,190.65

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
MW-19	01/01/92	5188.58	5189.54	1.00	0	5,188.54
	06/01/92	5188.58	5189.54	2.00	0	5,187.54
	08/01/92	5188.58	5189.54	1.90	0	5,187.64
	12/01/92	5188.58	5189.54	0.30	0	5,189.24
	03/01/93	5188.58	5189.54	1.20	0	5,188.34
	05/01/93	5188.58	5189.54	2.20	0	5,187.34
	11/01/93	5188.58	5189.54	1.00	0	5,188.54
	05/01/94	5188.58	5189.54	3.43	0	5,186.11
	10/01/94	5188.58	5189.54	2.48	0	5,187.06
	05/01/95	5188.58	5189.54	3.50	0	5,186.04
	10/01/95	5188.58	5189.54	3.44	0	5,186.10
	05/01/96	5188.58	5189.54	3.42	0	5,186.12
	10/01/96	5188.58	5189.54	2.97	0	5,186.57
	06/01/97	5188.58	5189.54	4.51	0	5,185.03
	10/01/97	5188.58	5189.54	3.99	0	5,185.55
	05/05/98	5188.58	5189.54	4.62	0	5,184.92
	12/01/98	5188.58	5189.54	2.68	0	5,186.86
	10/14/99	5188.58	5189.54	3.70	0	5,185.84
	10/01/00	5188.58	5189.54	2.84	0	5,186.70
	12/19/01	5188.58	5189.54	5.05	0	5,184.49
	12/19/02	5188.58	5189.54	5.09	0	5,184.45
MW-20	01/01/92	5,190.10	5,191.05	2.60	0	5,188.45
	06/01/92	5,190.10	5,191.05	3.50	0	5,187.55
	08/01/92	5,190.10	5,191.05	3.50	0	5,187.55
	12/01/92	5,190.10	5,191.05	1.80	0	5,189.25
	03/01/93	5,190.10	5,191.05	2.70	0	5,188.35
	05/01/93	5,190.10	5,191.05	3.70	0	5,187.35
	11/01/93	5,190.10	5,191.05	2.60	0	5,188.45
	05/01/94	5,190.10	5,191.05	5.76	0	5,185.29
	10/01/94	5,190.10	5,191.05	3.83	0	5,187.22
	05/01/95	5,190.10	5,191.05	4.78	0	5,186.27
	10/01/95	5,190.10	5,191.05	4.71	0	5,186.34
	05/01/96	5,190.10	5,191.05	4.57	0	5,186.48
	10/01/96	5,190.10	5,191.05	4.35	0	5,186.70
	06/01/97	5,190.10	5,191.05	5.65	0	5,185.40
	10/01/97	5,190.10	5,191.05	5.15	0	5,185.90
	05/05/98	5,190.10	5,191.05	5.73	0	5,185.32
	12/01/98	5,190.10	5,191.05	4.05	0	5,187.00
	10/14/99	5,190.10	5,191.05	5.10	0	5,185.95
	10/01/00	5,190.10	5,191.05	4.11	Sheen	5,186.94
	12/19/01	5,190.10	5,191.05	4.45	0	5,186.60
	12/19/02	5,190.10	5,191.05	4.23	0	5,186.82
MW-21	01/01/92	5,193.62	5,194.81	2.80	0	5,192.01
	06/01/92	5,193.62	5,194.81	4.30	0	5,190.51
	08/01/92	5,193.62	5,194.81	4.60	0	5,190.21
	12/01/92	5,193.62	5,194.81	2.20	0	5,192.61
	03/01/93	5,193.62	5,194.81	3.20	0	5,191.61
	05/01/93	5,193.62	5,194.81	4.70	0	5,190.11
	11/01/93	5,193.62	5,194.81	3.30	0	5,191.51
	05/01/94	5,193.62	5,194.81	6.00	0	5,188.81
	10/01/94	5,193.62	5,194.81	5.04	0	5,189.77
	05/01/95	5,193.62	5,194.81	6.29	0	5,188.52
	10/01/95	5,193.62	5,194.81	6.22	0	5,188.59
	05/01/96	5,193.62	5,194.81	6.22	0	5,188.59
	10/01/96	5,193.62	5,194.81	5.71	0	5,189.10
	06/01/97	5,193.62	5,194.81	6.73	0	5,188.08
	10/01/97	5,193.62	5,194.81	6.92	0	5,187.89
	05/05/98	5,193.62	5,194.81	7.45	0	5,187.36
	12/01/98	5,193.62	5,194.81	NM	NM	NM
	10/14/99	5,193.62	5,194.81	6.64	0	5,188.17
	10/01/00	5,193.62	5,194.81	4.99	0	5,189.82
	12/19/01	5,193.62	5,194.81	4.72	0	5,190.09
	12/19/02	5,193.62	5,194.81	5.50	0	5,189.31

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
Inside Slurry Wall						
MW-17	01/01/92	5,193.43	5,195.91	NM	0	NM
	06/01/92	5,193.43	5,195.91	3.70	0	5,192.21
	08/01/92	5,193.43	5,195.91	3.40	0	5,192.51
	12/01/92	5,193.43	5,195.91	2.10	0	5,193.81
	03/01/93	5,193.43	5,195.91	3.10	0	5,192.81
	05/01/93	5,193.43	5,195.91	3.90	0	5,192.01
	11/01/93	5,193.43	5,195.91	2.90	0	5,193.01
	05/01/94	5,193.43	5,195.91	5.71	0	5,190.20
	10/01/94	5,193.43	5,195.91	5.47	0	5,190.44
	05/01/95	5,193.43	5,195.91	8.30	0	5,187.61
	10/01/95	5,193.43	5,195.91	8.29	0	5,187.62
	05/01/96	5,193.43	5,195.91	8.11	0	5,187.80
	10/01/96	5,193.43	5,195.91	8.02	0	5,187.89
	06/01/97	5,193.43	5,195.91	9.32	0	5,186.59
	10/01/97	5,193.43	5,195.91	9.48	0	5,186.43
	05/05/98	5,193.43	5,195.91	9.42	0.01	5,186.49
	12/01/98	5,193.43	5,195.91	7.37	Sheen	5,188.54
	10/14/99	5,193.43	5,195.91	9.45	0.00	5,186.46
	10/01/00	5,193.43	5,195.91	8.12	Sheen	5,187.79
	12/19/01	5,193.43	5,195.91	8.10	0.00	5,187.81
	12/19/02	5,193.43	5,195.91	8.00	0.00	5,187.91
MW-22	01/01/92	5,194.58	5,195.86	4.50	0	5,191.36
	06/01/92	5,194.58	5,195.86	5.30	0	5,190.56
	08/01/92	5,194.58	5,195.86	4.70	0	5,191.16
	12/01/92	5,194.58	5,195.86	3.50	0	5,192.36
	03/01/93	5,194.58	5,195.86	5.00	0	5,190.86
	05/01/93	5,194.58	5,195.86	5.70	0	5,190.16
	11/01/93	5,194.58	5,195.86	4.40	0	5,191.46
	05/01/94	5,194.58	5,195.86	7.62	0	5,188.24
	10/01/94	5,194.58	5,195.86	7.18	0	5,188.68
	05/01/95	5,194.58	5,195.86	7.64	0	5,188.22
	10/01/95	5,194.58	5,195.86	7.16	0	5,188.70
	05/01/96	5,194.58	5,195.86	7.51	0	5,188.35
	10/01/96	5,194.58	5,195.86	6.89	0	5,188.97
	06/01/97	5,194.58	5,195.86	8.16	0	5,187.70
	10/01/97	5,194.58	5,195.86	8.06	0.03	5,187.80
	05/05/98	5,194.58	5,195.86	9.02	0.01	5,186.84
	12/01/98	5,194.58	5,195.86	6.52	Sheen	5,189.34
	10/14/99	5,194.58	5,195.86	7.75	Slight Sheen	5,188.11
	10/01/00	5,194.58	5,195.86	6.90	Sheen	5,188.96
	12/19/01	5,194.58	5,195.86	7.00	0.00	5,188.86
	12/19/02	5,194.58	5,195.86	7.05	0.00	5,188.81
P-1	01/01/92	5,195.74	5,197.66	NM	0	NM
	06/01/92	5,195.74	5,197.66	5.40	0	5,192.26
	08/01/92	5,195.74	5,197.66	4.20	0	5,193.46
	12/01/92	5,195.74	5,197.66	3.30	0	5,194.36
	03/01/93	5,195.74	5,197.66	5.50	0	5,192.16
	05/01/93	5,195.74	5,197.66	6.10	0	5,191.56
	11/01/93	5,195.74	5,197.66	4.40	0	5,193.26
	05/01/94	5,195.74	5,197.66	7.21	0	5,190.45
	10/01/94	5,195.74	5,197.66	7.57	0	5,190.09
	05/01/95	5,195.74	5,197.66	8.62	0	5,189.04
	10/01/95	5,195.74	5,197.66	7.82	0	5,189.84
	05/01/96	5,195.74	5,197.66	8.54	0.01	5,189.12
	10/01/96	5,195.74	5,197.66	7.43	0	5,190.23
	06/01/97	5,195.74	5,197.66	9.29	0.01	5,188.37
	10/01/97	5,195.74	5,197.66	8.91	0.01	5,188.75
	05/05/98	5,195.74	5,197.66	9.87	0.01	5,187.79
	12/01/98	5,195.74	5,197.66	NM	NM	NM
	10/01/99	5,195.74	5,197.66	NM	NM	NM
	10/01/00	5,195.74	5,197.66	NM	NM	NM

Table 1

2002 Annual Ground Water Monitoring Report

Well ID	Date	Ground Elevation (feet)	Datum Elevation (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Corrected Elevation (ft)
P-2	01/01/92	5,190.50	5,192.32	NM	0	NM
	06/01/92	5,190.50	5,192.32	3.10	0	5,189.22
	08/01/92	5,190.50	5,192.32	2.30	0	5,190.02
	12/01/92	5,190.50	5,192.32	1.00	0	5,191.32
	03/01/93	5,190.50	5,192.32	2.20	0	5,190.12
	05/01/93	5,190.50	5,192.32	3.10	0	5,189.22
	11/01/93	5,190.50	5,192.32	1.90	0	5,190.42
	05/01/94	5,190.50	5,192.32	4.20	0	5,188.12
	10/01/94	5,190.50	5,192.32	4.81	0	5,187.51
	05/01/95	5,190.50	5,192.32	5.30	0	5,187.02
	10/01/95	5,190.50	5,192.32	4.86	0	5,187.46
	05/01/96	5,190.50	5,192.32	5.04	0	5,187.28
	10/01/96	5,190.50	5,192.32	4.53	0	5,187.79
	06/01/97	5,190.50	5,192.32	6.04	0	5,186.28
	10/01/97	5,190.50	5,192.32	5.69	0	5,186.63
	05/05/98	5,190.50	5,192.32	9.96	0.01	5,182.36
	12/01/98	5,190.50	5,192.32	NM	NM	NM
	10/14/99	5,190.50	5,192.32	NM	NM	NM
	10/01/00	5,190.50	5,192.32	NM	NM	NM
P-3	01/01/92	5,191.44	5,193.21	NM	0	NM
	06/01/92	5,191.44	5,193.21	3.40	0	5,189.81
	08/01/92	5,191.44	5,193.21	3.60	0	5,189.61
	12/01/92	5,191.44	5,193.21	1.60	0	5,191.61
	03/01/93	5,191.44	5,193.21	2.60	0	5,190.61
	05/01/93	5,191.44	5,193.21	3.60	0	5,189.61
	11/01/93	5,191.44	5,193.21	2.60	0	5,190.61
	05/01/94	5,191.44	5,193.21	4.86	0	5,188.35
	10/01/94	5,191.44	5,193.21	5.77	0	5,187.44
	05/01/95	5,191.44	5,193.21	5.94	0	5,187.27
	10/01/95	5,191.44	5,193.21	5.88	0	5,187.33
	05/01/96	5,191.44	5,193.21	5.66	0	5,187.55
	10/01/96	5,191.44	5,193.21	5.62	0	5,187.59
	06/01/97	5,191.44	5,193.21	7.17	0	5,186.04
	10/01/97	5,191.44	5,193.21	6.67	0	5,186.54
	05/05/98	5,191.44	5,193.21	6.94	0	5,186.27
	12/01/98	5,191.44	5,193.21	NM	NM	NM
	10/14/99	5,191.44	5,193.21	NM	NM	NM
	10/01/00	5,191.44	5,193.21	NM	NM	NM
P-4	01/01/92	5,197.06	5,198.82	NM	0	NM
	06/01/92	5,197.06	5,198.82	7.00	0	5,191.82
	08/01/92	5,197.06	5,198.82	6.20	0	5,192.62
	12/01/92	5,197.06	5,198.82	5.10	0	5,193.72
	03/01/93	5,197.06	5,198.82	7.10	0	5,191.72
	05/01/93	5,197.06	5,198.82	7.60	0	5,191.22
	11/01/93	5,197.06	5,198.82	6.10	0	5,192.72
	05/01/94	5,197.06	5,198.82	8.09	0	5,190.73
	10/01/94	5,197.06	5,198.82	8.93	0.28	5,189.89
	05/01/95	5,197.06	5,198.82	9.85	0	5,188.97
	10/01/95	5,197.06	5,198.82	9.13	0	5,189.69
	05/01/96	5,197.06	5,198.82	9.73	0	5,189.09
	10/01/96	5,197.06	5,198.82	8.79	0	5,190.03
	06/01/97	5,197.06	5,198.82	9.88	0	5,188.94
	10/01/97	5,197.06	5,198.82	9.90	0	5,188.92
	05/05/98	5,197.06	5,198.82	6.46	0	5,192.36
	12/01/98	5,197.06	5,198.82	NM	NM	NM
	10/14/99	5,197.06	5,198.82	NM	NM	NM
	10/01/00	5,197.06	5,198.82	NM	NM	NM

Notes: NM = Not Measured

NA = Not Applicable, Well Destroyed

Table 2
2002 Annual Ground Water Monitoring Report
Water Quality Monitoring Results

Location	Date	DCA	B	E	X	T	BTEX	pH	SC
Within Slurry Wall									
MW-17	Sep 13-14, 1990	360	11,000	1,160	13,000	15,000	40,160	7.01	2,500
	Mar 18-19, 1991	400	11,000	1,900	15,000	10,000	37,900	7.04	2,700
	Jun 13, 1991	420	9,800	1,800	16,000	6,300	33,900	7.04	2,650
	Jan 20-21, 1992	MSG	MSG	MSG	MSG	MSG	0	MSG	MSG
	Jun 9 & 12, 1992	45	9,240	1,150	7,190	7,580	25,160	7.26	2,730
	Aug 19-20-1992	27	7,710	669	5,130	1,920	15,429	7.23	2,810
	Dec 16, 1992	17.3	7,990	638	4,600	4,740	17,968	7.54	2,970
	Mar 30, 1993	16.8	13,800	1,110	6,930	6,830	28,670	7.37	2,610
	May 23, 1993	12.5	13,700	993	10,530	6,360	31,583	7.33	2,470
	Nov 29-30, 1993	30.9	8,590	636	4,880	2,820	16,926	7.39	2,360
	May 25, 1994	8.3	10,900	823	5,660	4,340	21,723	7.30	2,830
	Oct 2-3, 1994	4.9	5,130	409	2,818	1,160	9,517	7.04	2,470
Duplicate	Oct 2-3, 1994	< 1	2,070	350	2,013	807	5,240	7.04	2,470
	May 17, 1995	< 10	9,320	694	3,782	2,510	16,306	7.49	2,480
Duplicate	May 17, 1995	< 10	12,800	944	5,710	4,460	23,914	7.49	2,480
**	Oct 18-19, 1995	2.3	3,000	244	1,079	464	4,787	7.09	2,430
	May 1-2, 1996	2.2	7,700	530	1,800	1,200	11,230	7.20	2,280
Duplicate	May 1-2, 1996	< 5	7,300	490	1,800	1,200	10,790	7.20	2,280
	Oct 20, 1996	< 5	3,600	290	1,500	880	6,270	7.50	2,290
	June 24, 1997	<0.5	5,500	23	180	51	5,754	7.52	2,550
	Oct. 28, 1997	<5	590	140	1,300	920	2,950	7.42	2,310
Duplicate	Oct. 28, 1997	<5	490	95	930	680	2,195	7.42	2,310
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
Duplicate	Dec. 9, 1998	180	4,000	870	4,500	970	10,340	7.57	1,160
	Dec. 9, 1998	<10	2,300	370	1,300	44	4,014	7.57	1,160
	Oct. 14, 1999	<5	440	110	930	140	1,620	7.64	2,030
	Oct. 27, 2000	<5	500	180	1,600	57	2,337	7.50	1,920
	Dec. 19, 2001	ND	6,200	1,900	17,200	6,000	31,300	7.61	1,713
	December 19, 2002	ND	4,200	1,700	13,000	1,900	20,800	NS	2,186
MW-22	Sep 13-14, 1990	7,200	21,000	1,100	8,300	20,000	50,400	7.00	1,500
	Mar 18-19, 1991	2,200	17,000	910	6,600	9,500	34,010	6.87	1,900
	Jun 13, 1991	3,600	15,000	760	3,000	3,200	21,960	7.06	1,700
	Jan 20-21, 1992	5,400	36,000	1,900	13,500	27,000	78,400	6.86	1,600
	Jun 9 & 12, 1992	3,170	21,200	1,040	5,730	7,540	35,510	7.13	1,690
	Aug 19-20-1992	568	20,500	588	3,280	4,610	28,978	7.28	1,545
	Dec 16, 1992	908	12,100	514	3,254	4,220	20,088	7.43	1,508
	Mar 30, 1993	1,930	29,800	1,170	7,030	14,100	52,100	7.26	1,408
	May 23, 1993	28	17,000	1,100	6,150	6,520	30,770	7.61	6,550
	Nov 29-30, 1993	2,780	18,400	1,150	7,300	8,480	35,330	8.01	1,610
	May 25, 1994	379	9,340	845	3,725	2,250	16,160	7.15	1,505
	Oct 2-3, 1994	566	10,500	1,390	8,350	5,890	26,130	7.24	1,710
	May 17, 1995	62	7,510	1,000	6,520	1,750	16,780	7.15	1,517
Duplicate	May 17, 1995	67	9,020	1,230	7,310	2,620	20,180	7.15	1,517
Duplicate **	Oct 18-19, 1995	42	5,700	1,580	9,000	2,430	18,710	7.25	1,820
**	Oct 18-19, 1995	< 1	5,120	1,540	8,320	2,130	17,110	7.25	1,820
	May 1-2, 1996	37	4,600	1,300	10,000	410	16,310	7.30	1,325
	Oct 20, 1996	38	880	710	4,100	250	5,940	7.49	1,505
	June 24, 1997	24	4,300	510	5,500	580	10,890	7.31	1,280
Duplicate	June 24, 1997	21	5,800	750	7,300	930	14,780	7.31	1,280
	October 18, 1997	NS	NS	NS	NS	NS	0	NS	NS
	May 5, 1998	12	3,300	610	3,400	300	7,610	7.61	1,290
Duplicate	May 5, 1998	14	3,500	630	3,600	310	8,040	7.61	1,290
	Dec. 9, 1998	190	3,700	720	4,000	910	9,330	7.40	1,500
	Oct. 14, 1999	<5	580	150	820	210	1,760	7.72	1,840
Duplicate	Oct. 14, 1999	<5	730	180	1000	270	2,180	7.72	1,840
	Oct. 27, 2000	<10	210	220	830	120	1,380	7.70	1,610
	Dec. 19, 2001	ND	410	120	470	19	1,019	7.50	1,620
	December 19, 2002	ND	1200	220	640	30	2,090	NS	706

Table 2
Water Quality Monitoring Results

Location	Date	DCA	B	E	X	T	BTEX	pH	SC
P-1	May 23, 1993	< 1	4,110	361	2,522	18.8	7,012	7.04	2,290
	Nov 29-30, 1993	< 1	3,580	506	3,215	10.2	7,311	7.22	1,460
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	< 1	8.9	1.9	11.8	< 1	23	7.04	2,210
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	NS	NS	NS	NS	NS	0	NS	NS
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	NS	NS	NS	NS	NS	0	NS	NS
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 18, 1997	NS	NS	NS	NS	NS	0	NS	NS
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 27, 2000	NS	NS	NS	NS	NS	0	NS	NS
P-2	May 23, 1993	3.2	5.2	< 1	< 1	< 1	5	7.36	3,910
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.92	3,540
	May 25, 1994	1.3	< 1	< 1	< 1	< 1	0	7.41	3,980
	Oct 2-3, 1994	3.6	< 1	< 1	< 1	< 1	0	7.12	3,480
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	NS	NS	NS	NS	NS	0	NS	NS
	May 1-2, 1996	0.8	< 0.5	< 0.5	< 0.5	< 0.5	0	7.40	2,980
	Oct 20, 1996	NS	NS	NS	NS	NS	0	NS	NS
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 18, 1997	NS	NS	NS	NS	NS	0	NS	NS
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 27, 2000	NS	NS	NS	NS	NS	0	NS	NS
P-3	May 23, 1993	10.6	< 1	< 1	< 1	< 1	0	7.24	11,160
	Nov 29-30, 1993	11.5	< 1	< 1	< 1	< 1	0	7.31	9,140
	May 25, 1994	12.1	< 1	< 1	< 1	< 1	0	7.28	8,070
	Oct 2-3, 1994	12.6	< 1	< 1	< 1	< 1	0	7.06	5,550
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	NS	NS	NS	NS	NS	0	NS	NS
	May 1-2, 1996	3.4	< 0.5	< 0.5	< 0.5	< 0.5	0	7.40	4,280
	Oct 20, 1996	NS	NS	NS	NS	NS	0	NS	NS
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 18, 1997	NS	NS	NS	NS	NS	0	NS	NS
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 27, 2000	NS	NS	NS	NS	NS	0	NS	NS
P-4	May 23, 1993	8.3	6,690	559	6,260	4,090	17,599	NA	NA
	Nov 29-30, 1993	2.1	6,400	900	7,700	4,420	19,420	NA	NA
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	NS	NS	NS	NS	NS	0	NS	NS
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	NS	NS	NS	NS	NS	0	NS	NS
	May 1-2, 1996	NA	NA	NA	NA	NA	0	6.60	1,621
	Oct 20, 1996	NS	NS	NS	NS	NS	0	NS	NS
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 18, 1997	NS	NS	NS	NS	NS	0	NS	NS
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 27, 2000	NS	NS	NS	NS	NS	0	NS	NS

Table 2
Water Quality Monitoring Results

Location	Date	DCA	B	E	X	T	BTEX	pH	SC
On Site							0		
MW-10	Sep 13-14, 1990	1.4	< 0.5	< 0.5	< 1	< 0.5	0	6.95	1,550
	Mar 18-19, 1991	< 1	< 0.5	< 0.5	< 0.5	< 0.5	0	7.29	1,700
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.31	1,840
	Jun 9 & 12, 1992	1.6	< 1	< 1	< 1	< 1	0	7.65	1,400
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.85	1,160
	Dec 16, 1992	< 1	< 1	< 1	< 1	< 1	0	7.64	6,110
	Mar 30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.22	9,060
	May 23, 1993	< 1	< 1	< 1	< 1	< 1	0	7.93	2,320
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.73	1,320
	May 25, 1994	< 1	< 1	< 1	< 1	< 1	0	7.75	1,335
	Oct 2-3, 1994	< 1	< 1	< 1	< 1	< 1	0	7.56	1,159
	May 17, 1995	< 1	< 1	< 1	< 1	< 1	0	7.64	1,695
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.41	1,453
	May 1-2, 1996	1.0	< 0.5	< 0.5	< 0.5	< 0.5	0	7.70	1,288
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.69	1,310
	June 24, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.63	2,520
	October 20, 1997	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.61	1,585
	May 5, 1998	1.0	< 0.5	< 0.5	< 0.5	< 0.5	0	7.60	1,608
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.64	1,290
	Oct. 14, 1999	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.68	1,650
	Oct. 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.50	1,470
	December 19, 2001	ND	ND	ND	ND	ND	ND	7.28	1409
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	1,594
							0		
MW-18	Sep 13-14, 1990	< 1	17	84.0	880	< 12	981	7.00	1,500
	Mar 18-19, 1991	< 1	26	85.0	770	< 12	881	7.24	1,200
	Jun 13, 1991	< 1	< 25	78.0	930	< 25	1,008	6.77	1,200
	Jan 20-21, 1992	MSG	MSG	MSG	MSG	MSG	0	MSG	MSG
	Jun 9 & 12, 1992	< 1	313	200	1,710	1.1	2,224	7.07	1,480
	Aug 19-20-1992	< 1	527	258	2,075	10.8	2,871	7.26	2,100
	Dec 16, 1992	< 25	294	224	1,460	< 25	1,978	7.31	1,930
	Mar 30, 1993	< 1	117	96.0	226	8.0	447	7.07	2,780
	May 23, 1993	< 1	73	31.2	259	< 1	363	7.15	2,220
	Nov 29-30, 1993	< 1	337	261	1,352	4.9	1,955	7.00	1,870
	May 25, 1994	< 1	51	7.0	99	10.0	167	7.00	1,510
	Oct 2-3, 1994	< 1	210	46.0	483	10.9	750	7.10	1,530
	May 17, 1995	< 1	128	10.4	274	< 1	412	6.84	1,370
	Oct 18-19, 1995	< 1	118	20.0	296	12.2	447	7.03	1,299
	May 1-2, 1996	< 0.5	48	3.4	150	0.5	202	7.00	1,270
	Oct 20, 1996	< 0.5	37	14.0	110	11.0	172	7.50	1,314
Duplicate	Oct 20, 1996	< 0.5	33	12.0	120	0.8	166	7.50	1,314
	June 24, 1997	< 0.5	130	15.0	200	< 0.5	345	6.98	1,399
	October 20, 1997	< 0.5	55	19.0	150	0.5	225	6.99	1,280
	May 5, 1998	< 0.5	16	< 0.5	2.1	< 0.5	18	6.84	1,374
	Dec. 9, 1998	< 2.5	44	21	< 2.5	< 2.5	65	7.04	1,438
	Oct. 14, 1999	0.50	33	11	60	4	108	7.13	1,550
	Oct. 27, 2000	0.90	9.5	< 0.5	6.9	< 0.5	7	6.90	3,400
	Dec. 19, 2001	ND	4	ND	ND	ND	4	6.89	3,300
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	636
MW-19	Sep 13-14, 1990	45	< 0.5	1.1	1.9	< 0.5	3	6.95	3,000
	Mar 18-19, 1991	35	< 0.5	< 0.5	< 0.5	< 0.5	0	7.22	2,500
	Jun 13, 1991	44	< 0.5	5.9	< 0.5	< 0.5	6	7.10	2,400
	Jan 20-21, 1992	14	< 5	< 5	< 5	< 5	0	7.66	460
	Jun 9 & 12, 1992	11.4	< 1	< 1	< 1	< 1	0	7.76	1,970
	Aug 19-20-1992	9.0	< 1	< 1	< 1	< 1	0	7.72	1,320
	Dec 16, 1992	6.6	< 1	< 1	< 1	< 1	0	7.70	1,620
	Mar 30, 1993	2.4	< 1	< 1	< 1	< 1	0	7.74	1,750
	May 23, 1993	7.9	< 1	< 1	< 1	< 1	0	7.73	1,630
	Nov 29-30, 1993	6.6	< 1	< 1	< 1	< 1	0	7.78	1,380
	May 25, 1994	8.0	< 1	< 1	< 1	< 1	0	7.65	1,762
	Oct 2-3, 1994	7.9	< 1	< 1	< 1	< 1	0	7.44	1,258
	May 17, 1995	8.6	< 1	< 1	< 1	< 1	0	7.52	1,624
	Oct 18-19, 1995	8.8	< 1	< 1	< 1	< 1	0	7.31	1,411
	May 1-2, 1996	8.6	< 0.5	< 0.5	< 0.5	< 0.5	0	7.50	1,361
	Oct 20, 1996	4.0	< 0.5	< 0.5	< 0.5	< 0.5	0	7.62	1,340
	June 24, 1997	3.0	< 0.5	< 0.5	< 0.5	< 0.5	0	7.52	1,573
	October 20, 1997	2.2	< 0.5	< 0.5	< 0.5	< 0.5	0	7.53	1,346
	May 5, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.40	1,672
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.58	1,381
	Oct 14, 1999	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.62	2,000
	Oct 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.40	1,490
	December 19, 2001	ND	ND	ND	ND	ND	ND	7.41	1420
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	1,608
							0		

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Location	Date	DCA	B	E	X	T	BTEX	pH	SC
MW-20	Sep 13-14, 1990	< 1	< 0.5	< 0.5	< 1	< 0.5	0	7.01	1,350
	Mar 18-19, 1991	2.0	< 0.5	< 0.5	0.7	< 0.5	1	7.39	3,000
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.54	3,750
	Jun 9 & 12, 1992	< 1	< 1	< 1	< 1	< 1	0	7.62	1,600
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	6.97	1,310
	Dec 16, 1992	< 1	< 1	< 1	< 1	< 1	0	7.87	1,340
	Mar 30, 1993	2.1	< 1	< 1	< 1	< 1	0	7.10	6,740
	May 23, 1993	< 1	< 1	< 1	< 1	< 1	0	7.86	1,430
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.69	1,230
	May 25, 1994	< 1	< 1	< 1	< 1	< 1	0	7.38	1,292
	Oct 2-3, 1994	< 1	< 1	< 1	< 1	< 1	0	7.57	1,308
	May 17, 1995	< 1	< 1	< 1	< 1	< 1	0	7.65	1,434
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.35	1,525
	May 1-2, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.50	1,417
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.18	1,545
	June 24, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.48	1,540
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.01	1,452
	May 5, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.44	1,890
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.65	1,153
	Oct. 14, 1999	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	8.01	1,600
	Oct. 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.60	14,840
	Dec. 19, 2001	ND	ND	ND	ND	ND	ND	7.51	1,695
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	1,223
							0		
MW-21	Sep 13-14, 1990	67	< 0.5	1.1	5.0	1.5	8	7.01	1,500
	Mar 18-19, 1991	44	< 0.5	< 0.5	< 0.5	< 0.5	0	7.62	1,700
	Jun 13, 1991	40	< 0.5	< 0.5	< 0.5	< 0.5	0	7.44	1,700
	Jan 20-21, 1992	8.8	< 5	< 5	< 5	< 5	0	8.31	5,110
	Jun 9 & 12, 1992	21.9	< 1	< 1	< 1	< 1	0	7.37	2,400
	Aug 19-20-1992	8.3	< 1	< 1	< 1	< 1	0	6.96	1,730
	Dec 16, 1992	1.7	< 1	< 1	< 1	< 1	0	7.69	2,030
	Mar 30, 1993	5.9	< 1	< 1	< 1	< 1	0	7.58	1,590
	May 23, 1993	14.8	< 1	< 1	< 1	< 1	0	7.63	2,530
	Nov 29-30, 1993	3.7	< 1	< 1	< 1	< 1	0	7.58	1,580
	May 25, 1994	8.3	< 1	< 1	< 1	< 1	0	7.66	1,592
	Oct 2-3, 1994	5.5	< 1	< 1	< 1	< 1	0	7.55	1,760
	May 17, 1995	< 1	< 1	< 1	< 1	< 1	0	7.59	1,819
	May 17, 1995	5.4	< 1	< 1	< 1	< 1	0	7.59	1,819
	Oct 18-19, 1995	2.1	< 1	< 1	< 1	< 1	0	7.52	2,060
Duplicate	May 1-2, 1996	1.0	< 0.5	< 0.5	< 0.5	< 0.5	0	7.60	1,824
	Oct 20, 1996	3.6	< 0.5	< 0.5	< 0.5	< 0.5	0	7.68	2,100
	June 24, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.98	1,642
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.97	1,653
	May 5, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.67	1,760
	Dec. 9, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Oct. 14, 1999	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.97	2,180
	Oct. 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.30	47,500
	Oct. 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.30	47,500
	Dec. 19, 2001	ND	ND	ND	ND	ND	ND	6.51	3,280
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	1,905

Table 2
Water Quality Monitoring Results

Location	Date	DCA	B	E	X	T	BTEX	pH	SC
Off Site									
MW-9	Sep 13-14, 1990	2.1	< 0.5	< 0.5	< 0.5	< 0.5	0	6.97	1,550
	Mar 18-19, 1991	1.8	< 0.5	< 0.5	< 0.5	< 0.5	0	7.57	2,000
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.31	4,360
	Jun 9 & 12, 1992	1.5	< 1	< 1	< 1	< 1	0	7.58	1,680
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.81	1,325
	Dec 16, 1992	< 1	< 1	< 1	< 1	< 1	0	7.33	1,827
	Mar 30, 1993	1.5	< 1	< 1	< 1	< 1	0	7.63	1,640
	May 23, 1993	NA	NA	NA	NA	NA	0	NA	NA
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.62	1,460
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	1.2	< 1	< 1	< 1	< 1	0	7.80	1,610
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.38	1,523
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.85	1,645
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	NV	NV
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.51	1,588
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 19, 2001	ND	ND	ND	ND	ND	0	7.42	1,610
	December 19, 2003	ND	ND	ND	ND	ND	ND	NS	380
MW-13	Sep 13-14, 1990	< 1	< 0.5	< 0.5	< 1	1.5	2	7.02	2,950
	Mar 18-19, 1991	< 1	< 0.5	< 0.5	< 0.5	< 0.5	0	7.84	3,250
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	NA	NA	NA	NA	NA	0	NA	NA
	Jun 9 & 12, 1992	< 1	< 1	< 1	< 1	< 1	0	7.11	4,260
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.06	2,910
	Dec 16, 1992	NA	NA	NA	NA	NA	0	NA	NA
	Mar 30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.72	3,410
	May 23, 1993	NA	NA	NA	NA	NA	0	NA	NA
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.45	4,150
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	< 1	< 1	< 1	< 1	< 1	0	7.38	3,160
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.41	3,600
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.54	3,200
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	NV	NV
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.81	4,100
Destroyed	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
MW-14	Sep 13-14, 1990	2.0	< 0.5	< 0.5	< 1	< 0.5	0	6.97	5,450
	Mar 18-19, 1991	< 1	< 0.5	< 0.5	1.7	< 0.5	2	7.51	8,400
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.20	19,380
	Jun 9 & 12, 1992	2.3	< 1	< 1	< 1	< 1	0	7.62	4,520
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.38	5,760
	Dec 16, 1992	< 1	< 1	< 1	< 1	< 1	0	7.40	9,090
	Mar 30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.02	15,280
	May 23, 1993	NA	NA	NA	NA	NA	0	NA	NA
	Nov 29-30, 1993	1.2	< 1	< 1	< 1	< 1	0	7.61	6,030
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	1.9	< 1	< 1	< 1	< 1	0	7.34	4,560
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.15	6,760
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	0.7	< 0.5	< 0.5	< 0.5	< 0.5	0	7.15	6,120
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	NV	NV
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.68	14,100
	Oct. 14, 1999	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.26	7,830
	Oct. 27, 2000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.70	10,500

Table 2
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Location	Date	DCA	B	E	X	T	BTEX	pH	SC
MW-15	Sep 13-14, 1990	< 1	< 0.5	< 0.5	< 1	< 0.5	0	7.00	3,250
	Mar 18-19, 1991	< 1	< 0.5	< 0.5	< 0.5	< 0.5	0	7.02	8,500
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.15	12,120
	Jun 9 & 12, 1992	< 1	< 1	< 1	< 1	< 1	0	7.27	3,430
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.39	2,450
	Dec 16, 1992	NA	NA	NA	NA	NA	0	NA	NA
	Mar 30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.42	9,810
	May 23, 1993	NA	NA	NA	NA	NA	0	NA	NA
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	8.01	1,630
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	< 1	< 1	< 1	< 1	< 1	0	7.54	2,500
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.48	2,260
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	8.21	1,939
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 20, 1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.97	3,250
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	7.30	1,980
	Oct. 14, 1999	NS	NS	NS	NS	NS	0	NS	NS
MW-16	Sep 13-14, 1990	< 1	< 0.5	< 0.5	< 1	< 0.5	0	6.97	1,370
	Mar 18-19, 1991	< 1	< 0.5	< 0.5	< 0.5	< 0.5	0	7.57	1,200
	Jun 13, 1991	NA	NA	NA	NA	NA	0	NA	NA
	Jan 20-21, 1992	< 5	< 5	< 5	< 5	< 5	0	7.30	2,050
	Jun 9 & 12, 1992	< 1	< 1	< 1	< 1	< 1	0	7.50	1,430
	Aug 19-20-1992	< 1	< 1	< 1	< 1	< 1	0	7.76	1,230
	Dec 16, 1992	< 1	< 1	< 1	< 1	< 1	0	7.12	1,735
	Mar 30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.23	2,400
	May 23, 1993	NA	NA	NA	NA	NA	0	NA	NA
	Nov 29-30, 1993	< 1	< 1	< 1	< 1	< 1	0	7.31	1,760
	May 25, 1994	NS	NS	NS	NS	NS	0	NS	NS
	Oct 2-3, 1994	< 1	< 1	< 1	< 1	< 1	0	7.44	1,253
	May 17, 1995	NS	NS	NS	NS	NS	0	NS	NS
	Oct 18-19, 1995	< 1	< 1	< 1	< 1	< 1	0	7.26	1,421
	May 1-2, 1996	NS	NS	NS	NS	NS	0	NS	NS
	Oct 20, 1996	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0	6.78	1,665
	June 24, 1997	NS	NS	NS	NS	NS	0	NS	NS
	October 20, 1997	< 0.5	0.5	< 0.5	< 0.5	< 0.5	1	NV	NV
	May 5, 1998	NS	NS	NS	NS	NS	0	NS	NS
	Dec. 9, 1998	< 0.5	0.5	< 0.5	< 0.5	< 0.5	1	7.26	3,930
	Oct. 14, 1999	<0.5	<0.5	<0.5	<0.5	<0.5	0	7.30	1,890
	Oct. 27, 2000	<0.5	<0.5	<0.5	<0.5	<0.5	0	7.30	1,970
	Dec. 19, 2001	ND	ND	ND	ND	ND	0	7.30	2,320
	December 19, 2002	ND	ND	ND	ND	ND	ND	NS	4,478
<u>Water Quality Standards</u>									
New Mexico		10	10	750	620	750		6.90	---
EPA MCL		5	5	700	10,000	1,000		---	---
NOTES:	1,2-dichloroethane	SC =	Specific Conductivity				Organic values in ug/l		
	Benzene	TDS =	Total Dissolved Solids				pH in standard units		
	Toluene	MSG =	Well Missing				SC in umhos/cm		
	Ethylbenzene	NA =	Not Analyzed				NV=no value recorded		
	Total Xylenes	NS =	Not Sampled						
Values in bold exceed New Mexico MCL for drinking water									
** = Laboratory exceeded holding time before completing sample analyses.									

APPENDIX A

RT HICKS CONSULTING, LTD
 attn ANDREW PARKER
 219 CENTRAL AVE.. NW. STE 266
 ALBUQUERQUE NM 87102

Explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

STANDARD

Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

Client: RT HICKS CONSULTING, LTD
 Project: MAVERICK REFINERY
 Order: 0212414 RTHC01 Receipt: 12-20-02

William P. Blava: President of Assaigai Analytical Laboratories, Inc.

Sample: MW-22 Collected: 12-19-02 10:11:00 By: AP
 Matrix: GW

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-01A SW846 8260B Purgeable VOCs by GC/MS									
X02572	XG.2002.2138.11	75-34-3	1,1 Dichloroethane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	75-35-4	1,1 Dichloroethene	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	71-55-6	1,1,1 Trichloroethane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	79-00-5	1,1,2 Trichloroethane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	95-50-1	1,2 Dichlorobenzene	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	107-06-2	1,2 Dichloroethane (EDC)	17	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	78-87-5	1,2 Dichloropropane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	96-18-4	1,2,3 Trichloropropane	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	95-63-6	1,2,4-Trimethylbenzene	1000	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	541-73-1	1,3 Dichlorobenzene	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	108-67-8	1,3,5-Trimethylbenzene	120	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	5	10		12-23-02 12-23-02
X02572	XG.2002.2138.11	106-46-7	1,4 Dichlorobenzene	ND	ug / L	5	1		12-23-02 12-23-02
X02572	XG.2002.2138.11	90-12-0	1-Methylnaphthalene	55	ug / L	5	5		12-23-02 12-23-02
X02572	XG.2002.2138.11	78-93-3	2-Butanone (MEK)	ND	ug / L	5	5		12-23-02 12-23-02
X02572	XG.2002.2138.11	591-78-6	2-Hexanone (MBK)	ND	ug / L	5	5		12-23-02 12-23-02
X02572	XG.2002.2138.11	91-57-6	2-Methylnaphthalene	36	ug / L	5	5		12-23-02 12-23-02
X02572	XG.2002.2138.11	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	5	5		12-23-02 12-23-02
X02572	XG.2002.2138.11	67-64-1	Acetone	ND	ug / L	5	10		12-23-02 12-23-02
X02572	XG.2002.2138.11	107-02-8	Acrolein	ND	ug / L	5	20		12-23-02 12-23-02
X02572	XG.2002.2138.11	107-13-1	Acrylonitrile	ND	ug / L	5	20		12-23-02 12-23-02

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-22** Collected: **12-19-02 10:11:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-01A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.18	71-43-2	Benzene	1200	ug / L	10	1	By: JAA	12-24-02	12-24-02
X02572	XG.2002.2138.11	75-27-4	Bromodichloromethane	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-25-2	Bromoform	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	74-83-9	Bromomethane	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-15-0	Carbon disulfide	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	56-23-5	Carbon tetrachloride	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	108-90-7	Chlorobenzene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	124-48-1	Chlorodibromomethane	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-00-3	Chloroethane	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	67-66-3	Chloroform	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	74-87-3	Chloromethane	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	156-59-2	cis-1,2 dichloroethene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11		cis-1,3 Dichloropropene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	74-95-3	Dibromomethane	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	97-63-2	Ethyl methacrylate	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	100-41-4	Ethylbenzene	220	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11		Freon 113	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-71-8	Freon 12	ND	ug / L	5	10		12-23-02	12-23-02
X02572	XG.2002.2138.11	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-09-2	Methylene chloride	ND	ug / L	5	10		12-23-02	12-23-02
X02572	XG.2002.2138.11	91-20-3	Naphthalene	91	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	95-47-6	o-Xylene	150	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	108-38-3/106-42	p/m-Xylenes	490	ug / L	5	2		12-23-02	12-23-02
X02572	XG.2002.2138.11	100-42-5	Styrene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	156-60-5	t-1,2 Dichloroethene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	108-88-3	Toluene	30	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	79-01-6	Trichloroethene	ND	ug / L	5	1		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-69-4	Trichlorofluoromethane	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	108-05-4	Vinyl acetate	ND	ug / L	5	5		12-23-02	12-23-02
X02572	XG.2002.2138.11	75-01-4	Vinyl chloride	ND	ug / L	5	5		12-23-02	12-23-02

Sample: **MW-17** Collected: **12-19-02 10:33:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-02A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.12	75-34-3	1,1 Dichloroethane	ND	ug / L	50	1	By: JAA	12-23-02	12-23-02
X02572	XG.2002.2138.12	75-35-4	1,1 Dichloroethene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	71-55-6	1,1,1 Trichloroethane	ND	ug / L	50	1		12-23-02	12-23-02

Certificate of AnalysisClient: **RT HICKS CONSULTING, LTD**Project: **MAVERICK REFINERY**Order: **0212414 RTHC01** Receipt: **12-20-02**Sample: **MW-17**Collected: **12-19-02 10:33:00** By: **AP**Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-02A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.12	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	79-00-5	1,1,2 Trichloroethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	95-50-1	1,2 Dichlorobenzene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	78-87-5	1,2 Dichloropropane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	96-18-4	1,2,3 Trichloropropane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	95-63-6	1,2,4-Trimethylbenzene	2600	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	541-73-1	1,3 Dichlorobenzene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	108-67-8	1,3,5-Trimethylbenzene	800	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	50	10		12-23-02	12-23-02
X02572	XG.2002.2138.12	106-46-7	1,4 Dichlorobenzene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	90-12-0	1-Methylnaphthalene	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	78-93-3	2-Butanone (MEK)	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	591-78-6	2-Hexanone (MBK)	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	91-57-6	2-Methylnaphthalene	280	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	67-64-1	Acetone	ND	ug / L	50	10		12-23-02	12-23-02
X02572	XG.2002.2138.12	107-02-8	Acrolein	ND	ug / L	50	20		12-23-02	12-23-02
X02572	XG.2002.2138.12	107-13-1	Acrylonitrile	ND	ug / L	50	20		12-23-02	12-23-02
X02572	XG.2002.2138.19	71-43-2	Benzene	4200	ug / L	50	1		12-24-02	12-24-02
X02572	XG.2002.2138.12	75-27-4	Bromodichloromethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-25-2	Bromoform	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	74-83-9	Bromomethane	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-15-0	Carbon disulfide	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	56-23-5	Carbon tetrachloride	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	108-90-7	Chlorobenzene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	124-48-1	Chlorodibromomethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-00-3	Chloroethane	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	67-66-3	Chloroform	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	74-87-3	Chloromethane	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	156-59-2	cis-1,2 dichloroethene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12		cis-1,3 Dichloropropene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	74-95-3	Dibromomethane	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	97-63-2	Ethyl methacrylate	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	100-41-4	Ethylbenzene	1700	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12		Freon 113	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-71-8	Freon 12	ND	ug / L	50	10		12-23-02	12-23-02
X02572	XG.2002.2138.12	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-09-2	Methylene chloride	ND	ug / L	50	10		12-23-02	12-23-02
X02572	XG.2002.2138.12	91-20-3	Naphthalene	560	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	95-47-6	o-Xylene	3000	ug / L	50	1		12-23-02	12-23-02

Certificate of AnalysisClient: **RT HICKS CONSULTING, LTD**Project: **MAVERICK REFINERY**Order: **0212414 RTHC01** Receipt: **12-20-02**Sample: **MW-17**

Collected: 12-19-02 10:33:00 By: AP

Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-02A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.12	108-38-3/106-42	p/m-Xylenes	10000	ug / L	50	2		12-23-02	12-23-02
X02572	XG.2002.2138.12	100-42-5	Styrene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	156-60-5	t-1,2 Dichloroethene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	108-88-3	Toluene	1900	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	79-01-6	Trichloroethene	ND	ug / L	50	1		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-69-4	Trichlorofluoromethane	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	108-05-4	Vinyl acetate	ND	ug / L	50	5		12-23-02	12-23-02
X02572	XG.2002.2138.12	75-01-4	Vinyl chloride	ND	ug / L	50	5		12-23-02	12-23-02

Sample: **MW-19**

Collected: 12-19-02 10:50:00 By: AP

Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-03A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.7	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.7	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	67-64-1	Acetone	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.7	107-02-8	Acrolein	ND	ug / L	1	20		12-23-02	12-23-02
X02572	XG.2002.2138.7	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-23-02	12-23-02
X02572	XG.2002.2138.7	71-43-2	Benzene	ND	ug / L	1	1		12-23-02	12-23-02

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Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-19** Collected: **12-19-02 10:50:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-03A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.7	75-27-4	Bromodichloromethane	ND	ug / L	1	1	By: JAA	12-23-02	12-23-02
X02572	XG.2002.2138.7	75-25-2	Bromoform	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	74-83-9	Bromomethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-00-3	Chloroethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	67-66-3	Chloroform	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	74-87-3	Chloromethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	74-95-3	Dibromomethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7		Freon 113	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-71-8	Freon 12	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.7	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-09-2	Methylene chloride	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.7	91-20-3	Naphthalene	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	95-47-6	o-Xylene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2		12-23-02	12-23-02
X02572	XG.2002.2138.7	100-42-5	Styrene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-88-3	Toluene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	79-01-6	Trichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.7	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-23-02	12-23-02

Sample: **MW-21** Collected: **12-19-02 11:36:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-04A SW846 8260B Purgeable VOCs by GC/MS										
X02572	XG.2002.2138.8	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1	By: JAA	12-23-02	12-23-02
X02572	XG.2002.2138.8	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.8	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.8	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02	12-23-02

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QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-04A SW846 8260B Purgeable VOCs by GC/MS									
X02572	XG.2002.2138.8	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.8	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	78-93-3	2-Butanone (MEK)	40	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.17	67-64-1	Acetone	370	ug / L	5	10		12-24-02 12-24-02
X02572	XG.2002.2138.8	107-02-8	Acrolein	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.8	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.8	71-43-2	Benzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-25-2	Bromoform	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	74-83-9	Bromomethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-00-3	Chloroethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	67-66-3	Chloroform	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	74-87-3	Chloromethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	74-95-3	Dibromomethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8		Freon 113	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-71-8	Freon 12	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.8	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-09-2	Methylene chloride	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.8	91-20-3	Naphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	95-47-6	o-Xylene	ND	ug / L	1	1		12-23-02 12-23-02

Assalga Analytical Laboratories, Inc.

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-21** Collected: **12-19-02 11:36:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-04A SW846 8260B Purgeable VOCs by GC/MS By: JAA									
X02572	XG.2002.2138.8	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2		12-23-02 12-23-02
X02572	XG.2002.2138.8	100-42-5	Styrene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	108-88-3	Toluene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	79-01-6	Trichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.8	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-23-02 12-23-02

Sample: **MW-20** Collected: **12-19-02 12:05:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-05A SW846 8260B Purgeable VOCs by GC/MS By: JAA									
X02572	XG.2002.2138.9	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.9	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.9	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.9	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.9	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.9	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.9	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.9	67-64-1	Acetone	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.9	107-02-8	Acrolein	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.9	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.9	71-43-2	Benzene	ND	ug / L	1	1		12-23-02 12-23-02

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-20** Collected: **12-19-02 12:05:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-05A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02572	XG.2002.2138.9	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-25-2	Bromoform	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	74-83-9	Bromomethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-00-3	Chloroethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	67-66-3	Chloroform	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	74-87-3	Chloromethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	74-95-3	Dibromomethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9		Freon 113	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-71-8	Freon 12	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.9	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-09-2	Methylene chloride	ND	ug / L	1	10		12-23-02	12-23-02
X02572	XG.2002.2138.9	91-20-3	Naphthalene	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	95-47-6	o-Xylene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2		12-23-02	12-23-02
X02572	XG.2002.2138.9	100-42-5	Styrene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	108-88-3	Toluene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	79-01-6	Trichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-23-02	12-23-02
X02572	XG.2002.2138.9	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-23-02	12-23-02

Sample: **MW-10** Collected: **12-19-02 12:21:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-06A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02572	XG.2002.2138.10	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.10	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.10	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-23-02	12-23-02
X02572	XG.2002.2138.10	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02	12-23-02

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-10** Collected: **12-19-02 12:21:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-06A SW846 8260B Purgeable VOCs by GC/MS									
X02572	XG.2002.2138.10	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.10	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	67-64-1	Acetone	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.10	107-02-8	Acrolein	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.10	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-23-02 12-23-02
X02572	XG.2002.2138.10	71-43-2	Benzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-25-2	Bromoform	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	74-83-9	Bromomethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-00-3	Chloroethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	67-66-3	Chloroform	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	74-87-3	Chloromethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	74-95-3	Dibromomethane	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10		Freon 113	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-71-8	Freon 12	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.10	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-09-2	Methylene chloride	ND	ug / L	1	10		12-23-02 12-23-02
X02572	XG.2002.2138.10	91-20-3	Naphthalene	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	95-47-6	o-Xylene	ND	ug / L	1	1		12-23-02 12-23-02

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-10** Collected: **12-19-02 12:21:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-06A SW846 8260B Purgeable VOCs by GC/MS									
X02572	XG.2002.2138.10	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2	By: JAA	12-23-02 12-23-02
X02572	XG.2002.2138.10	100-42-5	Styrene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	108-88-3	Toluene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	79-01-6	Trichloroethene	ND	ug / L	1	1		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-23-02 12-23-02
X02572	XG.2002.2138.10	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-23-02 12-23-02

Sample: **MW-18** Collected: **12-19-02 11:18:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-07A SW846 8260B Purgeable VOCs by GC/MS									
X02579	XG.2002.2139.9	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1	By: JAA	12-24-02 12-24-02
X02579	XG.2002.2139.9	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.9	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.9	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.9	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.9	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.9	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.9	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.9	67-64-1	Acetone	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.9	107-02-8	Acrolein	ND	ug / L	1	20		12-24-02 12-24-02
X02579	XG.2002.2139.9	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-24-02 12-24-02
X02579	XG.2002.2139.9	71-43-2	Benzene	ND	ug / L	1	1		12-24-02 12-24-02

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QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-07A SW846 8260B Purgeable VOCs by GC/MS										
X02579	XG.2002.2139.9	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-25-2	Bromoform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	74-83-9	Bromomethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-00-3	Chloroethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	67-66-3	Chloroform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	74-87-3	Chloromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	74-95-3	Dibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9		Freon 113	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-71-8	Freon 12	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.9	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-09-2	Methylene chloride	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.9	91-20-3	Naphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	95-47-6	o-Xylene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	108-38-3	p/m-Xylenes	ND	ug / L	1	2		12-24-02	12-24-02
X02579	XG.2002.2139.9	3/106-42								
X02579	XG.2002.2139.9	100-42-5	Styrene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	108-88-3	Toluene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	79-01-6	Trichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.9	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-24-02	12-24-02

Sample: **MW-16**Collected: **12-19-02 13:16:00** By: **AP**Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-08A SW846 8260B Purgeable VOCs by GC/MS										
X02579	XG.2002.2139.5	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02	12-24-02

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QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date
0212414-08A SW846 8260B Purgeable VOCs by GC/MS									
X02579	XG.2002.2139.5	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.5	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	67-64-1	Acetone	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.5	107-02-8	Acrolein	ND	ug / L	1	20		12-24-02 12-24-02
X02579	XG.2002.2139.5	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-24-02 12-24-02
X02579	XG.2002.2139.5	71-43-2	Benzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-25-2	Bromoform	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	74-83-9	Bromomethane	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-00-3	Chloroethane	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	67-66-3	Chloroform	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	74-87-3	Chloromethane	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	74-95-3	Dibromomethane	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5		Freon 113	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-71-8	Freon 12	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.5	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-24-02 12-24-02
X02579	XG.2002.2139.5	75-09-2	Methylene chloride	ND	ug / L	1	10		12-24-02 12-24-02
X02579	XG.2002.2139.5	91-20-3	Naphthalene	ND	ug / L	1	5		12-24-02 12-24-02
X02579	XG.2002.2139.5	95-47-6	o-Xylene	ND	ug / L	1	1		12-24-02 12-24-02

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-16** Collected: **12-19-02 13:16:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-08A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02579	XG.2002.2139.5	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2		12-24-02	12-24-02
X02579	XG.2002.2139.5	100-42-5	Styrene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	108-88-3	Toluene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	79-01-6	Trichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.5	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.5	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.5	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-24-02	12-24-02

Sample: **MW-9** Collected: **12-19-02 13:46:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-09A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02579	XG.2002.2139.8	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	96-18-4	1,2,3 Trichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-67-8	1,3,5 Trimethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.8	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	67-64-1	Acetone	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.8	107-02-8	Acrolein	ND	ug / L	1	20		12-24-02	12-24-02
X02579	XG.2002.2139.8	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-24-02	12-24-02
X02579	XG.2002.2139.8	71-43-2	Benzene	ND	ug / L	1	1		12-24-02	12-24-02

Certificate of Analysis

Client: **RT HICKS CONSULTING, LTD**
 Project: **MAVERICK REFINERY**
 Order: **0212414 RTHC01** Receipt: **12-20-02**

Sample: **MW-9** Collected: **12-19-02 13:46:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-09A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02579	XG.2002.2139.8	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-25-2	Bromoform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	74-83-9	Bromomethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-00-3	Chloroethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	67-66-3	Chloroform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	74-87-3	Chloromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	74-95-3	Dibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8		Freon 113	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-71-8	Freon 12	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.8	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-09-2	Methylene chloride	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.8	91-20-3	Naphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	95-47-6	o-Xylene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-38-3	p/m-Xylenes	ND	ug / L	1	2		12-24-02	12-24-02
X02579	XG.2002.2139.8	3/106-42								
X02579	XG.2002.2139.8	100-42-5	Styrene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-88-3	Toluene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	79-01-6	Trichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.8	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-24-02	12-24-02

Sample: **TRIP BLANK** Collected: **12-19-02 14:00:00** By: **AP**
 Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-10A SW846 8260B Purgeable VOCs by GC/MS By: JAA										
X02579	XG.2002.2139.4	75-34-3	1,1 Dichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-35-4	1,1 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	71-55-6	1,1,1 Trichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	630-20-6	1,1,1,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02	12-24-02

Certificate of AnalysisClient: **RT HICKS CONSULTING, LTD**Project: **MAVERICK REFINERY**Order: **0212414 RTHC01** Receipt: **12-20-02**Sample: **TRIP BLANK**Matrix: **GW**Collected: **12-19-02 14:00:00** By: **AP**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-10A			SW846 8260B Purgeable VOCs by GC/MS					By: JAA		
X02579	XG.2002.2139.4	79-00-5	1,1,2 Trichloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	79-34-5	1,1,2,2 Tetrachloroethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	106-93-4	1,2 Dibromoethane (EDB)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	95-50-1	1,2 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	107-06-2	1,2 Dichloroethane (EDC)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	78-87-5	1,2 Dichloropropane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	96-18-4	1,2,3 Trichloropropane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	95-63-6	1,2,4-Trimethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	541-73-1	1,3 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	108-67-8	1,3,5-Trimethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	764-41-0	1,4 Dichloro-2-butene	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.4	106-46-7	1,4 Dichlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	90-12-0	1-Methylnaphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	78-93-3	2-Butanone (MEK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	591-78-6	2-Hexanone (MBK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	91-57-6	2-Methylnaphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	67-64-1	Acetone	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.4	107-02-8	Acrolein	ND	ug / L	1	20		12-24-02	12-24-02
X02579	XG.2002.2139.4	107-13-1	Acrylonitrile	ND	ug / L	1	20		12-24-02	12-24-02
X02579	XG.2002.2139.4	71-43-2	Benzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-27-4	Bromodichloromethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-25-2	Bromoform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	74-83-9	Bromomethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-15-0	Carbon disulfide	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	56-23-5	Carbon tetrachloride	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	108-90-7	Chlorobenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	124-48-1	Chlorodibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-00-3	Chloroethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	67-66-3	Chloroform	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	74-87-3	Chloromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	156-59-2	cis-1,2 dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4		cis-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	74-95-3	Dibromomethane	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	97-63-2	Ethyl methacrylate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	100-41-4	Ethylbenzene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4		Freon 113	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-71-8	Freon 12	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.4	1634-04-4	Methyl t-butyl ether (MTBE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-09-2	Methylene chloride	ND	ug / L	1	10		12-24-02	12-24-02
X02579	XG.2002.2139.4	91-20-3	Naphthalene	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	95-47-6	o-Xylene	ND	ug / L	1	1		12-24-02	12-24-02

Certificate of AnalysisClient: **RT HICKS CONSULTING, LTD**Project: **MAVERICK REFINERY**Order: **0212414 RTHC01** Receipt: **12-20-02**Sample: **TRIP BLANK**Collected: **12-19-02 14:00:00** By: **AP**Matrix: **GW**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Prep Code	Run Date	Run Date
0212414-10A SW846 8260B Purgeable VOCs by GC/MS										
X02579	XG.2002.2139.4	108-38-3/106-42	p/m-Xylenes	ND	ug / L	1	2	By: JAA	12-24-02	12-24-02
X02579	XG.2002.2139.4	100-42-5	Styrene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	156-60-5	t-1,2 Dichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	10061-02-6	t-1,3 Dichloropropene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	127-18-4	Tetrachloroethene (PCE)	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	108-88-3	Toluene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	79-01-6	Trichloroethene	ND	ug / L	1	1		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-69-4	Trichlorofluoromethane	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	108-05-4	Vinyl acetate	ND	ug / L	1	5		12-24-02	12-24-02
X02579	XG.2002.2139.4	75-01-4	Vinyl chloride	ND	ug / L	1	5		12-24-02	12-24-02

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.