GW - 28

MONITORING REPORTS

DATE:

2003

1 of 3

GW-28

VOLUME I

2003 ANNUAL GROUNDWATER REPORT

for

NAVAJO REFINING COMPANY
ARTESIA, NEW MEXICO

Prepared for:

NEW MEXICO ENERGY, MINERAL and NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico

GW-28

2003 ANNUAL GROUNDWATER REPORT

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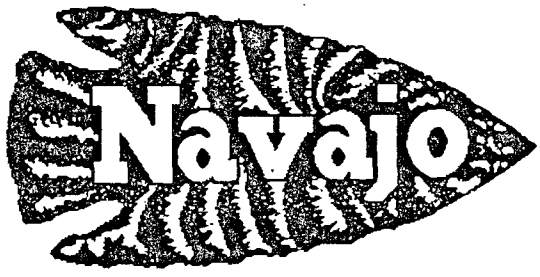

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ANNUAL GROUND WATER REPORT
Navajo Refinging Company
Artesia, New Mexico

1.0 SUMMARY

With the exception of RW-8, the amount of free-phase product on the groundwater is being effectively reduced. The increase in RW-8 was due to a leaking diesel product line next to the trench. The line has been replaced and the volume of product being recovered from RW-8 is being reduced. The dissolved phase plume appears to be mostly sTABLE.

As requested in the letter dated April 17, 2003, (*Dishcarge Permit GW-028*) four additional monitoring wells were installed (MWs 56 thru 59). These wells were located as follows:

MW-57 – East (down gradient) of RW-11 on Bolten Road.
MW-58 – East (down gradient) of KWB-2R along Highway 62.
MW-59 – East (down gradient) of the TEL impoundment approximately 150 yards
MW-60 – East (down gradient) of MW-59.

These wells were gauged and sampled and the results are included in the attached TABLEs and laboratory analytical results. Their locations are also shown on the groundwater gradient maps.

2.0 RECOVERY WELLS

For 2003, Navajo pumped approximately 6,060,935 gallons of water out of our recovery wells and 300,860 gallons of product. The amount that came from each well is detailed in TABLE 2-1. Recovery wells 16, 17, and 18 are included on this table, eventhough they are currently only used for monitoirng. The wells are monitored and maintained at least weekly. We have a dedicated technician that operates these wells. All gauging and pumping information is complied on weekly reports. These reports are then used to create Quarterly Reports, which are provided in ATTACHMENT A.

All water that is pumped out of these wells is sent to our waste water plant to be treated and then to the injection wells to be disposed. Product is taken to the API oil/water separator and is eventually introduced back into the refinery for reprocessing. In 2003, the amount of product recovered fell as the amount of water produced increased from 2002. Also, due to the relatively thin layer of product on the surface of most of the wells, a portion of the product volume is also recovered water. In some case this has been determined to be almost 90% via a "bucket test". This trend has occurred for the last few years. This is attributed to the fact that there is just not as much product left to be recovered and we are pumping more water to get that product. Several of the trenches (#'s 1, 7, 9, 10, and 11) were shut down for most of 2003 or earlier because there is not any product in them to recover. Recovery wells 16, 17, and 18 have never had any product in them. The Bolton Road Trenches (RWs-11, 12, 13, and 14) that have water, are run continuously except for maintenance, to ensure no potential product plume gets past these trenches. Recovery trenches 11 and 12 rarely have any fluids in them. This is believed to be partly due to the fact that the shallow ground water bearing unit is not contiguous. We installed a monitoring well (MW-57) directly down gradient of #11 to ensure that a product plume is not getting under the trench. No product has developed in MW-57 at this time. We check all trenches once a week. If product is found, the pumps will be turned on. We also let the water pumps create a cone of depression to help any product to migrate to the pumps. In addition to the trenches, we check monitoring wells KWBs-4, 5, 6, and 8 for the presence of hydrocarbons. If any are found in these wells, it is remove via a submersible pump. These wells also have a passive bailer placed into them to help remove the sheen layer which is currently present.

TABLE 2-1
RECOVERY WELL PRODUCTION

	Volume of Hydrocarbons Recovered (gallons)					Volume of Water Recovered (gallons)				
	1st Qrtr	2nd Qrtr	3rd Qrtr	4th Qrtr	Total 2003	1st Qrtr	2nd Qrtr	3rd Qrtr	4th Qrtr	Total 2003
RW-1	1	226	1,102	9	1,338	21,600	33,600	26,400	14,400	96,000
RW-2	667	1,918	1,783	1,677	6,045	9,600	40,800	129,600	64,800	244,800
RW-3	0	0	0	0	0	0	0	0	0	0
RW-4	1,134	1,154	1,618	557	4,463	7,200	50,400	63,600	25,200	146,400
RW-5	1,614	2,062	7,698	211	11,585	0	0	0	0	0
RW-6	24,797	24,797	24,797	30,713	105,104	0	0	0	0	0
RW-7	15	0	0	0	15	163,200	20,400	42,000	64,800	290,400
RW-8	0	0	374	26,961	27,335	153,600	20,400	229,200	247,200	650,400
RW-9	0	0	0	0	0	0	0	0	0	0
RW-10	0	0	0	0	0	0	0	0	0	0
RW-11	0	0	66	50	116	0	0	1,636	1,636	3,272
RW-12	0	0	0	0	0	0	0	0	0	0
RW-13	456	1,118	1,488	682	3,744	212,141	247,497	242,997	273,211	975,846
RW-14	28,044	12,689	8,375	13,592	62,700	761,962	1,023,949	847,958	1,019,949	3,653,818
RW15[1]	29,202	14,927	11,722	22,564	78,415	0	0	0	0	0
RW-16	0	0	0	0	0	0	0	0	0	0
RW-17	0	0	0	0	0	0	0	0	0	0
RW-18	0	0	0	0	0	0	0	0	0	0
TOTAL	85,930	58,891	59,023	97,016	**300,860**	1,329,303	1,437,046	1,583,391	1,711,196	**6,060,936**

[1] Formerly noted as "Toolpushers"

3.0 SEMI ANNUAL AND ANNUAL

TABLE 3-1 shows the constituents which had levels above the WQCC standards in the offsite wells, you will notice that the wells had concentrations of four metals above the WQCC standard. We have not preveously sampled for these constituents. It is believed that these analytes are naturally occurring at these levels and are not a result of our contamination. This theory is supported by the fact that the levels are consistent between wells. As this is the first year to be analyzed for metals, there are no charts for trend analysis. The laboratory analytical data sheets are provided in ATTACHMENT B.

The new well, MW-58, which is located down gradient from KWB-2R, as seen in FIGURE 3-1 or FIGURE 3-2, had the highest concentration of BTEX. A benzene concentration isopleth is provided on FIGURE 3-3. This is probably due to a slug of free-phase product which was noted in KWB-2R during 2002. The product was removed from KWB-2R while it was observed in the well. This well will be monitored regularly to ensure that product does not go undetected. If product was to develope in MW-57, steps will be taken to remove it.

A graph depecting benzene, ethylbenzene, and xylenes is shown in FIGURE 3-4. These constituents show that the concentrations are increasing over time. A graph of the benzene concentration in MW-28 is provided in FIGURE 3-5. The benzene concentration appears to be increasing over time in MW-28 also. This is most likely due to the dissolved phase plume which is migrating down gradient from the recovery wells RW-5 and RW-6.

The recovery wells which do not have free-phase product in them were also sampled and analyzed during the Annual sampling event. Recovery well RW-3 (located immediately north of the Refinery's Waste Water Plant) and RW-11 (the southern most trench along Bolten Road), contained elevated levels of BTEX, with a benzene concentration of 12,000 and 6,900 ppb respectively. None of these were indicative of free-phase product existing. Recovery wells RW-16 and RW-17 had low levels of benzene at 42 and 17 ppb respectively. These trenches are located on the north end of the plant and have not ever had free-phase product.

We also continue to see the leading edge of the dissolved phase plume reaching KWB-7 and KWB-11. These monitor wells are both east of Bolton Road which is down gradient as seen in FIGURE 3-1 (*Annual Groundwater Gradient Map)*. If you remember, we sited the recovery wells on Bolton Road knowing that part of the plume was past this point. We believe what we are seeing in KWB-7 and KWB-11 is that part of the plume that was already east of Bolton Road.

Monitor wells KWB-4 and KWB-6 continue to show hydrocarbons. We have installed passive bailers into each of these wells to remove the product as needed. We also pump these wells when necessary to keep up with the product. We began this in 2002 and have seem effective results in removing the product. Initially the bailers were being emptied daily. Now, the bailers are emptied every two to three months and the hydrocarbon layer has been reduced to a sheen.

The three new trenches (16, 17, and 18) that were installed at the same time as 15 (ToolPushers), have never accumulated any product. These trenches are located as follows: 1) on the northeast corner of the refinery property on our farm, 2) along Eagle Draw just east of the North Colony Landfarm, and 3) just west of our former trickling filter. The latter two were installed as part of the North Colony Landfarm clean-up. These trenches are checked weekly for any accumulation of product. At this time, no product has been measured in these trenchs. If product is found, they will be pumped, and if warranted, hard piped into our recovery system.

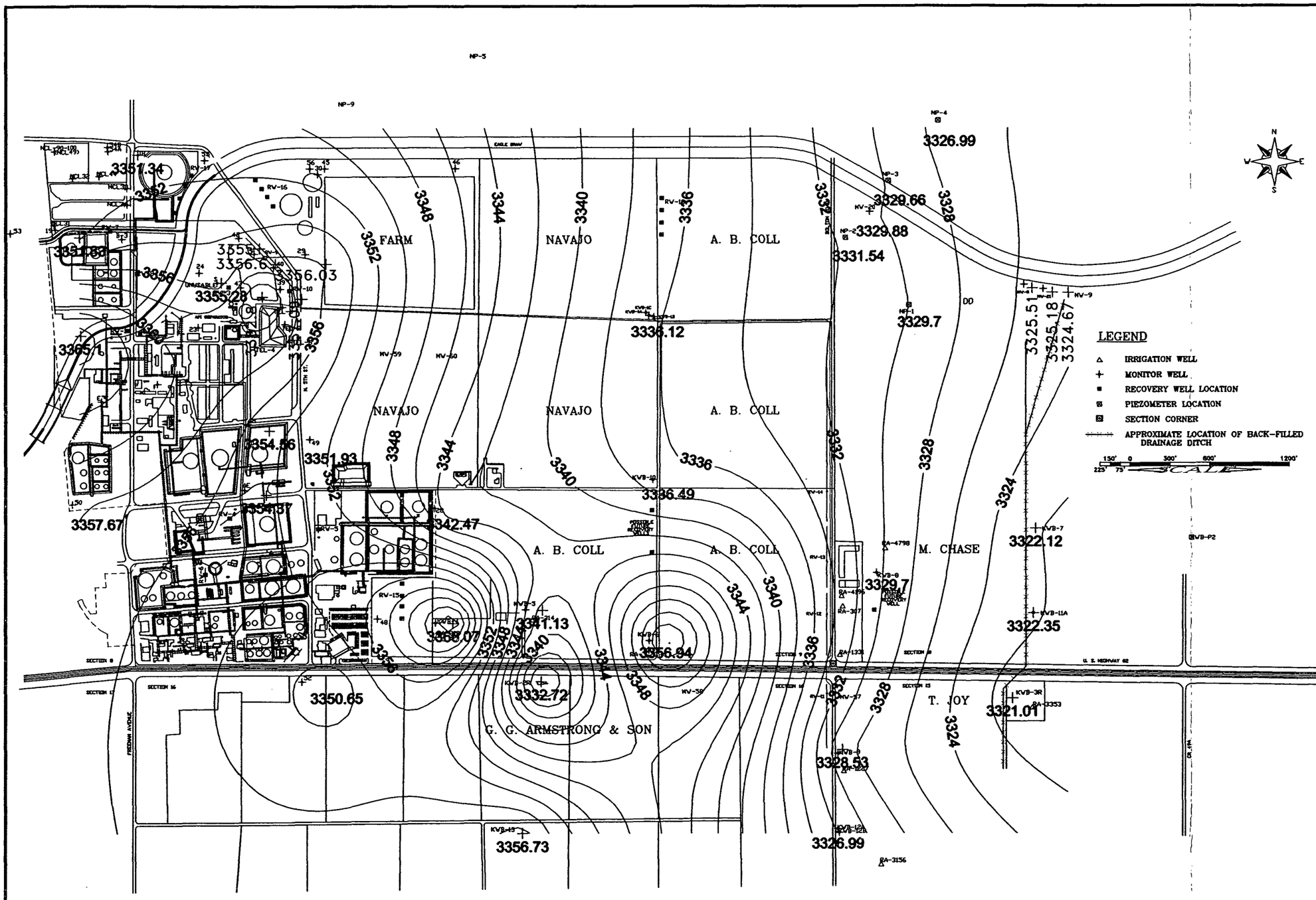
The recovery of product and remediation of groundwater under the refinery is progressing favorably. The drop in thickness of product around the North Colony Landfarm and Tetra-Ethyl Lead Impoundment and the reduction of product found in monitoring wells, are testament to the recovery system's effectiveness. Also there is no product to recover from RW-1 and RW-7 and RW-2 appears to be near completion as well.

TABLE 3-1
ANNUAL and SEMI-ANNUAL ANALYSIS RESULTS

		METALS (mg/l))				VOLATILES (µg/l)				ANIONS (mg/L)	
	Date	Boron	Iron	Lead	Manganese	Benzene	Ethylbenzene	Xylenes	Toluene	Chloride	Sulfate
WQCC		0.75	1	0.05	0.2	10	750	620	750	250	600
KWB-1A	3/14/00	NA	NA	NA	NA	NA	3.74	NA	NA	NA	NA
	9/19/00	NA	NA	NA	NA	NA	3.74	NA	NA	NA	NA
	4/10/01	NA	NA	NA	NA	2.71	3.15	NA	NA	NA	NA
	7/19/01	NA	NA	NA	NA	**22.8**	7.6	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/03	**0.95**	0.9	BDL	**0.256**	BDL	BDL	BDL	BDL	233	**2160**
KWB-1C	9/19/00	NA	NA	NA	NA	NA	3.43	NA	NA	NA	NA
	4/10/01	NA	NA	NA	NA	1.73	2.3	NA	NA	NA	NA
	7/19/01	NA	NA	NA	NA	3.16	1.01	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	1.03	NA	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	9/30/03	**0.781**	**2.03**	BDL	**0.357**	BDL	BDL	BDL	BDL	**272**	**2210**
KWB-2R	9/19/00	NA	NA	NA	NA	**932**	**1129**	348	NA	NA	NA
	4/10/01	NA	NA	NA	NA	**1341**	**888**	61.1	NA	NA	NA
	7/19/01	NA	NA	NA	NA	**2464**	668	67.3	NA	NA	NA
	10/10/01	NA	NA	NA	NA	**1750**	**1410**	**754**	NA	NA	NA
	1/10/02	NA	NA	NA	NA	**39**	7.8	NA	NA	NA	NA
	3/14/02	NA	NA	NA	NA	**7200**	**5800**	**12700**	**5400**	NA	NA
	7/15/02	NA	NA	NA	NA	**6900**	**9800**	**12900**	**2800**	NA	NA
	9/30/03	0.421	**3.3**	0.0132	**0.784**	**1600**	**1200**	**730**	29	**480**	492
KWB-3a	9/19/00	NA	NA	NA	NA	1.23	NA	NA	NA	NA	NA
	4/10/01	NA	NA	NA	NA	1.23	NA	NA	NA	NA	NA
	7/19/01	NA	NA	NA	NA	**14.5**	4.06	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
KWB-3R	9/30/03	0.316	**3.26**	BDL	0.0737	**20**	31	18	BDL	**396**	**2660**
KWB-7[1]	4/10/01	NA	NA	NA	NA	3.39	3.98	NA	NA	NA	NA
	1/10/02	NA	NA	NA	NA	1.86	NA	NA	NA	NA	NA
	7/9/02	NA	NA	NA	NA	**53.1**	NA	NA	NA	NA	NA
	9/23/02	NA	NA	NA	NA	7.86	NA	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/28/03	BDL	BDL	BDL	BDL	**22**	10	13	5.4	BDL	BDL
KWB-9	9/19/00	NA	NA	NA	NA	2.19	5.43	NA	NA	NA	NA
	4/10/01	NA	NA	NA	NA	**33.6**	11.7	NA	NA	NA	NA
	7/19/01	NA	NA	NA	NA	**28.9**	9.48	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/6/03	0.403	**1.62**	BDL	0.011	7.1	BDL	BDL	BDL	**349**	**1,260**
KWB-10	9/30/03	0.3	**1.67**	**0.0574**	**0.609**	**23**	20	11	BDL	164	8
KWB-11A[1]	4/10/01	NA	NA	NA	NA	6.57	5.67	NA	NA	NA	NA
	7/9/02	NA	NA	NA	NA	1.24	NA	NA	NA	NA	NA
	9/25/02	NA	NA	NA	NA	NA	2.17	NA	NA	NA	NA
	4//22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/28/03	BDL	BDL	BDL	BDL	9.1	9.2	11	4.5	BDL	BDL
KWB-12a	9/19/00	NA	NA	NA	NA	2.39	5.79	NA	NA	NA	NA
	7/9/02	NA	NA	NA	NA	1.94	NA	NA	NA	NA	NA
	9/25/02	NA	NA	NA	NA	6.35	2.31	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
KWB-13[1]	1/10/02	NA	NA	NA	NA	1.04	NA	NA	1.04	NA	NA
	12/18/03	NA	NA	NA	NA	8.62	NA	3.65	1.94	NA	NA
	4/25/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/28/03	BDL	BDL	BDL	BDL	**18**	13	15	7.6	BDL	BDL
MW-18	1/11/01	NA	NA	NA	NA	**16.4**	NA	NA	NA	NA	NA
	4/18/01	NA	NA	NA	NA	1.04	NA	NA	NA	NA	NA
	1/10/02	NA	NA	NA	NA	3.93	4.24	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/6/03	0.465	**1.55**	BDL	0.114	BDL	BDL	BDL	BDL	193	**1,150**
MW-28	6/28/00	NA	NA	NA	NA	**10.85**	NA	NA	NA	NA	NA
	9/19/00	NA	NA	NA	NA	**27.6**	NA	NA	NA	NA	NA
	1/11/01	NA	NA	NA	NA	**30.5**	NA	NA	NA	NA	NA
	4/18/01	NA	NA	NA	NA	8.1	NA	NA	NA	NA	NA
	7/31/01	NA	NA	NA	NA	**67.2**	NA	NA	NA	NA	NA
	10/11/01	NA	NA	NA	NA	**114**	NA	NA	NA	NA	NA
	3/14/02	NA	NA	NA	NA	**1800**	185	154	NA	NA	NA
	7/15/02	NA	NA	NA	NA	**1760**	143	NA	NA	NA	NA
	9/25/02	NA	NA	NA	NA	**982**	NA	238	NA	NA	NA
	12/19/02	NA	NA	NA	NA	NA	NA	NA	**1750**	NA	NA
	4/29/03	BDL	BDL	BDL	BDL	**362**	BDL	BDL	BDL	BDL	BDL
	10/6/03	**1.45**	**1.84**	0.00863	0.0721	**1700**	220	280	39	167	**1,360**
MW-29	1/25/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/7/03	**1.39**	**1.01**	BDL	**0.434**	BDL	BDL	BDL	BDL	**400**	**1,870**
MW-45	9/19/00	NA	NA	NA	NA	NA	NA	NA	4.72	NA	NA
	1/11/01	NA	NA	NA	NA	NA	9.79	4.19	1.97	NA	NA
	4/18/01	NA	NA	NA	NA	NA	1.8	6.68	1.64	NA	NA
	7/31/01	NA	NA	NA	NA	NA	NA	2.59	1.45	NA	NA
	10/11/01	NA	NA	NA	NA	NA	NA	13.7	NA	NA	NA
	1/10/02	NA	NA	NA	NA	NA	NA	12.8	NA	NA	NA
	3/14/02	NA	NA	NA	NA	6.58	1.36	15.82	NA	NA	NA
	7/15/02	NA	NA	NA	NA	**10.3**	2.67	4.93	1.37	NA	NA
	9/25/02	NA	NA	NA	NA	**11.8**	NA	17.04	NA	NA	NA
	12/18/03	NA	NA	NA	NA	**21.7**	4.67	14.53	2.03	NA	NA
	1/24/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/14/03	0.519	**1.3**	0.0119	**0.394**	BDL	BDL	BDL	BDL	**320**	**1,960**
MW-48	10/14/03	0.689	0.997	BDL	**2.44**	**1500**	110	90	49	212	152
MW-49	11/3/03	**0.767**	**0.752**	BDL	**0.438**	**1900**	110	180	62	**480**	462
MW-52[1]	10/28/03	BDL	BDL	BDL	BDL	**34**	17	28	11	BDL	BDL
MW-57	10/14/03	0.406	**2.83**	BDL	**0.724**	**12000**	**1900**	**3800**	**5100**	**280**	194
NP-1[1]	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/28/03	BDL	BDL	BDL	BDL	7.9	8.7	11	4.1	BDL	BDL
NP-2[1]	4/18/01	NA	NA	NA	NA	1.45	NA	NA	NA	NA	NA
	4/22/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/28/03	BDL	BDL	BDL	BDL	9.1	9.6	12	4.7	BDL	BDL
NP-9	11/6/03	**1.04**	0.89	BDL	BDL	**15**	9.3	BDL	BDL	**275**	**2,420**
NP-10	11/6/03	**1.39**	0.86	BDL	BDL	**11**	7.3	BDL	BDL	203	**3,900**
RW-3	10/27/03	**1.22**	0.573	BDL	**0.209**	**6900**	**2000**	**2200**	**1200**	**1120**	45
RW-7	10/27/03	0.636	0.674	BDL	**0.335**	**19**	BDL	BDL	BDL	185	345
RW-9	10/7/03	0.731	**1.64**	BDL	0.016	BDL	BDL	BDL	BDL	**372**	**257**
RW-10	10/27/03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
RW-11	10/16/03	0.21	**1.23**	0.00638	**0.695**	**1300**	**2400**	**1100**	76	102	118
RW-12	10/16/03	0.299	0.725	BDL	**0.397**	**5000**	140	430	54	188	**1,280**
RW-13	10/16/03	0.329	0.403	BDL	**0.711**	**3500**	540	530	230	**282**	164
RW-16	10/15/03	0.569	**1.02**	BDL	**0.958**	**42**	19	36	35	**534**	**1,990**
RW-17	10/15/03	**0.807**	0.466	BDL	**0.663**	**48**	6.5	33	22	**259**	**3,000**
RW-18	9/30/03	**0.881**	**3.41**	BDL	**1.45**	BDL	BDL	BDL	BDL	**412**	**3,140**

Notes:

[1] Semi Annual; sampled only for BTEX and MTBE.



NOTES

TRENCHES

POSSIBLE FUTURE TRENCHES

REFERENCE DRAWINGS

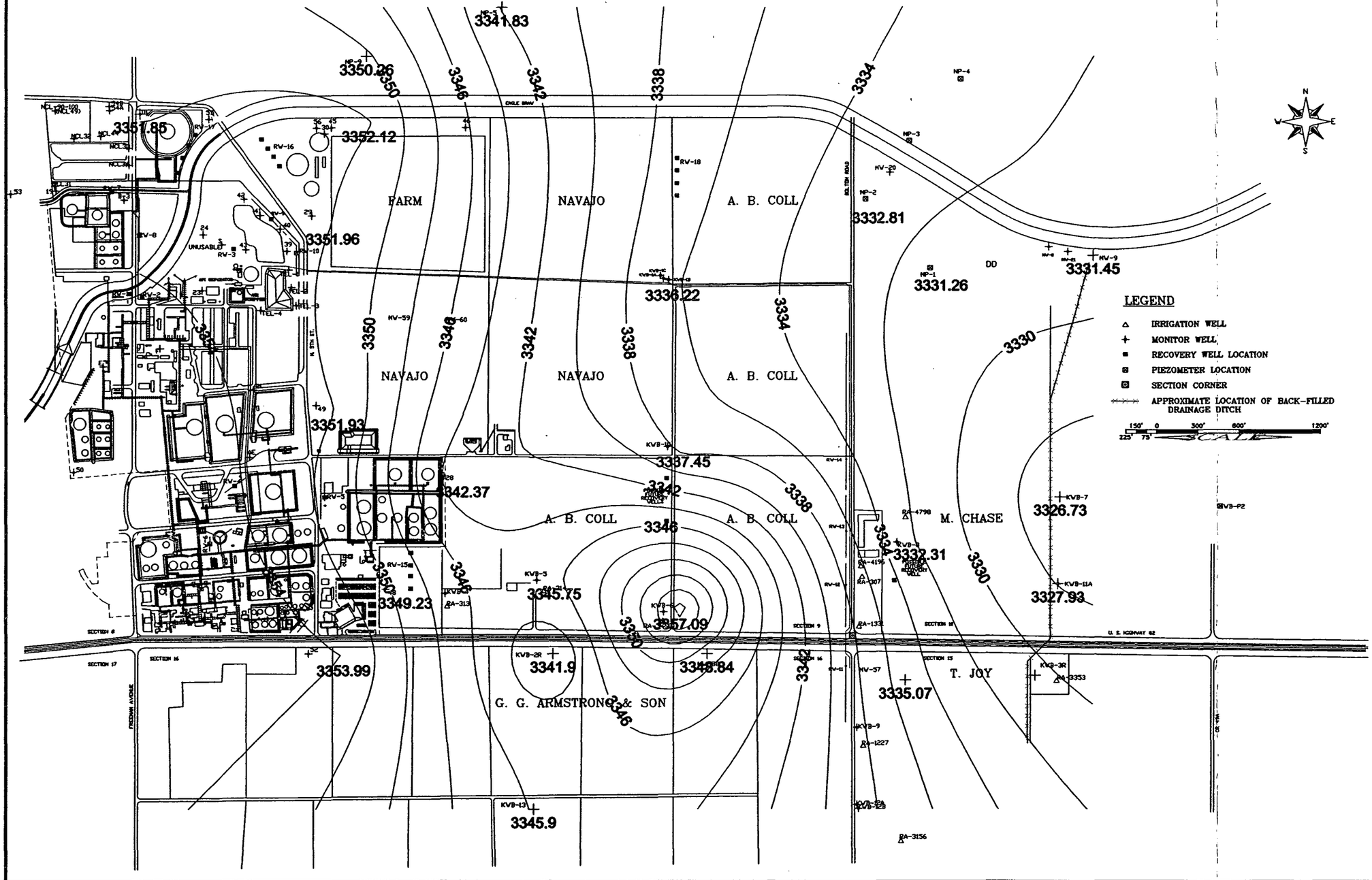
NO.	REVISIONS	BY	CHK	DATE	APPR	APPR.
17	2002 READINGS	MDF	DGJ	2/27/03		
16	2001 READINGS	DEC	DGJ	2/23/02	DGM	DGJ
15	2000 READINGS	BHR	DGM	2/23/01	DGM	
14	SEPT. 1999 READINGS	LGR	DGM	2/23/00	DGM	DGJ
13	JUN. 1999 READINGS	LGR	DGM	2/23/00	DGM	DGJ
12	MAR. 1999 READINGS	LGR	DGM	2/23/00	DGM	DGJ
11	JAN. 1999 READINGS	LGR	DGM	2/23/00	DGM	DGJ
10	SEPT. 1998 READINGS	LGR	DGM	2/23/99	DGM	DGJ
9	JUN. 1998 READINGS	LGR	DGM	2/23/99	DGM	DGJ
8	MAR. 1998 READINGS	LGR	DGM	2/23/99	DGM	DGJ
7	JAN. 1998 READINGS	LGR	DGM	2/23/99	DGM	DGJ
6	OCT., 1996 READINGS	DLW	DGJ	2/23/97	DGM	DGJ
5	AUGUST, 1996 READINGS	DLW	DGJ	2/23/97	DGM	DGJ
4	MAY, 1996 READINGS	DLW	DGJ	2/23/97	DGM	DGJ
3	JANUARY, 1996 READINGS	DLW	DGJ	2-23-97	DGM	DGJ
2	SEPTEMBER, 1995 READINGS	PETE	DGJ	2-7-95	DGM	DGJ
18	APRIL, 2003 READINGS	RCH	DGJ	04/04	DGM	
0	ISSUED WITH MARCH, 1995 READINGS	PETE	DGJ	2-27-95	DGM	ILS

DRAWING TITLE

FIGURE 3-1
GROUNDWATER POTENTIOMETRIC MAP
NAVAJO REFINING

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

DRAWN BY	CHK'D BY	SCALE
DLW	DGM	AS SHOWN
DATE	APPR BY	DRAWING NUMBER	REV.
3-17-95	ILS	90-44-D	18



NOTES

TRENCHES

POSSIBLE FUTURE TRENCHES

REFERENCE DRAWINGS

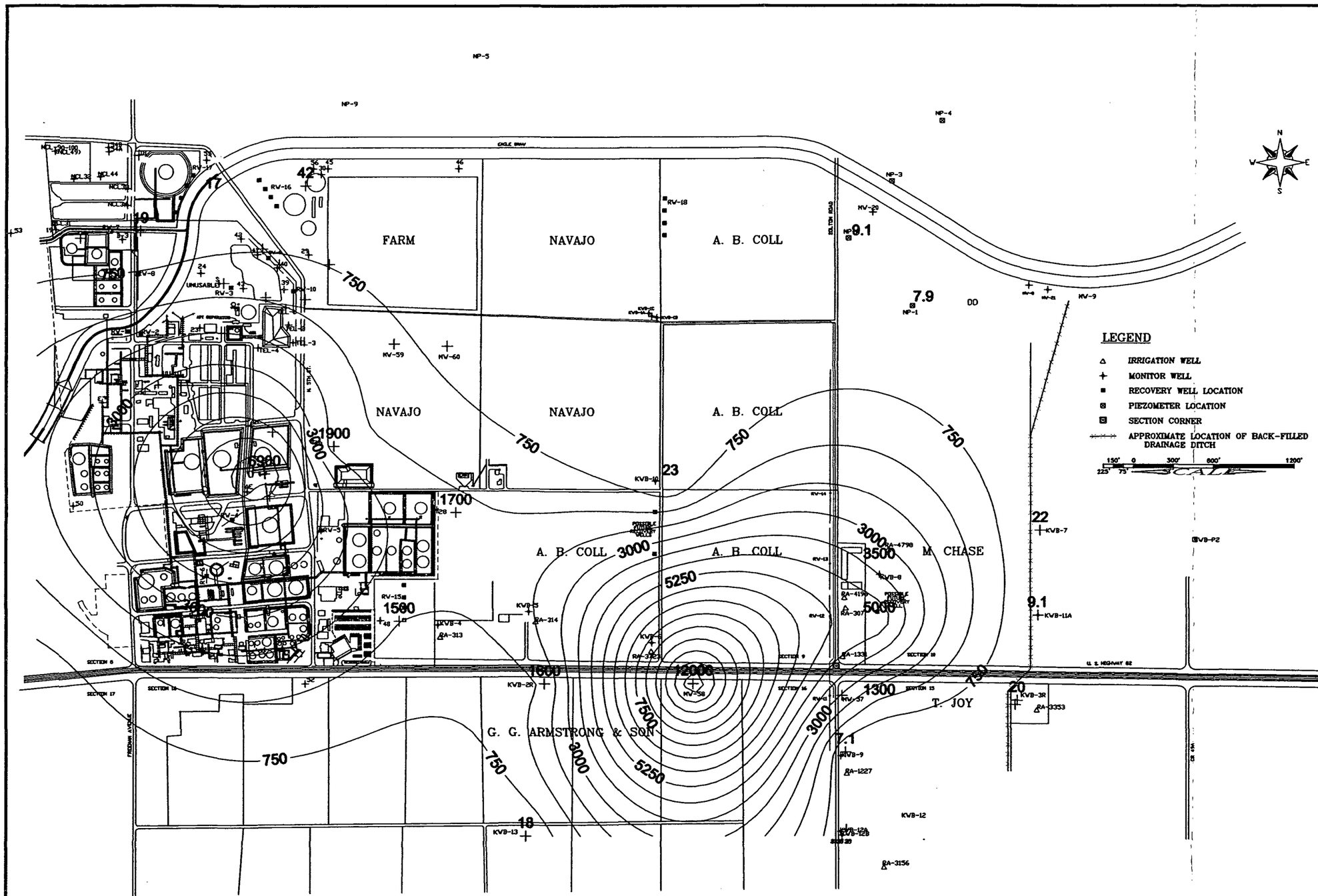
NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
17	2002 READINGS	MDF	DGJ	2/27/03		
16	2001 READINGS	DEC	DGJ	2/26/02	DGM	DGJ
15	2000 READINGS	BHR	DGM	2/26/01	DGM	DGJ
14	SEPT. 1999 READINGS	LGR	DGM	2/26/00	DGM	DGJ
13	JUN. 1999 READINGS	LGR	DGM	2/25/99	DGM	DGJ
12	MAR. 1999 READINGS	LGR	DGM	2/25/99	DGM	DGJ
11	JAN. 1999 READINGS	LGR	DGM	2/23/99	DGM	DGJ
10	SEPT. 1998 READINGS	LGR	DGM	2/25/98	DGM	DGJ
9	JUN. 1998 READINGS	LGR	DGM	2/25/98	DGM	DGJ
8	MAR. 1998 READINGS	LGR	DGM	2/25/98	DGM	DGJ
7	JAN. 1998 READINGS	LGR	DGM	2/25/98	DGM	DGJ
6	OCT., 1996 READINGS	DLW	DGJ	11/25/96	DGM	DGJ
5	AUGUST, 1996 READINGS	DLW	DGJ	8/9/96	DGM	DGJ
4	MAY, 1996 READINGS	DLW	DGJ	5/14/96	DGM	DGJ
3	JANUARY, 1996 READINGS	DLW	DGJ	2-6-96	DGM	DGJ
2	SEPTEMBER, 1995 READINGS	PETE	DGJ	10-7-95	DGM	DGJ
1	OCTOBER, 2003 READINGS	RGN	OGJ	10/04	DGM	
0	ISSUED WITH MARCH, 1995 READINGS	PETE	DGJ	3-17-95	DGM	ILS

DRAWING TITLE

FIGURE 3-2
GROUNDWATER
POTENTIOMETRIC MAP
NAVAJO REFINING

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

DRAWN BY	CHK'D BY	SCALE
DLW	DGM	AS SHOWN
DATE	APPR BY	DRAWING NUMBER / REV.
3-17-95	ILS	90-44-D / 19



NOTES

TRENCHES

POSSIBLE FUTURE TRENCHES

REFERENCE DRAWINGS

NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
17	2002 READINGS	MDF	DGJ	2/27/02		
16	2001 READINGS	DEC	DGJ	8/31/01	DGM	DGJ
15	2000 READINGS	BHR	DGM	2/15/01	DGM	
14	SEPT. 1999 READINGS	LGR	DGM	9/28/99	DGM	DGJ
13	JUN. 1999 READINGS	LGR	DGM	7/25/99	DGM	DGJ
12	MAR. 1999 READINGS	LGR	DGM	3/24/99	DGM	DGJ
11	JAN. 1999 READINGS	LGR	DGM	2/2/99	DGM	DGJ
10	SEPT. 1998 READINGS	LGR	DGM	9/30/98	DGM	DGJ
9	JUN. 1998 READINGS	LGR	DGM	6/25/98	DGM	DGJ
8	MAR. 1998 READINGS	LGR	DGM	3/24/98	DGM	DGJ
7	JAN. 1998 READINGS	LGR	DGM	2/18/98	DGM	DGJ
6	OCT., 1996 READINGS	DLW	DGJ	10/29/96	DGM	DGJ
5	AUGUST, 1996 READINGS	DLW	DGJ	8/14/96	DGM	DGJ
4	MAY, 1996 READINGS	DLW	DGJ	5/14/96	DGM	DGJ
3	JANUARY, 1996 READINGS	DLW	DGJ	1-16-96	DGM	DGJ
2	SEPTEMBER, 1995 READINGS	PETE	DGJ	9-7-95	DGM	DGJ
20	APRIL, 2003 READINGS	RCH	DGJ	01/04	DGM	
0	ISSUED WITH MARCH, 1995 READINGS	PETE	DGJ	3-27-95	DGM	ILS

DRAWING TITLE

FIGURE 3-3
GROUNDWATER POTENTIOMETRIC MAP
NAVAJO REFINING

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

DRAWN BY	CHK'D BY	SCALE
DLW	DGM	AS SHOWN
DATE	APPR BY	DRAWING NUMBER / REV.
3-17-95	ILS	90-44-D / 20

FIGURE 3-4
KWB-2R

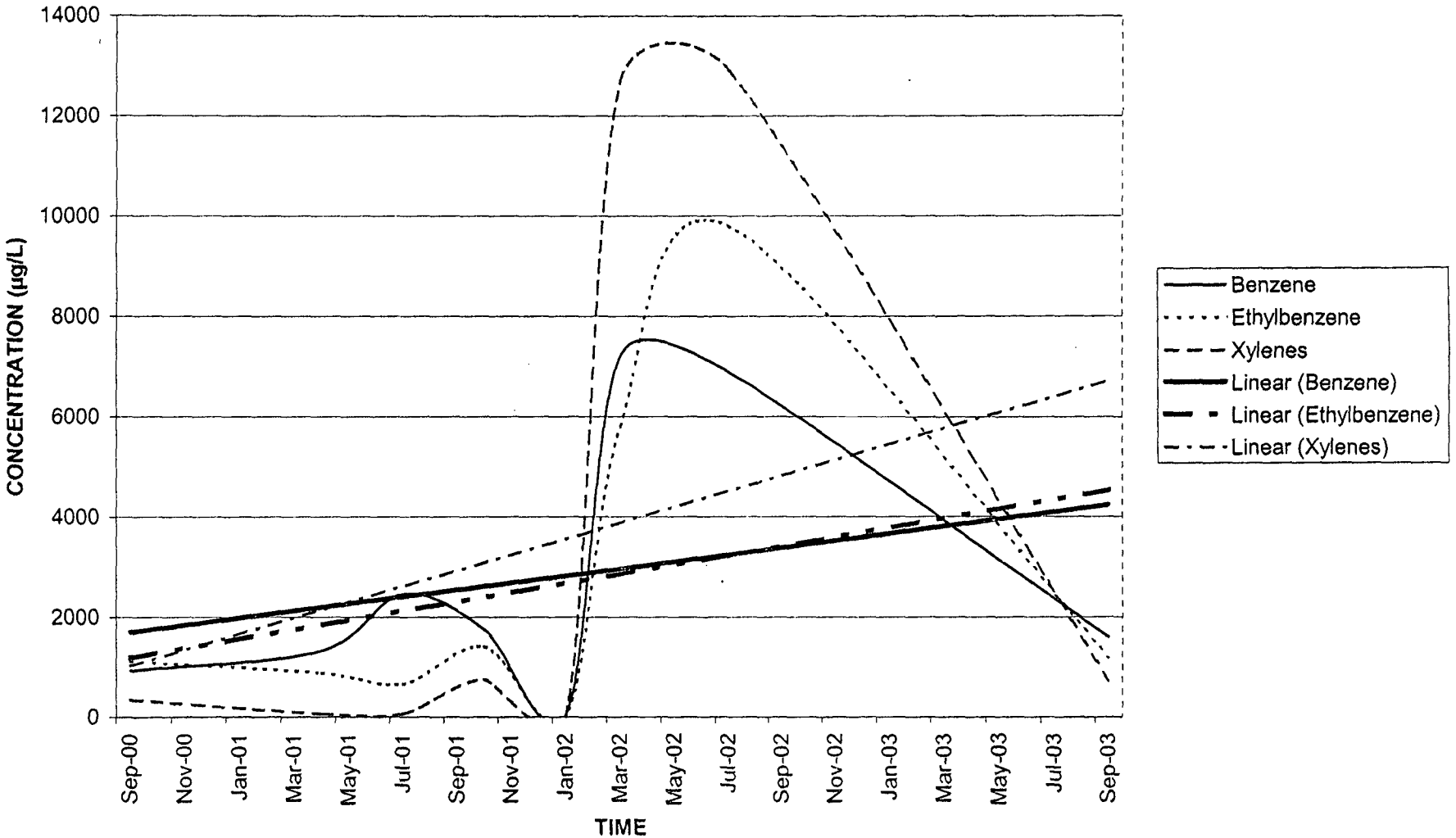
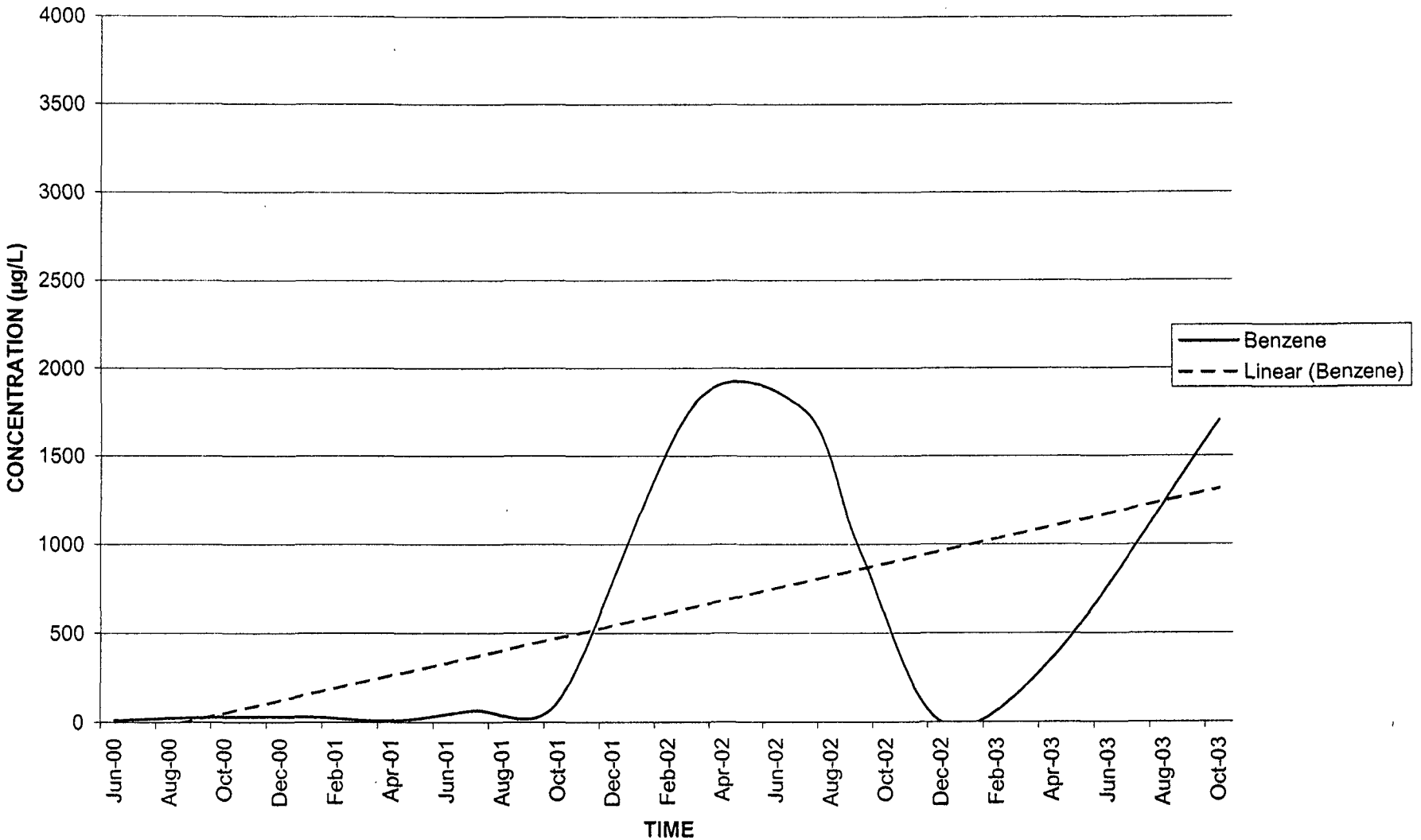


FIGURE 3-5
MW-28



4.0 NCL/TEL

TABLE's 4-1 thru 4-4 contain the field observations for the fifteen monitoring wells sampled. This is the first year that Dissolved Oxygen (D.O.) and Oxydation-Reduction Potential (ORP) have been collected. These parimeters, along with pH, Temperature, and Conductuvity are all taken in a flow-thru cell. A 12-volt submersible pump is used to push water through the cell. The cell is a closed system with an influent and effluent port. The probes are submersed in the water with a minimal amount of air left in the cell. Continueous readings of all of the field parameters are taken as the water passes through the cell.

TABLE 4-5 contains the analytical results for the monitoring wells. The three metals; boron, iron, and manganese had several results above the WQCC level. It is believed that they are at naturally occurring levels due to the concentration is not statistically different between the wells or past analysis results, as can be seen in the TABLE. Monitoring well NCL-34 has shown a fluctuation in BTEX concentrations. A graph of benzene, ethylbenzene, and xylenes is provided in FIGURE 4-1. As this graph shows, these constituents have been declining over the years. Benzene has ranged from 5,010 ppb in 1997 down to 957 ppb in 2002 and now back to 2,800 ppb in 2003. This is probably due to water level fluctuations.

Monitoring wells TEL-2 and TEL-3 have both been declining over the last several years and illustrated in FIGURE's 4-2 and 4-3, respectively. These wells are generally down gradient from the TEL impoundment. These wells have exhibited free-phase product on them continuously over the years. However, the thickness of product has been declining from 2 to 3 feet ten to fifteen years ago to 1 to 2 inches in recent years.

Monitoring well TEL-4, has been showing an increase in the benzene concentration, while at the same time showing a decrease in toluene, ethylbenzene, and xylenes, as illustrated in FIGURE 4-4. This well is the upgradient well for the TEL impoundment. As previously stated, it is believed that this is due to a historic plume resulting from the former tank farm which was located in the same vicinity as the current Alky and CCR units. All of the laboratory analytical data sheets for the 2003 sampling events are provided in ATTACHMENT C.

As seen in FIGURE 4-5, the free-phase hydrocarbon plume exists along the north edge of Highway 82. It is believed that a sand channel exists along this path and is a preferential pathway. This channel is intersected by recovery wells RW-13 and RW-14 located adjacent to Bolten Road.

TABLE 4-1
SUMMERY OF FIELD OBSERVATIONS
First 2003 Quarterly Sampling

WELL #	CONDUCTIVITY	TEMPERATURE	pH	ELEV. TO TOP OF CASING	GROUND WATER ELEVATION	TD	DEPTH TO H2O	DEPTH TO FLUID	THICKNESS OF PRODUCT	CORR. DEPTH TO H20	WELL VOLUME	MINIMUM VOLUME EVACUATED	Comments
TEL 4	2250	21.1	6.70	3363.31	3354.89	27.2	8.42	8.42	0	8.42	3.1	10	slight odor
TEL 3	2400	21.8	6.81	3361.45	3354.60	27.2	7.02	6.82	0.2	6.85	3.3	10	slight odor
TEL 2	2510	21.2	6.69	3362.23	3354.78	27.2	7.48	7.44	0.04	7.45	3.2	10	hvy odor
TEL 1	3100	20.9	6.81	3361.34	3354.89	26.9	6.45	6.45	0	6.45	3.3	11	clear
MW-53	2100	21.8	6.71	3367.87	3354.43	23.8	13.44	13.44	0	13.44	1.7	6	clear
MW-55	2000	20.3	6.86	3363.97	3351.79	26.8	12.18	12.18	0	12.18	2.4	8	clear, no odor
MW-56	1900	21	6.75	3362.42	3350.94	21.4	11.48	11.48	0	11.48	1.6	5	clear, odor
MW-54A	3150	21.8	6.88	3365.66	3352.11	31.3	13.55	13.55	0	13.55	2.9	9	clear, odor
NCL-49	2000	20.2	7.11	3369.87	3351.92	32.1	17.95	17.95	0	17.95	2.3	7	oil sheen w/ odor
NCL-32	1510	19.9	6.68	3363.72	3352.15	19.7	11.57	11.57	0	11.57	1.3	4	oil sheen
NCL-44	2000	20.9	6.84	3363.23	3352.05	21.6	11.18	11.18	0	11.18	1.7	6	clear
NCL-33	1950	20.5	6.80	3363.28	3351.46	19.6	11.82	11.82	0	11.82	1.3	4	clear
NCL-34	1400	21.5	6.78	3364.74	3352.20	19.3	12.54	12.54	0	12.54	1.1	4	clear

TABLE 4-2
Summery of Field Observations
Second 2003 Quarterly Sampling

WELL #	CONDUCTIVITY	TEMPERATURE	pH	ELEV. TO TOP OF CASING	GROUND WATER ELEVATION	TD	DEPTH TO H2O	DEPTH TO FLUID	THICKNESS OF PRODUCT	CORR. DEPTH TO H20	WELL VOLUME	MINIMUM VOLUME EVACUATED	Comments
TEL 4	2650	22.3	7.48	3363.31	3353.68	27.2	9.63	9.63	0	9.63	2.9	9	slight odor
TEL 3	2550	23.6	7.07	3361.45	3354.35	27.2	7.32	7.07	0.25	7.10	3.3	10	slight odor
TEL 2	2490	22.4	7.19	3362.23	3354.02	27.2	8.23	8.21	0.02	8.21	3.1	10	hvy odor
TEL 1	2780	22.7	7.67	3361.34	3354.55	26.9	6.80	6.79	0.01	6.79	3.3	10	clear
MW-53	2040	19.2	7.00	3367.87	3353.49	23.8	14.38	14.38	0	14.38	1.5	5	clear
MW-55	2120	21.8	6.88	3363.97	3351.65	26.8	12.32	12.32	0	12.32	2.4	8	clear, no odor
MW-56	3130	22.7	6.98	3362.42	3351.40	21.4	11.02	11.02	0	11.02	1.7	6	clear, odor
MW-54A	1650	23.9	7.25	3365.66	3352.04	31.3	13.62	13.62	0	13.62	2.9	9	clear, odor
NCL-49	3324	19.5	6.80	3369.87	3351.11	32.1	18.76	18.76	0	18.76	2.2	7	oil sheen w/ odor
NCL-32	2370	21.2	7.21	3363.72	3351.96	19.7	11.76	11.76	0	11.76	1.3	4	oil sheen
NCL-44	1750	22.3	6.87	3363.23	3351.96	21.6	11.27	11.27	0	11.27	1.7	6	clear
NCL-33	1810	19.8	6.73	3363.28	3352.22	19.6	11.06	11.06	0	11.06	1.4	5	clear
NCL-34	1770	22.8	6.65	3364.74	3352.08	19.3	12.66	12.66	0	12.66	1.1	4	clear

TABLE 4-3
Summery of Field Observations
Third 2003 Quarterly Sampling

WELL #	CONDUCTIVITY	TEMPERATURE	pH	ELEV. TO TOP OF CASING	GROUND WATER ELEVATION	TD	DEPTH TO H2O	DEPTH TO FLUID	THICKNESS OF PRODUCT	CORR. DEPTH TO H20	WELL VOLUME	MINIMUM VOLUME EVACUATED	Comments
TEL 4	3313	20.5	6.62	3363.31	3353.35	27.2	9.96	9.96	0	9.96	2.8	9	slight odor
TEL 3	3537	20.7	6.60	3361.45	3355.54	27.2	6.01	5.89	0.12	5.91	3.5	11	slight odor
TEL 2	3134	20.2	6.79	3362.23	3355.51	27.2	7.30	6.63	0.67	6.72	3.4	11	hvy odor
TEL 1	4055	19.7	6.97	3361.34	3355.68	26.9	5.67	5.66	0.01	5.66	3.5	11	clear
MW-53	2550	21.6	6.88	3367.87	3353.07	20.5	14.80	14.80	0	14.80	0.9	3	clear
MW-55	3469	19.7	6.64	3363.97	3351.01	26.5	12.96	12.96	0	12.96	2.2	7	clear, no odor
MW-56	4002	20.05	6.62	3362.42	3351.04	26.5	11.38	11.38	0	11.38	2.5	8	clear, odor
MW-54A	2125	19.5	6.58	3365.66	3351.32	31.3	14.34	14.34	0	14.34	2.8	9	clear, odor
NCL-49	3324	19.5	6.80	3369.87	3351.11	32.1	18.76	18.76	0	18.76	2.2	7	oil sheen w/ odor
NCL-32	29..	19.88	6.64	3363.72	3351.43	19.8	12.29	12.29	0	12.29	1.2	4	oil sheen
NCL-44	2218	20.1	6.58	3363.23	3351.40	21.6	11.83	11.83	0	11.83	1.6	5	clear
NCL-33	2366	21.1	6.47	3363.28	3350.84	20.5	12.44	12.44	0	12.44	1.3	4	clear
NCL-34	2357	21.85	6.54	3364.74	3351.75	19.3	12.99	12.99	0	12.99	1.0	4	clear

TABLE 4-4
Summery of Field Observations
Forth 2003 Quarterly Sampling

WELL #	CONDUCTIVITY	TEMPERATURE	pH	DO (%)	ORP	ELEV. TO TOP OF CASING	GROUND WATER ELEVATION	TD	DEPTH TO H2O	DEPTH TO FLUID	THICKNESS OF PRODUCT	CORR. DEPTH TO H20	WELL VOLUME	MINIMUM VOLUME EVACUATED	Comments
TEL 4	4212	20.9	6.81	0.3	-353.4	3363.31	3353.55	27.2	9.76	9.76	0	9.76	2.8	9	slight odor
TEL 3	3383	20.9	6.72	-0.5	-346.0	3361.45	3353.26	27.2	8.25	8.18	0.07	8.19	3.1	10	slight odor
TEL 2	2895	21.4	6.86	-0.9	-361.3	3362.23	3353.31	27.2	9.13	8.89	0.24	8.92	3.0	9	hvy odor
TEL 1	3699	20.2	6.87	0.7	-261.7	3361.34	3353.40	26.9	7.94	7.94	0	7.94	3.1	10	clear
MW-53	2360	23.2	6.91	0.2	-68.9	3367.87	3354.41	20.5	13.46	13.46	0	13.46	1.1	4	clear
MW-54A	2173	20.3	6.70	0.3	-91.0	3365.66	3353.39	31.3	12.27	12.27	0	12.27	3.1	10	clear, odor
MW-55	3363	20.7	6.81	0.5	-17.4	3363.97	3353.20	26.5	10.77	10.77	0	10.77	2.6	8	clear, no odor
MW-59	3441	20.8	6.78	0.6	-251.7	3361.21	3355.57	30.1	5.64	5.64	0	5.64	4.0	12	clear, odor
MW-60	3580	20.1	6.78	-2.7	-217.3	3362.42	3355.82	30.2	6.60	6.60	0	6.60	3.9	12	clear, odor
NCL-49	3120	19.6	7.10	1.8	50.0	3369.87	3352.91	32.1	16.96	16.96	0	16.96	2.5	8	oil sheen w/ odor
NCL-32	2756	20.3	6.83	0.8	3.4	3363.72	3353.19	1937	10.53	10.53	0	10.53	314.4	944	oil sheen
NCL-44	2124	20.7	6.73	0.6	-208.5	3363.23	3353.28	19.8	9.95	9.95	0	9.95	1.6	5	clear
NCL-33	2177	20.6	6.63	0.1	-82.3	3363.28	3352.62	20.5	10.66	10.66	0	10.66	1.6	5	clear
NCL-34	2299	22.4	6.68	1.1	-330.1	3364.74	3353.38	19.3	11.40	11.35	0.05	11.36	1.3	4	clear

TABLE 4-5
NCL/TEL GROUNDWATER WELL ANALYTICAL DATA

	Date	METALS (mg/L)						Volatiles (µg/L)			ANIONS (mg/L)	
		Aluminum	Boron	Copper	Iron	Lead	Manganese	Benzene	Ethylbenzene	Xylenes	Chloride	Sulfate
WQCC		5	0.75	1	1	0.05	0.2	10	750	620	250	600
NCL-32	12/9/1997	BDL	0.0927	BDL	0.409	BDL	**0.647**	BDL	BDL	BDL	NA	NA
	9/30/2002	BDL	0.278	0.328	0.231	BDL	**0.848**	BDL	BDL	BDL	NA	NA
	12/26/2002	BDL	0.25	BDL	0.85	BDL	**0.606**	BDL	BDL	BDL	NA	NA
	8/11/2003	BDL	**0.285**	0.0056	**1.25**	BDL	**0.899**	BDL	BDL	BDL	238	**1280**
	11/4/2003	BDL	**0.268**	0.00736	**1.05**	BDL	**0.884**	9.1	5.6	BDL	226	**1140**
NCL-33	12/10/1997	5.88	0.229	BDL	**7.61**	0.0138	0.198	BDL	BDL	BDL	NA	NA
	10/1/2002	2.83	0.511	**3.33**	**3.18**	BDL	0.086	BDL	BDL	BDL	NA	NA
	12/27/2002	0.961	0.434	BDL	**1.44**	BDL	0.14	BDL	BDL	BDL	NA	NA
	8/12/2003	0.592	**0.531**	0.00611	**2.31**	BDL	**0.132**	BDL	BDL	BDL	**304**	**315**
	11/6/2003	0.0255	**0.471**	BDL	**2.3**	BDL	**0.0832**	**11**	6.8	BDL	**297**	**2.66**
NCL-34	12/10/1997	43.8	153	BDL	**31.2**	**0.0619**	**0.47**	**5010**	**2500**	**1950**	NA	NA
	10/1/2002	BDL	0.287	**8.73**		0.0091	0.0892	**1640**	96.9	27.9	NA	NA
	12/27/2002	0.321	0.296	BDL	0.438	BDL	0.0943	**957**	154	44.3	NA	NA
	8/12/2003	0.0211	0.35	0.00378	**1.18**	BDL	**0.146**	**2400**	**500**	**190**	**359**	221
	11/6/2003	0.026	0.261	BDL	**0.865**	BDL	**0.14**	**2800**	**400**	**240**	**368**	174
NCL-44	12/10/1997	0.564	0.137	BDL	0.901	BDL	**0.564**	BDL	BDL	BDL	NA	NA
	9/30/2003	0.53	0.301	**1.12**	**1.89**	BDL	**0.622**	BDL	BDL	BDL	NA	NA
	12/26/2002	BDL	0.237	BDL		BDL	**0.79**	BDL	BDL	BDL	NA	NA
	8/11/2003	0.191	0.3	0.00465	**1.79**	BDL	**0.737**	BDL	BDL	BDL	**247**	**539**
	11/4/2003	0.0296	0.316	0.00859	**1.56**	BDL	**0.753**	6.8	BDL	BDL	**224**	**464**
NCL-49	12/9/1997	0.324	BDL	BDL	**0.669**	BDL	BDL	BDL	BDL	BDL	NA	NA
	9/30/2002	BDL	0.244	0.538	**0.352**	BDL	BDL	BDL	BDL	BDL	NA	NA
	12/26/2002	BDL	0.21	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA
	8/11/2003	0.0267	0.256	0.00704	**0.941**	BDL	BDL	BDL	BDL	BDL	182	**1,810**
	11/4/2003	BDL	0.257	0.00672	**1**	BDL	BDL	BDL	5.6	BDL	183	**1,600**
MW-53	12/9/1997	**29**	0.226	BDL	**21.9**	0.0175	**4.55**	BDL	BDL	BDL	NA	NA
	9/30/2002	**6.55**	0.376	0.0329	**3.37**	BDL	**3.37**	BDL	BDL	BDL	NA	NA
	12/26/2002	BDL	0.305	BDL	0.107	BDL	**1.98**	BDL	BDL	BDL	NA	NA
	8/11/2003	1.1	0.34	0.00782	**1.11**	BDL	**2.42**	BDL	BDL	BDL	68.5	**1,300**
	11/3/2003	BDL	0.404	0.00521	0.567	BDL	**1.99**	**47**	13	16	**57.9**	**1,180**
MW-54A	12/10/1997	4.34	0.187	BDL	**3.25**	BDL	**0.302**	BDL	BDL	BDL	NA	NA
	9/30/2002	0.376	0.287	0.521	BDL	**0.741**	**0.346**	BDL	BDL	BDL	NA	NA
	12/26/2002	BDL	0.234	BDL	0.355	BDL	**0.328**	BDL	BDL	BDL	NA	NA
	8/12/2003	0.281	0.309	0.00458	**1.25**	BDL	**0.427**	BDL	BDL	BDL	190	**604**
	11/3/2003	0.0269	BDL	0.00434	**1.03**	BDL	**0.481**	**12**	6.4	BDL	174	**629**
MW-55	12/10/1997	1.9	0.335	BDL	**1.32**	BDL	**0.212**	BDL	BDL	BDL	NA	NA
	10/1/2003	0.372	0.525	0.702	0.312	BDL	**0.43**	BDL	BDL	BDL	NA	NA
	12/26/2003	BDL	0.441	BDL	BDL	BDL	**0.412**	BDL	BDL	BDL	NA	NA
	8/12/2003	BDL	0.565	0.00685	0.936	BDL	**0.595**	BDL	BDL	BDL	**276**	**1,540**
	11/3/2003	0.0298	0.474	0.0072	0.766	BDL	**0.562**	**14**	6.7	BDL	**268**	**1,510**
MW-59	11/6/2003	0.261	0.242	0.00931	**1.12**	BDL	**0.523**	**370**	56	18	177	**1,600**
MW-60	11/6/2003	0.0892	0.404	0.0108	**2.27**	BDL	**0.764**	**27**	15	BDL	219	**1,540**
TEL-1	12/10/1997	0.94	0.395	BDL	**1.1**	BDL	BDL	BDL	BDL	13.5	NA	NA
	10/1/2002	BDL	0.632	BDL	0.13	BDL	**0.0575**	**13.6**	3.63	11.7	NA	NA
	12/30/2002	BDL	0.605	BDL	0.114	BDL	**0.0591**	**18.7**	4.25	17.1	NA	NA
	8/13/2003	BDL	**0.795**	0.00327	**1.16**	BDL	0.0796	**9.1**	BDL	BDL	189	**1,780**
	11/13/2003	BDL	0.668	BDL	BDL	BDL	0.108	**20**	8.4	19	188	**1,970**
TEL-2	12/10/1997	0.975	0.384	BDL	**1.41**	0.0208	0.0358	**2090**	176	367	NA	NA
	10/1/2002	BDL	0.657	BDL	BDL	BDL	0.0196	**1120**	25.9	203	NA	NA
	12/30/2002	BDL	0.611	BDL	BDL	BDL	**17.1**	**1290**	36.6	214	NA	NA
	8/13/2003	BDL	**0.881**	0.00399	0.779	BDL	0.0299	**1100**	29	200	212	**802**
	11/11/2002	BDL	0.615	BDL	BDL	BDL	0.0183	**1700**	39	240	233	**572**
TEL-3	12/10/1997	0.302	0.747	BDL	0.258	0.00373	BDL	**464**	48.9	283	NA	NA
	10/1/2002	BDL	**0.935**	0.102	BDL	BDL	BDL	**387**	13.8	161	NA	NA
	12/30/2002	BDL	**0.771**	BDL	BDL	BDL	BDL	**200**	12.6	145	NA	NA
	8/13/2003	BDL	**0.832**	0.00598	**2.28**	BDL	0.00901	**110**	8.4	87	113	**1,900**
	11/11/2003	BDL	**0.727**	0.00425	0.412	BDL	0.0141	**150**	13	88	72.4	**1,910**
TEL-4	12/10/1997	0.586	0.396	BDL	**1.4**	0.00971	**0.88**	**141**	411	163	NA	NA
	10/1/2002	BDL	0.756	BDL	0.127	BDL	**0.39**	**28.4**	84.6	147	NA	NA
	12/30/2003	BDL	0.696	BDL	BDL	BDL	**0.205**	**2110**	95.1	250	NA	NA
	8/13/2003	0.0129	**0.714**	0.00562	**1.85**	0.00317	**0.264**	**2800**	190	340	**558**	**188**
	11/11/2003	BDL	**0.896**	BDL	BDL	BDL	**0.185**	**2800**	180	370	**594**	**128**

NOTES:

BDL Below Detection Limit

NA Not Analyzed

FIGURE 4-1
NCL-34

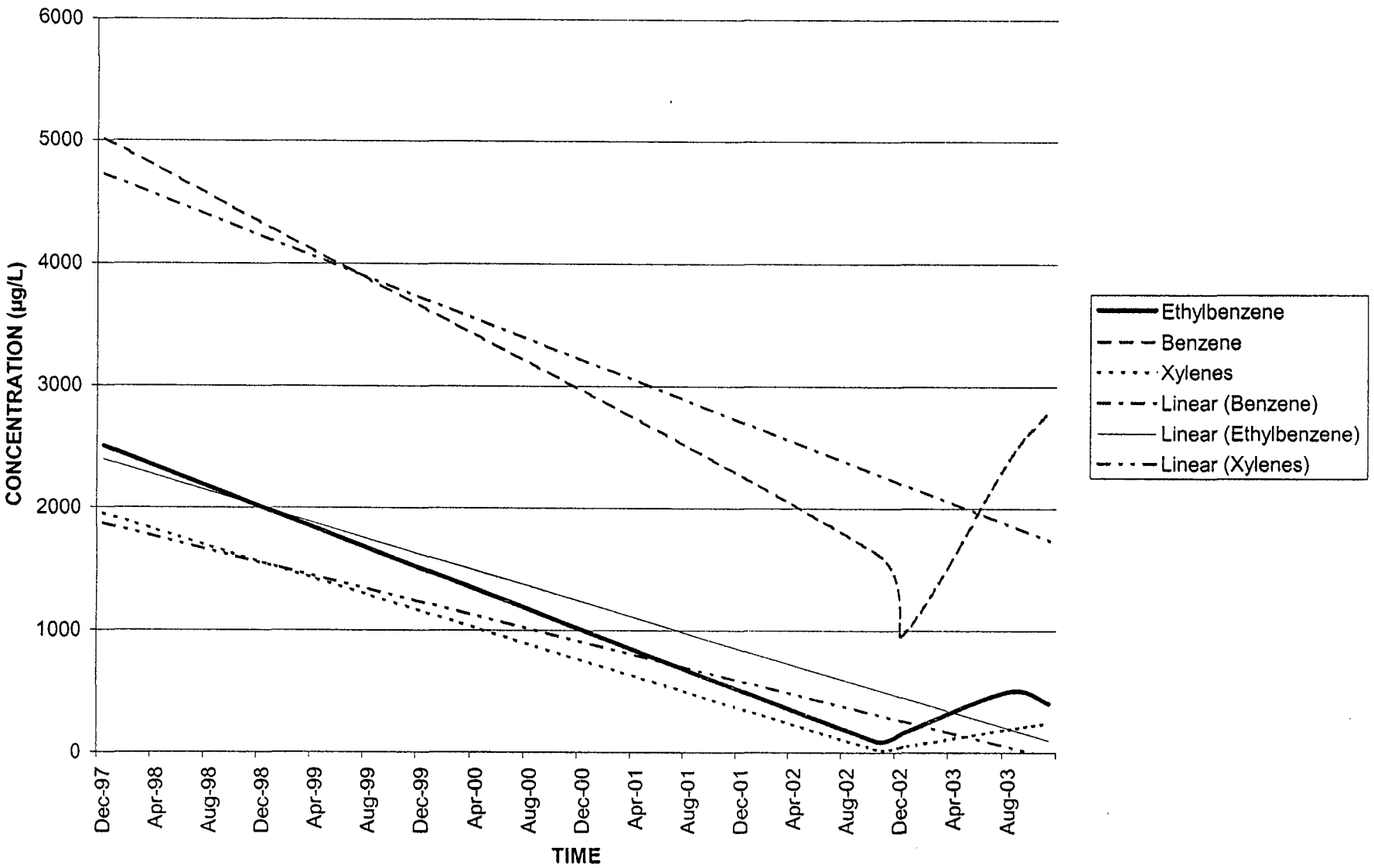


FIGURE 4-2
TEL-2

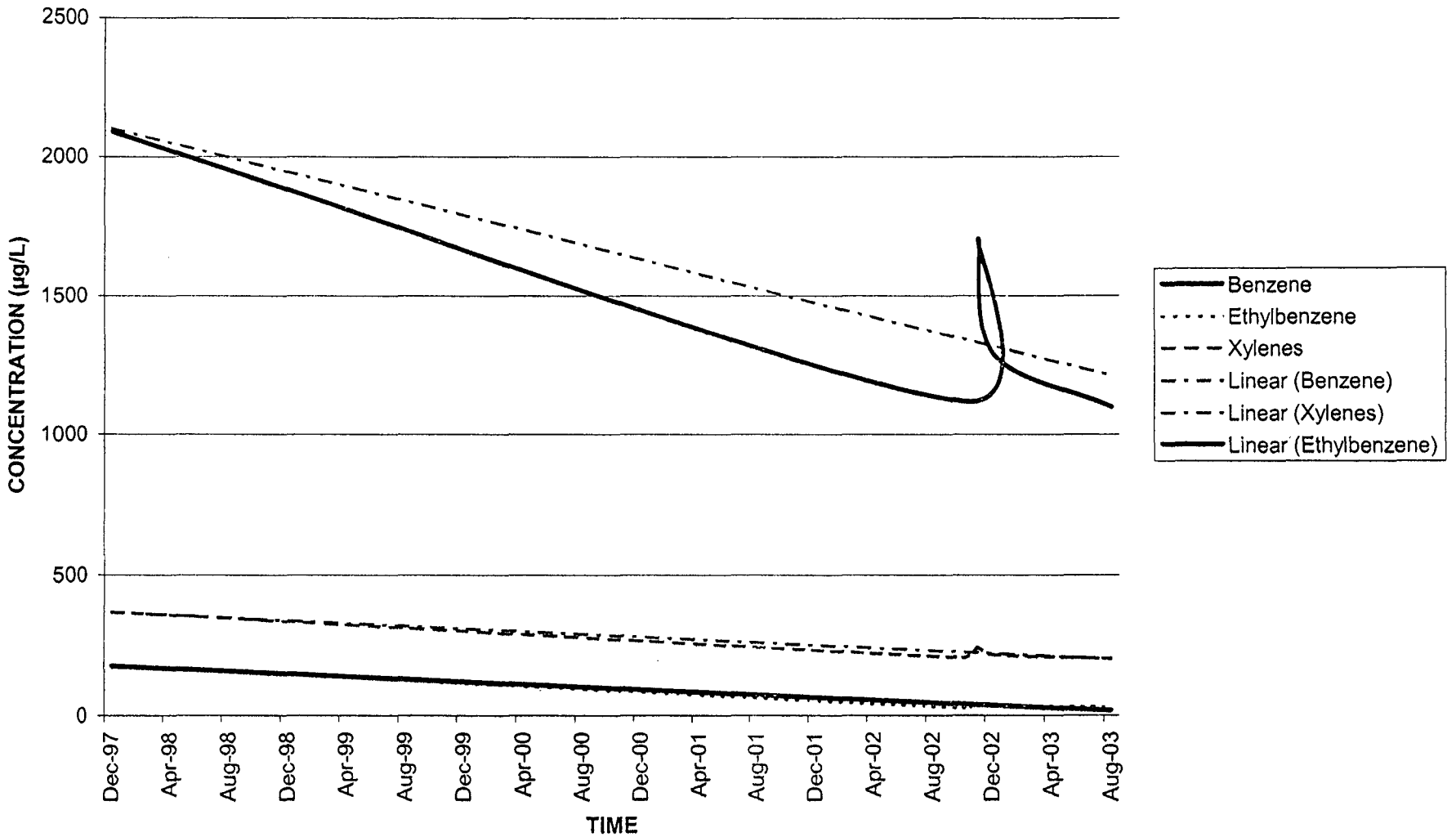
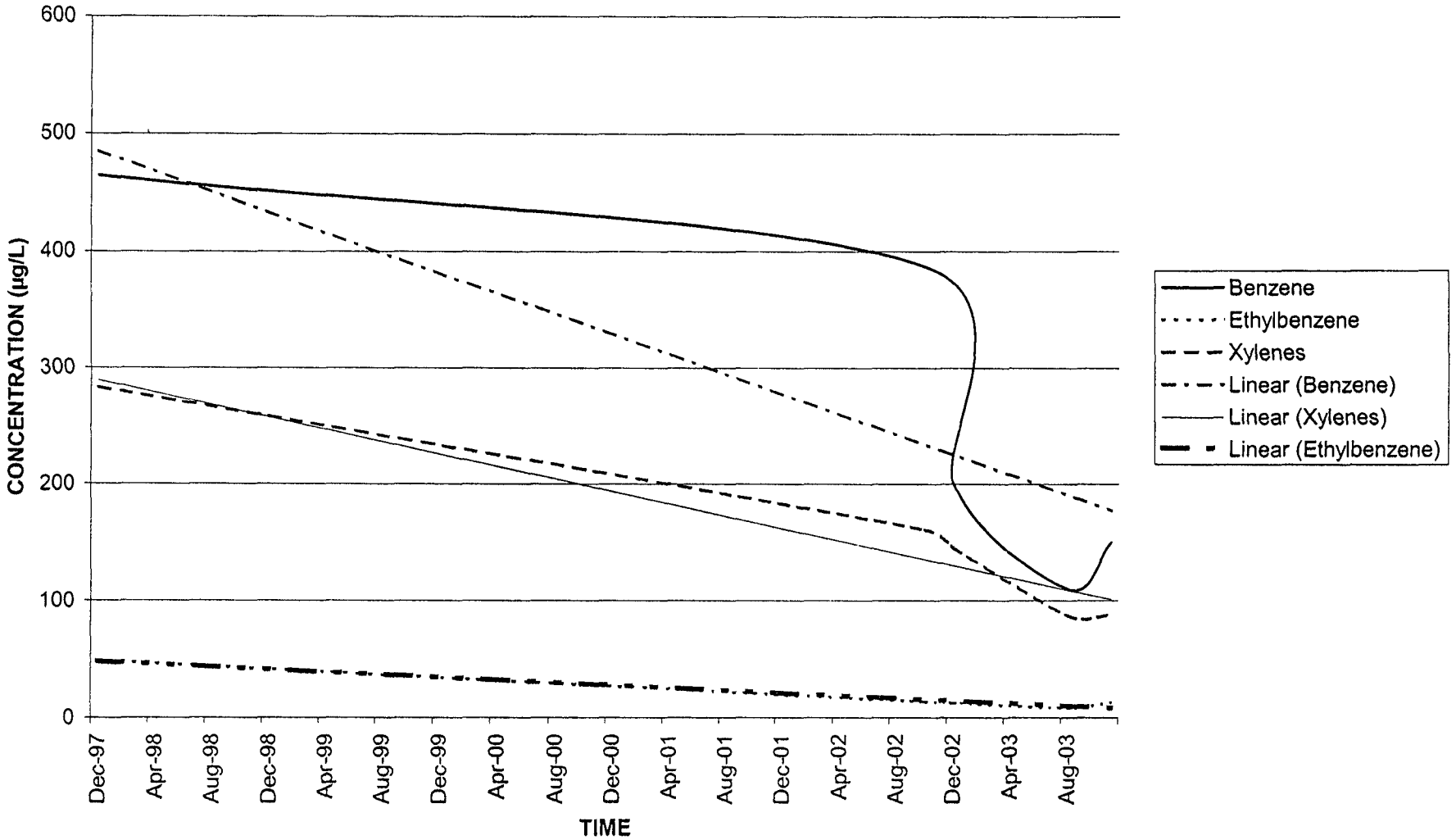


FIGURE 4-3
TEL-3

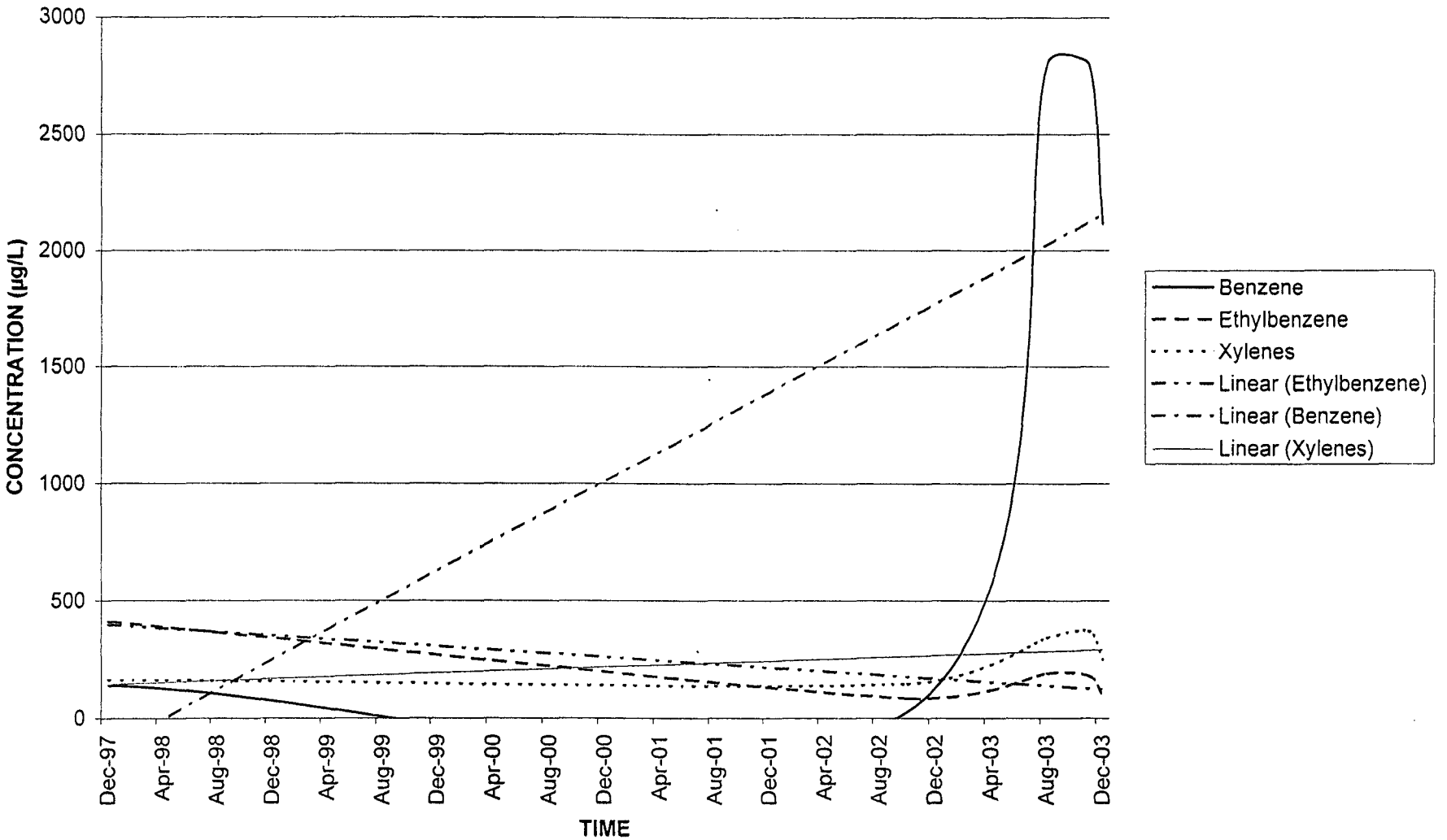


5.0 EVAPORATION PONDS

TABLE 5-1 contains the analytical results for the last two years of sampling events for this set of wells. None of these wells have exhibited concentrations of hyrdrocarbons above the method detection limit. The levels of metals and anions occurring above the WQCC level are consistent between the wells and is assumed to be naturally occurring. The laboratory analytical data sheets for 2003 are provided in ATTACHMENT D.

FIGURE 5-1 is the groundwater gradient map for the evaporation ponds. The overall direction appears to be toward the southeast. The mound at OCD-7 is assumed to be a result of its location relative to the river. This well is approximately 10 yards from the river.

FIGURE 4-4
TEL-4



EVAPORATION PONDS

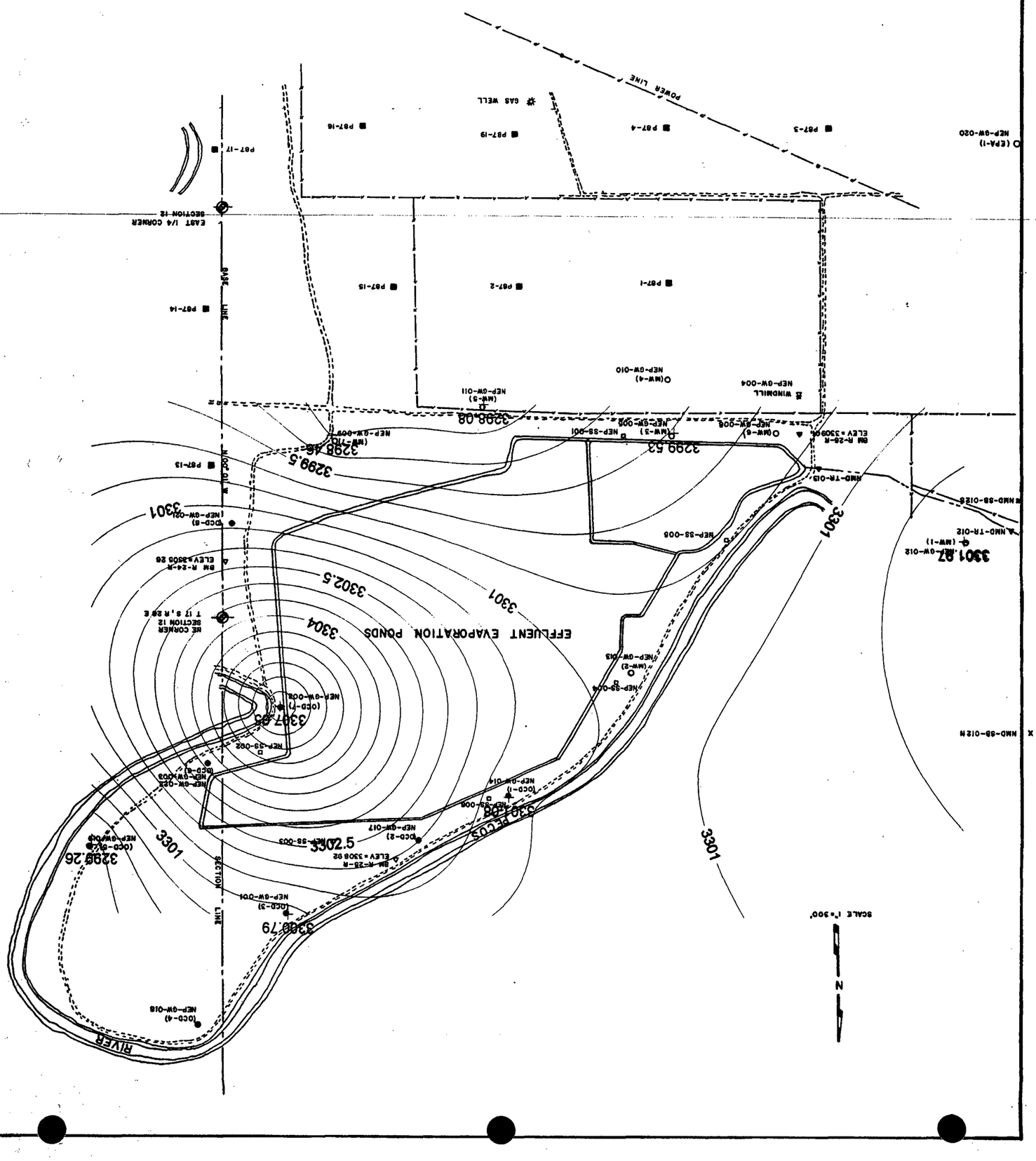
FIGURE 5-1

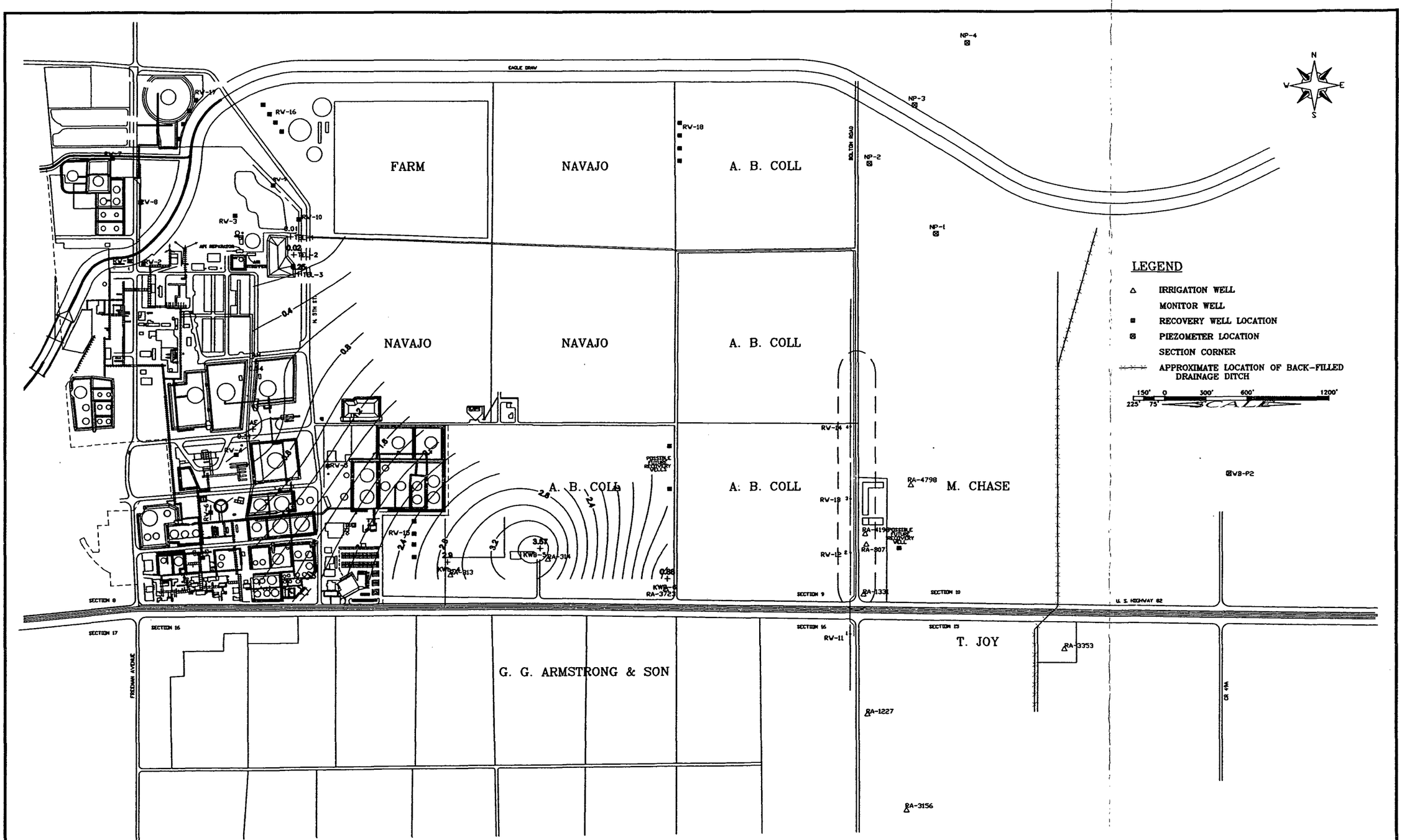
NAVAJO REFINING CO.
ARTESIA EDDY COUNTY NEW MEXICO

PREPARED FOR MARIAH ASSOCIATES
BY McFARLAND ENGINEERING

RFI DRAWING NO	JOB NO	DATE	90-33-D-5
5	90149	SEPT 1990	

NOTE ELEVATIONS ON WELLS ARE FROM USGS BM AT RAILROAD DEPOT IN ARTESIA THEY ARE 0.40 FEET HIGHER THAN THE USBR ELEVATIONS SHOWN ON R-24-R, R-25-R, AND R-26-R





NOTES

TRENCHES

POSSIBLE FUTURE TRENCHES

REFERENCE DRAWINGS

NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
17	2001 READINGS	DEC	DGJ	6/5/01	DGM	DGJ
16	2000 READINGS	BRR	DGM	6/14/00	DGM	
15	'95-'99 READINGS	LGR	DGM	6/12/99	DGM	DGJ
14	SEPT. 1999 READINGS	LGR	DGM	6/9/99	DGM	DGJ
13	JUN. 1999 READINGS	LGR	DGM	6/9/99	DGM	DGJ
12	MAR. 1999 READINGS	LGR	DGM	6/9/99	DGM	DGJ
11	JAN. 1999 READINGS	LGR	DGM	6/9/99	DGM	DGJ
10	SEPT. 1998 READINGS	LGR	DGM	6/9/99	DGM	DGJ
9	JUN. 1998 READINGS	LGR	DGM	6/9/99	DGM	DGJ

NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
8	MAR. 1998 READINGS	LGR	DGM	6/9/99	DGM	DGJ
7	JAN. 1998 READINGS	LGR	DGM	6/9/99	DGM	DGJ
6	OCT., 1996 READINGS	DLW	DGJ	6/9/99	DGM	DGJ
5	AUGUST, 1996 READINGS	DLW	DGJ	6/9/99	DGM	DGJ
4	MAY, 1996 READINGS	DLW	DGJ	6/9/99	DGM	DGJ
3	JANUARY, 1996 READINGS	DLW	DGJ	6-6-96	DGM	DGJ
19	APRIL, 2003 PRODUCT	RCH	DGJ	4/15/03	DGM	DGJ
18	2002 READINGS	MDF	DGJ	2-27-02		
0	ISSUED WITH MARCH, 1995 READINGS	PETE	DGJ	3-20-95	DGM	ILS

DRAWING TITLE

FIGURE 4-5
PRODUCT THICKNESS
MAP
NAVAJO REFINING

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWER 159
ARTESIA, NEW MEXICO

DRAWN BY	CHK'D BY	SCALE	
DLW	DGM	AS SHOWN	
DATE	APPR BY	DRAWING NUMBER	REV.
3-17-95	ILS	90-45-D	19

TABLE 5-1
EVAPORATION PONDS MONITORING WELL ANALYTICAL

		Field Parameters			Metals (mg/L)						ANIONS (mg/L)	
	Date	pH	Cond.	Temp. °C	Arsenic	Boron	Cadmium	Chromium	Iron	Manganese	Chloride	Sulfate
WQCC					0.1	0.75	0.01	0.05	1	0.2	250	600
MW-1R	6/25/2003	7.01	850	21	0.00584	0.369	BDL	**0.195**	**7.52**	**2.75**	**2040**	**2750**
MW-3	5/31/2001	7.5	8100	20.8	0.032	0.41	BDL	BDL	**3**	**0.401**	**629**	**1190**
	6/25/2003	6.91	900	20.8	0.0535	0.71	BDL	0.00237	**3.79**	**2.3**	**1020**	**1990**
MW-5	5/31/2001	7.88	1100	21.2	**0.258**	0.65	**413**	BDL	**13**	**3.12**	**4500**	**7850**
	6/25/2003	6.89	750	21.2	0.0412	**1.93**	BDL	0.0141	**6.14**	**1.82**	**4780**	**8980**
MW-7	5/31/2001	7.59	1310	21.3	**0.195**	0.61	BDL	BDL	**10**	**2.25**	**2530**	**3720**
	6/25/2003	6.79	1100	20.5	0.0329	**1.01**	BDL	0.0137	**8.6**	**0.502**	**2490**	**3210**
OCD-1	5/31/2001	8.1	9000	21.6	**0.262**	0.46	BDL	BDL	**7.6**	**2.39**	**2390**	**3540**
	6/26/2003	7.01	1250	20.8	**0.112**	0.499	BDL	0.00166	**13.3**	**2.88**	**3240**	**3430**
OCD-3	5/31/2001	8.4	8950	20.4	0.012	**0.76**	BDL	BDL	**3.9**	**0.268**	**1120**	**1860**
	6/26/2003	6.81	900	20.9	0.00352	0.481	BDL	0.00108	**4.3**	**0.242**	**789**	**1460**
OCD-5	5/31/2001	8.51	1000	19.9	0.026	**1.2**	BDL	BDL	**6.5**	**0.224**	**4790**	**3030**
	6/26/2003	6.88	1150	21	0.00589	**1.3**	BDL	0.000866	**7.14**	**0.259**	**4790**	**3080**
OCD-7	6/4/2001	7.1	1100	21.2	**0.207**	**1.5**	BDL	BDL	**8.1**	**1.37**	**2060**	**3130**
	6/26/2003	6.92	1000	21.8	0.00436	0.678	0.000914	0.00374	**6.06**	**1.14**	**724**	**2540**

NOTES

BDL -Below detection Limit

6.0 REVERSE OSMOSIS REJECT WATER

For the fourth quarter we discharged a total of 36,959,000 gallons to the farm for irrigation. Since we started discharging the Reverse Osmosis (RO) reject water, we have discharged a total of 1,233,310,000 gallons. This is broken down as follows: 196,713,498 gallons have been put into Eagle Draw (stopped in December 1999) and 1,036,497,000 gallons have been put on our farms.

No TABLE is provided for the analytical as there were no chemicals of concern above the WQCC standards. Sulfate was found to be above the WQCC standard. This is expected as most all of the groundwater wells in this area are above the WQCC standard. The laboratory analytical reports for the RO Reject sampling are provided in ATTACHMENT E.

7.0 IRRIGATION WELL ANALYSIS

Ten irrigation wells are sampled monthly during the growing season. A summary of the analytical results are provided in TABLE 7-1. No hydrocarbon contaminents were detected above the WQCC levels. The metals and anions are believed to be naturally occurring levels as there are no significantly different values between up gradient and down gradient wells or sampling events. In the past, a well has occasionally exhibited hydrocarbon constituents. It has been determined that these relatively low level hits are attributed to the operators oiling the pumps and bearings. The laboratory analytical reports for 2003 are provided in ATTACHMENT F.

TABLE 7-1
IRRIGATION WELL ANALYTICAL

	Date			ANIONS (mg/L)	
		Iron	Manganese	Chloride	Sulfate
WQCC		1	0.2	250	600
RA 307	7/8/2003	0.876	0.00206	146	**1130**
	8/6/2003	**1.05**	0.0587	152	**2360**
	9/15/2003	**4.2**	0.0831	153	**1090**
RA 313	7/17/2003	**2.08**	0.0432	17	534
	8/7/2003	0.81	0.0256	207	507
RA 314	7/8/2003	0.901	BDL	225	**690**
	8/18/2003	1.12	0.0012	79.2	578
RA 1227	7/2/2003	**2.02**	BDL	130	**1,580**
	8/6/2003	**1.17**	0.00265	121	**1,500**
RA 3723		BDL	BDL	BDL	BDL
RA 3156	7/21/2003	**2.15**	0.0179	232	**1,720**
	8/29/2003	**4.14**	0.0238	236	**1,600**
	9/29/2003	**6.09**	0.18	236	**1,650**
RA 3353	4/24/2003	BDL	BDL	BDL	BDL
	7/21/2003	**1.5**	0.00705	170	**1,180**
	8/18/2003	**2.37**	0.0121	169	**1,080**
	9/29/2003	**1.89**	0.00838	173	**1,210**
RA 4196	7/8/2003	**5.7**	0.175	**305**	**1,400**
	8/18/2003	**11.3**	**0.282**	217	**1,390**
	9/15/2003	**13.7**	**0.223**	198	**1,450**
RA 4798	3/6/2003	BDL	BDL	BDL	BDL
	4/9/2003	BDL	BDL	BDL	BDL
	6/29/2003	BDL	BDL	BDL	BDL
	7/17/2003	**1.1**	0.00365	145	**1,720**
	8/18/2003	**3.21**	0.0066	138	**1,560**
	9/15/2003	**7.46**	0.0378	148	**1,580**
Larue	7/2/2003	**2.29**	0.0218	112	**1,480**
	8/29/2003	**2.47**	0.00899	122	**1,430**
	9/29/2003	**2.32**	0.0108	120	**1,460**

NOTES:

BDL -Below Detection Limit

ATTACHMENT A

2003 QUARTERLY RECOVERY WELL PRODUCTION REPORTS

1st QRTLY

RECOVERY WELLS OIL DATA

REPORTING PERIOD : Jan 1 - April 6

WELL#	OLD RDING	NEW RDING	OIL OUTPUT	GPM	GPD
1[1]	38027	38028	1	0	0
2	11321	11988	667	0	95
3	NA	NA	NA	NA	NA
4	30597	31731	1134	0	162
5	17825	19439	1614	0	231
6	14572	39369	24797	2	3542
7	52	67	15	0	2
8[1]	28725	28725	0	0	0
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA
				GPM	GPD
	TOTAL OIL IN PLANT IN GAL.		28228	3	4033
				GPM	GPD
	BOLTON RD. WELLS OIL DATA				
11	1100	1100	0	0	0
12	15	15	0	0	0
13	5903	6359	456	0	65
14	43610	71654	28044	3	4006
	TOTAL OIL IN GAL.		28500	3	4071

	TOOL PUSHERS OIL PRODUCED				
15	21786	22488	702		
	PUMPING TIME		92		
	PUMPING TIME TOTAL		2419		
	TOTAL OIL IN GALLONS		29202		
	TOTAL OIL IN BARRELS		695		
	TOTAL FLOW RATE		3	GPM	4172 GPD

CLOCK SETTING 30 MINUTES 24 TIMES DAILY

[1] Produce aproxamitely 95% water

1st QRTLY

RECOVERY WELLS H20 DATA

REPORTING PERIOD: Jan 1 - April 6

WELL#	OLD RDING	NEW RDING	TOTAL	GPM	GPD
1	195	213	21600	2.1	3086
NEW 2	563	571	9600	1.0	1371
3	0	0	0	0.0	0
4	527	533	7200	0.7	1029
5	1086	1086	0	0.0	0
6	0	0	0	0.0	0
7	20678	20814	163200	16.2	23314
8	600	728	153600	15.2	21943
9	552	552	0	0.0	0
10	258	258	0	0.0	0
			TOTAL	GPM	GPD
	TOTAL H20 IN PLANT		355200	35	50743

	BOLTON RD. H20 DATA		TOTAL	GPM	GPD
11	771	771	0	0.0	0
12	13038	13038	0	0.0	0
13	27003	27333	212141	21.0	30306
14	26104	26485	761962	75.6	108852
	BOLTON RD. TOTAL		974102	97	139157

TOTAL GAL.	TOTAL BBL	GPM	GPD
1329302	31650	132	189900

NOTES: Volume of water produced is estimated based on time pumped and not actual flow.

2nd QRTLY

RECOVERY WELLS OIL DATA

REPORTING PERIOD : APRIL 6 JUNE30

WELL#	OLD RDING	NEW RDING	OIL OUTPUT	GPM	GPD
1[1]	38028	38254	226	0	32
2	11988	13906	1918	0	274
3	NA	NA	NA	NA	NA
4	31731	32885	1154	0	165
5	19439	21501	2062	0	295
6	14572	39369	24797	2	3542
7	67	67	0	0	0
8[1]	28725	28725	0	0	0
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA
				GPM	GPD
	TOTAL OIL IN PLANT IN GAL.		30157	3	4308
				GPM	GPD
	BOLTON RD. WELLS OIL DATA				
11	1100	1100	0	0	0
12	15	15	0	0	0
13	6359	7477	1118	0	160
14	71654	84343	12689	1	1813
	TOTAL OIL IN GAL.		13807	1	1972
	TOOL PUSHERS OIL PRODUCED				
15	22493	23613	1120		
	PUMPING TIME		92		
	PUMPING TIME TOTAL		2419		
	TOTAL OIL IN GALLONS		14927		
	TOTAL OIL IN BARRELS		355		
	TOTAL FLOW RATE		1 GPM	2132 GPD	

CLOCK SETTING 30 MINUTES 24 TIMES DAILY

[1] Produce aproxamitely 95% water

2nd QRTLY

RECOVERY WELLS H20 DATA
REPORTING PERIOD: APRIL 6 JUNE 30

WELL#	OLD RDING	NEW RDING	TOTAL	GPM	GPD
1	213	241	33600	3.3	4800
NEW 2	571	605	40800	4.0	5829
3	0	0	0	0.0	0
4	533	575	50400	5.0	7200
5	1086	1086	0	0.0	0
6	0	0	0	0.0	0
7	20814	20831	20400	2.0	2914
8	728	745	20400	2.0	2914
9	552	552	0	0.0	0
10	258	258	0	0.0	0
			TOTAL	GPM	GPD
	TOTAL H20 IN PLANT		165600	16	23657

	BOLTON RD. H20 DATA		TOTAL	GPM	GPD
11	771	771	0	0.0	0
12	13038	13038	0	0.0	0
13	27333	27718	247497	24.6	35357
14	26485	26997	1023949	101.6	146278
	BOLTON RD. TOTAL		1271446	126	181635

TOTAL GAL.	TOTAL BBL	GPM	GPD
1437046	34215	143	205292

NOTES: Volume of water produced is estimated based on time pumped and not actual flow.

3rd QRTLY

RECOVERY WELLS OIL DATA
REPORTING PERIOD : JULY 1 SEPTEMBER 30

WELL#	OLD RDING	NEW RDING	OIL OUTPUT	GPM	GPD
1	38254	39356	1102	0	157
2	13906	15689	1783	0	255
3	NA	NA	NA	NA	NA
4	32885	34503	1618	0	231
5	21501	29199	7698	1	1100
6	14572	39369	24797	2	3542
7	67	67	0	0	0
8[1]	28725	29099	374	0	53
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA
				GPM	GPD
	TOTAL OIL IN PLANT IN GAL.		37372	4	5339
				GPM	GPD
	BOLTON RD. WELLS OIL DATA				
11	1100	1166	66	0	9
12	15	15	0	0	0
13	7477	8965	1488	0	213
14	84343	92718	8375	1	1196
	TOTAL OIL IN GAL.		9929	1	1418

	TOOL PUSHERS OIL PRODUCED				
15	1105	2898	1793		
	PUMPING TIME		92		
	PUMPING TIME TOTAL		2419		
	TOTAL OIL IN GALLONS		11722		
	TOTAL OIL IN BARRELS		279		
	TOTAL FLOW RATE		1	GPM	1675 GPD

CLOCK SETTING 30 MINUTES 24 TIMES DAILY

[1] Produce aproxamitely 95% water

3rd QRTLY

RECOVERY WELLS H20 DATA
REPORTING PERIOD: JULY 1 SEPTEMBER 30

WELL#	OLD RDING	NEW RDING	TOTAL	GPM	GPD
1	241	263	26400	2.6	3771
NEW 2	605	713	129600	12.9	18514
3	0	0	0	0.0	0
4	575	628	63600	6.3	9086
5	1086	1086	0	0.0	0
6	0	0	0	0.0	0
7	20831	20866	42000	4.2	6000
8	745	936	229200	22.7	32743
9	552	552	0	0.0	0
10	258	258	0	0.0	0
			TOTAL	GPM	GPD
	TOTAL H20 IN PLANT		490800	49	70114

	BOLTON RD. H20 DATA		TOTAL	GPM	GPD
11	771	774	1636	0.2	234
12	13038	13038	0	0.0	0
13	27718	28096	242997	24.1	34714
14	26997	27421	847958	84.1	121137
	BOLTON RD. TOTAL		1092591	108	156084

TOTAL GAL.	TOTAL BBL	GPM	GPD
1583391	37700	157	226199

NOTES: Volume of water produced is estimated based on time pumped and not actual flow.

4th QRTLY

RECOVERY WELLS OIL DATA
REPORTING PERIOD : SEPTEMBER 30 JANUARY 4

WELL#	OLD RDING	NEW RDING	OIL OUTPUT	GPM	GPD
1	39356	39365	9	0	1
2	15689	17366	1677	0	240
3	NA	NA	NA	NA	NA
4	34503	35060	557	0	80
5	29199	29410	211	0	30
6	39369	70082	30713	3	4388
7	67	67	0	0	0
8	29099	56060	26961	3	3852
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA
				GPM	GPD
	TOTAL OIL IN PLANT IN GAL.		60128	6	8590
				GPM	GPD
	BOLTON RD. WELLS OIL DATA				
11	1166	1216	50	0	7
12	15	15	0	0	0
13	8965	9647	682	0	97
14	92718	106310	13592	1	1942
	TOTAL OIL IN GAL.		14324	1	2046

	TOOL PUSHERS OIL PRODUCED				
15	2898	11138	8240		
	PUMPING TIME		92		
	PUMPING TIME TOTAL		2419		
	TOTAL OIL IN GALLONS		22564		
	TOTAL OIL IN BARRELS		537		
	TOTAL FLOW RATE		2	GPM	3223 GPD

CLOCK SETTING 30 MINUTES 24 TIMES DAILY

[1] Produce aproxamitely 95% water

4th QRTLY

RECOVERY WELLS H20 DATA

REPORTING PERIOD: SEPTEMBER 30 JANUARY 4

WELL#	OLD RDING	NEW RDING	TOTAL	GPM	GPD
1	263	275	14400	1.4	2057
NEW 2	713	767	64800	6.4	9257
3	0	0	0	0.0	0
4	628	649	25200	2.5	3600
5	1086	1086	0	0.0	0
6	0	0	0	0.0	0
7	20866	20920	64800	6.4	9257
8	936	1142	247200	24.5	35314
9	552	552	0	0.0	0
10	258	258	0	0.0	0
			TOTAL	GPM	GPD
	TOTAL H20 IN PLANT		416400	41	59486

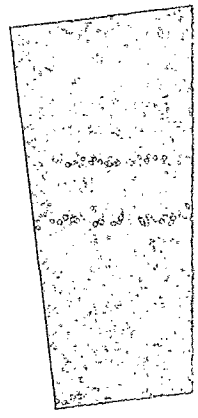
	BOLTON RD. H20 DATA		TOTAL	GPM	GPD
11	771	774	1636	0.2	234
12	13038	13038	0	0.0	0
13	28096	28521	273211	27.1	39030
14	27421	27931	1019949	101.2	145707
	BOLTON RD. TOTAL		1294796	128	184971

TOTAL GAL.	TOTAL BBL	GPM	GPD
1711196	40743	170	244457

NOTES: Volume of water produced is estimated based on time pumped and not actual flow.

ATTACHMENT B

2003 ANNUAL AND SEMI-ANNUAL
LABORATORY ANALYTICAL REPORTS



e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

December 03, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0310073**

Dear Jeff Byrd,

e-Lab, Inc. received 3 samples on 10/7/2003 12:10:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 51. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Jeff L Croston

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0310073**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310073-01	KWB-9	Water		10/6/2003 09:20	10/7/2003 12:10	☐
0310073-02	MW-18	Water		10/6/2003 11:00	10/7/2003 12:10	☐
0310073-03	MW-28	Water		10/6/2003 14:00	10/7/2003 12:10	☐

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0310073

Case Narrative

Volatiles Batch R16572 MS/MSD recoveries outside control limits due to matrix interference.

Semivolatiles surrogate recovery outside control limits for sample MW-18 and was confirmed by reanalysis.

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc. **Date:** *October 21, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0310073

Case Narrative

Volatiles Batch R16572 MS/MSD recoveries outside control limits due to matrix interference.

Semivolatiles surrogate recovery outside control limits for sample MW-18 and was confirmed by reanalysis.

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-01

Client Sample ID: KWB-9
Collection Date: 10/6/2003 9:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:41:20 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	ND	0.0200		mg/L	2	10/17/2003 5:23:00 PM
Arsenic	0.00516	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Barium	0.0135	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 11:26:00 PM
Boron	0.403	0.0400		mg/L	2	10/17/2003 5:23:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 11:26:00 PM
Calcium	440	25.0		mg/L	50	10/16/2003 10:05:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 11:26:00 PM
Cobalt	ND	0.00200		mg/L	1	10/16/2003 11:26:00 PM
Copper	0.00376	0.00200		mg/L	1	10/16/2003 11:26:00 PM
Iron	1.62	0.200		mg/L	1	10/16/2003 11:26:00 PM
Lead	ND	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Magnesium	198	10.0		mg/L	50	10/16/2003 10:05:00 PM
Manganese	0.0110	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Nickel	0.00700	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Potassium	0.703	0.200		mg/L	1	10/16/2003 11:26:00 PM
Selenium	0.00969	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Sodium	155	10.0		mg/L	50	10/16/2003 10:05:00 PM
Vanadium	0.00991	0.00500		mg/L	1	10/16/2003 11:26:00 PM
Zinc	0.00635	0.00500		mg/L	1	10/16/2003 11:26:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/9/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2-Methylphenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2003 4:13:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2003 4:13:00 PM
4-Methylphenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2003 4:13:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Acenaphthene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Aniline	ND	10		µg/L	1	10/11/2003 4:13:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-01

Client Sample ID: KWB-9
Collection Date: 10/6/2003 9:20:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Benzidine	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Isophorone	ND	10		µg/L	1	10/11/2003 4:13:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2003 4:13:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2003 4:13:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Naphthalene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Phenanthrene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Phenol	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Pyrene	ND	10		µg/L	1	10/11/2003 4:13:00 PM
Surr: 2,4,6-Tribromophenol	110	39-153		%REC	1	10/11/2003 4:13:00 PM
Surr: 2-Fluorobiphenyl	88.0	40-147		%REC	1	10/11/2003 4:13:00 PM
Surr: 2-Fluorophenol	37.9	21-100		%REC	1	10/11/2003 4:13:00 PM
Surr: 4-Terphenyl-d14	111	39-141		%REC	1	10/11/2003 4:13:00 PM
Surr: Nitrobenzene-d5	83.4	37-140		%REC	1	10/11/2003 4:13:00 PM
Surr: Phenol-d6	22.7	11-100		%REC	1	10/11/2003 4:13:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
2-Butanone	ND	10		µg/L	1	10/9/2003 4:54:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/9/2003 4:54:00 PM
2-Hexanone	ND	10		µg/L	1	10/9/2003 4:54:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Acetone	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Benzene	7.1	5.0		µg/L	1	10/9/2003 4:54:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Bromoform	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Bromomethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	KWB-9
Work Order:	0310073	**Collection Date:**	10/6/2003 9:20:00 AM
Project:	Annual		
Lab ID:	0310073-01	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Chloroform	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Chloromethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
m,p-Xylene	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Methylene chloride	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Styrene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Toluene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/9/2003 4:54:00 PM
Vinyl acetate	ND	10		µg/L	1	10/9/2003 4:54:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/9/2003 4:54:00 PM
Xylenes, Total	ND	15		µg/L	1	10/9/2003 4:54:00 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	10/9/2003 4:54:00 PM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	10/9/2003 4:54:00 PM
Surr: Dibromofluoromethane	91.5	70-130		%REC	1	10/9/2003 4:54:00 PM
Surr: Toluene-d8	97.0	70-130		%REC	1	10/9/2003 4:54:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	349	5.00		mg/L	10	10/11/2003 2:46:00 AM
Fluoride	0.460	0.100		mg/L	1	10/8/2003 10:10:00 AM
Sulfate	1,260	50.0		mg/L	50	10/11/2003 3:18:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/8/2003 10:10:00 AM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	50	10/11/2003 3:18:00 AM
Surr: Dichloroacetic acid (surr)	97.0	80-120		%REC	10	10/11/2003 2:46:00 AM
Surr: Dichloroacetic acid (surr)	100	80-120		%REC	1	10/8/2003 10:10:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	450	5.00		mg/L	1	10/9/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Total (As CaCO3)	450	5.00		mg/L	1	10/9/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/13/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-02

Client Sample ID: MW-18
Collection Date: 10/6/2003 11:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:42:52 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.183	0.0200		mg/L	2	10/17/2003 5:28:00 PM
Arsenic	0.00575	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Barium	0.0155	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 11:30:00 PM
Boron	0.465	0.0400		mg/L	2	10/17/2003 5:28:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 11:30:00 PM
Calcium	381	25.0		mg/L	50	10/16/2003 10:09:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 11:30:00 PM
Cobalt	ND	0.00200		mg/L	1	10/16/2003 11:30:00 PM
Copper	0.00385	0.00200		mg/L	1	10/16/2003 11:30:00 PM
Iron	1.55	0.200		mg/L	1	10/16/2003 11:30:00 PM
Lead	ND	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Magnesium	218	10.0		mg/L	50	10/16/2003 10:09:00 PM
Manganese	0.114	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Nickel	0.00787	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Potassium	1.30	0.200		mg/L	1	10/16/2003 11:30:00 PM
Selenium	0.00722	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Sodium	87.8	10.0		mg/L	50	10/16/2003 10:09:00 PM
Vanadium	0.0204	0.00500		mg/L	1	10/16/2003 11:30:00 PM
Zinc	0.00699	0.00500		mg/L	1	10/16/2003 11:30:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/9/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2-Methylnaphthalene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2-Methylphenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2-Nitroaniline	ND	10		µg/L	1	10/12/2003 12:41:00 AM
2-Nitrophenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
3-Nitroaniline	ND	10		µg/L	1	10/12/2003 12:41:00 AM
4-Methylphenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
4-Nitroaniline	ND	10		µg/L	1	10/12/2003 12:41:00 AM
4-Nitrophenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Acenaphthene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Acenaphthylene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Aniline	ND	10		µg/L	1	10/12/2003 12:41:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-02

Client Sample ID: MW-18
Collection Date: 10/6/2003 11:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Benz(a)anthracene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Benzidine	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Hexachloroethane	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Isophorone	ND	10		µg/L	1	10/12/2003 12:41:00 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/12/2003 12:41:00 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/12/2003 12:41:00 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Naphthalene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Nitrobenzene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Pentachlorophenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Phenanthrene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Phenol	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Pyrene	ND	10		µg/L	1	10/12/2003 12:41:00 AM
Surr: 2,4,6-Tribromophenol	140	39-153		%REC	1	10/12/2003 12:41:00 AM
Surr: 2-Fluorobiphenyl	101	40-147		%REC	1	10/12/2003 12:41:00 AM
Surr: 2-Fluorophenol	64.2	21-100		%REC	1	10/12/2003 12:41:00 AM
Surr: 4-Terphenyl-d14	127	39-141		%REC	1	10/12/2003 12:41:00 AM
Surr: Nitrobenzene-d5	95.0	37-140		%REC	1	10/12/2003 12:41:00 AM
Surr: Phenol-d6	43.8	11-100		%REC	1	10/12/2003 12:41:00 AM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
2-Butanone	ND	10		µg/L	1	10/9/2003 7:58:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/9/2003 7:58:00 AM
2-Hexanone	ND	10		µg/L	1	10/9/2003 7:58:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Acetone	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Benzene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Bromoform	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Bromomethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Carbon disulfide	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Chlorobenzene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-02

Client Sample ID: MW-18
Collection Date: 10/6/2003 11:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Chloroform	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Chloromethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Ethylbenzene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
m,p-Xylene	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Methylene chloride	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Styrene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Toluene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Trichloroethene	ND	5.0		µg/L	1	10/9/2003 7:58:00 AM
Vinyl acetate	ND	10		µg/L	1	10/9/2003 7:58:00 AM
Vinyl chloride	ND	2.0		µg/L	1	10/9/2003 7:58:00 AM
Xylenes, Total	ND	15		µg/L	1	10/9/2003 7:58:00 AM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	10/9/2003 7:58:00 AM
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	1	10/9/2003 7:58:00 AM
Surr: Dibromofluoromethane	98.3	70-130		%REC	1	10/9/2003 7:58:00 AM
Surr: Toluene-d8	96.3	70-130		%REC	1	10/9/2003 7:58:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	193	5.00		mg/L	10	10/11/2003 3:51:00 AM
Fluoride	1.17	0.100		mg/L	1	10/8/2003 10:43:00 AM
Sulfate	1,150	50.0		mg/L	50	10/11/2003 4:23:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/8/2003 10:43:00 AM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	50	10/11/2003 4:23:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	10/11/2003 3:51:00 AM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	1	10/8/2003 10:43:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	410	5.00		mg/L	1	10/9/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Total (As CaCO3)	410	5.00		mg/L	1	10/9/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/13/2003

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-03

Client Sample ID: MW-28
Collection Date: 10/6/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:44:24 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	ND	0.0200		mg/L	2	10/17/2003 5:32:00 PM
Arsenic	0.00737	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Barium	0.0399	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 11:35:00 PM
Boron	1.45	0.0400		mg/L	2	10/17/2003 5:32:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 11:35:00 PM
Calcium	452	25.0		mg/L	50	10/16/2003 10:14:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 11:35:00 PM
Cobalt	ND	0.00200		mg/L	1	10/16/2003 11:35:00 PM
Copper	0.00472	0.00200		mg/L	1	10/16/2003 11:35:00 PM
Iron	1.84	0.200		mg/L	1	10/16/2003 11:35:00 PM
Lead	0.00863	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Magnesium	333	10.0		mg/L	50	10/16/2003 10:14:00 PM
Manganese	0.0721	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Nickel	0.00833	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Potassium	0.504	0.200		mg/L	1	10/16/2003 11:35:00 PM
Selenium	ND	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Sodium	112	2.00		mg/L	10	10/16/2003 10:18:00 PM
Vanadium	ND	0.00500		mg/L	1	10/16/2003 11:35:00 PM
Zinc	0.0130	0.00500		mg/L	1	10/16/2003 11:35:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/9/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2-Methylnaphthalene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2-Methylphenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2-Nitroaniline	ND	10		µg/L	1	10/12/2003 1:07:00 AM
2-Nitrophenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
3-Nitroaniline	ND	10		µg/L	1	10/12/2003 1:07:00 AM
4-Methylphenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
4-Nitroaniline	ND	10		µg/L	1	10/12/2003 1:07:00 AM
4-Nitrophenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Acenaphthene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Acenaphthylene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Aniline	ND	10		µg/L	1	10/12/2003 1:07:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-03

Client Sample ID: MW-28
Collection Date: 10/6/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Benz(a)anthracene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Benzidine	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Hexachloroethane	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Isophorone	ND	10		µg/L	1	10/12/2003 1:07:00 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/12/2003 1:07:00 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/12/2003 1:07:00 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Naphthalene	55	10		µg/L	1	10/12/2003 1:07:00 AM
Nitrobenzene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Pentachlorophenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Phenanthrene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Phenol	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Pyrene	ND	10		µg/L	1	10/12/2003 1:07:00 AM
Surr: 2,4,6-Tribromophenol	122	39-153		%REC	1	10/12/2003 1:07:00 AM
Surr: 2-Fluorobiphenyl	67.3	40-147		%REC	1	10/12/2003 1:07:00 AM
Surr: 2-Fluorophenol	42.1	21-100		%REC	1	10/12/2003 1:07:00 AM
Surr: 4-Terphenyl-d14	103	39-141		%REC	1	10/12/2003 1:07:00 AM
Surr: Nitrobenzene-d5	85.7	37-140		%REC	1	10/12/2003 1:07:00 AM
Surr: Phenol-d6	24.6	11-100		%REC	1	10/12/2003 1:07:00 AM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
2-Butanone	ND	10		µg/L	1	10/9/2003 8:26:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/9/2003 8:26:00 AM
2-Hexanone	ND	10		µg/L	1	10/9/2003 8:26:00 AM
4-Methyl-2-pentanone	14	10		µg/L	1	10/9/2003 8:26:00 AM
Acetone	ND	10		µg/L	1	10/9/2003 8:26:00 AM
Benzene	1,700	100		µg/L	20	10/9/2003 10:20:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Bromoform	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Bromomethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Carbon disulfide	ND	10		µg/L	1	10/9/2003 8:26:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Chlorobenzene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual
Lab ID: 0310073-03

Client Sample ID: MW-28
Collection Date: 10/6/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Chloroform	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Chloromethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Ethylbenzene	220	100		µg/L	20	10/9/2003 10:20:00 PM
m,p-Xylene	270	10		µg/L	1	10/9/2003 8:26:00 AM
Methylene chloride	ND	10		µg/L	1	10/9/2003 8:26:00 AM
Styrene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Toluene	39	5.0		µg/L	1	10/9/2003 8:26:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Trichloroethene	ND	5.0		µg/L	1	10/9/2003 8:26:00 AM
Vinyl acetate	ND	10		µg/L	1	10/9/2003 8:26:00 AM
Vinyl chloride	ND	2.0		µg/L	1	10/9/2003 8:26:00 AM
Xylenes, Total	280	15		µg/L	1	10/9/2003 8:26:00 AM
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	20	10/9/2003 10:20:00 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/9/2003 8:26:00 AM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	20	10/9/2003 10:20:00 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	1	10/9/2003 8:26:00 AM
Surr: Dibromofluoromethane	90.1	70-130		%REC	20	10/9/2003 10:20:00 PM
Surr: Dibromofluoromethane	99.2	70-130		%REC	1	10/9/2003 8:26:00 AM
Surr: Toluene-d8	97.8	70-130		%REC	20	10/9/2003 10:20:00 PM
Surr: Toluene-d8	97.4	70-130		%REC	1	10/9/2003 8:26:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	167	2.50		mg/L	5	10/11/2003 6:33:00 AM
Fluoride	1.97	0.100		mg/L	1	10/8/2003 11:15:00 AM
Sulfate	1,360	50.0		mg/L	50	10/15/2003 4:37:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/8/2003 11:15:00 AM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	50	10/15/2003 4:37:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	1	10/8/2003 11:15:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	5	10/11/2003 6:33:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	980	5.00		mg/L	1	10/9/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Total (As CaCO3)	980	5.00		mg/L	1	10/9/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/13/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

Date: *Oct 20 2003*

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:28**
Client ID: Run ID: **ICP4500_031010A** SeqNo: **378069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	0.0008166	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	0.0004216	0.0020								J
Copper	0.000435	0.0020								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	0.1386	0.20								J
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 12:12**
Client ID: Run ID: **ICP4500_031010A** SeqNo: **378101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.005454	0.010								J

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:33**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378070** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1147	0.010	0.1	0	115	80-120	0			
Arsenic	0.1005	0.0050	0.1	0	100	80-120	0			
Barium	0.09615	0.0050	0.1	0	96.2	80-120	0			
Beryllium	0.09888	0.0020	0.1	0	98.9	80-120	0			
Boron	0.4858	0.020	0.5	0	97.2	80-120	0			
Cadmium	0.09925	0.0010	0.1	0	99.2	80-120	0			
Calcium	9.913	0.50	10	0	99.1	80-120	0			
Chromium	0.1009	0.0020	0.1	0	101	80-120	0			
Cobalt	0.1031	0.0020	0.1	0	103	80-120	0			
Copper	0.1006	0.0020	0.1	0	101	80-120	0			
Iron	10.03	0.20	10	0	100	80-120	0			
Lead	0.09909	0.0050	0.1	0	99.1	80-120	0			
Magnesium	10.22	0.20	10	0	102	80-120	0			
Manganese	0.1001	0.0050	0.1	0	100	80-120	0			
Nickel	0.1018	0.0050	0.1	0	102	80-120	0			
Potassium	10.12	0.20	10	0	101	80-120	0			
Selenium	0.09856	0.0050	0.1	0	98.6	80-120	0			
Silver	0.09816	0.0050	0.1	0	98.2	80-120	0			
Sodium	10.05	0.20	10	0	100	80-120	0			
Vanadium	0.1028	0.0050	0.1	0	103	80-120	0			
Zinc	0.09876	0.0050	0.1	0	98.8	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MS Sample ID: **0310008-01BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:10**

Client ID: Run ID: **ICP4500_031013A** SeqNo: **379652** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5644	0.010	0.1	0.4276	137	75-125	0			SEO
Arsenic	0.09767	0.0050	0.1	0.001921	95.7	75-125	0			
Barium	0.1316	0.0050	0.1	0.01434	117	75-125	0			
Beryllium	0.09161	0.0020	0.1	0.0001465	91.5	75-125	0			
Boron	1.492	0.020	0.5	0.95	108	75-125	0			E
Cadmium	0.08999	0.0010	0.1	0.0001326	89.9	75-125	0			
Calcium	492.5	0.50	10	481.2	113	75-125	0			EO
Chromium	0.1008	0.0020	0.1	0.0008088	100	75-125	0			
Cobalt	0.1017	0.0020	0.1	0.003492	98.2	75-125	0			
Copper	0.09023	0.0020	0.1	0.006268	84	75-125	0			
Iron	10.82	0.20	10	0.9004	99.2	75-125	0			
Lead	0.1171	0.0050	0.1	0.000977	116	75-125	0			
Magnesium	316.9	0.20	10	303.8	131	75-125	0			SEO
Manganese	0.3674	0.0050	0.1	0.2557	112	75-125	0			
Nickel	0.1014	0.0050	0.1	0.01327	88.1	75-125	0			
Potassium	11.45	0.20	10	1.156	103	75-125	0			
Selenium	0.1024	0.0050	0.1	0.006292	96.1	75-125	0			
Silver	0.08347	0.0050	0.1	-0.0000166	83.5	75-125	0			
Sodium	0	0.20	10	0	0	75-125	0			S
Vanadium	0.1364	0.0050	0.1	0.0219	114	75-125	0			
Zinc	0.08689	0.0050	0.1	0.0134	73.5	75-125	0			S

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MSD Sample ID: **0310008-01BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:15**

Client ID: Run ID: **ICP4500_031013A** SeqNo: **379653** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5604	0.010	0.1	0.4276	133	75-125	0.5644	0.711	25	SEO
Arsenic	0.08512	0.0050	0.1	0.001921	83.2	75-125	0.09767	13.7	25	
Barium	0.115	0.0050	0.1	0.01434	101	75-125	0.1316	13.5	25	
Beryllium	0.08377	0.0020	0.1	0.0001465	83.6	75-125	0.09161	8.94	25	
Boron	1.37	0.020	0.5	0.95	84	75-125	1.492	8.53	25	E
Cadmium	0.07706	0.0010	0.1	0.0001326	76.9	75-125	0.08999	15.5	25	
Calcium	428.9	0.50	10	481.2	-523	75-125	492.5	13.8	25	SEO
Chromium	0.09102	0.0020	0.1	0.0008088	90.2	75-125	0.1008	10.2	25	
Cobalt	0.0894	0.0020	0.1	0.003492	85.9	75-125	0.1017	12.9	25	
Copper	0.07698	0.0020	0.1	0.006268	70.7	75-125	0.09023	15.8	25	S
Iron	9.648	0.20	10	0.9004	87.5	75-125	10.82	11.5	25	
Lead	0.1009	0.0050	0.1	0.000977	99.9	75-125	0.1171	14.9	25	
Magnesium	286	0.20	10	303.8	-178	75-125	316.9	10.3	25	SEO
Manganese	0.3153	0.0050	0.1	0.2557	59.6	75-125	0.3674	15.3	25	S
Nickel	0.08813	0.0050	0.1	0.01327	74.9	75-125	0.1014	14	25	S
Potassium	10.41	0.20	10	1.156	92.5	75-125	11.45	9.52	25	
Selenium	0.08306	0.0050	0.1	0.006292	76.8	75-125	0.1024	20.9	25	
Silver	0.07252	0.0050	0.1	-0.0000166	72.5	75-125	0.08347	14	25	S
Sodium	0	0.20	10	0	0	75-125	0	0	25	SR
Vanadium	0.1183	0.0050	0.1	0.0219	96.4	75-125	0.1364	14.2	25	
Zinc	0.07854	0.0050	0.1	0.0134	65.1	75-125	0.08689	10.1	25	S

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:06**
Client ID: Run ID: **ICP4500_031013A** SeqNo: **379651** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.4303	0.010	0	0	0	0-0	0.4276	0.629	25	
Arsenic	0.003704	0.0050	0	0	0	0-0	0.001921	0	25	J
Barium	0.01528	0.0050	0	0	0	0-0	0.01434	6.35	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.0001465	0	25	
Boron	0.9431	0.020	0	0	0	0-0	0.95	0.729	25	
Cadmium	ND	0.0010	0	0	0	0-0	0.0001326	0	25	
Chromium	0.0007482	0.0020	0	0	0	0-0	0.0008088	0	25	J
Cobalt	0.003404	0.0020	0	0	0	0-0	0.003492	2.55	25	
Copper	0.006757	0.0020	0	0	0	0-0	0.006268	7.51	25	
Iron	0.8962	0.20	0	0	0	0-0	0.9004	0.468	25	
Lead	0.0009688	0.0050	0	0	0	0-0	0.000977	0	25	J
Manganese	0.2492	0.0050	0	0	0	0-0	0.2557	2.57	25	
Nickel	0.01332	0.0050	0	0	0	0-0	0.01327	0.376	25	
Potassium	1.102	0.20	0	0	0	0-0	1.156	4.78	25	
Selenium	0.002516	0.0050	0	0	0	0-0	0.006292	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.0000166	0	25	
Vanadium	0.02156	0.0050	0	0	0	0-0	0.0219	1.56	25	
Zinc	0.01373	0.0050	0	0	0	0-0	0.0134	2.43	25	

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/14/03 17:25**
Client ID: Run ID: **ICP4500_031014A** SeqNo: **379949** Prep Date: **10/8/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	480	25	0	0	0	0-0	444.9	7.59	25	
Magnesium	342.8	10	0	0	0	0-0	323.1	5.92	25	
Sodium	226.4	10	0	0	0	0-0	210.7	7.18	25	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01B 0310073-02B 0310073-03B

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6871** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:43**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378370** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:54**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378371** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00491	0.00020	0.005	0	98.2	83-115	0			

LCSD Sample ID: **GLCSDW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:57**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378372** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00516	0.00020	0.005	0	103	83-115	0.00491	4.97	20	

MS Sample ID: **0310008-02BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:09**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378376** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00437	0.00020	0.005	-0.000063	88.7	70-124	0			

MSD Sample ID: **0310008-02BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:31**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378379** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00463	0.00020	0.005	-0.000063	93.9	70-124	0.00437	5.78	20	

DUP Sample ID: **0310008-02BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:05**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378375** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000063	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01B 0310073-02B 0310073-03B

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031009** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/10/03 17:15**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379249** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	122.4	0	100	0	122	39-153	0			
Surr: 2-Fluorobiphenyl	97.43	0	100	0	97.4	40-147	0			
Surr: 2-Fluorophenol	72.64	0	100	0	72.6	21-100	0			
Surr:4-Terphenyl-d14	135.8	0	100	0	136	39-141	0			
Surr:Nitrobenzene-d5	92.02	0	100	0	92	37-140	0			
Surr: Phenol-d6	48.45	0	100	0	48.5	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031009** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 15:46**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379258** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	45.08	10	50	0	90.2	50-115	0			
2,4,5-Trichlorophenol	100.1	10	100	0	100	72-118	0			
2,4,6-Trichlorophenol	99.39	10	100	0	99.4	72-117	0			
2-Methylnaphthalene	43.51	10	50	0	87	47-122	0			
2-Methylphenol	86.74	10	100	0	86.7	51-115	0			
2-Nitroaniline	45.14	10	50	0	90.3	73-119	0			
2-Nitrophenol	98.67	10	100	0	98.7	60-119	0			
3-Nitroaniline	37.17	10	50	0	74.3	61-118	0			
4-Methylphenol	118.9	10	150	0	79.2	44-115	0			
4-Nitroaniline	46.73	10	50	0	93.5	61-123	0			
4-Nitrophenol	52.44	10	100	0	52.4	17-100	0			
Acenaphthene	47.89	10	50	0	95.8	68-115	0			
Acenaphthylene	45.99	10	50	0	92	67-116	0			
Anthracene	49.57	10	50	0	99.1	72-124	0			
Benz(a)anthracene	52.7	10	50	0	105	55-131	0			
Benzidine	10.09	10	50	0	20.2	10-115	0			
Hexachloroethane	41.22	10	50	0	82.4	46-115	0			
Indeno(1,2,3-cd)pyrene	64	10	50	0	128	42-123	0			S
Isophorone	46.91	10	50	0	93.8	63-117	0			
N-Nitrosodi-n-propylamine	44.43	10	50	0	88.9	67-115	0			
N-Nitrosodimethylamine	33.41	10	50	0	66.8	28-115	0			
N-Nitrosodiphenylamine	54.48	10	50	0	109	72-144	0			
Naphthalene	45.01	10	50	0	90	52-115	0			
Nitrobenzene	46.09	10	50	0	92.2	65-115	0			
Pentachlorophenol	110.5	10	100	0	111	65-123	0			
Phenanthrene	49.4	10	50	0	98.8	69-119	0			
Phenol	46.88	10	100	0	46.9	16-115	0			
Pyrene	50.58	10	50	0	101	51-130	0			
Surr: 2,4,6-Tribromophenol	118.6	0	100	0	119	39-153	0			
Surr: 2-Fluorobiphenyl	94	0	100	0	94	40-147	0			
Surr: 2-Fluorophenol	72.12	0	100	0	72.1	21-100	0			
Surr:4-Terphenyl-d14	112.8	0	100	0	113	39-141	0			
Surr: Nitrobenzene-d5	91.97	0	100	0	92	37-140	0			
Surr: Phenol-d6	47.73	0	100	0	47.7	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MS Sample ID: **0310073-01CMS** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 16:40**

Client ID: **KWB-9** Run ID: **SV-3_031010B** SeqNo: **379259** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	45.31	10	50	0	90.6	45-115	0			
2,4,5-Trichlorophenol	95.09	10	100	0	95.1	47-129	0			
2,4,6-Trichlorophenol	94.38	10	100	0	94.4	45-127	0			
2-Methylnaphthalene	44.07	10	50	0	88.1	30-144	0			
2-Methylphenol	70.29	10	100	0	70.3	42-115	0			
2-Nitroaniline	42.85	10	50	0	85.7	48-129	0			
2-Nitrophenol	94.91	10	100	0	94.9	32-144	0			
3-Nitroaniline	39.52	10	50	0	79	23-122	0			
4-Methylphenol	89.13	10	150	0	59.4	35-115	0			
4-Nitroaniline	43.68	10	50	0	87.4	12-138	0			
4-Nitrophenol	34.07	10	100	0	34.1	10-80	0			
Acenaphthene	45.32	10	50	0	90.6	55-117	0			
Acenaphthylene	45.13	10	50	0	90.3	39-128	0			
Anthracene	49.68	10	50	0	99.4	58-129	0			
Benz(a)anthracene	49.57	10	50	0	99.1	42-135	0			
Benzidine	9.938	10	50	0	19.9	10-127	0			J
Hexachloroethane	43.51	10	50	0	87	45-115	0			
Indeno(1,2,3-cd)pyrene	46.95	10	50	0	93.9	32-132	0			
Isophorone	45.95	10	50	0	91.9	51-122	0			
N-Nitrosodi-n-propylamine	43.67	10	50	0	87.3	55-115	0			
N-Nitrosodimethylamine	24.15	10	50	0	48.3	30-115	0			
N-Nitrosodiphenylamine	51.67	10	50	0	103	47-146	0			
Naphthalene	45.6	10	50	0	91.2	46-116	0			
Nitrobenzene	44.83	10	50	0	89.7	48-126	0			
Pentachlorophenol	104.4	10	100	0	104	53-134	0			
Phenanthrene	47.47	10	50	0	94.9	57-123	0			
Phenol	28.41	10	100	0	28.4	10-115	0			
Pyrene	46.46	10	50	0	92.9	40-130	0			
Surr: 2,4,6-Tribromophenol	114.1	0	100	0	114	39-153	0			
Surr: 2-Fluorobiphenyl	88.21	0	100	0	88.2	40-147	0			
Surr: 2-Fluorophenol	47.47	0	100	0	47.5	21-100	0			
Surr:4-Terphenyl-d14	101.2	0	100	0	101	39-141	0			
Surr: Nitrobenzene-d5	86.95	0	100	0	86.9	37-140	0			
Surr: Phenol-d6	27.86	0	100	0	27.9	11-100	0			

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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MSD Sample ID: **0310073-01CMSD** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 17:07**
Client ID: **KWB-9** Run ID: **SV-3_031010B** SeqNo: **379260** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	49.29	10	50	0	98.6	45-115	45.31	8.43	30	
2,4,5-Trichlorophenol	106.7	10	100	0	107	47-129	95.09	11.5	30	
2,4,6-Trichlorophenol	107.5	10	100	0	108	45-127	94.38	13	30	
2-Methylnaphthalene	47.52	10	50	0	95	30-144	44.07	7.53	30	
2-Methylphenol	74.43	10	100	0	74.4	42-115	70.29	5.73	30	
2-Nitroaniline	47.19	10	50	0	94.4	48-129	42.85	9.64	30	
2-Nitrophenol	102.1	10	100	0	102	32-144	94.91	7.32	30	
3-Nitroaniline	41.82	10	50	0	83.6	23-122	39.52	5.66	30	
4-Methylphenol	95.81	10	150	0	63.9	35-115	89.13	7.22	30	
4-Nitroaniline	47.04	10	50	0	94.1	12-138	43.68	7.4	30	
4-Nitrophenol	35.69	10	100	0	35.7	10-80	34.07	4.64	30	
Acenaphthene	51.1	10	50	0	102	55-117	45.32	12	30	
Acenaphthylene	49.67	10	50	0	99.3	39-128	45.13	9.58	30	
Anthracene	55.09	10	50	0	110	58-129	49.68	10.3	30	
Benz(a)anthracene	54.37	10	50	0	109	42-135	49.57	9.23	30	
Benzidine	10.62	10	50	0	21.2	10-127	9.938	6.68	30	
Hexachloroethane	46.61	10	50	0	93.2	45-115	43.51	6.88	30	
Indeno(1,2,3-cd)pyrene	49.95	10	50	0	99.9	32-132	46.95	6.19	30	
Isophorone	49.62	10	50	0	99.2	51-122	45.95	7.68	30	
N-Nitrosodi-n-propylamine	47.56	10	50	0	95.1	55-115	43.67	8.52	30	
N-Nitrosodimethylamine	26.43	10	50	0	52.9	30-115	24.15	9.01	30	
N-Nitrosodiphenylamine	57.12	10	50	0	114	47-146	51.67	10	30	
Naphthalene	50.08	10	50	0	100	46-116	45.6	9.36	30	
Nitrobenzene	48.78	10	50	0	97.6	48-126	44.83	8.44	30	
Pentachlorophenol	113.3	10	100	0	113	53-134	104.4	8.13	30	
Phenanthrene	51.76	10	50	0	104	57-123	47.47	8.64	30	
Phenol	30.16	10	100	0	30.2	10-115	28.41	5.99	30	
Pyrene	51.81	10	50	0	104	40-130	46.46	10.9	30	
Surr: 2,4,6-Tribromophenol	122.1	0	100	0	122	39-153	114.1	6.81	30	
Surr: 2-Fluorobiphenyl	97.83	0	100	0	97.8	40-147	88.21	10.3	30	
Surr: 2-Fluorophenol	51.65	0	100	0	51.7	21-100	47.47	8.44	30	
Surr:4-Terphenyl-d14	114.6	0	100	0	115	39-141	101.2	12.3	30	
Surr: Nitrobenzene-d5	94.61	0	100	0	94.6	37-140	86.95	8.45	30	
Surr: Phenol-d6	29.31	0	100	0	29.3	11-100	27.86	5.09	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01C 0310073-02C 0310073-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16572** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 1:39**

Client ID: Run ID: **VOA_I_031008B** SeqNo: **377483** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	44.44	5.0	50	0	88.9	70-130		0		
Surr: 4-Bromofluorobenzene	46.45	5.0	50	0	92.9	70-130		0		
Surr: Dibromofluoromethane	46.48	5.0	50	0	93	70-130		0		
Surr: Toluene-d8	49.28	5.0	50	0	98.6	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16572** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 0:45**
Client ID: Run ID: **VOA_I_031008B** SeqNo: **377481** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.54	5.0	50	0	95.1	75-118	0			
1,1,2,2-Tetrachloroethane	47.69	5.0	50	0	95.4	79-120	0			
1,1,2-Trichloroethane	50.62	5.0	50	0	101	81-119	0			
1,1-Dichloroethane	50.82	5.0	50	0	102	80-120	0			
1,1-Dichloroethene	50.55	5.0	50	0	101	80-120	0			
1,2-Dichloroethane	47.27	5.0	50	0	94.5	80-120	0			
2-Butanone	106.5	10	100	0	107	70-130	0			
2-Chloroethyl vinyl ether	99.7	10	100	0	99.7	72-120	0			
2-Hexanone	75.51	10	100	0	75.5	70-130	0			
4-Methyl-2-pentanone	93.38	10	100	0	93.4	78-120	0			
Acetone	101.4	10	100	0	101	60-135	0			
Benzene	51.03	5.0	50	0	102	82-119	0			
Bromodichloromethane	47.97	5.0	50	0	95.9	81-119	0			
Bromoform	48.54	5.0	50	0	97.1	80-120	0			
Bromomethane	44.18	5.0	50	0	88.4	75-130	0			
Carbon disulfide	103	10	100	0	103	78-120	0			
Carbontetrachloride	44.99	5.0	50	0	90	77-120	0			
Chlorobenzene	48.97	5.0	50	0	97.9	82-118	0			
Chloroethane	53.03	5.0	50	0	106	78-122	0			
Chloroform	49.12	5.0	50	0	98.2	78-120	0			
Chloromethane	49.78	5.0	50	0	99.6	75-125	0			
cis-1,3-Dichloropropene	50.2	5.0	50	0	100	81-120	0			
Dibromochloromethane	48.19	5.0	50	0	96.4	81-118	0			
Ethylbenzene	49.96	5.0	50	0	99.9	82-120	0			
m,p-Xylene	98.03	10	100	0	98	82-122	0			
Methylene chloride	51.04	10	50	0	102	80-122	0			
Styrene	51.56	5.0	50	0	103	82-121	0			
Tetrachloroethene	47.51	5.0	50	0	95	79-118	0			
Toluene	50.82	5.0	50	0	102	81-119	0			
trans-1,3-Dichloropropene	49.82	5.0	50	0	99.6	82-121	0			
Trichloroethene	48.83	5.0	50	0	97.7	78-118	0			
Vinylacetate	97.12	10	100	0	97.1	75-120	0			
Vinyl chloride	50.95	2.0	50	0	102	73-127	0			
Xylenes, Total	148	15	150	0	98.7	80-120	0			
Surr:1,2-Dichloroethane-d4	43.44	5.0	50	0	86.9	70-130	0			
Surr:4-Bromofluorobenzene	47.52	5.0	50	0	95	70-130	0			
Surr:Dibromofluoromethane	46.73	5.0	50	0	93.5	70-130	0			
Surr: Toluene-d8	49.58	5.0	50	0	99.2	70-130	0			

ND - Not Detected at the Reporting Limit
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D - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16572** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 1:12**

Client ID: Run ID: **VOA_I_031008B** SeqNo: **377482** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.78	5.0	50	0	95.6	75-118	47.54	0.5	20	
1,1,2,2-Tetrachloroethane	46.15	5.0	50	0	92.3	79-120	47.69	3.29	20	
1,1,2-Trichloroethane	51.16	5.0	50	0	102	81-119	50.62	1.06	20	
1,1-Dichloroethane	52.03	5.0	50	0	104	80-120	50.82	2.36	20	
1,1-Dichloroethene	51.27	5.0	50	0	103	80-120	50.55	1.41	20	
1,2-Dichloroethane	46.5	5.0	50	0	93	80-120	47.27	1.63	20	
2-Butanone	107.1	10	100	0	107	70-130	106.5	0.507	20	
2-Chloroethyl vinyl ether	98.03	10	100	0	98	72-120	99.7	1.69	20	
2-Hexanone	74.92	10	100	0	74.9	70-130	75.51	0.783	20	
4-Methyl-2-pentanone	92.35	10	100	0	92.3	78-120	93.38	1.11	20	
Acetone	103.1	10	100	0	103	60-135	101.4	1.67	20	
Benzene	50.77	5.0	50	0	102	82-119	51.03	0.503	20	
Bromodichloromethane	47.95	5.0	50	0	95.9	81-119	47.97	0.0529	20	
Bromoform	47.45	5.0	50	0	94.9	80-120	48.54	2.28	20	
Bromomethane	45.57	5.0	50	0	91.1	75-130	44.18	3.11	20	
Carbon disulfide	106	10	100	0	106	78-120	103	2.82	20	
Carbontetrachloride	45.59	5.0	50	0	91.2	77-120	44.99	1.33	20	
Chlorobenzene	49.25	5.0	50	0	98.5	82-118	48.97	0.573	20	
Chloroethane	54.72	5.0	50	0	109	78-122	53.03	3.15	20	
Chloroform	49.64	5.0	50	0	99.3	78-120	49.12	1.05	20	
Chloromethane	53.29	5.0	50	0	107	75-125	49.78	6.81	20	
cis-1,3-Dichloropropene	50.08	5.0	50	0	100	81-120	50.2	0.239	20	
Dibromochloromethane	48.45	5.0	50	0	96.9	81-118	48.19	0.539	20	
Ethylbenzene	50.69	5.0	50	0	101	82-120	49.96	1.45	20	
m,p-Xylene	97.81	10	100	0	97.8	82-122	98.03	0.222	20	
Methylene chloride	51.72	10	50	0	103	80-122	51.04	1.32	20	
Styrene	51.98	5.0	50	0	104	82-121	51.56	0.807	20	
Tetrachloroethene	47.9	5.0	50	0	95.8	79-118	47.51	0.815	20	
Toluene	50.72	5.0	50	0	101	81-119	50.82	0.197	20	
trans-1,3-Dichloropropene	50.11	5.0	50	0	100	82-121	49.82	0.581	20	
Trichloroethene	49.99	5.0	50	0	100	78-118	48.83	2.34	20	
Vinylacetate	82.83	10	100	0	82.8	75-120	97.12	15.9	20	
Vinyl chloride	53.02	2.0	50	0	106	73-127	50.95	4	20	
Xylenes, Total	147.6	15	150	0	98.4	80-120	148	0.312	20	
Surr:1,2-Dichloroethane-d4	44.38	5.0	50	0	88.8	70-130	43.44	2.14	20	
Surr:4-Bromofluorobenzene	47.99	5.0	50	0	96	70-130	47.52	0.98	20	
Surr:Dibromofluoromethane	47.12	5.0	50	0	94.2	70-130	46.73	0.828	20	
Surr:Toluene-d8	49.78	5.0	50	0	99.6	70-130	49.58	0.408	20	

ND - Not Detected at the Reporting Limit
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16572** InstrumentID: **VOA_I**

MS Sample ID: **0310046-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 2:33**

Client ID: Run ID: **VOA_I_031008B** SeqNo: **377484** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	42.14	5.0	50	0	84.3	75-125	0			
1,1,2,2-Tetrachloroethane	57.16	5.0	50	0	114	75-125	0			
1,1,2-Trichloroethane	61.77	5.0	50	0	124	75-125	0			
1,1-Dichloroethane	59.71	5.0	50	3.488	112	75-125	0			
1,1-Dichloroethene	45.68	5.0	50	4.301	82.8	65-130	0			
1,2-Dichloroethane	56.79	5.0	50	0	114	70-130	0			
2-Butanone	124.1	10	100	0	124	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	80.2	10	100	0	80.2	72-124	0			
4-Methyl-2-pentanone	116.9	10	100	0	117	75-125	0			
Acetone	107.3	10	100	0	107	60-130	0			
Benzene	55.21	5.0	50	0	110	76-127	0			
Bromodichloromethane	57.55	5.0	50	0	115	75-125	0			
Bromoform	59.27	5.0	50	0	119	75-125	0			
Bromomethane	48.57	5.0	50	0	97.1	75-125	0			
Carbon disulfide	92.37	10	100	0	92.4	75-125	0			
Carbon tetrachloride	35.69	5.0	50	0	71.4	70-130	0			
Chlorobenzene	56.35	5.0	50	0	113	75-126	0			
Chloroethane	52.96	5.0	50	0	106	70-130	0			
Chloroform	57.21	5.0	50	0	114	75-125	0			
Chloromethane	53.23	5.0	50	0	106	75-125	0			
cis-1,3-Dichloropropene	58.72	5.0	50	0	117	75-125	0			
Dibromochloromethane	56.69	5.0	50	0	113	75-125	0			
Ethylbenzene	51.02	5.0	50	0	102	75-125	0			
m,p-Xylene	101.5	10	100	0	101	75-125	0			
Methylene chloride	62.55	10	50	0	125	75-125	0			S
Styrene	59.49	5.0	50	0	119	75-125	0			
Tetrachloroethene	3267	5.0	50	3506	-477	75-125	0			SEO
Toluene	54.21	5.0	50	0	108	76-125	0			
trans-1,3-Dichloropropene	60.74	5.0	50	0	121	70-130	0			
Trichloroethene	1054	5.0	50	1086	-62.8	71-120	0			SEO
Vinyl acetate	109.7	10	100	0	110	75-125	0			
Vinyl chloride	79.52	2.0	50	41.37	76.3	60-135	0			
Xylenes, Total	156.7	15	150	0	104	75-125	0			
Surr: 1,2-Dichloroethane-d4	43.79	5.0	50	0	87.6	70-130	0			
Surr: 4-Bromofluorobenzene	47.43	5.0	50	0	94.9	70-130	0			
Surr: Dibromofluoromethane	46.59	5.0	50	0	93.2	70-130	0			
Surr: Toluene-d8	48.78	5.0	50	0	97.6	70-130	0			

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16572** InstrumentID: **VOA_I**

MSD Sample ID: **0310046-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 3:00**

Client ID: Run ID: **VOA_I_031008B** SeqNo: **377485** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.33	5.0	50	0	103	75-125	42.14	19.7	20	
1,1,2,2-Tetrachloroethane	58.23	5.0	50	0	116	75-125	57.16	1.84	20	
1,1,2-Trichloroethane	62.23	5.0	50	0	124	75-125	61.77	0.74	20	
1,1-Dichloroethane	62	5.0	50	3.488	117	75-125	59.71	3.77	20	
1,1-Dichloroethene	57.99	5.0	50	4.301	107	65-130	45.68	23.7	20	R
1,2-Dichloroethane	56.47	5.0	50	0	113	70-130	56.79	0.573	20	
2-Butanone	123.5	10	100	0	123	64-128	124.1	0.517	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	83.5	10	100	0	83.5	72-124	80.2	4.02	20	
4-Methyl-2-pentanone	122.7	10	100	0	123	75-125	116.9	4.86	20	
Acetone	107.3	10	100	0	107	60-130	107.3	0.0668	20	
Benzene	58.6	5.0	50	0	117	76-127	55.21	5.95	20	
Bromodichloromethane	57.67	5.0	50	0	115	75-125	57.55	0.208	20	
Bromoform	59.26	5.0	50	0	119	75-125	59.27	0.00723	20	
Bromomethane	51.47	5.0	50	0	103	75-125	48.57	5.81	20	
Carbon disulfide	111.7	10	100	0	112	75-125	92.37	18.9	20	
Carbon tetrachloride	49.34	5.0	50	0	98.7	70-130	35.69	32.1	20	R
Chlorobenzene	58.04	5.0	50	0	116	75-126	56.35	2.95	20	
Chloroethane	58.6	5.0	50	0	117	70-130	52.96	10.1	20	
Chloroform	57.76	5.0	50	0	116	75-125	57.21	0.956	20	
Chloromethane	57.62	5.0	50	0	115	75-125	53.23	7.93	20	
cis-1,3-Dichloropropene	59.27	5.0	50	0	119	75-125	58.72	0.931	20	
Dibromochloromethane	57.3	5.0	50	0	115	75-125	56.69	1.07	20	
Ethylbenzene	56.59	5.0	50	0	113	75-125	51.02	10.4	20	
m,p-Xylene	111.1	10	100	0	111	75-125	101.5	9.09	20	
Methylene chloride	61.04	10	50	0	122	75-125	62.55	2.45	20	
Styrene	61.31	5.0	50	0	123	75-125	59.49	3	20	
Tetrachloroethene	3240	5.0	50	3506	-531	75-125	3267	0.83	20	SEO
Toluene	58.37	5.0	50	0	117	76-125	54.21	7.39	20	
trans-1,3-Dichloropropene	60.72	5.0	50	0	121	70-130	60.74	0.0256	20	
Trichloroethene	1050	5.0	50	1086	-71	71-120	1054	0.393	20	SEO
Vinyl acetate	110.1	10	100	0	110	75-125	109.7	0.345	20	
Vinyl chloride	91.4	2.0	50	41.37	100	60-135	79.52	13.9	20	
Xylenes, Total	169.5	15	150	0	113	75-125	156.7	7.84	20	
Surr:1,2-Dichloroethane-d4	43.12	5.0	50	0	86.2	70-130	43.79	1.55	20	
Surr:4-Bromofluorobenzene	47.49	5.0	50	0	95	70-130	47.43	0.128	20	
Surr: Dibromofluoromethane	45.89	5.0	50	0	91.8	70-130	46.59	1.51	20	
Surr: Toluene-d8	49.28	5.0	50	0	98.6	70-130	48.78	1.02	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-02A 0310073-03A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 13:44**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377889** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	45.96	5.0	50	0	91.9	70-130		0		
Surr: 4-Bromofluorobenzene	45.79	5.0	50	0	91.6	70-130		0		
Surr: Dibromofluoromethane	47.89	5.0	50	0	95.8	70-130		0		
Surr: Toluene-d8	48.4	5.0	50	0	96.8	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 12:49**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377887** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.64	5.0	50	0	103	75-118	0			
1,1,2,2-Tetrachloroethane	48.57	5.0	50	0	97.1	79-120	0			
1,1,2-Trichloroethane	51.28	5.0	50	0	103	81-119	0			
1,1-Dichloroethane	53.63	5.0	50	0	107	80-120	0			
1,1-Dichloroethene	54.35	5.0	50	0	109	80-120	0			
1,2-Dichloroethane	50.43	5.0	50	0	101	80-120	0			
2-Butanone	111.4	10	100	0	111	70-130	0			
2-Chloroethyl vinyl ether	99.07	10	100	0	99.1	72-120	0			
2-Hexanone	74.9	10	100	0	74.9	70-130	0			
4-Methyl-2-pentanone	94.38	10	100	0	94.4	78-120	0			
Acetone	112.9	10	100	0	113	60-135	0			
Benzene	51.82	5.0	50	0	104	82-119	0			
Bromodichloromethane	50.5	5.0	50	0	101	81-119	0			
Bromoform	49.81	5.0	50	0	99.6	80-120	0			
Bromomethane	46.98	5.0	50	0	94	75-130	0			
Carbon disulfide	109.8	10	100	0	110	78-120	0			
Carbontetrachloride	49.71	5.0	50	0	99.4	77-120	0			
Chlorobenzene	49.39	5.0	50	0	98.8	82-118	0			
Chloroethane	54.8	5.0	50	0	110	78-122	0			
Chloroform	51.69	5.0	50	0	103	78-120	0			
Chloromethane	54.92	5.0	50	0	110	75-125	0			
cis-1,3-Dichloropropene	54	5.0	50	0	108	81-120	0			
Dibromochloromethane	48.9	5.0	50	0	97.8	81-118	0			
Ethylbenzene	51.07	5.0	50	0	102	82-120	0			
m,p-Xylene	99.26	10	100	0	99.3	82-122	0			
Methylene chloride	53.43	10	50	0	107	80-122	0			
Styrene	51.91	5.0	50	0	104	82-121	0			
Tetrachloroethene	50.06	5.0	50	0	100	79-118	0			
Toluene	50.78	5.0	50	0	102	81-119	0			
trans-1,3-Dichloropropene	53.23	5.0	50	0	106	82-121	0			
Trichloroethene	52.21	5.0	50	0	104	78-118	0			
Vinyl acetate	111.5	10	100	0	111	75-120	0			
Vinyl chloride	54.61	2.0	50	0	109	73-127	0			
Xylenes, Total	149.2	15	150	0	99.5	80-120	0			
Surr:1,2-Dichloroethane-d4	45.43	5.0	50	0	90.9	70-130	0			
Surr:4-Bromofluorobenzene	47.91	5.0	50	0	95.8	70-130	0			
Surr:Dibromofluoromethane	48.17	5.0	50	0	96.3	70-130	0			
Surr: Toluene-d8	48.79	5.0	50	0	97.6	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 13:16**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377888** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.74	5.0	50	0	99.5	75-118	51.64	3.74	20	
1,1,2,2-Tetrachloroethane	49.23	5.0	50	0	98.5	79-120	48.57	1.35	20	
1,1,2-Trichloroethane	51.44	5.0	50	0	103	81-119	51.28	0.322	20	
1,1-Dichloroethane	52.56	5.0	50	0	105	80-120	53.63	2.01	20	
1,1-Dichloroethene	51.41	5.0	50	0	103	80-120	54.35	5.56	20	
1,2-Dichloroethane	49.71	5.0	50	0	99.4	80-120	50.43	1.43	20	
2-Butanone	113.8	10	100	0	114	70-130	111.4	2.1	20	
2-Chloroethyl vinyl ether	98.42	10	100	0	98.4	72-120	99.07	0.66	20	
2-Hexanone	77.4	10	100	0	77.4	70-130	74.9	3.28	20	
4-Methyl-2-pentanone	93.3	10	100	0	93.3	78-120	94.38	1.15	20	
Acetone	118.9	10	100	0	119	60-135	112.9	5.17	20	
Benzene	51.57	5.0	50	0	103	82-119	51.82	0.492	20	
Bromodichloromethane	49.8	5.0	50	0	99.6	81-119	50.5	1.38	20	
Bromoform	50.23	5.0	50	0	100	80-120	49.81	0.85	20	
Bromomethane	44.67	5.0	50	0	89.3	75-130	46.98	5.05	20	
Carbon disulfide	105.3	10	100	0	105	78-120	109.8	4.24	20	
Carbontetrachloride	48.26	5.0	50	0	96.5	77-120	49.71	2.97	20	
Chlorobenzene	49.46	5.0	50	0	98.9	82-118	49.39	0.133	20	
Chloroethane	53.79	5.0	50	0	108	78-122	54.8	1.85	20	
Chloroform	51.56	5.0	50	0	103	78-120	51.69	0.245	20	
Chloromethane	55	5.0	50	0	110	75-125	54.92	0.14	20	
cis-1,3-Dichloropropene	52.01	5.0	50	0	104	81-120	54	3.74	20	
Dibromochloromethane	48.83	5.0	50	0	97.7	81-118	48.9	0.147	20	
Ethylbenzene	50.81	5.0	50	0	102	82-120	51.07	0.51	20	
m,p-Xylene	99.49	10	100	0	99.5	82-122	99.26	0.229	20	
Methylene chloride	51.53	10	50	0	103	80-122	53.43	3.62	20	
Styrene	52.27	5.0	50	0	105	82-121	51.91	0.688	20	
Tetrachloroethene	49.19	5.0	50	0	98.4	79-118	50.06	1.76	20	
Toluene	50.44	5.0	50	0	101	81-119	50.78	0.674	20	
trans-1,3-Dichloropropene	53.89	5.0	50	0	108	82-121	53.23	1.24	20	
Trichloroethene	51.56	5.0	50	0	103	78-118	52.21	1.25	20	
Vinylacetate	110.2	10	100	0	110	75-120	111.5	1.14	20	
Vinyl chloride	52.76	2.0	50	0	106	73-127	54.61	3.45	20	
Xylenes, Total	149.8	15	150	0	99.9	80-120	149.2	0.446	20	
Surr:1,2-Dichloroethane-d4	45.3	5.0	50	0	90.6	70-130	45.43	0.283	20	
Surr:4-Bromofluorobenzene	48.34	5.0	50	0	96.7	70-130	47.91	0.88	20	
Surr:Dibromofluoromethane	48.55	5.0	50	0	97.1	70-130	48.17	0.781	20	
Surr: Toluene-d8	48.63	5.0	50	0	97.3	70-130	48.79	0.327	20	

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P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MS Sample ID: **0310050-04AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 16:00**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377890** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.04	5.0	50	0	98.1	75-125	0			
1,1,2,2-Tetrachloroethane	46.25	5.0	50	0	92.5	75-125	0			
1,1,2-Trichloroethane	47.83	5.0	50	0	95.7	75-125	0			
1,1-Dichloroethane	50.38	5.0	50	0	101	75-125	0			
1,1-Dichloroethene	50	5.0	50	0	100	65-130	0			
1,2-Dichloroethane	48.09	5.0	50	0	96.2	70-130	0			
2-Butanone	97.58	10	100	0	97.6	64-128	0			
2-Chloroethyl vinyl ether	13.27	10	100	0	13.3	75-125	0			S
2-Hexanone	66.62	10	100	0	66.6	72-124	0			S
4-Methyl-2-pentanone	86.05	10	100	0	86	75-125	0			
Acetone	88.73	10	100	0	88.7	60-130	0			
Benzene	49.37	5.0	50	0	98.7	76-127	0			
Bromodichloromethane	49.02	5.0	50	0	98	75-125	0			
Bromoform	48.67	5.0	50	0	97.3	75-125	0			
Bromomethane	41.07	5.0	50	0	82.1	75-125	0			
Carbon disulfide	103.3	10	100	0	103	75-125	0			
Carbon tetrachloride	49.45	5.0	50	0	98.9	70-130	0			
Chlorobenzene	47.9	5.0	50	0	95.8	75-126	0			
Chloroethane	51.1	5.0	50	0	102	70-130	0			
Chloroform	49.33	5.0	50	0	98.7	75-125	0			
Chloromethane	49.6	5.0	50	0	99.2	75-125	0			
cis-1,3-Dichloropropene	49.67	5.0	50	0	99.3	75-125	0			
Dibromochloromethane	47.53	5.0	50	0	95.1	75-125	0			
Ethylbenzene	49.33	5.0	50	0	98.7	75-125	0			
m,p-Xylene	96.16	10	100	0	96.2	75-125	0			
Methylene chloride	49.69	10	50	0	99.4	75-125	0			
Styrene	49.34	5.0	50	0	98.7	75-125	0			
Tetrachloroethene	49.31	5.0	50	0	98.6	75-125	0			
Toluene	48.8	5.0	50	0	97.6	76-125	0			
trans-1,3-Dichloropropene	50.27	5.0	50	0	101	70-130	0			
Trichloroethene	62.63	5.0	50	8.123	109	71-120	0			
Vinyl acetate	103.8	10	100	0	104	75-125	0			
Vinyl chloride	50.53	2.0	50	0	101	60-135	0			
Xylenes, Total	144.9	15	150	0	96.6	75-125	0			
Surr: 1,2-Dichloroethane-d4	45.4	5.0	50	0	90.8	70-130	0			
Surr: 4-Bromofluorobenzene	46.79	5.0	50	0	93.6	70-130	0			
Surr: Dibromofluoromethane	46.91	5.0	50	0	93.8	70-130	0			
Surr: Toluene-d8	47.19	5.0	50	0	94.4	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MSD Sample ID: **0310050-04AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 16:27**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377891** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.85	5.0	50	0	93.7	75-125	49.04	4.58	20	
1,1,2,2-Tetrachloroethane	48.67	5.0	50	0	97.3	75-125	46.25	5.11	20	
1,1,2-Trichloroethane	50.15	5.0	50	0	100	75-125	47.83	4.73	20	
1,1-Dichloroethane	47.5	5.0	50	0	95	75-125	50.38	5.87	20	
1,1-Dichloroethene	47.33	5.0	50	0	94.7	65-130	50	5.49	20	
1,2-Dichloroethane	46.47	5.0	50	0	92.9	70-130	48.09	3.42	20	
2-Butanone	95.8	10	100	0	95.8	64-128	97.58	1.84	20	
2-Chloroethyl vinyl ether	11.08	10	100	0	11.1	75-125	13.27	18	20	S
2-Hexanone	70.17	10	100	0	70.2	72-124	66.62	5.19	20	S
4-Methyl-2-pentanone	90.59	10	100	0	90.6	75-125	86.05	5.14	20	
Acetone	87.21	10	100	0	87.2	60-130	88.73	1.73	20	
Benzene	48.27	5.0	50	0	96.5	76-127	49.37	2.26	20	
Bromodichloromethane	47.25	5.0	50	0	94.5	75-125	49.02	3.68	20	
Bromoform	49.47	5.0	50	0	98.9	75-125	48.67	1.63	20	
Bromomethane	41.07	5.0	50	0	82.1	75-125	41.07	0.00115	20	
Carbon disulfide	97.55	10	100	0	97.5	75-125	103.3	5.7	20	
Carbon tetrachloride	47.72	5.0	50	0	95.4	70-130	49.45	3.57	20	
Chlorobenzene	47.78	5.0	50	0	95.6	75-126	47.9	0.251	20	
Chloroethane	50.23	5.0	50	0	100	70-130	51.1	1.72	20	
Chloroform	47.46	5.0	50	0	94.9	75-125	49.33	3.87	20	
Chloromethane	47.94	5.0	50	0	95.9	75-125	49.6	3.4	20	
cis-1,3-Dichloropropene	48.34	5.0	50	0	96.7	75-125	49.67	2.71	20	
Dibromochloromethane	48.11	5.0	50	0	96.2	75-125	47.53	1.21	20	
Ethylbenzene	49.5	5.0	50	0	99	75-125	49.33	0.333	20	
m,p-Xylene	96.99	10	100	0	97	75-125	96.16	0.858	20	
Methylene chloride	46.06	10	50	0	92.1	75-125	49.69	7.58	20	
Styrene	50.13	5.0	50	0	100	75-125	49.34	1.6	20	
Tetrachloroethene	49.71	5.0	50	0	99.4	75-125	49.31	0.806	20	
Toluene	49.77	5.0	50	0	99.5	76-125	48.8	1.97	20	
trans-1,3-Dichloropropene	49.93	5.0	50	0	99.9	70-130	50.27	0.666	20	
Trichloroethene	68.95	5.0	50	8.123	122	71-120	62.63	9.61	20	S
Vinyl acetate	100.4	10	100	0	100	75-125	103.8	3.4	20	
Vinyl chloride	48.45	2.0	50	0	96.9	60-135	50.53	4.2	20	
Xylenes, Total	146	15	150	0	97.3	75-125	144.9	0.797	20	
Surr: 1,2-Dichloroethane-d4	43.17	5.0	50	0	86.3	70-130	45.4	5.04	20	
Surr: 4-Bromofluorobenzene	48.9	5.0	50	0	97.8	70-130	46.79	4.41	20	
Surr: Dibromofluoromethane	45.98	5.0	50	0	92	70-130	46.91	1.99	20	
Surr: Toluene-d8	49.1	5.0	50	0	98.2	70-130	47.19	3.97	20	

The following samples were analyzed in this batch: 0310073-01A 0310073-03A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%

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CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

LCS Sample ID: **WLCSW-100703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:05**
Client ID: Run ID: **IC201_031007A** SeqNo: **377111** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.88	0.50	10	0	98.8	80-120	0			
Fluoride	2.01	0.10	2	0	100	80-120	0			
Sulfate	10.63	1.0	10	0	106	80-120	0			
Surr: Dichloroacetic acid (surr)	2.14	0.10	2	0	107	80-120	0			

LCSD Sample ID: **WLCSDW1-10070** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:38**
Client ID: Run ID: **IC201_031007A** SeqNo: **377112** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10	0.50	10	0	100	80-120	9.88	1.21	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.01	2.52	20	
Sulfate	10.67	1.0	10	0	107	80-120	10.63	0.376	20	
Surr: Dichloroacetic acid (surr)	2.17	0.10	2	0	108	80-120	2.14	1.39	20	

MS Sample ID: **0310040-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 18:27**
Client ID: Run ID: **IC201_031007A** SeqNo: **377085** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.46	0.50	10	0	94.6	75-125	0			
Fluoride	1.94	0.10	2	0	97	75-125	0			
Sulfate	10.31	1.0	10	0	103	75-125	0			
Nitrate/Nitrite (as N)	3.94	0.10	4	0	98.5	75-125	0			
Surr: Dichloroacetic acid (surr)	4.4	0.10	5	0	88	80-120	0			

MSD Sample ID: **0310040-02BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 19:00**
Client ID: Run ID: **IC201_031007A** SeqNo: **377086** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.72	0.50	10	0	97.2	75-125	9.46	2.71	20	
Fluoride	1.95	0.10	2	0	97.5	75-125	1.94	0.514	20	
Sulfate	10.49	1.0	10	0	105	75-125	10.31	1.73	20	
Nitrate/Nitrite (as N)	4.03	0.10	4	0	101	75-125	3.94	2.26	20	
Surr: Dichloroacetic acid (surr)	4.97	0.10	5	0	99.4	80-120	4.4	12.2	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

DUP Sample ID: **0310040-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 17:55**
Client ID: Run ID: **IC201_031007A** SeqNo: **377084** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50	0	0	0	0-0	0	0	20	
Fluoride	ND	0.10	0	0	0	0-0	0	0	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.3	0.10	5	0	106	80-120	5.45	2.79	20	

DUP Sample ID: **0310072-01DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 4:12**
Client ID: Run ID: **IC201_031007A** SeqNo: **377107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	729.8	0.50	0	0	0	0-0	737.1	0.998	20	E
Fluoride	0.63	0.10	0	0	0	0-0	0.62	1.6	20	
Sulfate	440.4	1.0	0	0	0	0-0	440.4	0.00908	20	E
Nitrate/Nitrite (as N)	0.39	0.10	0	0	0	0-0	0.39	0	20	
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	5.15	6.03	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01D 0310073-02D 0310073-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16581** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-100903** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377666** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-100903** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377667** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	950.2	5.0	1000	0	95	80-120	0			

DUP Sample ID: **0310082-01D DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377676** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	340.1	5.0	0	0	0	0-0	340.1	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	340.1	5.0	0	0	0	0-0	340.1	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01D 0310073-02D 0310073-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16649** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101003** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 18:05**
Client ID: Run ID: **IC201_031010A** SeqNo: **379317** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101003** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 18:38**
Client ID: Run ID: **IC201_031010A** SeqNo: **379318** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.66	0.50	10	0	96.6	80-120	0			
Fluoride	2.03	0.10	2	0	101	80-120	0			
Sulfate	10.28	1.0	10	0	103	80-120	0			
Surr: Dichloroacetic acid (surr)	1.92	0.10	2	0	96	80-120	0			

LCSD Sample ID: **WLCSDW1-10100** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 19:10**
Client ID: Run ID: **IC201_031010A** SeqNo: **379319** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.7	0.50	10	0	97	80-120	9.66	0.413	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.03	3.51	20	
Sulfate	10.01	1.0	10	0	100	80-120	10.28	2.66	20	
Surr: Dichloroacetic acid (surr)	2.16	0.10	2	0	108	80-120	1.92	11.8	20	

MS Sample ID: **0310112-01BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 20:48**
Client ID: Run ID: **IC201_031010A** SeqNo: **379322** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.52	0.50	10	27.9	106	75-125	0			
Fluoride	1.96	0.10	2	0.34	81	75-125	0			
Sulfate	47.88	1.0	10	37.63	102	75-125	0			
Nitrate/Nitrite (as N)	3.91	0.10	4	0	97.7	75-125	0			
Surr: Dichloroacetic acid (surr)	4.37	0.10	5	0	87.4	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: *Annual*

QC BATCH REPORT

Batch ID: **R16649** InstrumentID: **IC201**

MSD Sample ID: **0310112-01BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 21:20**
Client ID: Run ID: **IC201_031010A** SeqNo: **379323** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.36	0.50	10	27.9	105	75-125	38.52	0.416	20	
Fluoride	2.04	0.10	2	0.34	85	75-125	1.96	4	20	
Sulfate	47.56	1.0	10	37.63	99.3	75-125	47.88	0.671	20	
Nitrate/Nitrite (as N)	3.95	0.10	4	0	98.8	75-125	3.91	1.02	20	
Surr: Dichloroacetic acid (surr)	4.37	0.10	5	0	87.4	80-120	4.37	0	20	

DUP Sample ID: **0310112-01BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 20:15**
Client ID: Run ID: **IC201_031010A** SeqNo: **379321** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	27.88	0.50	0	0	0	0-0	27.9	0.0717	20	
Fluoride	0.29	0.10	0	0	0	0-0	0.34	15.9	20	
Sulfate	37.78	1.0	0	0	0	0-0	37.63	0.398	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.92	0.10	5	0	98.4	80-120	4.94	0.406	20	

DUP Sample ID: **0310073-02DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/11/03 4:56**
Client ID: **MW-18** Run ID: **IC201_031010A** SeqNo: **379340** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	224.5	25	0	0	0	0-0	224.5	0	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1156	50	0	0	0	0-0	1150	0.521	20	
Nitrate/Nitrite (as N)	19	5.0	0	0	0	0-0	19	0	20	
Surr: Dichloroacetic acid (surr)	258	5.0	250	0	103	80-120	263	1.92	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01D 0310073-02D 0310073-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16655** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMB-101303** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379410** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-101303** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379411** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.204	0.020	0.2	0	102	80-120		0		

MS Sample ID: **0310073-01E MS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: **KWB-9** Run ID: **UV-2101PC_031013A** SeqNo: **379427** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2027	0.020	0.2	-0.000017	101	75-125		0		

MSD Sample ID: **0310073-01E MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: **KWB-9** Run ID: **UV-2101PC_031013A** SeqNo: **379428** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1946	0.020	0.2	-0.000017	97.3	75-125	0.2027	4.08	25	

DUP Sample ID: **0310073-01E DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: **KWB-9** Run ID: **UV-2101PC_031013A** SeqNo: **379426** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	-0.000017	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-01E 0310073-02E 0310073-03E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16690** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101403** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 0:50**
Client ID: Run ID: **IC201_031014B** SeqNo: **380107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101403** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 1:22**
Client ID: Run ID: **IC201_031014B** SeqNo: **380108** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.92	0.50	10	0	99.2	80-120	0			
Fluoride	2.06	0.10	2	0	103	80-120	0			
Sulfate	10.74	1.0	10	0	107	80-120	0			
Surr: Dichloroacetic acid (surr)	2.2	0.10	2	0	110	80-120	0			

LCSD Sample ID: **WLCSDW1-10140** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 1:55**
Client ID: Run ID: **IC201_031014B** SeqNo: **380109** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.9	0.50	10	0	99	80-120	9.92	0.202	20	
Fluoride	2.02	0.10	2	0	101	80-120	2.06	1.96	20	
Sulfate	10.72	1.0	10	0	107	80-120	10.74	0.186	20	
Surr: Dichloroacetic acid (surr)	1.89	0.10	2	0	94.5	80-120	2.2	15.2	20	

MS Sample ID: **0310148-01EMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 3:32**
Client ID: Run ID: **IC201_031014B** SeqNo: **380112** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	729.8	0.50	10	726.3	34.7	75-125	0			SEO
Fluoride	2.89	0.10	2	0.89	100	75-125	0			
Sulfate	352.5	1.0	10	345	75.4	75-125	0			EO
Nitrate/Nitrite (as N)	4.04	0.10	4	0.31	93.2	75-125	0			
Surr: Dichloroacetic acid (surr)	5.03	0.10	5	0	101	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310073
Project: Annual

QC BATCH REPORT

Batch ID: **R16690** InstrumentID: **IC201**

MSD Sample ID: **0310148-01EMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 4:05**
Client ID: Run ID: **IC201_031014B** SeqNo: **380113** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	724.4	0.50	10	726.3	-19.7	75-125	729.8	0.748	20	SEO
Fluoride	2.88	0.10	2	0.89	99.5	75-125	2.89	0.347	20	
Sulfate	351.8	1.0	10	345	68.7	75-125	352.5	0.19	20	SEO
Nitrate/Nitrite (as N)	3.85	0.10	4	0.31	88.5	75-125	4.04	4.82	20	
Surr: Dichloroacetic acid (surr)	4.96	0.10	5	0	99.2	80-120	5.03	1.4	20	

DUP Sample ID: **0310148-01EDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 3:00**
Client ID: Run ID: **IC201_031014B** SeqNo: **380111** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	726.8	0.50	0	0	0	0-0	726.3	0.0729	20	E
Fluoride	0.89	0.10	0	0	0	0-0	0.89	0	20	
Sulfate	344.5	1.0	0	0	0	0-0	345	0.142	20	E
Nitrate/Nitrite (as N)	0.35	0.10	0	0	0	0-0	0.31	12.1	20	
Surr: Dichloroacetic acid (surr)	5.09	0.10	5	0	102	80-120	5.02	1.38	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310073-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

#0310073

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El Paso, Texas 79932
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 0310074-76 0310073

Company Name: Navajo Phone #:

Address: (Street, City, Zip) Fax #:

Contact Person: Jeff Byrd

Invoice to: (If different from above)

Project #: Project Name: Annual

Project Location: Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH Annual			Turn Around Time if different from standard	Hold
	KWB-9	9		X				X	X		X	X		10/6	920															X				
	MW-18	8		X				X	X		X	X		10/6	1100															X				
	MW-28	8		X				X	X		X	X		10/6	1400															X				

Relinquished by: Date: Time: Received by: Date: Time:

Jeff Byrd 10/6/03 1615

Relinquished by: Date: Time: Received by: Date: Time:

Relinquished by: Date: Time: Received at Laboratory by: Date: Time:

10-7-03 1210

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp °

Log-in Review

Carrier #

REMARKS: extra 1 L w/ KWB-9 for MS/MSD

☐ Check If Special Reporting Limits Are Needed

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 10/7/2003 12:10:00 PM

Work Order Number 0310073

Received by: JAC

Checklist completed by _____ 10-7-03 (Signature / Date)

Reviewed by _____ 10/8/03 (Initials / Date)

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

November 18, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0311025**

Dear Jeff Byrd,

e-Lab, Inc. received 1 sample on 11/4/2003 8:45:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 29.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Patrina A. Dathorne

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *November 18, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0311025**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0311025-01	MW-49	Water		11/3/2003 09:30	11/4/2003 08:45	☐

e-Lab, Inc.

Date: *November 18, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0311025

Case Narrative

Sample could not be analyzed lower than DF 2 for metals and obtain acceptable internal standard recoveries.

e-Lab, Inc.

Date: *November 18, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual
Lab ID: 0311025-01

Client Sample ID: MW-49
Collection Date: 11/3/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **11/11/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	11/12/2003 11:16:17 AM
ICP METALS, TOTAL		**SW6020**			Prep Date: **11/11/2003**	Analyst: **ALR**
Aluminum	ND	0.0200		mg/L	2	11/15/2003 5:21:00 AM
Arsenic	ND	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Barium	0.0451	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Beryllium	ND	0.00400		mg/L	2	11/15/2003 5:21:00 AM
Boron	0.767	0.200		mg/L	10	11/14/2003 4:18:00 AM
Cadmium	ND	0.00200		mg/L	2	11/15/2003 5:21:00 AM
Calcium	220	10.0		mg/L	20	11/14/2003 8:55:00 PM
Chromium	ND	0.00400		mg/L	2	11/15/2003 5:21:00 AM
Cobalt	ND	0.00400		mg/L	2	11/15/2003 5:21:00 AM
Copper	0.00626	0.00400		mg/L	2	11/15/2003 5:21:00 AM
Iron	0.752	0.400		mg/L	2	11/15/2003 5:21:00 AM
Lead	ND	0.0100		mg/L	2	11/17/2003 3:33:00 PM
Magnesium	174	4.00		mg/L	20	11/17/2003 3:06:00 PM
Manganese	0.438	0.0500		mg/L	10	11/14/2003 4:18:00 AM
Nickel	ND	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Potassium	2.16	0.400		mg/L	2	11/15/2003 5:21:00 AM
Selenium	ND	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Silver	ND	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Sodium	317	4.00		mg/L	20	11/17/2003 3:06:00 PM
Vanadium	ND	0.0100		mg/L	2	11/15/2003 5:21:00 AM
Zinc	0.0153	0.0100		mg/L	2	11/15/2003 5:21:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **11/6/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
2-Methylnaphthalene	13	10		µg/L	1	11/11/2003 12:44:00 PM
2-Methylphenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
2-Nitroaniline	ND	10		µg/L	1	11/11/2003 12:44:00 PM
2-Nitrophenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
3-Nitroaniline	ND	10		µg/L	1	11/11/2003 12:44:00 PM
4-Methylphenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
4-Nitroaniline	ND	10		µg/L	1	11/11/2003 12:44:00 PM
4-Nitrophenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Acenaphthene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Acenaphthylene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Aniline	ND	10		µg/L	1	11/11/2003 12:44:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 18, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual
Lab ID: 0311025-01

Client Sample ID: MW-49
Collection Date: 11/3/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Benz(a)anthracene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Benzidine	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Hexachloroethane	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Isophorone	ND	10		µg/L	1	11/11/2003 12:44:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/11/2003 12:44:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/11/2003 12:44:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Naphthalene	40	10		µg/L	1	11/11/2003 12:44:00 PM
Nitrobenzene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Pentachlorophenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Phenanthrene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Phenol	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Pyrene	ND	10		µg/L	1	11/11/2003 12:44:00 PM
Surr: 2,4,6-Tribromophenol	119	39-153		%REC	1	11/11/2003 12:44:00 PM
Surr: 2-Fluorobiphenyl	105	40-147		%REC	1	11/11/2003 12:44:00 PM
Surr: 2-Fluorophenol	45.6	21-100		%REC	1	11/11/2003 12:44:00 PM
Surr: 4-Terphenyl-d14	112	39-141		%REC	1	11/11/2003 12:44:00 PM
Surr: Nitrobenzene-d5	100	37-140		%REC	1	11/11/2003 12:44:00 PM
Surr: Phenol-d6	32.2	11-100		%REC	1	11/11/2003 12:44:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
2-Butanone	ND	10		µg/L	1	11/14/2003 8:12:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	11/14/2003 8:12:00 AM
2-Hexanone	ND	10		µg/L	1	11/14/2003 8:12:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/14/2003 8:12:00 AM
Acetone	ND	10		µg/L	1	11/14/2003 8:12:00 AM
Benzene	1,900	120		µg/L	25	11/14/2003 10:03:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Bromoform	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Bromomethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Carbon disulfide	ND	10		µg/L	1	11/14/2003 8:12:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Chlorobenzene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 18, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual
Lab ID: 0311025-01

Client Sample ID: MW-49
Collection Date: 11/3/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Chloroform	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Chloromethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Ethylbenzene	110	5.0		µg/L	1	11/14/2003 8:12:00 AM
m,p-Xylene	170	10		µg/L	1	11/14/2003 8:12:00 AM
Methylene chloride	ND	10		µg/L	1	11/14/2003 8:12:00 AM
Styrene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Toluene	62	5.0		µg/L	1	11/14/2003 8:12:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Trichloroethene	ND	5.0		µg/L	1	11/14/2003 8:12:00 AM
Vinyl acetate	ND	10		µg/L	1	11/14/2003 8:12:00 AM
Vinyl chloride	ND	2.0		µg/L	1	11/14/2003 8:12:00 AM
Xylenes, Total	180	15		µg/L	1	11/14/2003 8:12:00 AM
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	11/14/2003 8:12:00 AM
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	25	11/14/2003 10:03:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/14/2003 8:12:00 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	25	11/14/2003 10:03:00 AM
Surr: Dibromofluoromethane	103	70-130		%REC	1	11/14/2003 8:12:00 AM
Surr: Dibromofluoromethane	96.8	70-130		%REC	25	11/14/2003 10:03:00 AM
Surr: Toluene-d8	103	70-130		%REC	1	11/14/2003 8:12:00 AM
Surr: Toluene-d8	102	70-130		%REC	25	11/14/2003 10:03:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	480	10.0		mg/L	20	11/12/2003 9:35:00 PM
Fluoride	1.58	0.100		mg/L	1	11/4/2003 1:32:00 PM
Sulfate	462	20.0		mg/L	20	11/12/2003 9:35:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	11/4/2003 1:32:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	20	11/12/2003 9:35:00 PM
Surr: Dichloroacetic acid (surr)	88.6	80-120		%REC	1	11/4/2003 1:32:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	720	5.00		mg/L	1	11/10/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	11/10/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	11/10/2003
Alkalinity, Total (As CaCO3)	720	5.00		mg/L	1	11/10/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	11/9/2003

Qualifiers:

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J - Analyte detected below quantitation limits
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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

Date: *Nov 18 2003*

QC BATCH REPORT

Batch ID: **7173** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-111103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 10:59**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393094** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000062	0.00020								J

LCS Sample ID: **GLCSW1-111103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 11:01**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393095** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00465	0.00020	0.005	0	93	83-115	0			

LCSD Sample ID: **GLCSDW1-111103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 11:02**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393096** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00486	0.00020	0.005	0	97.2	83-115	0.00465	4.42	20	

MS Sample ID: **0311048-02AMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 11:07**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393099** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00504	0.00020	0.005	0.00007	99.4	70-124	0			

MSD Sample ID: **0311048-02AMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 11:08**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393100** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.005	0.00020	0.005	0.00007	98.6	70-124	0.00504	0.797	20	

DUP Sample ID: **0311048-02ADUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/12/03 11:05**
Client ID: Run ID: **MERCURY_031112A** SeqNo: **393098** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000056	0.00020	0	0	0	0-0	0.00007	0	20	J

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7180** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/14/03 4:09**
Client ID: Run ID: **ICP4500_031113A** SeqNo: **394381** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Arsenic	ND	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Calcium	0.2061	0.50								J
Chromium	ND	0.0020								
Cobalt	ND	0.0020								
Copper	0.0003364	0.0020								J
Iron	ND	0.20								
Magnesium	0.09814	0.20								J
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Sodium	0.04632	0.20								J
Vanadium	ND	0.0050								
Zinc	0.001508	0.0050								J

MBLK Sample ID: **MBLKW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/15/03 5:12**
Client ID: Run ID: **ICP4500_031114A** SeqNo: **394695** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	ND	0.0050								
Cadmium	ND	0.0010								
Silver	ND	0.0050								

MBLK Sample ID: **MBLKW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 14:58**
Client ID: Run ID: **ICP4500_031117A** SeqNo: **394889** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.0050								

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7180** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/14/03 4:14**
Client ID: Run ID: **ICP4500_031113A** SeqNo: **394382** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1033	0.010	0.1	0	103	80-120	0			
Arsenic	0.1004	0.0050	0.1	0	100	80-120	0			
Beryllium	0.09671	0.0020	0.1	0	96.7	80-120	0			
Boron	0.4727	0.020	0.5	0	94.5	80-120	0			
Calcium	10.33	0.50	10	0	103	80-120	0			
Chromium	0.09543	0.0020	0.1	0	95.4	80-120	0			
Cobalt	0.09773	0.0020	0.1	0	97.7	80-120	0			
Copper	0.09685	0.0020	0.1	0	96.8	80-120	0			
Iron	9.591	0.20	10	0	95.9	80-120	0			
Magnesium	11.6	0.20	10	0	116	80-120	0			
Manganese	0.09401	0.0050	0.1	0	94	80-120	0			
Nickel	0.09798	0.0050	0.1	0	98	80-120	0			
Potassium	11.03	0.20	10	0	110	80-120	0			
Selenium	0.09391	0.0050	0.1	0	93.9	80-120	0			
Sodium	11.35	0.20	10	0	114	80-120	0			
Vanadium	0.09767	0.0050	0.1	0	97.7	80-120	0			
Zinc	0.09488	0.0050	0.1	0	94.9	80-120	0			

LCS Sample ID: **MLCSW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/15/03 5:16**
Client ID: Run ID: **ICP4500_031114A** SeqNo: **394696** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.09796	0.0050	0.1	0	98	80-120	0			
Cadmium	0.09807	0.0010	0.1	0	98.1	80-120	0			
Silver	0.09815	0.0050	0.1	0	98.1	80-120	0			

LCS Sample ID: **MLCSW4-111103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 15:02**
Client ID: Run ID: **ICP4500_031117A** SeqNo: **394890** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.1013	0.0050	0.1	0	101	80-120	0			

ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7180** InstrumentID: **ICP4500**

MS Sample ID: **0311039-01CMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/15/03 9:14**

Client ID: Run ID: **ICP4500_031114A** SeqNo: **394780** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.6078	0.0050	0.1	0.4774	130	75-125	0			SEO
Beryllium	0.09619	0.0020	0.1	0.0000298	96.2	75-125	0			
Boron	0.7434	0.020	0.5	0.2141	106	75-125	0			
Cadmium	0.08297	0.0010	0.1	0.0006069	82.4	75-125	0			
Calcium	222	0.50	10	212.8	92	75-125	0			EO
Chromium	0.1265	0.0020	0.1	0.01152	115	75-125	0			
Cobalt	0.1109	0.0020	0.1	0.002498	108	75-125	0			
Iron	12.11	0.20	10	1.279	108	75-125	0			
Lead	0.1154	0.0050	0.1	0.0009995	114	75-125	0			
Magnesium	ND	0.20	10	115.2	-1150	75-125	0			SO
Manganese	3.263	0.0050	0.1	0.7633	2500	75-125	0			SEO
Potassium	58.58	0.20	10	47.44	111	75-125	0			EO
Silver	0.08395	0.0050	0.1	0.000003543	83.9	75-125	0			
Sodium	ND	0.20	10	0	0	75-125	0			S
Vanadium	0.1513	0.0050	0.1	0.02525	126	75-125	0			S

MS Sample ID: **0311039-01CMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 16:37**

Client ID: Run ID: **ICP4500_031117A** SeqNo: **394973** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1195	0.010	0.1	0.009834	110	75-125	0			
Arsenic	0.1066	0.0050	0.1	0.009865	96.7	75-125	0			
Copper	0.09265	0.0020	0.1	0.003758	88.9	75-125	0			
Nickel	0.114	0.0050	0.1	0.02208	91.9	75-125	0			
Selenium	0.06063	0.0050	0.1	0.008356	52.3	75-125	0			S
Zinc	0.09584	0.0050	0.1	0.01923	76.6	75-125	0			

ND - Not Detected at the Reporting Limit
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7180** InstrumentID: **ICP4500**

MSD Sample ID: **0311039-01CMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/15/03 9:19**
Client ID: Run ID: **ICP4500_031114A** SeqNo: **394781** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.5996	0.0050	0.1	0.4774	122	75-125	0.6078	1.36	25	EO
Beryllium	0.0971	0.0020	0.1	0.0000298	97.1	75-125	0.09619	0.942	25	
Boron	0.7664	0.020	0.5	0.2141	110	75-125	0.7434	3.05	25	
Cadmium	0.08231	0.0010	0.1	0.0006069	81.7	75-125	0.08297	0.799	25	
Calcium	218.9	0.50	10	212.8	61	75-125	222	1.41	25	SEO
Chromium	0.1252	0.0020	0.1	0.01152	114	75-125	0.1265	1.03	25	
Cobalt	0.1137	0.0020	0.1	0.002498	111	75-125	0.1109	2.49	25	
Iron	45.86	0.20	10	1.279	446	75-125	12.11	116	25	SR
Lead	0.1136	0.0050	0.1	0.0009995	113	75-125	0.1154	1.57	25	
Magnesium	122.4	0.20	10	115.2	72	75-125	0	200	25	SREO
Manganese	3.229	0.0050	0.1	0.7633	2470	75-125	3.263	1.05	25	SEO
Potassium	58.28	0.20	10	47.44	108	75-125	58.58	0.513	25	EO
Silver	0.08309	0.0050	0.1	0.000003543	83.1	75-125	0.08395	1.03	25	
Sodium	ND	0.20	10	0	0	75-125	0	0	25	S
Vanadium	0.1466	0.0050	0.1	0.02525	121	75-125	0.1513	3.16	25	

MSD Sample ID: **0311039-01CMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 16:42**
Client ID: Run ID: **ICP4500_031117A** SeqNo: **394974** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1199	0.010	0.1	0.009834	110	75-125	0.1195	0.334	25	
Arsenic	0.1077	0.0050	0.1	0.009865	97.8	75-125	0.1066	1.03	25	
Copper	0.09343	0.0020	0.1	0.003758	89.7	75-125	0.09265	0.838	25	
Nickel	0.1151	0.0050	0.1	0.02208	93	75-125	0.114	0.96	25	
Selenium	0.06219	0.0050	0.1	0.008356	53.8	75-125	0.06063	2.54	25	S
Zinc	0.09686	0.0050	0.1	0.01923	77.6	75-125	0.09584	1.06	25	

DUP Sample ID: **0311039-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/14/03 20:45**
Client ID: Run ID: **ICP4500_031114A** SeqNo: **394562** Prep Date: **11/11/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.4399	0.050	0	0	0	0-0	0.4557	3.53	25	
Calcium	186.5	5.0	0	0	0	0-0	186.9	0.214	25	
Manganese	0.6776	0.050	0	0	0	0-0	0.6738	0.562	25	

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7180** InstrumentID: **ICP4500**

DUP Sample ID: **0311039-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/15/03 9:09**
Client ID: Run ID: **ICP4500_031114A** SeqNo: **394779** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.0020	0	0	0	0-0	0.0000298	0	25	
Boron	0.2113	0.020	0	0	0	0-0	0.2141	1.32	25	
Cadmium	0.0003926	0.0010	0	0	0	0-0	0.0006069	0	25	J
Chromium	0.01132	0.0020	0	0	0	0-0	0.01152	1.75	25	
Cobalt	0.002486	0.0020	0	0	0	0-0	0.002498	0.482	25	
Iron	1.287	0.20	0	0	0	0-0	1.279	0.624	25	
Lead	0.0009814	0.0050	0	0	0	0-0	0.0009995	0	25	J
Potassium	47.19	0.20	0	0	0	0-0	47.44	0.528	25	
Silver	ND	0.0050	0	0	0	0-0	0.000003543	0	25	
Sodium	ND	0.20	0	0	0	0-0	0	0	25	
Vanadium	0.02465	0.0050	0	0	0	0-0	0.02525	2.4	25	

DUP Sample ID: **0311039-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 15:56**
Client ID: Run ID: **ICP4500_031117A** SeqNo: **394909** Prep Date: **11/11/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	110.7	2.0	0	0	0	0-0	102	8.18	25	

DUP Sample ID: **0311039-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/17/03 16:19**
Client ID: Run ID: **ICP4500_031117A** SeqNo: **394969** Prep Date: **11/11/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00958	0.010	0	0	0	0-0	0.009834	0	25	J
Arsenic	0.01064	0.0050	0	0	0	0-0	0.009865	7.56	25	
Copper	0.003693	0.0020	0	0	0	0-0	0.003758	1.74	25	
Nickel	0.0201	0.0050	0	0	0	0-0	0.02208	9.39	25	
Selenium	0.004854	0.0050	0	0	0	0-0	0.008356	0	25	J
Zinc	0.01913	0.0050	0	0	0	0-0	0.01923	0.521	25	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01B

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7142** InstrumentID: **SV-2**

MBLK Sample ID: **SBLKW1-031106** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/10/03 14:28**

Client ID: Run ID: **SV-2_031107A** SeqNo: **392165** Prep Date: **11/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	104.6	0	100	0	105	39-153	0			
Surr: 2-Fluorobiphenyl	93.57	0	100	0	93.6	40-147	0			
Surr: 2-Fluorophenol	62.9	0	100	0	62.9	21-100	0			
Surr:4-Terphenyl-d14	116.4	0	100	0	116	39-141	0			
Surr: Nitrobenzene-d5	91.16	0	100	0	91.2	37-140	0			
Surr: Phenol-d6	44.4	0	100	0	44.4	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7142** InstrumentID: **SV-2**

LCS Sample ID: **SLCSW1-031106** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/10/03 14:54**
Client ID: Run ID: **SV-2_031107A** SeqNo: **392166** Prep Date: **11/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	48.63	10	50	0	97.3	50-115	0			
2,4,5-Trichlorophenol	109.7	10	100	0	110	72-118	0			
2,4,6-Trichlorophenol	106.9	10	100	0	107	72-117	0			
2-Methylnaphthalene	47.95	10	50	0	95.9	47-122	0			
2-Methylphenol	90.4	10	100	0	90.4	51-115	0			
2-Nitroaniline	54.9	10	50	0	110	73-119	0			
2-Nitrophenol	99.25	10	100	0	99.2	60-119	0			
3-Nitroaniline	53.05	10	50	0	106	61-118	0			
4-Methylphenol	129.3	10	150	0	86.2	44-115	0			
4-Nitroaniline	54.36	10	50	0	109	61-123	0			
4-Nitrophenol	54.04	10	100	0	54	17-100	0			
Acenaphthene	51.75	10	50	0	104	68-115	0			
Acenaphthylene	50.62	10	50	0	101	67-116	0			
Aniline	41.56	10	50	0	83.1	40-130	0			
Anthracene	57.61	10	50	0	115	72-124	0			
Benz(a)anthracene	53.45	10	50	0	107	55-131	0			
Benzidine	29.01	10	50	0	58	10-115	0			
Hexachloroethane	47.91	10	50	0	95.8	46-115	0			
Indeno(1,2,3-cd)pyrene	47.19	10	50	0	94.4	42-123	0			
Isophorone	53.79	10	50	0	108	63-117	0			
N-Nitrosodi-n-propylamine	51.21	10	50	0	102	67-115	0			
N-Nitrosodimethylamine	31.12	10	50	0	62.2	28-115	0			
N-Nitrosodiphenylamine	64.12	10	50	0	128	72-144	0			
Naphthalene	48.39	10	50	0	96.8	52-115	0			
Nitrobenzene	50.97	10	50	0	102	65-115	0			
Pentachlorophenol	121.6	10	100	0	122	65-123	0			
Phenanthrene	55.62	10	50	0	111	69-119	0			
Phenol	51.92	10	100	0	51.9	16-115	0			
Pyrene	54.85	10	50	0	110	51-130	0			
Surr: 2,4,6-Tribromophenol	121.7	0	100	0	122	39-153	0			
Surr: 2-Fluorobiphenyl	103	0	100	0	103	40-147	0			
Surr: 2-Fluorophenol	69.65	0	100	0	69.7	21-100	0			
Surr:4-Terphenyl-d14	117.2	0	100	0	117	39-141	0			
Surr: Nitrobenzene-d5	99.93	0	100	0	99.9	37-140	0			
Surr: Phenol-d6	46.61	0	100	0	46.6	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7142** InstrumentID: **SV-2**

MS Sample ID: **0311031-01DMS** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/10/03 15:47**

Client ID: Run ID: **SV-2_031107A** SeqNo: **392809** Prep Date: **11/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.27	10	50	0	82.5	45-115	0			
2,4,5-Trichlorophenol	94.49	10	100	0	94.5	47-129	0			
2,4,6-Trichlorophenol	88.34	10	100	0	88.3	45-127	0			
2-Methylnaphthalene	42.97	10	50	0	85.9	30-144	0			
2-Methylphenol	66.97	10	100	0	67	42-115	0			
2-Nitroaniline	52.35	10	50	0	105	48-129	0			
2-Nitrophenol	83.78	10	100	0	83.8	32-144	0			
3-Nitroaniline	49.61	10	50	0	99.2	23-122	0			
4-Methylphenol	90.21	10	150	0	60.1	35-115	0			
4-Nitroaniline	49.91	10	50	0	99.8	12-138	0			
4-Nitrophenol	28.6	10	100	0	28.6	10-80	0			
Acenaphthene	48.97	10	50	0	97.9	55-117	0			
Acenaphthylene	48.07	10	50	0	96.1	39-128	0			
Aniline	35.41	10	50	0	70.8	40-130	0			
Anthracene	53.89	10	50	0	108	58-129	0			
Benz(a)anthracene	50.68	10	50	0	101	42-135	0			
Benzidine	8.772	10	50	0	17.5	10-127	0			J
Hexachloroethane	34.93	10	50	0	69.9	45-115	0			
Indeno(1,2,3-cd)pyrene	44.2	10	50	0	88.4	32-132	0			
Isophorone	50.15	10	50	0	100	51-122	0			
N-Nitrosodi-n-propylamine	46.65	10	50	0	93.3	55-115	0			
N-Nitrosodimethylamine	25.71	10	50	0	51.4	30-115	0			
N-Nitrosodiphenylamine	59.88	10	50	0	120	47-146	0			
Naphthalene	43	10	50	0	86	46-116	0			
Nitrobenzene	45.39	10	50	0	90.8	48-126	0			
Pentachlorophenol	93.85	10	100	0	93.9	53-134	0			
Phenanthrene	51.95	10	50	0	104	57-123	0			
Phenol	31.36	10	100	0	31.4	10-115	0			
Pyrene	51.42	10	50	0	103	40-130	0			
Surr: 2,4,6-Tribromophenol	104.9	0	100	0	105	39-153	0			
Surr: 2-Fluorobiphenyl	95.18	0	100	0	95.2	40-147	0			
Surr: 2-Fluorophenol	38.68	0	100	0	38.7	21-100	0			
Surr:4-Terphenyl-d14	109.4	0	100	0	109	39-141	0			
Surr: Nitrobenzene-d5	89.11	0	100	0	89.1	37-140	0			
Surr: Phenol-d6	26.79	0	100	0	26.8	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **7142** InstrumentID: **SV-2**

MSD Sample ID: **0311031-01DMSD** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/10/03 16:13**

Client ID: Run ID: **SV-2_031107A** SeqNo: **392810** Prep Date: **11/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.16	10	50	0	82.3	45-115	41.27	0.263	30	
2,4,5-Trichlorophenol	97.41	10	100	0	97.4	47-129	94.49	3.04	30	
2,4,6-Trichlorophenol	94.39	10	100	0	94.4	45-127	88.34	6.62	30	
2-Methylnaphthalene	43	10	50	0	86	30-144	42.97	0.0669	30	
2-Methylphenol	71.74	10	100	0	71.7	42-115	66.97	6.87	30	
2-Nitroaniline	51.58	10	50	0	103	48-129	52.35	1.47	30	
2-Nitrophenol	87.87	10	100	0	87.9	32-144	83.78	4.76	30	
3-Nitroaniline	49.43	10	50	0	98.9	23-122	49.61	0.359	30	
4-Methylphenol	98.83	10	150	0	65.9	35-115	90.21	9.12	30	
4-Nitroaniline	50.96	10	50	0	102	12-138	49.91	2.08	30	
4-Nitrophenol	34.92	10	100	0	34.9	10-80	28.6	19.9	30	
Acenaphthene	47.99	10	50	0	96	55-117	48.97	2.03	30	
Acenaphthylene	47.31	10	50	0	94.6	39-128	48.07	1.6	30	
Aniline	36.64	10	50	0	73.3	40-130	35.41	3.42	30	
Anthracene	53.69	10	50	0	107	58-129	53.89	0.373	30	
Benz(a)anthracene	50.37	10	50	0	101	42-135	50.68	0.615	30	
Benzidine	10.38	10	50	0	20.8	10-127	8.772	16.8	30	
Hexachloroethane	36.05	10	50	0	72.1	45-115	34.93	3.16	30	
Indeno(1,2,3-cd)pyrene	46.07	10	50	0	92.1	32-132	44.2	4.15	30	
Isophorone	51.2	10	50	0	102	51-122	50.15	2.07	30	
N-Nitrosodi-n-propylamine	46.7	10	50	0	93.4	55-115	46.65	0.112	30	
N-Nitrosodimethylamine	26.87	10	50	0	53.7	30-115	25.71	4.43	30	
N-Nitrosodiphenylamine	59.86	10	50	0	120	47-146	59.88	0.022	30	
Naphthalene	42.93	10	50	0	85.9	46-116	43	0.171	30	
Nitrobenzene	45.48	10	50	0	91	48-126	45.39	0.198	30	
Pentachlorophenol	102.4	10	100	0	102	53-134	93.85	8.73	30	
Phenanthrene	51.46	10	50	0	103	57-123	51.95	0.946	30	
Phenol	36.72	10	100	0	36.7	10-115	31.36	15.8	30	
Pyrene	50.55	10	50	0	101	40-130	51.42	1.69	30	
Surr: 2,4,6-Tribromophenol	107.4	0	100	0	107	39-153	104.9	2.38	30	
Surr: 2-Fluorobiphenyl	95.72	0	100	0	95.7	40-147	95.18	0.561	30	
Surr: 2-Fluorophenol	45.85	0	100	0	45.8	21-100	38.68	17	30	
Surr:4-Terphenyl-d14	108.7	0	100	0	109	39-141	109.4	0.612	30	
Surr: Nitrobenzene-d5	89.95	0	100	0	89.9	37-140	89.11	0.934	30	
Surr: Phenol-d6	31.92	0	100	0	31.9	11-100	26.79	17.5	30	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17237** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1113** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/14/03 2:07**

Client ID: Run ID: **VOA_I_031113B** SeqNo: **394185** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	49.12	5.0	50	0	98.2	70-130	0			
Surr: 4-Bromofluorobenzene	49.37	5.0	50	0	98.7	70-130	0			
Surr: Dibromofluoromethane	50.27	5.0	50	0	101	70-130	0			
Surr: Toluene-d8	51.8	5.0	50	0	104	70-130	0			

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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17237** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1113** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/14/03 0:43**

Client ID: Run ID: **VOA_I_031113B** SeqNo: **394183** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.58	5.0	50	0	103	75-118	0			
1,1,2,2-Tetrachloroethane	48.68	5.0	50	0	97.4	79-120	0			
1,1,2-Trichloroethane	51.06	5.0	50	0	102	81-119	0			
1,1-Dichloroethane	52.15	5.0	50	0	104	80-120	0			
1,1-Dichloroethene	49.72	5.0	50	0	99.4	80-120	0			
1,2-Dichloroethane	50.8	5.0	50	0	102	80-120	0			
2-Butanone	97.24	10	100	0	97.2	70-130	0			
2-Chloroethyl vinyl ether	85.03	10	100	0	85	72-120	0			
2-Hexanone	73.8	10	100	0	73.8	70-130	0			
4-Methyl-2-pentanone	89.83	10	100	0	89.8	78-120	0			
Acetone	103.8	10	100	0	104	60-135	0			
Benzene	52.19	5.0	50	0	104	82-119	0			
Bromodichloromethane	52.06	5.0	50	0	104	81-119	0			
Bromoform	48.44	5.0	50	0	96.9	80-120	0			
Bromomethane	57.54	5.0	50	0	115	75-130	0			
Carbon disulfide	103	10	100	0	103	78-120	0			
Carbon tetrachloride	50.92	5.0	50	0	102	77-120	0			
Chlorobenzene	48.59	5.0	50	0	97.2	82-118	0			
Chloroethane	52.89	5.0	50	0	106	78-122	0			
Chloroform	52.13	5.0	50	0	104	78-120	0			
Chloromethane	54.62	5.0	50	0	109	75-125	0			
cis-1,3-Dichloropropene	53.08	5.0	50	0	106	81-120	0			
Dibromochloromethane	49.98	5.0	50	0	100	81-118	0			
Ethylbenzene	51.3	5.0	50	0	103	82-120	0			
m,p-Xylene	101.1	10	100	0	101	82-122	0			
Methylene chloride	49.78	10	50	0	99.6	80-122	0			
Styrene	52.89	5.0	50	0	106	82-121	0			
Tetrachloroethene	49.31	5.0	50	0	98.6	79-118	0			
Toluene	50.41	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	52.81	5.0	50	0	106	82-121	0			
Trichloroethene	52.51	5.0	50	0	105	78-118	0			
Vinyl acetate	96.46	10	100	0	96.5	75-120	0			
Vinyl chloride	53.16	2.0	50	0	106	73-127	0			
Xylenes, Total	152.9	15	150	0	102	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.43	5.0	50	0	94.9	70-130	0			
Surr: 4-Bromofluorobenzene	51.07	5.0	50	0	102	70-130	0			
Surr: Dibromofluoromethane	48.72	5.0	50	0	97.4	70-130	0			
Surr: Toluene-d8	49.98	5.0	50	0	100	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17237** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1113** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/14/03 1:11**

Client ID: Run ID: **VOA_I_031113B** SeqNo: **394184** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.65	5.0	50	0	103	75-118	51.58	0.138	20	
1,1,2,2-Tetrachloroethane	50.9	5.0	50	0	102	79-120	48.68	4.44	20	
1,1,2-Trichloroethane	52.73	5.0	50	0	105	81-119	51.06	3.22	20	
1,1-Dichloroethane	53.01	5.0	50	0	106	80-120	52.15	1.64	20	
1,1-Dichloroethene	50.07	5.0	50	0	100	80-120	49.72	0.693	20	
1,2-Dichloroethane	51.4	5.0	50	0	103	80-120	50.8	1.18	20	
2-Butanone	107.6	10	100	0	108	70-130	97.24	10.1	20	
2-Chloroethyl vinyl ether	93.58	10	100	0	93.6	72-120	85.03	9.57	20	
2-Hexanone	74.34	10	100	0	74.3	70-130	73.8	0.727	20	
4-Methyl-2-pentanone	99.91	10	100	0	99.9	78-120	89.83	10.6	20	
Acetone	114.6	10	100	0	115	60-135	103.8	9.91	20	
Benzene	52.83	5.0	50	0	106	82-119	52.19	1.23	20	
Bromodichloromethane	52.31	5.0	50	0	105	81-119	52.06	0.487	20	
Bromoform	50.79	5.0	50	0	102	80-120	48.44	4.72	20	
Bromomethane	59.16	5.0	50	0	118	75-130	57.54	2.76	20	
Carbon disulfide	103.6	10	100	0	104	78-120	103	0.562	20	
Carbon tetrachloride	49.23	5.0	50	0	98.5	77-120	50.92	3.37	20	
Chlorobenzene	50.01	5.0	50	0	100	82-118	48.59	2.87	20	
Chloroethane	53.38	5.0	50	0	107	78-122	52.89	0.933	20	
Chloroform	52.94	5.0	50	0	106	78-120	52.13	1.54	20	
Chloromethane	56	5.0	50	0	112	75-125	54.62	2.5	20	
cis-1,3-Dichloropropene	53.84	5.0	50	0	108	81-120	53.08	1.42	20	
Dibromochloromethane	51.7	5.0	50	0	103	81-118	49.98	3.4	20	
Ethylbenzene	51.91	5.0	50	0	104	82-120	51.3	1.18	20	
m,p-Xylene	102.3	10	100	0	102	82-122	101.1	1.15	20	
Methylene chloride	51.64	10	50	0	103	80-122	49.78	3.65	20	
Styrene	53.91	5.0	50	0	108	82-121	52.89	1.91	20	
Tetrachloroethene	48.69	5.0	50	0	97.4	79-118	49.31	1.28	20	
Toluene	51.56	5.0	50	0	103	81-119	50.41	2.25	20	
trans-1,3-Dichloropropene	53.7	5.0	50	0	107	82-121	52.81	1.67	20	
Trichloroethene	53.17	5.0	50	0	106	78-118	52.51	1.26	20	
Vinyl acetate	95.57	10	100	0	95.6	75-120	96.46	0.925	20	
Vinyl chloride	54.71	2.0	50	0	109	73-127	53.16	2.87	20	
Xylenes, Total	154.4	15	150	0	103	80-120	152.9	0.934	20	
Surr: 1,2-Dichloroethane-d4	48.89	5.0	50	0	97.8	70-130	47.43	3.03	20	
Surr: 4-Bromofluorobenzene	52.01	5.0	50	0	104	70-130	51.07	1.82	20	
Surr: Dibromofluoromethane	49.5	5.0	50	0	99	70-130	48.72	1.59	20	
Surr: Toluene-d8	50.84	5.0	50	0	102	70-130	49.98	1.69	20	

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17237** InstrumentID: **VOA_I**

MS Sample ID: **0311045-05AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/14/03 3:04**

Client ID: Run ID: **VOA_I_031113B** SeqNo: **394187** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.94	5.0	50	0	108	75-125	0			
1,1,2,2-Tetrachloroethane	60.7	5.0	50	0	121	75-125	0			
1,1,2-Trichloroethane	61.79	5.0	50	0	124	75-125	0			
1,1-Dichloroethane	58.42	5.0	50	0	117	75-125	0			
1,1-Dichloroethene	49.81	5.0	50	0	99.6	65-130	0			
1,2-Dichloroethane	61.4	5.0	50	0	123	70-130	0			
2-Butanone	117.9	10	100	0	118	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	76.24	10	100	0	76.2	72-124	0			
4-Methyl-2-pentanone	118.9	10	100	0	119	75-125	0			
Acetone	119.5	10	100	0	120	60-130	0			
Benzene	72.04	5.0	50	17.49	109	76-127	0			
Bromodichloromethane	62.47	5.0	50	0	125	75-125	0			
Bromoform	60.11	5.0	50	0	120	75-125	0			
Bromomethane	64.1	5.0	50	0	128	75-125	0			S
Carbon disulfide	105.6	10	100	0	106	75-125	0			
Carbontetrachloride	51.5	5.0	50	0	103	70-130	0			
Chlorobenzene	133.7	5.0	50	75.38	117	75-126	0			
Chloroethane	55.3	5.0	50	0	111	70-130	0			
Chloroform	60.22	5.0	50	0	120	75-125	0			
Chloromethane	55.17	5.0	50	0	110	75-125	0			
cis-1,3-Dichloropropene	61.25	5.0	50	0	123	75-125	0			
Dibromochloromethane	61.37	5.0	50	0	123	75-125	0			
Ethylbenzene	58.31	5.0	50	0	117	75-125	0			
m,p-Xylene	113.5	10	100	0	113	75-125	0			
Methylene chloride	58.86	10	50	0	118	75-125	0			
Styrene	62.57	5.0	50	0	125	75-125	0			S
Tetrachloroethene	50.08	5.0	50	0	100	75-125	0			
Toluene	57.42	5.0	50	0	115	76-125	0			
trans-1,3-Dichloropropene	63.55	5.0	50	0	127	70-130	0			
Trichloroethene	56.36	5.0	50	0	113	71-120	0			
Vinyl acetate	110.1	10	100	0	110	75-125	0			
Vinyl chloride	51.85	2.0	50	0	104	60-135	0			
Xylenes, Total	173.6	15	150	0	116	75-125	0			
Surr: 1,2-Dichloroethane-d4	48.24	5.0	50	0	96.5	70-130	0			
Surr: 4-Bromofluorobenzene	51.54	5.0	50	0	103	70-130	0			
Surr: Dibromofluoromethane	49.7	5.0	50	0	99.4	70-130	0			
Surr: Toluene-d8	50.38	5.0	50	0	101	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17237** InstrumentID: **VOA_I**

MSD Sample ID: **0311045-05AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/14/03 3:33**

Client ID: Run ID: **VOA_I_031113B** SeqNo: **394188** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.09	5.0	50	0	100	75-125	53.94	7.41	20	
1,1,2,2-Tetrachloroethane	61.63	5.0	50	0	123	75-125	60.7	1.53	20	
1,1,2-Trichloroethane	60.58	5.0	50	0	121	75-125	61.79	1.97	20	
1,1-Dichloroethane	58.58	5.0	50	0	117	75-125	58.42	0.28	20	
1,1-Dichloroethene	46.27	5.0	50	0	92.5	65-130	49.81	7.36	20	
1,2-Dichloroethane	60.66	5.0	50	0	121	70-130	61.4	1.21	20	
2-Butanone	123.9	10	100	0	124	64-128	117.9	4.99	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	77.46	10	100	0	77.5	72-124	76.24	1.59	20	
4-Methyl-2-pentanone	119.8	10	100	0	120	75-125	118.9	0.762	20	
Acetone	118.7	10	100	0	119	60-130	119.5	0.7	20	
Benzene	70.95	5.0	50	17.49	107	76-127	72.04	1.52	20	
Bromodichloromethane	61.42	5.0	50	0	123	75-125	62.47	1.7	20	
Bromoform	59.19	5.0	50	0	118	75-125	60.11	1.54	20	
Bromomethane	63.5	5.0	50	0	127	75-125	64.1	0.937	20	S
Carbon disulfide	100.8	10	100	0	101	75-125	105.6	4.59	20	
Carbontetrachloride	46.65	5.0	50	0	93.3	70-130	51.5	9.89	20	
Chlorobenzene	128.5	5.0	50	75.38	106	75-126	133.7	3.96	20	
Chloroethane	54.69	5.0	50	0	109	70-130	55.3	1.11	20	
Chloroform	60.5	5.0	50	0	121	75-125	60.22	0.458	20	
Chloromethane	59.71	5.0	50	0	119	75-125	55.17	7.91	20	
cis-1,3-Dichloropropene	61.3	5.0	50	0	123	75-125	61.25	0.0765	20	
Dibromochloromethane	59.57	5.0	50	0	119	75-125	61.37	2.97	20	
Ethylbenzene	55.56	5.0	50	0	111	75-125	58.31	4.83	20	
m,p-Xylene	110	10	100	0	110	75-125	113.5	3.11	20	
Methylene chloride	59.22	10	50	0	118	75-125	58.86	0.616	20	
Styrene	61.09	5.0	50	0	122	75-125	62.57	2.4	20	
Tetrachloroethene	46.54	5.0	50	0	93.1	75-125	50.08	7.33	20	
Toluene	55.31	5.0	50	0	111	76-125	57.42	3.73	20	
trans-1,3-Dichloropropene	63.1	5.0	50	0	126	70-130	63.55	0.701	20	
Trichloroethene	53.63	5.0	50	0	107	71-120	56.36	4.97	20	
Vinyl acetate	109.9	10	100	0	110	75-125	110.1	0.206	20	
Vinyl chloride	51.02	2.0	50	0	102	60-135	51.85	1.61	20	
Xylenes, Total	168.4	15	150	0	112	75-125	173.6	3.05	20	
Surr:1,2-Dichloroethane-d4	48.5	5.0	50	0	97	70-130	48.24	0.548	20	
Surr:4-Bromofluorobenzene	51.53	5.0	50	0	103	70-130	51.54	0.0234	20	
Surr:Dibromofluoromethane	49.4	5.0	50	0	98.8	70-130	49.7	0.618	20	
Surr: Toluene-d8	50.5	5.0	50	0	101	70-130	50.38	0.234	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17066** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-110403** Test Code: **E300** Units: **mg/L** Analysis Date: **11/04/03 11:54**
Client ID: Run ID: **IC201_031104A** SeqNo: **389845** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-110403** Test Code: **E300** Units: **mg/L** Analysis Date: **11/04/03 12:27**
Client ID: Run ID: **IC201_031104A** SeqNo: **389846** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.33	0.50	10	0	93.3	80-120	0			
Fluoride	2.1	0.10	2	0	105	80-120	0			
Sulfate	9.8	1.0	10	0	98	80-120	0			
Surr: Dichloroacetic acid (surr)	2.05	0.10	2	0	102	80-120	0			

LCSD Sample ID: **WLCSDW1-11040** Test Code: **E300** Units: **mg/L** Analysis Date: **11/04/03 12:59**
Client ID: Run ID: **IC201_031104A** SeqNo: **389847** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.33	0.50	10	0	93.3	80-120	9.33	0	20	
Fluoride	2.12	0.10	2	0	106	80-120	2.1	0.948	20	
Sulfate	9.93	1.0	10	0	99.3	80-120	9.8	1.32	20	
Surr: Dichloroacetic acid (surr)	2.12	0.10	2	0	106	80-120	2.05	3.36	20	

MS Sample ID: **0310224-04CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **11/05/03 6:52**
Client ID: Run ID: **IC201_031104A** SeqNo: **389878** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1332	10	200	1025	154	75-125	0			SEO
Fluoride	40.2	2.0	40	18	55.5	75-125	0			S
Sulfate	1516	20	200	1221	147	75-125	0			SEO
Nitrate/Nitrite (as N)	78.2	2.0	80	0	97.8	75-125	0			
Surr: Dichloroacetic acid (surr)	109.4	2.0	100	0	109	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17066** InstrumentID: **IC201**

MSD Sample ID: **0310224-04CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **11/05/03 7:25**

Client ID: Run ID: **IC201_031104A** SeqNo: **389879** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1366	10	200	1025	170	75-125	1332	2.49	20	SEO
Fluoride	39.6	2.0	40	18	54	75-125	40.2	1.5	20	S
Sulfate	1556	20	200	1221	167	75-125	1516	2.6	20	SEO
Nitrate/Nitrite (as N)	79.4	2.0	80	0	99.2	75-125	78.2	1.52	20	
Surr: Dichloroacetic acid (surr)	111.6	2.0	100	0	112	80-120	109.4	1.99	20	

DUP Sample ID: **0310224-04CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/05/03 6:20**

Client ID: Run ID: **IC201_031104A** SeqNo: **389877** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1128	10	0	0	0	0-0	1025	9.57	20	E
Fluoride	ND	2.0	0	0	0	0-0	18	0	20	
Sulfate	1322	20	0	0	0	0-0	1221	7.93	20	E
Nitrate/Nitrite (as N)	ND	2.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	109.2	2.0	100	0	109	80-120	289.5	90.4	20	R

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17132** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-110903** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/09/03 0:00**
Client ID: Run ID: **UV-2101PC_031109B** SeqNo: **391539** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-110903** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/09/03 0:00**
Client ID: Run ID: **UV-2101PC_031109B** SeqNo: **391540** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2039	0.020	0.2	0	102	80-120	0			

MS Sample ID: **0311048-02CMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/09/03 0:00**
Client ID: Run ID: **UV-2101PC_031109B** SeqNo: **391554** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1997	0.020	0.2	0.0025	98.6	75-125	0			

MSD Sample ID: **0311048-02C MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/09/03 0:00**
Client ID: Run ID: **UV-2101PC_031109B** SeqNo: **391555** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2014	0.020	0.2	0.0025	99.4	75-125	0.1997	0.848	25	

DUP Sample ID: **0311048-02C DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/09/03 0:00**
Client ID: Run ID: **UV-2101PC_031109B** SeqNo: **391553** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	0.0025	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17165** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-111003** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/10/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **392280** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-111003** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/10/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **392281** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0311009-06D DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/10/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **392299** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	730.2	5.0	0	0	0	0-0	735.2	0.682	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	730.2	5.0	0	0	0	0-0	735.2	0.682	20	

DUP Sample ID: **0311045-03E DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/10/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **392300** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	25.01	5.0	0	0	0	0-0	25.01	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	25.01	5.0	0	0	0	0-0	25.01	0	20	

DUP Sample ID: **0311045-05E DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/10/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **392302** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	85.02	5.0	0	0	0	0-0	85.02	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	85.02	5.0	0	0	0	0-0	85.02	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17215** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-111203** Test Code: **E300** Units: **mg/L** Analysis Date: **11/12/03 18:53**
Client ID: Run ID: **IC201_031112A** SeqNo: **393739** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-111203** Test Code: **E300** Units: **mg/L** Analysis Date: **11/12/03 19:25**
Client ID: Run ID: **IC201_031112A** SeqNo: **393740** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.32	0.50	10	0	93.2	80-120	0			
Fluoride	1.96	0.10	2	0	98	80-120	0			
Sulfate	9.94	1.0	10	0	99.4	80-120	0			
Surr: Dichloroacetic acid (surr)	2.02	0.10	2	0	101	80-120	0			

LCSD Sample ID: **WLCSDW1-11120** Test Code: **E300** Units: **mg/L** Analysis Date: **11/12/03 19:58**
Client ID: Run ID: **IC201_031112A** SeqNo: **393741** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.32	0.50	10	0	93.2	80-120	9.32	0	20	
Fluoride	1.94	0.10	2	0	97	80-120	1.96	1.03	20	
Sulfate	9.89	1.0	10	0	98.9	80-120	9.94	0.504	20	
Surr: Dichloroacetic acid (surr)	2	0.10	2	0	100	80-120	2.02	0.995	20	

MS Sample ID: **0311053-01BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **11/13/03 6:15**
Client ID: Run ID: **IC201_031112A** SeqNo: **393773** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4413	0.50	10	4500	-874	75-125	0			SEO
Fluoride	3.97	0.10	2	0.7	163	75-125	0			S
Sulfate	2779	1.0	10	2827	-480	75-125	0			SEO
Nitrate/Nitrite (as N)	2.35	0.10	4	0	58.7	75-125	0			S
Surr: Dichloroacetic acid (surr)	4.65	0.10	5	0	93	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311025
Project: Annual

QC BATCH REPORT

Batch ID: **R17215** InstrumentID: **IC201**

MSD Sample ID: **0311053-01BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **11/13/03 6:48**

Client ID: Run ID: **IC201_031112A** SeqNo: **393774** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4427	0.50	10	4500	-733	75-125	4413	0.318	20	SEO
Fluoride	2.04	0.10	2	0.7	67	75-125	3.97	64.2	20	SR
Sulfate	2777	1.0	10	2827	-505	75-125	2779	0.0871	20	SEO
Nitrate/Nitrite (as N)	2.21	0.10	4	0	55.2	75-125	2.35	6.14	20	S
Surr: Dichloroacetic acid (surr)	4.4	0.10	5	0	88	80-120	4.65	5.52	20	

DUP Sample ID: **0311053-01BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/13/03 5:43**

Client ID: Run ID: **IC201_031112A** SeqNo: **393772** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4496	0.50	0	0	0	0-0	4500	0.088	20	E
Fluoride	0.7	0.10	0	0	0	0-0	0.7	0	20	
Sulfate	2824	1.0	0	0	0	0-0	2827	0.0984	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.86	0.10	5	0	97.2	80-120	5.13	5.41	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311025-01C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager:

e-Lab Work Order #: 03-11025

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Annual	A	Annual
e-Lab Work Order		Project Number		B	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	
Send Report To	Jeff Byrd	Invoice Attn	Jeff Byrd	D	
Address	P.O. Box 159	Address	P.O. Box 159	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	505-748-3311	Phone	505-748-3311	H	
Fax	505-746-5421	Fax	505-746-5421	I	
Email Address				J	

Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
MW-49	11/3/03	0930	L	1,2,7,8	8	X										

Sampler(s): Please Print & Sign

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
	11/3/03	1615		
Relinquished by:	Date:	Time:	Received by (Laboratory): RICHARD A. CRAIG 11-4-03 0845	
Relinquished by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

e-Lab Cooler ID:	Cooler Temp.

QC Package: (Check Box Below)

- ☐ Level II: Standard QC
- ☐ Level III: Standard QC + Raw Data
- ☐ Level IV: SW846 Methods/CLP
- ☐ Other:

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 11/4/2003 8:45:00 AM

Work Order Number 0311025 | Received by: RSZ

Checklist completed by [signature] Signature | 11/4/03 Date | Reviewed by [initials] Initials | 11/4/03 Date

Matrix: W | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

November 21, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0311078**

Dear Jeff Byrd,

e-Lab, Inc. received 2 samples on 11/7/2003 8:30:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 29.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Patrina A. Dathorne

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0311078**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0311078-01	NP-9	Wate1		11/6/2003 13:0C	11/7/2003 08:3C	☐
0311078-02	NP-1C	Wate1		11/6/2003 13:3C	11/7/2003 08:3C	☐

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-01

Client Sample ID: NP-9
Collection Date: 11/6/2003 1:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			**SW7470**		Prep Date: **11/14/2003**	Analyst: **MG**
Mercury	ND	0.000200		mg/L	1	11/14/2003 2:03:10 PM
ICP METALS, TOTAL			**SW6020**		Prep Date: **11/12/2003**	Analyst: **ALR**
Aluminum	0.0321	0.0200		mg/L	2	11/15/2003 4:58:00 AM
Arsenic	ND	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Barium	0.0144	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Beryllium	ND	0.00400		mg/L	2	11/15/2003 4:58:00 AM
Boron	1.04	0.200		mg/L	10	11/14/2003 3:02:00 AM
Cadmium	ND	0.00200		mg/L	2	11/15/2003 4:58:00 AM
Calcium	528	25.0		mg/L	50	11/14/2003 8:28:00 PM
Chromium	ND	0.00400		mg/L	2	11/15/2003 4:58:00 AM
Cobalt	ND	0.00400		mg/L	2	11/15/2003 4:58:00 AM
Copper	0.0192	0.00400		mg/L	2	11/15/2003 4:58:00 AM
Iron	0.890	0.400		mg/L	2	11/15/2003 4:58:00 AM
Lead	ND	0.0100		mg/L	2	11/17/2003 7:33:00 PM
Magnesium	428	10.0		mg/L	50	11/17/2003 6:52:00 PM
Manganese	ND	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Nickel	ND	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Potassium	ND	0.400		mg/L	2	11/15/2003 4:58:00 AM
Selenium	0.0151	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Silver	ND	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Sodium	85.8	2.00		mg/L	10	11/17/2003 6:56:00 PM
Vanadium	0.0204	0.0100		mg/L	2	11/15/2003 4:58:00 AM
Zinc	0.0316	0.0100		mg/L	2	11/15/2003 4:58:00 AM
SEMIVOLATILE ORGANICS BY GC/MS			**SW8270**		Prep Date: **11/7/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2-Methylphenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2-Nitroaniline	ND	10		µg/L	1	11/11/2003 5:36:00 PM
2-Nitrophenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
3-Nitroaniline	ND	10		µg/L	1	11/11/2003 5:36:00 PM
4-Methylphenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
4-Nitroaniline	ND	10		µg/L	1	11/11/2003 5:36:00 PM
4-Nitrophenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Acenaphthene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Acenaphthylene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Aniline	ND	10		µg/L	1	11/11/2003 5:36:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-01

Client Sample ID: NP-9
Collection Date: 11/6/2003 1:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Benz(a)anthracene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Benzidine	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Hexachloroethane	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Isophorone	ND	10		µg/L	1	11/11/2003 5:36:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/11/2003 5:36:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/11/2003 5:36:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Naphthalene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Nitrobenzene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Pentachlorophenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Phenanthrene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Phenol	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Pyrene	ND	10		µg/L	1	11/11/2003 5:36:00 PM
Surr: 2,4,6-Tribromophenol	109	39-153		%REC	1	11/11/2003 5:36:00 PM
Surr: 2-Fluorobiphenyl	95.9	40-147		%REC	1	11/11/2003 5:36:00 PM
Surr: 2-Fluorophenol	41.5	21-100		%REC	1	11/11/2003 5:36:00 PM
Surr: 4-Terphenyl-d14	110	39-141		%REC	1	11/11/2003 5:36:00 PM
Surr: Nitrobenzene-d5	90.4	37-140		%REC	1	11/11/2003 5:36:00 PM
Surr: Phenol-d6	24.8	11-100		%REC	1	11/11/2003 5:36:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
2-Butanone	ND	10		µg/L	1	11/17/2003 8:41:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	11/17/2003 8:41:00 PM
2-Hexanone	ND	10		µg/L	1	11/17/2003 8:41:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Acetone	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Benzene	15	5.0		µg/L	1	11/17/2003 8:41:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Bromoform	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Bromomethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Carbon disulfide	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Chlorobenzene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-01

Client Sample ID: NP-9
Collection Date: 11/6/2003 1:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Chloroform	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Chloromethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Ethylbenzene	9.3	5.0		µg/L	1	11/17/2003 8:41:00 PM
m,p-Xylene	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Methylene chloride	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Styrene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Toluene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Trichloroethene	ND	5.0		µg/L	1	11/17/2003 8:41:00 PM
Vinyl acetate	ND	10		µg/L	1	11/17/2003 8:41:00 PM
Vinyl chloride	ND	2.0		µg/L	1	11/17/2003 8:41:00 PM
Xylenes, Total	ND	15		µg/L	1	11/17/2003 8:41:00 PM
Surr: 1,2-Dichloroethane-d4	87.5	70-130		%REC	1	11/17/2003 8:41:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/17/2003 8:41:00 PM
Surr: Dibromofluoromethane	94.4	70-130		%REC	1	11/17/2003 8:41:00 PM
Surr: Toluene-d8	95.4	70-130		%REC	1	11/17/2003 8:41:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	275	5.00		mg/L	10	11/18/2003 11:56:00 PM
Fluoride	3.74	0.100		mg/L	1	11/7/2003 6:49:00 PM
Sulfate	2,420	100		mg/L	100	11/19/2003 12:28:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	11/7/2003 6:49:00 PM
Surr: Dichloroacetic acid (surr)	94.2	80-120		%REC	1	11/7/2003 6:49:00 PM
Surr: Dichloroacetic acid (surr)	116	80-120		%REC	10	11/18/2003 11:56:00 PM
Surr: Dichloroacetic acid (surr)	115	80-120		%REC	100	11/19/2003 12:28:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	230	5.00		mg/L	1	11/18/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	11/18/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	11/18/2003
Alkalinity, Total (As CaCO3)	230	5.00		mg/L	1	11/18/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	11/15/2003

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-02

Client Sample ID: NP-10
Collection Date: 11/6/2003 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **11/14/2003**	Analyst: **MG**
Mercury	ND	0.000200		mg/L	1	11/14/2003 2:07:54 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **11/12/2003**	Analyst: **ALR**
Aluminum	0.0220	0.0200		mg/L	2	11/15/2003 5:03:00 AM
Arsenic	ND	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Barium	ND	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Beryllium	ND	0.00400		mg/L	2	11/15/2003 5:03:00 AM
Boron	1.39	0.200		mg/L	10	11/14/2003 3:06:00 AM
Cadmium	ND	0.00200		mg/L	2	11/15/2003 5:03:00 AM
Calcium	530	25.0		mg/L	50	11/14/2003 8:37:00 PM
Chromium	ND	0.00400		mg/L	2	11/15/2003 5:03:00 AM
Cobalt	ND	0.00400		mg/L	2	11/15/2003 5:03:00 AM
Copper	0.0509	0.00400		mg/L	2	11/15/2003 5:03:00 AM
Iron	0.860	0.400		mg/L	2	11/15/2003 5:03:00 AM
Lead	ND	0.0100		mg/L	2	11/17/2003 7:37:00 PM
Magnesium	568	10.0		mg/L	50	11/17/2003 8:00:00 PM
Manganese	ND	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Nickel	ND	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Potassium	ND	0.400		mg/L	2	11/15/2003 5:03:00 AM
Selenium	0.0609	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Silver	ND	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Sodium	619	10.0		mg/L	50	11/17/2003 8:00:00 PM
Vanadium	0.0172	0.0100		mg/L	2	11/15/2003 5:03:00 AM
Zinc	0.208	0.0100		mg/L	2	11/15/2003 5:03:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **11/7/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2-Methylphenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2-Nitroaniline	ND	10		µg/L	1	11/11/2003 6:02:00 PM
2-Nitrophenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
3-Nitroaniline	ND	10		µg/L	1	11/11/2003 6:02:00 PM
4-Methylphenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
4-Nitroaniline	ND	10		µg/L	1	11/11/2003 6:02:00 PM
4-Nitrophenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Acenaphthene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Acenaphthylene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Aniline	ND	10		µg/L	1	11/11/2003 6:02:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-02

Client Sample ID: NP-10
Collection Date: 11/6/2003 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Benz(a)anthracene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Benzidine	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Hexachloroethane	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Isophorone	ND	10		µg/L	1	11/11/2003 6:02:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/11/2003 6:02:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/11/2003 6:02:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Naphthalene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Nitrobenzene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Pentachlorophenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Phenanthrene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Phenol	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Pyrene	ND	10		µg/L	1	11/11/2003 6:02:00 PM
Surr: 2,4,6-Tribromophenol	109	39-153		%REC	1	11/11/2003 6:02:00 PM
Surr: 2-Fluorobiphenyl	93.2	40-147		%REC	1	11/11/2003 6:02:00 PM
Surr: 2-Fluorophenol	39.4	21-100		%REC	1	11/11/2003 6:02:00 PM
Surr: 4-Terphenyl-d14	105	39-141		%REC	1	11/11/2003 6:02:00 PM
Surr: Nitrobenzene-d5	91.4	37-140		%REC	1	11/11/2003 6:02:00 PM
Surr: Phenol-d6	24.1	11-100		%REC	1	11/11/2003 6:02:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
2-Butanone	ND	10		µg/L	1	11/17/2003 9:36:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	11/17/2003 9:36:00 PM
2-Hexanone	ND	10		µg/L	1	11/17/2003 9:36:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Acetone	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Benzene	11	5.0		µg/L	1	11/17/2003 9:36:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Bromoform	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Bromomethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Carbon disulfide	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Chlorobenzene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 21, 2003*

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual
Lab ID: 0311078-02

Client Sample ID: NP-10
Collection Date: 11/6/2003 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Chloroform	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Chloromethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Ethylbenzene	7.3	5.0		µg/L	1	11/17/2003 9:36:00 PM
m,p-Xylene	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Methylene chloride	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Styrene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Toluene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Trichloroethene	ND	5.0		µg/L	1	11/17/2003 9:36:00 PM
Vinyl acetate	ND	10		µg/L	1	11/17/2003 9:36:00 PM
Vinyl chloride	ND	2.0		µg/L	1	11/17/2003 9:36:00 PM
Xylenes, Total	ND	15		µg/L	1	11/17/2003 9:36:00 PM
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	11/17/2003 9:36:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/17/2003 9:36:00 PM
Surr: Dibromofluoromethane	98.4	70-130		%REC	1	11/17/2003 9:36:00 PM
Surr: Toluene-d8	93.2	70-130		%REC	1	11/17/2003 9:36:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	203	5.00		mg/L	10	11/19/2003 1:01:00 AM
Fluoride	3.31	0.100		mg/L	1	11/7/2003 7:21:00 PM
Sulfate	3,900	200		mg/L	200	11/19/2003 1:33:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	11/7/2003 7:21:00 PM
Surr: Dichloroacetic acid (surr)	96.6	80-120		%REC	1	11/7/2003 7:21:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	10	11/19/2003 1:01:00 AM
Surr: Dichloroacetic acid (surr)	119	80-120		%REC	200	11/19/2003 1:33:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	260	5.00		mg/L	1	11/18/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	11/18/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	11/18/2003
Alkalinity, Total (As CaCO3)	260	5.00		mg/L	1	11/18/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	11/15/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

Date: *Nov 21 2003*

QC BATCH REPORT

Batch ID: **7189** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-111203** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/13/03 20:27**

Client ID: Run ID: **ICP4500_031113A** SeqNo: **393997** Prep Date: **11/12/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00719	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	ND	0.0020								
Copper	ND	0.0020								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7189** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-111203** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/13/03 20:31**

Client ID: Run ID: **ICP4500_031113A** SeqNo: **393998** Prep Date: **11/12/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1117	0.010	0.1	0	112	80-120	0			
Arsenic	0.1005	0.0050	0.1	0	100	80-120	0			
Barium	0.09613	0.0050	0.1	0	96.1	80-120	0			
Beryllium	0.1029	0.0020	0.1	0	103	80-120	0			
Boron	0.515	0.020	0.5	0	103	80-120	0			
Cadmium	0.09741	0.0010	0.1	0	97.4	80-120	0			
Calcium	10.29	0.50	10	0	103	80-120	0			
Chromium	0.1007	0.0020	0.1	0	101	80-120	0			
Cobalt	0.09969	0.0020	0.1	0	99.7	80-120	0			
Copper	0.09817	0.0020	0.1	0	98.2	80-120	0			
Iron	10.02	0.20	10	0	100	80-120	0			
Lead	0.09707	0.0050	0.1	0	97.1	80-120	0			
Magnesium	10.93	0.20	10	0	109	80-120	0			
Manganese	0.1	0.0050	0.1	0	100	80-120	0			
Nickel	0.1012	0.0050	0.1	0	101	80-120	0			
Potassium	10.43	0.20	10	0	104	80-120	0			
Selenium	0.09269	0.0050	0.1	0	92.7	80-120	0			
Silver	0.09908	0.0050	0.1	0	99.1	80-120	0			
Sodium	10.73	0.20	10	0	107	80-120	0			
Vanadium	0.1014	0.0050	0.1	0	101	80-120	0			
Zinc	0.1005	0.0050	0.1	0	100	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7189** InstrumentID: **ICP4500**

MS Sample ID: **0311076-06EMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/13/03 20:57**

Client ID: Run ID: **ICP4500_031113A** SeqNo: **394003** Prep Date: **11/12/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1534	0.010	0.1	0.04522	108	75-125	0			
Arsenic	0.1122	0.0050	0.1	0.01315	99	75-125	0			
Barium	0.6082	0.0050	0.1	0.5077	100	75-125	0			EO
Beryllium	0.09771	0.0020	0.1	0.0001617	97.5	75-125	0			
Boron	0.5501	0.020	0.5	0.02708	105	75-125	0			
Cadmium	0.09461	0.0010	0.1	-0.0000198	94.6	75-125	0			
Calcium	26.65	0.50	10	16.85	98	75-125	0			
Chromium	0.1027	0.0020	0.1	0.003094	99.6	75-125	0			
Cobalt	0.1597	0.0020	0.1	0.06264	97.1	75-125	0			
Copper	0.09601	0.0020	0.1	0.001291	94.7	75-125	0			
Iron	19.23	0.20	10	9.152	101	75-125	0			
Lead	0.09803	0.0050	0.1	-0.0001322	98.2	75-125	0			
Magnesium	17.89	0.20	10	7.621	103	75-125	0			
Manganese	7.539	0.0050	0.1	7.605	-66	75-125	0			SEO
Nickel	0.1102	0.0050	0.1	0.01394	96.3	75-125	0			
Potassium	12.01	0.20	10	1.572	104	75-125	0			
Selenium	0.0941	0.0050	0.1	0.0005487	93.6	75-125	0			
Silver	0.09552	0.0050	0.1	-0.00001288	95.5	75-125	0			
Sodium	40.76	0.20	10	30.7	101	75-125	0			
Vanadium	0.1008	0.0050	0.1	0.0000104	101	75-125	0			
Zinc	0.09797	0.0050	0.1	0.004013	94	75-125	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7189** InstrumentID: **ICP4500**

MSD Sample ID: **0311076-06EMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/13/03 21:02**

Client ID: Run ID: **ICP4500_031113A** SeqNo: **394004** Prep Date: **11/12/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1548	0.010	0.1	0.04522	110	75-125	0.1534	0.909	25	
Arsenic	0.1058	0.0050	0.1	0.01315	92.6	75-125	0.1122	5.87	25	
Barium	0.5832	0.0050	0.1	0.5077	75.5	75-125	0.6082	4.2	25	EO
Beryllium	0.09471	0.0020	0.1	0.0001617	94.5	75-125	0.09771	3.12	25	
Boron	0.5484	0.020	0.5	0.02708	104	75-125	0.5501	0.31	25	
Cadmium	0.09209	0.0010	0.1	-0.0000198	92.1	75-125	0.09461	2.7	25	
Calcium	25.7	0.50	10	16.85	88.5	75-125	26.65	3.63	25	
Chromium	0.09808	0.0020	0.1	0.003094	95	75-125	0.1027	4.6	25	
Cobalt	0.1526	0.0020	0.1	0.06264	90	75-125	0.1597	4.55	25	
Copper	0.09226	0.0020	0.1	0.001291	91	75-125	0.09601	3.98	25	
Iron	18.47	0.20	10	9.152	93.2	75-125	19.23	4.03	25	
Lead	0.09384	0.0050	0.1	-0.0001322	94	75-125	0.09803	4.37	25	
Magnesium	17.16	0.20	10	7.621	95.4	75-125	17.89	4.17	25	
Manganese	7.28	0.0050	0.1	7.605	-325	75-125	7.539	3.5	25	SEO
Nickel	0.1061	0.0050	0.1	0.01394	92.2	75-125	0.1102	3.79	25	
Potassium	11.49	0.20	10	1.572	99.2	75-125	12.01	4.43	25	
Selenium	0.08971	0.0050	0.1	0.0005487	89.2	75-125	0.0941	4.78	25	
Silver	0.09181	0.0050	0.1	-0.00001288	91.8	75-125	0.09552	3.96	25	
Sodium	38.95	0.20	10	30.7	82.5	75-125	40.76	4.54	25	
Vanadium	0.09706	0.0050	0.1	0.0000104	97	75-125	0.1008	3.78	25	
Zinc	0.09383	0.0050	0.1	0.004013	89.8	75-125	0.09797	4.32	25	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7189** InstrumentID: **ICP4500**

DUP Sample ID: **0311076-06EDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/13/03 20:53**
Client ID: Run ID: **ICP4500_031113A** SeqNo: **394002** Prep Date: **11/12/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04074	0.010	0	0	0	0-0	0.04522	10.4	25	
Arsenic	0.01246	0.0050	0	0	0	0-0	0.01315	5.39	25	
Barium	0.5	0.0050	0	0	0	0-0	0.5077	1.53	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.0001617	0	25	
Boron	0.01959	0.020	0	0	0	0-0	0.02708	0	25	J
Cadmium	ND	0.0010	0	0	0	0-0	-0.0000198	0	25	
Calcium	16.28	0.50	0	0	0	0-0	16.85	3.44	25	
Chromium	0.00283	0.0020	0	0	0	0-0	0.003094	8.91	25	
Cobalt	0.06062	0.0020	0	0	0	0-0	0.06264	3.28	25	
Copper	0.001307	0.0020	0	0	0	0-0	0.001291	0	25	J
Iron	8.957	0.20	0	0	0	0-0	9.152	2.15	25	
Lead	ND	0.0050	0	0	0	0-0	-0.0001322	0	25	
Magnesium	7.493	0.20	0	0	0	0-0	7.621	1.69	25	
Nickel	0.01365	0.0050	0	0	0	0-0	0.01394	2.1	25	
Potassium	1.531	0.20	0	0	0	0-0	1.572	2.64	25	
Selenium	ND	0.0050	0	0	0	0-0	0.0005487	0	25	
Silver	ND	0.0050	0	0	0	0-0	-0.00001288	0	25	
Sodium	30.19	0.20	0	0	0	0-0	30.7	1.68	25	
Vanadium	ND	0.0050	0	0	0	0-0	0.0000104	0	25	
Zinc	0.006179	0.0050	0	0	0	0-0	0.004013	42.5	25	R

DUP Sample ID: **0311076-06EDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/14/03 2:30**
Client ID: Run ID: **ICP4500_031113A** SeqNo: **394267** Prep Date: **11/12/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	4.367	0.050	0	0	0	0-0	4.196	3.99	25	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01C 0311078-02C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7207** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-111403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:40**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394290** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-111403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:44**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394291** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00507	0.00020	0.005	0	101	83-115	0			

LCSD Sample ID: **GLCSDW1-111403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:47**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394292** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00508	0.00020	0.005	0	102	83-115	0.00507	0.197	20	

MS Sample ID: **0311077-01CMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:52**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394295** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00465	0.00020	0.005	-0.000006	93.1	70-124	0			

MSD Sample ID: **0311077-01CMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:54**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394296** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00442	0.00020	0.005	-0.000006	88.5	70-124	0.00465	5.07	20	

DUP Sample ID: **0311077-01CDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/14/03 13:50**
Client ID: Run ID: **MERCURY_031114A** SeqNo: **394294** Prep Date: **11/14/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000006	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01C 0311078-02C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7153** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031107** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/11/03 11:25**

Client ID: Run ID: **SV-3_031111A** SeqNo: **393027** Prep Date: **11/7/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	106.7	0	100	0	107	39-153	0			
Surr: 2-Fluorobiphenyl	91.4	0	100	0	91.4	40-147	0			
Surr: 2-Fluorophenol	57.28	0	100	0	57.3	21-100	0			
Surr:4-Terphenyl-d14	110.9	0	100	0	111	39-141	0			
Surr: Nitrobenzene-d5	87.33	0	100	0	87.3	37-140	0			
Surr: Phenol-d6	41.4	0	100	0	41.4	11-100	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7153** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031107** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/11/03 11:51**
Client ID: Run ID: **SV-3_031111A** SeqNo: **393028** Prep Date: **11/7/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	44.85	10	50	0	89.7	50-115	0			
2,4,5-Trichlorophenol	104.7	10	100	0	105	72-118	0			
2,4,6-Trichlorophenol	100.6	10	100	0	101	72-117	0			
2-Methylnaphthalene	44.8	10	50	0	89.6	47-122	0			
2-Methylphenol	83.96	10	100	0	84	51-115	0			
2-Nitroaniline	48.87	10	50	0	97.7	73-119	0			
2-Nitrophenol	91.35	10	100	0	91.4	60-119	0			
3-Nitroaniline	46.96	10	50	0	93.9	61-118	0			
4-Methylphenol	121	10	150	0	80.6	44-115	0			
4-Nitroaniline	49.48	10	50	0	99	61-123	0			
4-Nitrophenol	55.41	10	100	0	55.4	17-100	0			
Acenaphthene	49.19	10	50	0	98.4	68-115	0			
Acenaphthylene	48.48	10	50	0	97	67-116	0			
Anthracene	52.01	10	50	0	104	72-124	0			
Benz(a)anthracene	47.76	10	50	0	95.5	55-131	0			
Benzidine	21.78	10	50	0	43.6	10-115	0			
Hexachloroethane	45.89	10	50	0	91.8	46-115	0			
Indeno(1,2,3-cd)pyrene	40.2	10	50	0	80.4	42-123	0			
Isophorone	49.38	10	50	0	98.8	63-117	0			
N-Nitrosodi-n-propylamine	46.8	10	50	0	93.6	67-115	0			
N-Nitrosodimethylamine	29.98	10	50	0	60	28-115	0			
N-Nitrosodiphenylamine	57.59	10	50	0	115	72-144	0			
Naphthalene	44.9	10	50	0	89.8	52-115	0			
Nitrobenzene	46	10	50	0	92	65-115	0			
Pentachlorophenol	104	10	100	0	104	65-123	0			
Phenanthrene	49.62	10	50	0	99.2	69-119	0			
Phenol	51.01	10	100	0	51	16-115	0			
Pyrene	49.23	10	50	0	98.5	51-130	0			
Surr: 2,4,6-Tribromophenol	109.4	0	100	0	109	39-153	0			
Surr: 2-Fluorobiphenyl	101.2	0	100	0	101	40-147	0			
Surr: 2-Fluorophenol	68.87	0	100	0	68.9	21-100	0			
Surr:4-Terphenyl-d14	105.8	0	100	0	106	39-141	0			
Surr: Nitrobenzene-d5	91.69	0	100	0	91.7	37-140	0			
Surr: Phenol-d6	48.61	0	100	0	48.6	11-100	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **7153** InstrumentID: **SV-3**

LCSD Sample ID: **SLCSDW1-031107** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/11/03 12:18**

Client ID: Run ID: **SV-3_031111A** SeqNo: **393029** Prep Date: **11/7/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	48.4	10	50	0	96.8	50-115	44.85	7.61	30	
2,4,5-Trichlorophenol	101.5	10	100	0	101	72-118	104.7	3.07	30	
2,4,6-Trichlorophenol	99.44	10	100	0	99.4	72-117	100.6	1.12	30	
2-Methylnaphthalene	46.36	10	50	0	92.7	47-122	44.8	3.44	30	
2-Methylphenol	85.28	10	100	0	85.3	51-115	83.96	1.56	30	
2-Nitroaniline	48.84	10	50	0	97.7	73-119	48.87	0.046	30	
2-Nitrophenol	97.37	10	100	0	97.4	60-119	91.35	6.37	30	
3-Nitroaniline	49.29	10	50	0	98.6	61-118	46.96	4.83	30	
4-Methylphenol	122.3	10	150	0	81.5	44-115	121	1.08	30	
4-Nitroaniline	50.69	10	50	0	101	61-123	49.48	2.43	30	
4-Nitrophenol	53.54	10	100	0	53.5	17-100	55.41	3.43	30	
Acenaphthene	49.27	10	50	0	98.5	68-115	49.19	0.15	30	
Acenaphthylene	48.4	10	50	0	96.8	67-116	48.48	0.158	30	
Anthracene	53.32	10	50	0	107	72-124	52.01	2.49	30	
Benz(a)anthracene	49.33	10	50	0	98.7	55-131	47.76	3.24	30	
Benzidine	24.16	10	50	0	48.3	10-115	21.78	10.4	30	
Hexachloroethane	47.14	10	50	0	94.3	46-115	45.89	2.69	30	
Indeno(1,2,3-cd)pyrene	39.76	10	50	0	79.5	42-123	40.2	1.1	30	
Isophorone	51.21	10	50	0	102	63-117	49.38	3.62	30	
N-Nitrosodi-n-propylamine	48.62	10	50	0	97.2	67-115	46.8	3.82	30	
N-Nitrosodimethylamine	30.39	10	50	0	60.8	28-115	29.98	1.35	30	
N-Nitrosodiphenylamine	60.09	10	50	0	120	72-144	57.59	4.24	30	
Naphthalene	46.81	10	50	0	93.6	52-115	44.9	4.16	30	
Nitrobenzene	48.4	10	50	0	96.8	65-115	46	5.08	30	
Pentachlorophenol	110.4	10	100	0	110	65-123	104	5.96	30	
Phenanthrene	50.99	10	50	0	102	69-119	49.62	2.73	30	
Phenol	49.94	10	100	0	49.9	16-115	51.01	2.13	30	
Pyrene	49.45	10	50	0	98.9	51-130	49.23	0.45	30	
Surr: 2,4,6-Tribromophenol	111.2	0	100	0	111	39-153	109.4	1.67	30	
Surr: 2-Fluorobiphenyl	101.1	0	100	0	101	40-147	101.2	0.0287	30	
Surr: 2-Fluorophenol	66.9	0	100	0	66.9	21-100	68.87	2.9	30	
Surr:4-Terphenyl-d14	106.9	0	100	0	107	39-141	105.8	1.06	30	
Surr: Nitrobenzene-d5	97.6	0	100	0	97.6	37-140	91.69	6.24	30	
Surr: Phenol-d6	46.9	0	100	0	46.9	11-100	48.61	3.58	30	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01E 0311078-02E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17266** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1117** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/17/03 14:44**

Client ID: Run ID: **VOA_I_031117A** SeqNo: **395041** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	46.51	5.0	50	0	93	70-130	0			
Surr: 4-Bromofluorobenzene	47.81	5.0	50	0	95.6	70-130	0			
Surr: Dibromofluoromethane	49.08	5.0	50	0	98.2	70-130	0			
Surr: Toluene-d8	46.68	5.0	50	0	93.4	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17266** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1117** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/17/03 14:17**

Client ID: Run ID: **VOA_I_031117A** SeqNo: **395040** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.42	5.0	50	0	105	75-118	0			
1,1,2,2-Tetrachloroethane	47.07	5.0	50	0	94.1	79-120	0			
1,1,2-Trichloroethane	47.95	5.0	50	0	95.9	81-119	0			
1,1-Dichloroethane	51.42	5.0	50	0	103	80-120	0			
1,1-Dichloroethene	50.85	5.0	50	0	102	80-120	0			
1,2-Dichloroethane	50.23	5.0	50	0	100	80-120	0			
2-Butanone	103.4	10	100	0	103	70-130	0			
2-Chloroethyl vinyl ether	80.82	10	100	0	80.8	72-120	0			
2-Hexanone	75.36	10	100	0	75.4	70-130	0			
4-Methyl-2-pentanone	88.5	10	100	0	88.5	78-120	0			
Acetone	121.9	10	100	0	122	60-135	0			
Benzene	50.06	5.0	50	0	100	82-119	0			
Bromodichloromethane	50.68	5.0	50	0	101	81-119	0			
Bromoform	48.85	5.0	50	0	97.7	80-120	0			
Bromomethane	59.42	5.0	50	0	119	75-130	0			
Carbon disulfide	104.2	10	100	0	104	78-120	0			
Carbon tetrachloride	53.08	5.0	50	0	106	77-120	0			
Chlorobenzene	46.57	5.0	50	0	93.1	82-118	0			
Chloroethane	52.11	5.0	50	0	104	78-122	0			
Chloroform	51.52	5.0	50	0	103	78-120	0			
Chloromethane	50.34	5.0	50	0	101	75-125	0			
cis-1,3-Dichloropropene	52.04	5.0	50	0	104	81-120	0			
Dibromochloromethane	48.67	5.0	50	0	97.3	81-118	0			
Ethylbenzene	49.2	5.0	50	0	98.4	82-120	0			
m,p-Xylene	96.04	10	100	0	96	82-122	0			
Methylene chloride	50.4	10	50	0	101	80-122	0			
Styrene	49.58	5.0	50	0	99.2	82-121	0			
Tetrachloroethene	48.11	5.0	50	0	96.2	79-118	0			
Toluene	47.2	5.0	50	0	94.4	81-119	0			
trans-1,3-Dichloropropene	52.52	5.0	50	0	105	82-121	0			
Trichloroethene	51.3	5.0	50	0	103	78-118	0			
Vinyl acetate	108.7	10	100	0	109	75-120	0			
Vinyl chloride	52.45	2.0	50	0	105	73-127	0			
Xylenes, Total	144.6	15	150	0	96.4	80-120	0			
Surr: 1,2-Dichloroethane-d4	46.49	5.0	50	0	93	70-130	0			
Surr: 4-Bromofluorobenzene	52.17	5.0	50	0	104	70-130	0			
Surr: Dibromofluoromethane	48.66	5.0	50	0	97.3	70-130	0			
Surr: Toluene-d8	47.88	5.0	50	0	95.8	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17266** InstrumentID: **VOA_I**

MS Sample ID: **0311060-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/17/03 15:39**

Client ID: Run ID: **VOA_I_031117A** SeqNo: **395043** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	55.92	5.0	50	0	112	75-125	0			
1,1,2,2-Tetrachloroethane	52.86	5.0	50	0	106	75-125	0			
1,1,2-Trichloroethane	53.94	5.0	50	0	108	75-125	0			
1,1-Dichloroethane	56.28	5.0	50	0	113	75-125	0			
1,1-Dichloroethene	55.29	5.0	50	0	111	65-130	0			
1,2-Dichloroethane	57.11	5.0	50	0	114	70-130	0			
2-Butanone	111	10	100	0	111	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	79.77	10	100	0	79.8	72-124	0			
4-Methyl-2-pentanone	99.8	10	100	0	99.8	75-125	0			
Acetone	108.8	10	100	0	109	60-130	0			
Benzene	64.93	5.0	50	11.46	107	76-127	0			
Bromodichloromethane	57.92	5.0	50	0	116	75-125	0			
Bromoform	55.16	5.0	50	0	110	75-125	0			
Bromomethane	63.44	5.0	50	0	127	75-125	0			S
Carbon disulfide	112.9	10	100	0	113	75-125	0			
Carbontetrachloride	53.52	5.0	50	0	107	70-130	0			
Chlorobenzene	50.79	5.0	50	0	102	75-126	0			
Chloroethane	54.87	5.0	50	0	110	70-130	0			
Chloroform	58.42	5.0	50	0	117	75-125	0			
Chloromethane	52.09	5.0	50	0	104	75-125	0			
cis-1,3-Dichloropropene	56.35	5.0	50	0	113	75-125	0			
Dibromochloromethane	53.95	5.0	50	0	108	75-125	0			
Ethylbenzene	58.53	5.0	50	5.556	106	75-125	0			
m,p-Xylene	108.3	10	100	5.723	103	75-125	0			
Methylene chloride	58.43	10	50	0	117	75-125	0			
Styrene	51.56	5.0	50	0	103	75-125	0			
Tetrachloroethene	49.93	5.0	50	0	99.9	75-125	0			
Toluene	53.66	5.0	50	2.97	101	76-125	0			
trans-1,3-Dichloropropene	59.64	5.0	50	0	119	70-130	0			
Trichloroethene	54.64	5.0	50	0	109	71-120	0			
Vinyl acetate	121.9	10	100	0	122	75-125	0			
Vinyl chloride	53.19	2.0	50	0	106	60-135	0			
Xylenes, Total	162.8	15	150	6.95	104	75-125	0			
Surr:1,2-Dichloroethane-d4	46.55	5.0	50	0	93.1	70-130	0			
Surr:4-Bromofluorobenzene	52.39	5.0	50	0	105	70-130	0			
Surr:Dibromofluoromethane	48.64	5.0	50	0	97.3	70-130	0			
Surr:Toluene-d8	46.57	5.0	50	0	93.1	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17266** InstrumentID: **VOA_I**

MSD Sample ID: **0311060-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **11/17/03 16:06**

Client ID: Run ID: **VOA_I_031117A** SeqNo: **395044** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.63	5.0	50	0	105	75-125	55.92	6.07	20	
1,1,2,2-Tetrachloroethane	49.06	5.0	50	0	98.1	75-125	52.86	7.46	20	
1,1,2-Trichloroethane	49.16	5.0	50	0	98.3	75-125	53.94	9.28	20	
1,1-Dichloroethane	53.71	5.0	50	0	107	75-125	56.28	4.67	20	
1,1-Dichloroethene	51.24	5.0	50	0	102	65-130	55.29	7.59	20	
1,2-Dichloroethane	51.88	5.0	50	0	104	70-130	57.11	9.6	20	
2-Butanone	104.6	10	100	0	105	64-128	111	5.92	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	72.06	10	100	0	72.1	72-124	79.77	10.2	20	
4-Methyl-2-pentanone	92.19	10	100	0	92.2	75-125	99.8	7.93	20	
Acetone	100.7	10	100	0	101	60-130	108.8	7.73	20	
Benzene	61.99	5.0	50	11.46	101	76-127	64.93	4.64	20	
Bromodichloromethane	52.5	5.0	50	0	105	75-125	57.92	9.82	20	
Bromoform	49.66	5.0	50	0	99.3	75-125	55.16	10.5	20	
Bromomethane	61.13	5.0	50	0	122	75-125	63.44	3.71	20	
Carbon disulfide	105.9	10	100	0	106	75-125	112.9	6.35	20	
Carbon tetrachloride	48.91	5.0	50	0	97.8	70-130	53.52	9	20	
Chlorobenzene	48.09	5.0	50	0	96.2	75-126	50.79	5.46	20	
Chloroethane	53.68	5.0	50	0	107	70-130	54.87	2.2	20	
Chloroform	54.66	5.0	50	0	109	75-125	58.42	6.65	20	
Chloromethane	51.9	5.0	50	0	104	75-125	52.09	0.36	20	
cis-1,3-Dichloropropene	52.57	5.0	50	0	105	75-125	56.35	6.95	20	
Dibromochloromethane	50.26	5.0	50	0	101	75-125	53.95	7.07	20	
Ethylbenzene	56.33	5.0	50	5.556	102	75-125	58.53	3.83	20	
m,p-Xylene	103.9	10	100	5.723	98.2	75-125	108.3	4.19	20	
Methylene chloride	54.37	10	50	0	109	75-125	58.43	7.2	20	
Styrene	47.45	5.0	50	0	94.9	75-125	51.56	8.3	20	
Tetrachloroethene	47.08	5.0	50	0	94.2	75-125	49.93	5.86	20	
Toluene	51.56	5.0	50	2.97	97.2	76-125	53.66	3.99	20	
trans-1,3-Dichloropropene	52.61	5.0	50	0	105	70-130	59.64	12.5	20	
Trichloroethene	51.98	5.0	50	0	104	71-120	54.64	5	20	
Vinyl acetate	109.6	10	100	0	110	75-125	121.9	10.7	20	
Vinyl chloride	51.1	2.0	50	0	102	60-135	53.19	4	20	
Xylenes, Total	155.2	15	150	6.95	98.8	75-125	162.8	4.76	20	
Surr: 1,2-Dichloroethane-d4	46.54	5.0	50	0	93.1	70-130	46.55	0.015	20	
Surr: 4-Bromofluorobenzene	52.17	5.0	50	0	104	70-130	52.39	0.423	20	
Surr: Dibromofluoromethane	48.97	5.0	50	0	97.9	70-130	48.64	0.677	20	
Surr: Toluene-d8	46.57	5.0	50	0	93.1	70-130	46.57	0.00425	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01A 0311078-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17130** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-110703** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 13:24**
Client ID: Run ID: **IC201_031107A** SeqNo: **391497** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-110703** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 13:56**
Client ID: Run ID: **IC201_031107A** SeqNo: **391498** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.26	0.50	10	0	92.6	80-120	0			
Fluoride	2.1	0.10	2	0	105	80-120	0			
Sulfate	9.61	1.0	10	0	96.1	80-120	0			
Surr: Dichloroacetic acid (surr)	2.13	0.10	2	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-11070** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 14:29**
Client ID: Run ID: **IC201_031107A** SeqNo: **391499** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.29	0.50	10	0	92.9	80-120	9.26	0.323	20	
Fluoride	2.12	0.10	2	0	106	80-120	2.1	0.948	20	
Sulfate	9.62	1.0	10	0	96.2	80-120	9.61	0.104	20	
Surr: Dichloroacetic acid (surr)	2	0.10	2	0	100	80-120	2.13	6.3	20	

MS Sample ID: **0311076-06FMS** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 16:06**
Client ID: Run ID: **IC201_031107A** SeqNo: **391502** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	50.15	0.50	10	39.64	105	75-125	0			E
Fluoride	2.47	0.10	2	0.46	100	75-125	0			
Sulfate	9.98	1.0	10	1.1	88.8	75-125	0			
Nitrate/Nitrite (as N)	3.9	0.10	4	0	97.5	75-125	0			
Surr: Dichloroacetic acid (surr)	5.15	0.10	5	0	103	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17130** InstrumentID: **IC201**

MSD Sample ID: **0311076-06FMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 16:39**
Client ID: Run ID: **IC201_031107A** SeqNo: **391503** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	50.25	0.50	10	39.64	106	75-125	50.15	0.199	20	E
Fluoride	2.45	0.10	2	0.46	99.5	75-125	2.47	0.813	20	
Sulfate	10.24	1.0	10	1.1	91.4	75-125	9.98	2.57	20	
Nitrate/Nitrite (as N)	3.87	0.10	4	0	96.7	75-125	3.9	0.772	20	
Surr: Dichloroacetic acid (surr)	5.27	0.10	5	0	105	80-120	5.15	2.3	20	

DUP Sample ID: **0311076-06FDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 15:34**
Client ID: Run ID: **IC201_031107A** SeqNo: **391501** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	39.82	0.50	0	0	0	0-0	39.64	0.453	20	
Fluoride	0.44	0.10	0	0	0	0-0	0.46	4.44	20	
Sulfate	1.1	1.0	0	0	0	0-0	1.1	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.17	0.10	5	0	103	80-120	5.17	0	20	

DUP Sample ID: **0310224-19FDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/07/03 23:09**
Client ID: Run ID: **IC201_031107A** SeqNo: **391514** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2322	25	0	0	0	0-0	2318	0.172	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	3688	50	0	0	0	0-0	3669	0.503	20	E
Nitrate/Nitrite (as N)	ND	5.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	294	5.0	250	0	118	80-120	271	8.14	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01B 0311078-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17254** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-111503** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/15/03 0:00**
Client ID: Run ID: **UV-2101PC_031115A** SeqNo: **394794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-111503** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/15/03 0:00**
Client ID: Run ID: **UV-2101PC_031115A** SeqNo: **394795** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2042	0.020	0.2	0	102	80-120		0		

MS Sample ID: **0311097-01G MS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/15/03 0:00**
Client ID: Run ID: **UV-2101PC_031115A** SeqNo: **394823** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2068	0.020	0.2	0.0124	97.2	75-125		0		

MSD Sample ID: **0311097-01G MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/15/03 0:00**
Client ID: Run ID: **UV-2101PC_031115A** SeqNo: **394824** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2093	0.020	0.2	0.0124	98.4	75-125	0.2068	1.2	25	

DUP Sample ID: **0311097-01G DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/15/03 0:00**
Client ID: Run ID: **UV-2101PC_031115A** SeqNo: **394822** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0125	0.020	0	0	0	0-0	0.0124	0	20	J

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01D 0311078-02D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17298** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-111803** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/18/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **395801** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-111803** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/18/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **395802** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0311077-02B DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/18/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **395814** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	620.1	5.0	0	0	0	0-0	620.1	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	620.1	5.0	0	0	0	0-0	620.1	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01B 0311078-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17319** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-111803** Test Code: **E300** Units: **mg/L** Analysis Date: **11/18/03 10:55**
Client ID: Run ID: **IC201_031118A** SeqNo: **396388** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-111803** Test Code: **E300** Units: **mg/L** Analysis Date: **11/18/03 11:28**
Client ID: Run ID: **IC201_031118A** SeqNo: **396389** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.58	0.50	10	0	95.8	80-120	0			
Fluoride	2	0.10	2	0	100	80-120	0			
Sulfate	9.87	1.0	10	0	98.7	80-120	0			
Surr: Dichloroacetic acid (surr)	1.98	0.10	2	0	99	80-120	0			

LCSD Sample ID: **WLCSDW1-11180** Test Code: **E300** Units: **mg/L** Analysis Date: **11/18/03 12:00**
Client ID: Run ID: **IC201_031118A** SeqNo: **396390** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.45	0.50	10	0	94.5	80-120	9.58	1.37	20	
Fluoride	2.01	0.10	2	0	100	80-120	2	0.499	20	
Sulfate	9.87	1.0	10	0	98.7	80-120	9.87	0	20	
Surr: Dichloroacetic acid (surr)	2	0.10	2	0	100	80-120	1.98	1.01	20	

MS Sample ID: **0311071-01DMS** Test Code: **E300** Units: **mg/L** Analysis Date: **11/18/03 14:43**
Client ID: Run ID: **IC201_031118A** SeqNo: **396395** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3441	0.50	10	3501	-607	75-125	0			SEO
Fluoride	2.35	0.10	2	0.66	84.5	75-125	0			
Sulfate	2005	1.0	10	2069	-633	75-125	0			SEO
Nitrate/Nitrite (as N)	2.36	0.10	4	0	59	75-125	0			S
Surr: Dichloroacetic acid (surr)	5.53	0.10	5	0	111	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0311078
Project: Annual

QC BATCH REPORT

Batch ID: **R17319** InstrumentID: **IC201**

MSD Sample ID: **0311071-01DMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **11/18/03 15:15**
Client ID: Run ID: **IC201_031118A** SeqNo: **396396** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3451	0.50	10	3501	-502	75-125	3441	0.306	20	SEO
Fluoride	2.24	0.10	2	0.66	79	75-125	2.35	4.79	20	
Sulfate	2027	1.0	10	2069	-411	75-125	2005	1.1	20	SEO
Nitrate/Nitrite (as N)	2.53	0.10	4	0	63.2	75-125	2.36	6.95	20	S
Surr: Dichloroacetic acid (surr)	5.14	0.10	5	0	103	80-120	5.53	7.31	20	

DUP Sample ID: **0311078-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/19/03 2:06**
Client ID: **NP-10** Run ID: **IC201_031118A** SeqNo: **396417** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	402	100	0	0	0	0-0	404	0.496	20	
Fluoride	ND	20	0	0	0	0-0	0	0	20	
Sulfate	3908	200	0	0	0	0-0	3898	0.256	20	
Nitrate/Nitrite (as N)	32	20	0	0	0	0-0	34	6.06	20	
Surr: Dichloroacetic acid (surr)	900	20	1000	0	90	80-120	1188	27.6	20	R

Thefollowingsampleswereanalyzedinthisbatch: 0311078-01B 0311078-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
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E - Value above quantitation range

W.O.# 031078. Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Navajo Phone #:

Address: (Street, City, Zip) Fax #:

Contact Person: Jeff Byrd

Invoice to: (If different from above)

Project #: Project Name: Annual

Project Location: Artesia Sampler Signature: Byrd

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
	NP-9	8		X				X	X		X	X		11/6	1300
	NP-10	8		X				X	X		X	X		11/6	1330

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Annual					Turn Around Time if different from standard	Hold
														X	X						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Byrd	11/6/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				11-7-03	08:30

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp °

Log-in Review

REMARKS:

☐ Check If Special Reporting Limits Are Needed

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 11/7/2003 8:30:00 AM

Work Order Number 0311078 | Received by: RNG

Checklist completed by [signature] Signature 11/7/03 Date | Reviewed by [initials] Initials 11/7/03 Date

Matrix: W | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.1c, 4.4c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

November 11, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0310305**

Dear Jeff Byrd,

e-Lab, Inc. received 2 samples on 10/29/2003 8:45:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 36.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0310305**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310305-01	RW-3	Wate		10/27/2003 09:3C	10/29/2003 08:4	☐
0310305-02	RW-7	Wate		10/27/2003 10:0C	10/29/2003 08:4	☐

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual
Lab ID: 0310305-01

Client Sample ID: RW-3
Collection Date: 10/27/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **11/4/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	11/5/2003 4:08:45 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **11/3/2003**	Analyst: **ALR**
Aluminum	0.341	0.100		mg/L	10	11/7/2003 3:02:00 PM
Arsenic	0.0307	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Barium	5.21	0.250		mg/L	50	11/7/2003 2:58:00 PM
Beryllium	ND	0.00200		mg/L	1	11/6/2003 9:07:00 PM
Boron	1.22	0.200		mg/L	10	11/7/2003 3:02:00 PM
Cadmium	ND	0.00100		mg/L	1	11/6/2003 9:07:00 PM
Calcium	171	25.0		mg/L	50	11/7/2003 2:58:00 PM
Chromium	0.00370	0.00200		mg/L	1	11/6/2003 9:07:00 PM
Cobalt	ND	0.00200		mg/L	1	11/6/2003 9:07:00 PM
Copper	0.0115	0.00200		mg/L	1	11/6/2003 9:07:00 PM
Iron	0.573	0.200		mg/L	1	11/6/2003 9:07:00 PM
Lead	ND	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Magnesium	326	10.0		mg/L	50	11/7/2003 2:58:00 PM
Manganese	0.209	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Nickel	0.00775	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Potassium	2.73	0.200		mg/L	1	11/7/2003 3:59:00 PM
Selenium	ND	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Silver	ND	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Sodium	681	10.0		mg/L	50	11/7/2003 2:58:00 PM
Vanadium	0.00827	0.00500		mg/L	1	11/6/2003 9:07:00 PM
Zinc	0.0301	0.00500		mg/L	1	11/6/2003 9:07:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/30/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
2-Methylnaphthalene	51	10		µg/L	1	11/6/2003 2:47:00 AM
2-Methylphenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
2-Nitroaniline	ND	10		µg/L	1	11/6/2003 2:47:00 AM
2-Nitrophenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
3-Nitroaniline	ND	10		µg/L	1	11/6/2003 2:47:00 AM
4-Methylphenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
4-Nitroaniline	ND	10		µg/L	1	11/6/2003 2:47:00 AM
4-Nitrophenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Acenaphthene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Acenaphthylene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Aniline	ND	10		µg/L	1	11/6/2003 2:47:00 AM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual
Lab ID: 0310305-01

Client Sample ID: RW-3
Collection Date: 10/27/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Benz(a)anthracene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Benzidine	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Hexachloroethane	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Isophorone	ND	10		µg/L	1	11/6/2003 2:47:00 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/6/2003 2:47:00 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/6/2003 2:47:00 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Naphthalene	220	50		µg/L	5	11/7/2003 1:32:00 PM
Nitrobenzene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Pentachlorophenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Phenanthrene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Phenol	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Pyrene	ND	10		µg/L	1	11/6/2003 2:47:00 AM
Surr: 2,4,6-Tribromophenol	121	39-153		%REC	5	11/7/2003 1:32:00 PM
Surr: 2,4,6-Tribromophenol	110	39-153		%REC	1	11/6/2003 2:47:00 AM
Surr: 2-Fluorobiphenyl	112	40-147		%REC	5	11/7/2003 1:32:00 PM
Surr: 2-Fluorobiphenyl	98.9	40-147		%REC	1	11/6/2003 2:47:00 AM
Surr: 2-Fluorophenol	45.7	21-100		%REC	1	11/6/2003 2:47:00 AM
Surr: 2-Fluorophenol	53.1	21-100		%REC	5	11/7/2003 1:32:00 PM
Surr: 4-Terphenyl-d14	91.3	39-141		%REC	1	11/6/2003 2:47:00 AM
Surr: 4-Terphenyl-d14	106	39-141		%REC	5	11/7/2003 1:32:00 PM
Surr: Nitrobenzene-d5	102	37-140		%REC	5	11/7/2003 1:32:00 PM
Surr: Nitrobenzene-d5	94.3	37-140		%REC	1	11/6/2003 2:47:00 AM
Surr: Phenol-d6	34.7	11-100		%REC	1	11/6/2003 2:47:00 AM
Surr: Phenol-d6	37.0	11-100		%REC	5	11/7/2003 1:32:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
2-Butanone	ND	10		µg/L	1	10/29/2003 1:24:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/29/2003 1:24:00 PM
2-Hexanone	ND	10		µg/L	1	10/29/2003 1:24:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/29/2003 1:24:00 PM
Acetone	ND	10		µg/L	1	10/29/2003 1:24:00 PM
Benzene	6,900	250		µg/L	50	10/30/2003 4:40:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual
Lab ID: 0310305-01

Client Sample ID: RW-3
Collection Date: 10/27/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Bromoform	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Bromomethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Carbon disulfide	ND	10		µg/L	1	10/29/2003 1:24:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Chloroethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Chloroform	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Chloromethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Ethylbenzene	2,000	250		µg/L	50	10/30/2003 4:40:00 PM
m,p-Xylene	1,700	500		µg/L	50	10/30/2003 4:40:00 PM
Methylene chloride	ND	10		µg/L	1	10/29/2003 1:24:00 PM
Styrene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Toluene	1,200	250		µg/L	50	10/30/2003 4:40:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/29/2003 1:24:00 PM
Vinyl acetate	ND	10		µg/L	1	10/29/2003 1:24:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/29/2003 1:24:00 PM
Xylenes, Total	2,200	750		µg/L	50	10/30/2003 4:40:00 PM
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%REC	1	10/29/2003 1:24:00 PM
Surr: 1,2-Dichloroethane-d4	84.1	70-130		%REC	50	10/30/2003 4:40:00 PM
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	1	10/29/2003 1:24:00 PM
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	50	10/30/2003 4:40:00 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/29/2003 1:24:00 PM
Surr: Dibromofluoromethane	91.7	70-130		%REC	50	10/30/2003 4:40:00 PM
Surr: Toluene-d8	92.8	70-130		%REC	50	10/30/2003 4:40:00 PM
Surr: Toluene-d8	90.2	70-130		%REC	1	10/29/2003 1:24:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	1,120	25.0		mg/L	50	11/9/2003 12:37:00 PM
Fluoride	4.87	0.100		mg/L	1	10/29/2003 6:49:00 PM
Sulfate	45.4	2.00		mg/L	2	10/29/2003 7:21:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/29/2003 6:49:00 PM
Surr: Dichloroacetic acid (surr)	81.8	80-120		%REC	1	10/29/2003 6:49:00 PM
Surr: Dichloroacetic acid (surr)	94.4	80-120		%REC	2	10/29/2003 7:21:00 PM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	50	11/9/2003 12:37:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	1,490	5.00		mg/L	1	11/3/2003

Qualifiers:

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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	RW-3
Work Order:	0310305	**Collection Date:**	10/27/2003 9:30:00 AM
Project:	Annual		
Lab ID:	0310305-01	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	11/3/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	11/3/2003
Alkalinity, Total (As CaCO3)	1,490	5.00		mg/L	1	11/3/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	0.0320	0.0200		mg/L	1	11/1/2003

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S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual
Lab ID: 0310305-02

Client Sample ID: RW-7
Collection Date: 10/27/2003 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **11/4/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	11/5/2003 4:10:18 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **11/3/2003**	Analyst: **ALR**
Aluminum	ND	0.0100		mg/L	1	11/7/2003 4:04:00 PM
Arsenic	0.0116	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Barium	0.127	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Beryllium	ND	0.00200		mg/L	1	11/6/2003 9:11:00 PM
Boron	0.636	0.200		mg/L	10	11/7/2003 3:07:00 PM
Cadmium	ND	0.00100		mg/L	1	11/6/2003 9:11:00 PM
Calcium	190	5.00		mg/L	10	11/7/2003 3:07:00 PM
Chromium	0.00376	0.00200		mg/L	1	11/6/2003 9:11:00 PM
Cobalt	ND	0.00200		mg/L	1	11/6/2003 9:11:00 PM
Copper	0.00429	0.00200		mg/L	1	11/6/2003 9:11:00 PM
Iron	0.674	0.200		mg/L	1	11/6/2003 9:11:00 PM
Lead	ND	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Magnesium	133	2.00		mg/L	10	11/7/2003 3:07:00 PM
Manganese	0.335	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Nickel	ND	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Potassium	0.500	0.200		mg/L	1	11/7/2003 4:04:00 PM
Selenium	ND	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Silver	ND	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Sodium	135	2.00		mg/L	10	11/7/2003 3:07:00 PM
Vanadium	ND	0.00500		mg/L	1	11/6/2003 9:11:00 PM
Zinc	0.0805	0.00500		mg/L	1	11/6/2003 9:11:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/30/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2-Methylnaphthalene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2-Methylphenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2-Nitroaniline	ND	10		µg/L	1	11/6/2003 3:13:00 AM
2-Nitrophenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
3-Nitroaniline	ND	10		µg/L	1	11/6/2003 3:13:00 AM
4-Methylphenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
4-Nitroaniline	ND	10		µg/L	1	11/6/2003 3:13:00 AM
4-Nitrophenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Acenaphthene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Acenaphthylene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Aniline	ND	10		µg/L	1	11/6/2003 3:13:00 AM

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 11, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual
Lab ID: 0310305-02

Client Sample ID: RW-7
Collection Date: 10/27/2003 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Benz(a)anthracene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Benzidine	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Hexachloroethane	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Isophorone	ND	10		µg/L	1	11/6/2003 3:13:00 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/6/2003 3:13:00 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/6/2003 3:13:00 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Naphthalene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Nitrobenzene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Pentachlorophenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Phenanthrene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Phenol	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Pyrene	ND	10		µg/L	1	11/6/2003 3:13:00 AM
Surr: 2,4,6-Tribromophenol	108	39-153		%REC	1	11/6/2003 3:13:00 AM
Surr: 2-Fluorobiphenyl	95.6	40-147		%REC	1	11/6/2003 3:13:00 AM
Surr: 2-Fluorophenol	50.4	21-100		%REC	1	11/6/2003 3:13:00 AM
Surr: 4-Terphenyl-d14	88.6	39-141		%REC	1	11/6/2003 3:13:00 AM
Surr: Nitrobenzene-d5	89.6	37-140		%REC	1	11/6/2003 3:13:00 AM
Surr: Phenol-d6	35.3	11-100		%REC	1	11/6/2003 3:13:00 AM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
2-Butanone	ND	10		µg/L	1	10/29/2003 2:18:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/29/2003 2:18:00 PM
2-Hexanone	ND	10		µg/L	1	10/29/2003 2:18:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Acetone	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Benzene	19	5.0		µg/L	1	10/29/2003 2:18:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Bromoform	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Bromomethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Carbon disulfide	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
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e-Lab, Inc.

Date: *November 11, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	RW-7
Work Order:	0310305	**Collection Date:**	10/27/2003 10:00:00 AM
Project:	Annual		
Lab ID:	0310305-02	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Chloroform	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Chloromethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
m,p-Xylene	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Methylene chloride	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Styrene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Toluene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/29/2003 2:18:00 PM
Vinyl acetate	ND	10		µg/L	1	10/29/2003 2:18:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/29/2003 2:18:00 PM
Xylenes, Total	ND	15		µg/L	1	10/29/2003 2:18:00 PM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	1	10/29/2003 2:18:00 PM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	10/29/2003 2:18:00 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/29/2003 2:18:00 PM
Surr: Toluene-d8	97.1	70-130		%REC	1	10/29/2003 2:18:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	185	5.00		mg/L	10	11/9/2003 1:09:00 PM
Fluoride	1.32	0.100		mg/L	1	10/29/2003 7:54:00 PM
Sulfate	345	10.0		mg/L	10	11/9/2003 1:09:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/29/2003 7:54:00 PM
Surr: Dichloroacetic acid (surr)	98.6	80-120		%REC	1	10/29/2003 7:54:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	10	11/9/2003 1:09:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	652	5.00		mg/L	1	11/3/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	11/3/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	11/3/2003
Alkalinity, Total (As CaCO3)	652	5.00		mg/L	1	11/3/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	0.0265	0.0200		mg/L	1	11/1/2003

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H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *Nov 11 2003*

CLIENT: Navajo Refining Company

QC BATCH REPORT

Work Order: 0310305

Project: Annual

Batch ID: **7089** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW4-110303** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/06/03 20:53**

Client ID: Run ID: **ICP4500_031106A** SeqNo: **390721** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.002429	0.0050								J
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	0.000139	0.0020								J
Copper	0.0005453	0.0020								J
Iron	ND	0.20								
Lead	ND	0.0050								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW4-110303** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 14:40**

Client ID: Run ID: **ICP4500_031107B** SeqNo: **391379** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Boron	ND	0.020								
Magnesium	ND	0.20								
Potassium	ND	0.20								
Sodium	ND	0.20								

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7089** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW4-110303** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/06/03 20:58**
Client ID: Run ID: **ICP4500_031106A** SeqNo: **390722** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1007	0.0050	0.1	0	101	80-120	0			
Barium	0.09703	0.0050	0.1	0	97	80-120	0			
Beryllium	0.106	0.0020	0.1	0	106	80-120	0			
Cadmium	0.1022	0.0010	0.1	0	102	80-120	0			
Calcium	10.61	0.50	10	0	106	80-120	0			
Chromium	0.1039	0.0020	0.1	0	104	80-120	0			
Cobalt	0.1082	0.0020	0.1	0	108	80-120	0			
Copper	0.09968	0.0020	0.1	0	99.7	80-120	0			
Iron	10.64	0.20	10	0	106	80-120	0			
Lead	0.1012	0.0050	0.1	0	101	80-120	0			
Manganese	0.1029	0.0050	0.1	0	103	80-120	0			
Nickel	0.1019	0.0050	0.1	0	102	80-120	0			
Selenium	0.09878	0.0050	0.1	0	98.8	80-120	0			
Silver	0.09959	0.0050	0.1	0	99.6	80-120	0			
Vanadium	0.1043	0.0050	0.1	0	104	80-120	0			
Zinc	0.1025	0.0050	0.1	0	102	80-120	0			

LCS Sample ID: **MLCSW4-110303** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 14:44**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391380** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1034	0.010	0.1	0	103	80-120	0			
Boron	0.5132	0.020	0.5	0	103	80-120	0			
Magnesium	10.75	0.20	10	0	108	80-120	0			
Potassium	10.36	0.20	10	0	104	80-120	0			
Sodium	10.29	0.20	10	0	103	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7089** InstrumentID: **ICP4500**

MS Sample ID: **0311003-01BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/06/03 21:34**
Client ID: Run ID: **ICP4500_031106A** SeqNo: **390730** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1005	0.0050	0.1	0.002316	98.2	75-125	0			
Barium	0.1599	0.0050	0.1	0.06215	97.8	75-125	0			
Beryllium	0.09937	0.0020	0.1	0.00005612	99.3	75-125	0			
Cadmium	0.09245	0.0010	0.1	0.0009893	91.5	75-125	0			
Calcium	104.9	0.50	10	92.15	127	75-125	0			SEO
Chromium	0.1066	0.0020	0.1	0.001029	106	75-125	0			
Cobalt	0.1054	0.0020	0.1	0.0005675	105	75-125	0			
Copper	0.09544	0.0020	0.1	0.002902	92.5	75-125	0			
Iron	10.71	0.20	10	0.3329	104	75-125	0			
Manganese	0.177	0.0050	0.1	0.07428	103	75-125	0			
Nickel	0.09822	0.0050	0.1	0.002615	95.6	75-125	0			
Selenium	0.09216	0.0050	0.1	-0.001565	93.7	75-125	0			
Silver	0.08996	0.0050	0.1	-2.58E-07	90	75-125	0			
Vanadium	0.1161	0.0050	0.1	0.002712	113	75-125	0			
Zinc	0.139	0.0050	0.1	0.04638	92.6	75-125	0			

MS Sample ID: **0311003-01BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 16:36**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391401** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.4434	0.010	0.1	0.2984	145	75-125	0			S
Boron	0.5782	0.020	0.5	0.08636	98.4	75-125	0			
Lead	0.1044	0.0050	0.1	0.0009106	103	75-125	0			
Magnesium	34.31	0.20	10	24.36	99.5	75-125	0			
Potassium	11.71	0.20	10	1.052	107	75-125	0			
Sodium	ND	0.20	10	0	0	75-125	0			S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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B - Analyte detected in assoc. Method Blank
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7089** InstrumentID: **ICP4500**

MSD Sample ID: **0311003-01BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/06/03 21:47**
Client ID: Run ID: **ICP4500_031106A** SeqNo: **390733** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1036	0.0050	0.1	0.002316	101	75-125	0.1005	3.04	25	
Barium	0.1608	0.0050	0.1	0.06215	98.6	75-125	0.1599	0.561	25	
Beryllium	0.0988	0.0020	0.1	0.00005612	98.7	75-125	0.09937	0.575	25	
Cadmium	0.09498	0.0010	0.1	0.0009893	94	75-125	0.09245	2.7	25	
Calcium	105.4	0.50	10	92.15	132	75-125	104.9	0.476	25	SEO
Chromium	0.11	0.0020	0.1	0.001029	109	75-125	0.1066	3.14	25	
Cobalt	0.1079	0.0020	0.1	0.0005675	107	75-125	0.1054	2.34	25	
Copper	0.09625	0.0020	0.1	0.002902	93.3	75-125	0.09544	0.845	25	
Iron	10.87	0.20	10	0.3329	105	75-125	10.71	1.48	25	
Manganese	0.179	0.0050	0.1	0.07428	105	75-125	0.177	1.12	25	
Nickel	0.09965	0.0050	0.1	0.002615	97	75-125	0.09822	1.45	25	
Selenium	0.08867	0.0050	0.1	-0.001565	90.2	75-125	0.09216	3.86	25	
Silver	0.09282	0.0050	0.1	-2.58E-07	92.8	75-125	0.08996	3.13	25	
Vanadium	0.1158	0.0050	0.1	0.002712	113	75-125	0.1161	0.259	25	
Zinc	0.138	0.0050	0.1	0.04638	91.6	75-125	0.139	0.722	25	

MSD Sample ID: **0311003-01BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 16:41**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391402** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5046	0.010	0.1	0.2984	206	75-125	0.4434	12.9	25	SE
Boron	0.6125	0.020	0.5	0.08636	105	75-125	0.5782	5.76	25	
Lead	0.1061	0.0050	0.1	0.0009106	105	75-125	0.1044	1.62	25	
Magnesium	31.84	0.20	10	24.36	74.8	75-125	34.31	7.47	25	S
Potassium	11.52	0.20	10	1.052	105	75-125	11.71	1.64	25	
Sodium	ND	0.20	10	0	0	75-125	0	0	25	S

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7089** InstrumentID: **ICP4500**

DUP Sample ID: **0311003-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/06/03 21:30**
Client ID: Run ID: **ICP4500_031106A** SeqNo: **390729** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.003316	0.0050	0	0	0	0-0	0.002316	0	25	J
Barium	0.06273	0.0050	0	0	0	0-0	0.06215	0.929	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00005612	0	25	
Cadmium	0.00103	0.0010	0	0	0	0-0	0.0009893	4.03	25	
Chromium	0.0008711	0.0020	0	0	0	0-0	0.001029	0	25	J
Cobalt	0.0005757	0.0020	0	0	0	0-0	0.0005675	0	25	J
Copper	0.003045	0.0020	0	0	0	0-0	0.002902	4.81	25	
Iron	0.3498	0.20	0	0	0	0-0	0.3329	4.95	25	
Lead	0.001004	0.0050	0	0	0	0-0	0.001035	0	25	J
Manganese	0.07568	0.0050	0	0	0	0-0	0.07428	1.87	25	
Nickel	0.002514	0.0050	0	0	0	0-0	0.002615	0	25	J
Selenium	ND	0.0050	0	0	0	0-0	-0.001565	0	25	
Silver	ND	0.0050	0	0	0	0-0	-2.58E-07	0	25	
Vanadium	0.002511	0.0050	0	0	0	0-0	0.002712	0	25	J
Zinc	0.04728	0.0050	0	0	0	0-0	0.04638	1.92	25	

DUP Sample ID: **0311003-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 15:16**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391387** Prep Date: **11/3/2003** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	233.9	4.0	0	0	0	0-0	241.6	3.24	25	

DUP Sample ID: **0311003-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 15:50**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391391** Prep Date: **11/3/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.3575	0.10	0	0	0	0-0	0.4363	19.9	25	
Calcium	76.26	5.0	0	0	0	0-0	81.28	6.37	25	
Magnesium	22.89	2.0	0	0	0	0-0	24.26	5.81	25	

DUP Sample ID: **0311003-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **11/07/03 16:31**
Client ID: Run ID: **ICP4500_031107B** SeqNo: **391400** Prep Date: **11/3/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.07763	0.020	0	0	0	0-0	0.08636	10.6	25	
Potassium	1.019	0.20	0	0	0	0-0	1.052	3.19	25	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01C 0310305-02C

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7109** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-110403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:14**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389896** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-110403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:16**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389897** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00516	0.00020	0.005	0	103	83-115	0			

LCSD Sample ID: **GLCSDW1-110403** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:17**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389898** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00531	0.00020	0.005	0	106	83-115	0.00516	2.87	20	

MS Sample ID: **0310311-02BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:22**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389901** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.005	0.00020	0.005	0.000012	99.8	70-124	0			

MSD Sample ID: **0310311-02BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:23**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389902** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00501	0.00020	0.005	0.000012	100	70-124	0.005	0.2	20	

DUP Sample ID: **0310311-02BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **11/05/03 15:20**
Client ID: Run ID: **MERCURY_031105E** SeqNo: **389900** Prep Date: **11/4/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0.000012	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01C 0310305-02C

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7070** InstrumentID: **SV-2**

MBLK Sample ID: **SBLKW1-031030** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/05/03 20:40**

Client ID: Run ID: **SV-2_031101A** SeqNo: **390484** Prep Date: **10/30/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	88.02	0	100	0	88	39-153	0			
Surr: 2-Fluorobiphenyl	84.11	0	100	0	84.1	40-147	0			
Surr: 2-Fluorophenol	54.72	0	100	0	54.7	21-100	0			
Surr:4-Terphenyl-d14	95.86	0	100	0	95.9	39-141	0			
Surr: Nitrobenzene-d5	81.9	0	100	0	81.9	37-140	0			
Surr: Phenol-d6	36.66	0	100	0	36.7	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7070** InstrumentID: **SV-2**

LCS Sample ID: **SLCSW1-031030** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/05/03 21:06**

Client ID: Run ID: **SV-2_031101A** SeqNo: **390485** Prep Date: **10/30/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.51	10	50	0	83	50-115	0			
2,4,5-Trichlorophenol	92.79	10	100	0	92.8	72-118	0			
2,4,6-Trichlorophenol	91.47	10	100	0	91.5	72-117	0			
2-Methylnaphthalene	41.57	10	50	0	83.1	47-122	0			
2-Methylphenol	74.6	10	100	0	74.6	51-115	0			
2-Nitroaniline	45.02	10	50	0	90	73-119	0			
2-Nitrophenol	84.42	10	100	0	84.4	60-119	0			
3-Nitroaniline	44.8	10	50	0	89.6	61-118	0			
4-Methylphenol	105.8	10	150	0	70.6	44-115	0			
4-Nitroaniline	45.43	10	50	0	90.9	61-123	0			
4-Nitrophenol	52.51	10	100	0	52.5	17-100	0			
Acenaphthene	44.54	10	50	0	89.1	68-115	0			
Acenaphthylene	43.8	10	50	0	87.6	67-116	0			
Aniline	31.68	10	50	0	63.4	40-130	0			
Anthracene	47.87	10	50	0	95.7	72-124	0			
Benz(a)anthracene	44.67	10	50	0	89.3	55-131	0			
Benzidine	15.76	10	50	0	31.5	10-115	0			
Hexachloroethane	40.3	10	50	0	80.6	46-115	0			
Indeno(1,2,3-cd)pyrene	41.1	10	50	0	82.2	42-123	0			
Isophorone	45.37	10	50	0	90.7	63-117	0			
N-Nitrosodi-n-propylamine	43.26	10	50	0	86.5	67-115	0			
N-Nitrosodimethylamine	29.15	10	50	0	58.3	28-115	0			
N-Nitrosodiphenylamine	52.7	10	50	0	105	72-144	0			
Naphthalene	42.02	10	50	0	84	52-115	0			
Nitrobenzene	43.49	10	50	0	87	65-115	0			
Pentachlorophenol	94.11	10	100	0	94.1	65-123	0			
Phenanthrene	45.25	10	50	0	90.5	69-119	0			
Phenol	41.65	10	100	0	41.7	16-115	0			
Pyrene	43.98	10	50	0	88	51-130	0			
Surr: 2,4,6-Tribromophenol	92.23	0	100	0	92.2	39-153	0			
Surr: 2-Fluorobiphenyl	88.03	0	100	0	88	40-147	0			
Surr: 2-Fluorophenol	58.82	0	100	0	58.8	21-100	0			
Surr:4-Terphenyl-d14	91.58	0	100	0	91.6	39-141	0			
Surr: Nitrobenzene-d5	83.57	0	100	0	83.6	37-140	0			
Surr: Phenol-d6	40.47	0	100	0	40.5	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **7070** InstrumentID: **SV-2**

LCSD Sample ID: **SLCSDW1-031030** Test Code: **SW8270** Units: **µg/L** Analysis Date: **11/05/03 21:33**

Client ID: Run ID: **SV-2_031101A** SeqNo: **390486** Prep Date: **10/30/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.35	10	50	0	86.7	50-115	41.51	4.36	30	
2,4,5-Trichlorophenol	95.66	10	100	0	95.7	72-118	92.79	3.04	30	
2,4,6-Trichlorophenol	92.42	10	100	0	92.4	72-117	91.47	1.03	30	
2-Methylnaphthalene	43.97	10	50	0	87.9	47-122	41.57	5.61	30	
2-Methylphenol	79.8	10	100	0	79.8	51-115	74.6	6.74	30	
2-Nitroaniline	48.1	10	50	0	96.2	73-119	45.02	6.61	30	
2-Nitrophenol	89.09	10	100	0	89.1	60-119	84.42	5.39	30	
3-Nitroaniline	47.42	10	50	0	94.8	61-118	44.8	5.69	30	
4-Methylphenol	114.8	10	150	0	76.6	44-115	105.8	8.16	30	
4-Nitroaniline	46.88	10	50	0	93.8	61-123	45.43	3.15	30	
4-Nitrophenol	56.4	10	100	0	56.4	17-100	52.51	7.13	30	
Acenaphthene	44.82	10	50	0	89.6	68-115	44.54	0.613	30	
Acenaphthylene	44.77	10	50	0	89.5	67-116	43.8	2.2	30	
Aniline	34.09	10	50	0	68.2	40-130	31.68	7.32	30	
Anthracene	49.44	10	50	0	98.9	72-124	47.87	3.23	30	
Benz(a)anthracene	45.65	10	50	0	91.3	55-131	44.67	2.17	30	
Benzidine	19.92	10	50	0	39.8	10-115	15.76	23.3	30	
Hexachloroethane	43.16	10	50	0	86.3	46-115	40.3	6.86	30	
Indeno(1,2,3-cd)pyrene	42.42	10	50	0	84.8	42-123	41.1	3.16	30	
Isophorone	47.21	10	50	0	94.4	63-117	45.37	3.97	30	
N-Nitrosodi-n-propylamine	45.66	10	50	0	91.3	67-115	43.26	5.41	30	
N-Nitrosodimethylamine	31.44	10	50	0	62.9	28-115	29.15	7.54	30	
N-Nitrosodiphenylamine	54.24	10	50	0	108	72-144	52.7	2.89	30	
Naphthalene	43.86	10	50	0	87.7	52-115	42.02	4.28	30	
Nitrobenzene	45.02	10	50	0	90	65-115	43.49	3.46	30	
Pentachlorophenol	103.7	10	100	0	104	65-123	94.11	9.66	30	
Phenanthrene	46.93	10	50	0	93.9	69-119	45.25	3.66	30	
Phenol	45.86	10	100	0	45.9	16-115	41.65	9.62	30	
Pyrene	46.22	10	50	0	92.4	51-130	43.98	4.98	30	
Surr: 2,4,6-Tribromophenol	99.31	0	100	0	99.3	39-153	92.23	7.38	30	
Surr: 2-Fluorobiphenyl	89.22	0	100	0	89.2	40-147	88.03	1.35	30	
Surr: 2-Fluorophenol	63.1	0	100	0	63.1	21-100	58.82	7.02	30	
Surr:4-Terphenyl-d14	93.99	0	100	0	94	39-141	91.58	2.6	30	
Surr: Nitrobenzene-d5	87.05	0	100	0	87.1	37-140	83.57	4.08	30	
Surr: Phenol-d6	44.65	0	100	0	44.7	11-100	40.47	9.82	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01E 0310305-02E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16939** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1029** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/29/03 10:14**

Client ID: Run ID: **VOA_I_031029A** SeqNo: **386397** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinylacetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	48.37	5.0	50	0	96.7	70-130		0		
Surr:4-Bromofluorobenzene	45.73	5.0	50	0	91.5	70-130		0		
Surr:Dibromofluoromethane	50.53	5.0	50	0	101	70-130		0		
Surr:Toluene-d8	48.16	5.0	50	0	96.3	70-130		0		

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16939** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1029** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/29/03 9:20**

Client ID: Run ID: **VOA_I_031029A** SeqNo: **386395** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.17	5.0	50	0	104	75-118	0			
1,1,2,2-Tetrachloroethane	46.45	5.0	50	0	92.9	79-120	0			
1,1,2-Trichloroethane	47.72	5.0	50	0	95.4	81-119	0			
1,1-Dichloroethane	50.76	5.0	50	0	102	80-120	0			
1,1-Dichloroethene	44.86	5.0	50	0	89.7	80-120	0			
1,2-Dichloroethane	49.9	5.0	50	0	99.8	80-120	0			
2-Butanone	104.3	10	100	0	104	70-130	0			
2-Chloroethyl vinyl ether	78.32	10	100	0	78.3	72-120	0			
2-Hexanone	81.85	10	100	0	81.9	70-130	0			
4-Methyl-2-pentanone	92.9	10	100	0	92.9	78-120	0			
Acetone	93.36	10	100	0	93.4	60-135	0			
Benzene	47.78	5.0	50	0	95.6	82-119	0			
Bromodichloromethane	51.05	5.0	50	0	102	81-119	0			
Bromoform	51.18	5.0	50	0	102	80-120	0			
Bromomethane	55.83	5.0	50	0	112	75-130	0			
Carbon disulfide	90.57	10	100	0	90.6	78-120	0			
Carbontetrachloride	53.05	5.0	50	0	106	77-120	0			
Chlorobenzene	47.29	5.0	50	0	94.6	82-118	0			
Chloroethane	44.9	5.0	50	0	89.8	78-122	0			
Chloroform	51.03	5.0	50	0	102	78-120	0			
Chloromethane	50.18	5.0	50	0	100	75-125	0			
cis-1,3-Dichloropropene	50.08	5.0	50	0	100	81-120	0			
Dibromochloromethane	50.08	5.0	50	0	100	81-118	0			
Ethylbenzene	47.97	5.0	50	0	95.9	82-120	0			
m,p-Xylene	95.95	10	100	0	96	82-122	0			
Methylene chloride	40.25	10	50	0	80.5	80-122	0			
Styrene	49.23	5.0	50	0	98.5	82-121	0			
Tetrachloroethene	47.66	5.0	50	0	95.3	79-118	0			
Toluene	47.38	5.0	50	0	94.8	81-119	0			
trans-1,3-Dichloropropene	51.26	5.0	50	0	103	82-121	0			
Trichloroethene	49.48	5.0	50	0	99	78-118	0			
Vinyl acetate	105.9	10	100	0	106	75-120	0			
Vinyl chloride	50.79	2.0	50	0	102	73-127	0			
Xylenes, Total	144.5	15	150	0	96.3	80-120	0			
Surr:1,2-Dichloroethane-d4	48.69	5.0	50	0	97.4	70-130	0			
Surr:4-Bromofluorobenzene	49.15	5.0	50	0	98.3	70-130	0			
Surr:Dibromofluoromethane	50.33	5.0	50	0	101	70-130	0			
Surr: Toluene-d8	47.79	5.0	50	0	95.6	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16939** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1029** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/29/03 9:47**

Client ID: Run ID: **VOA_I_031029A** SeqNo: **386396** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.68	5.0	50	0	101	75-118	52.17	2.89	20	
1,1,2,2-Tetrachloroethane	45.38	5.0	50	0	90.8	79-120	46.45	2.34	20	
1,1,2-Trichloroethane	48.56	5.0	50	0	97.1	81-119	47.72	1.75	20	
1,1-Dichloroethane	49.92	5.0	50	0	99.8	80-120	50.76	1.67	20	
1,1-Dichloroethene	43.04	5.0	50	0	86.1	80-120	44.86	4.14	20	
1,2-Dichloroethane	49.03	5.0	50	0	98.1	80-120	49.9	1.75	20	
2-Butanone	95.45	10	100	0	95.4	70-130	104.3	8.88	20	
2-Chloroethyl vinyl ether	75.79	10	100	0	75.8	72-120	78.32	3.28	20	
2-Hexanone	76.29	10	100	0	76.3	70-130	81.85	7.04	20	
4-Methyl-2-pentanone	88.44	10	100	0	88.4	78-120	92.9	4.91	20	
Acetone	88.34	10	100	0	88.3	60-135	93.36	5.52	20	
Benzene	47.72	5.0	50	0	95.4	82-119	47.78	0.13	20	
Bromodichloromethane	50.4	5.0	50	0	101	81-119	51.05	1.27	20	
Bromoform	50.36	5.0	50	0	101	80-120	51.18	1.6	20	
Bromomethane	51	5.0	50	0	102	75-130	55.83	9.05	20	
Carbon disulfide	87.4	10	100	0	87.4	78-120	90.57	3.56	20	
Carbontetrachloride	50.51	5.0	50	0	101	77-120	53.05	4.91	20	
Chlorobenzene	47.7	5.0	50	0	95.4	82-118	47.29	0.869	20	
Chloroethane	42.62	5.0	50	0	85.2	78-122	44.9	5.21	20	
Chloroform	51.09	5.0	50	0	102	78-120	51.03	0.129	20	
Chloromethane	50.87	5.0	50	0	102	75-125	50.18	1.37	20	
cis-1,3-Dichloropropene	49.24	5.0	50	0	98.5	81-120	50.08	1.69	20	
Dibromochloromethane	50	5.0	50	0	100	81-118	50.08	0.16	20	
Ethylbenzene	47.74	5.0	50	0	95.5	82-120	47.97	0.487	20	
m,p-Xylene	95.93	10	100	0	95.9	82-122	95.95	0.0219	20	
Methylene chloride	43.28	10	50	0	86.6	80-122	40.25	7.27	20	
Styrene	49.62	5.0	50	0	99.2	82-121	49.23	0.792	20	
Tetrachloroethene	47.01	5.0	50	0	94	79-118	47.66	1.37	20	
Toluene	47.89	5.0	50	0	95.8	81-119	47.38	1.08	20	
trans-1,3-Dichloropropene	51.21	5.0	50	0	102	82-121	51.26	0.0967	20	
Trichloroethene	48.58	5.0	50	0	97.2	78-118	49.48	1.83	20	
Vinyl acetate	104.6	10	100	0	105	75-120	105.9	1.22	20	
Vinyl chloride	49.69	2.0	50	0	99.4	73-127	50.79	2.18	20	
Xylenes, Total	144.5	15	150	0	96.3	80-120	144.5	0.0119	20	
Surr:1,2-Dichloroethane-d4	47.68	5.0	50	0	95.4	70-130	48.69	2.09	20	
Surr:4-Bromofluorobenzene	49.93	5.0	50	0	99.9	70-130	49.15	1.58	20	
Surr:Dibromofluoromethane	50.14	5.0	50	0	100	70-130	50.33	0.372	20	
Surr: Toluene-d8	48.72	5.0	50	0	97.4	70-130	47.79	1.93	20	

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16939** InstrumentID: **VOA_I**

MS Sample ID: **0310224-04AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/29/03 15:39**

Client ID: Run ID: **VOA_I_031029A** SeqNo: **386536** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.1	5.0	50	0	98.2	75-125	0			
1,1,2,2-Tetrachloroethane	56.61	5.0	50	0	113	75-125	0			
1,1,2-Trichloroethane	55.39	5.0	50	0	111	75-125	0			
1,1-Dichloroethane	55.05	5.0	50	0	110	75-125	0			
1,1-Dichloroethene	41.74	5.0	50	0	83.5	65-130	0			
1,2-Dichloroethane	52.68	5.0	50	0	105	70-130	0			
2-Butanone	130.7	10	100	0	131	64-128	0			S
2-Chloroethyl vinyl ether	29.92	10	100	0	29.9	75-125	0			S
2-Hexanone	96.64	10	100	0	96.6	72-124	0			
4-Methyl-2-pentanone	132.1	10	100	0	132	75-125	0			S
Acetone	99.59	10	100	0	99.6	60-130	0			
Benzene	178.2	5.0	50	130.9	94.6	76-127	0			
Bromodichloromethane	53.84	5.0	50	0	108	75-125	0			
Bromoform	58.09	5.0	50	0	116	75-125	0			
Bromomethane	19.69	5.0	50	0	39.4	75-125	0			S
Carbon disulfide	91.11	10	100	0	91.1	75-125	0			
Carbon tetrachloride	46.72	5.0	50	0	93.4	70-130	0			
Chlorobenzene	49.18	5.0	50	0	98.4	75-126	0			
Chloroethane	48.45	5.0	50	0	96.9	70-130	0			
Chloroform	54.83	5.0	50	0	110	75-125	0			
Chloromethane	47.39	5.0	50	0	94.8	75-125	0			
cis-1,3-Dichloropropene	54.43	5.0	50	0	109	75-125	0			
Dibromochloromethane	54.07	5.0	50	0	108	75-125	0			
Ethylbenzene	81.05	5.0	50	32.99	96.1	75-125	0			
m,p-Xylene	131.6	10	100	0	132	75-125	0			S
Methylene chloride	45.7	10	50	0	91.4	75-125	0			
Styrene	53.06	5.0	50	0	106	75-125	0			
Tetrachloroethene	45	5.0	50	0	90	75-125	0			
Toluene	80.79	5.0	50	32.4	96.8	76-125	0			
trans-1,3-Dichloropropene	55.99	5.0	50	0	112	70-130	0			
Trichloroethene	50.35	5.0	50	0	101	71-120	0			
Vinyl acetate	130.5	10	100	0	131	75-125	0			S
Vinyl chloride	50.65	2.0	50	0	101	60-135	0			
Xylenes, Total	202.8	15	150	0	135	75-125	0			S
Surr: 1,2-Dichloroethane-d4	46.52	5.0	50	0	93	70-130	0			
Surr: 4-Bromofluorobenzene	48.1	5.0	50	0	96.2	70-130	0			
Surr: Dibromofluoromethane	50.38	5.0	50	0	101	70-130	0			
Surr: Toluene-d8	48.2	5.0	50	0	96.4	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16939** InstrumentID: **VOA_I**

MSD Sample ID: **0310224-04AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/29/03 16:06**

Client ID: Run ID: **VOA_I_031029A** SeqNo: **386537** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.18	5.0	50	0	94.4	75-125	49.1	3.98	20	
1,1,2,2-Tetrachloroethane	52.65	5.0	50	0	105	75-125	56.61	7.24	20	
1,1,2-Trichloroethane	50.8	5.0	50	0	102	75-125	55.39	8.64	20	
1,1-Dichloroethane	53.19	5.0	50	0	106	75-125	55.05	3.44	20	
1,1-Dichloroethene	41.35	5.0	50	0	82.7	65-130	41.74	0.953	20	
1,2-Dichloroethane	46.92	5.0	50	0	93.8	70-130	52.68	11.6	20	
2-Butanone	122.9	10	100	0	123	64-128	130.7	6.15	20	
2-Chloroethyl vinyl ether	19.32	10	100	0	19.3	75-125	29.92	43.1	20	SR
2-Hexanone	89.96	10	100	0	90	72-124	96.64	7.16	20	
4-Methyl-2-pentanone	119.2	10	100	0	119	75-125	132.1	10.3	20	
Acetone	89.96	10	100	0	90	60-130	99.59	10.2	20	
Benzene	176.7	5.0	50	130.9	91.7	76-127	178.2	0.8	20	
Bromodichloromethane	48.81	5.0	50	0	97.6	75-125	53.84	9.81	20	
Bromoform	50.98	5.0	50	0	102	75-125	58.09	13	20	
Bromomethane	25.62	5.0	50	0	51.2	75-125	19.69	26.2	20	SR
Carbon disulfide	86.78	10	100	0	86.8	75-125	91.11	4.87	20	
Carbontetrachloride	43.76	5.0	50	0	87.5	70-130	46.72	6.56	20	
Chlorobenzene	47.18	5.0	50	0	94.4	75-126	49.18	4.14	20	
Chloroethane	46.3	5.0	50	0	92.6	70-130	48.45	4.53	20	
Chloroform	51.57	5.0	50	0	103	75-125	54.83	6.12	20	
Chloromethane	48	5.0	50	0	96	75-125	47.39	1.26	20	
cis-1,3-Dichloropropene	51.16	5.0	50	0	102	75-125	54.43	6.19	20	
Dibromochloromethane	48.82	5.0	50	0	97.6	75-125	54.07	10.2	20	
Ethylbenzene	79.82	5.0	50	32.99	93.7	75-125	81.05	1.53	20	
m,p-Xylene	127.9	10	100	0	128	75-125	131.6	2.85	20	S
Methylene chloride	42.25	10	50	0	84.5	75-125	45.7	7.85	20	
Styrene	50.65	5.0	50	0	101	75-125	53.06	4.66	20	
Tetrachloroethene	43.48	5.0	50	0	87	75-125	45	3.45	20	
Toluene	79.9	5.0	50	32.4	95	76-125	80.79	1.1	20	
trans-1,3-Dichloropropene	50.13	5.0	50	0	100	70-130	55.99	11	20	
Trichloroethene	48.14	5.0	50	0	96.3	71-120	50.35	4.5	20	
Vinyl acetate	120	10	100	0	120	75-125	130.5	8.39	20	
Vinyl chloride	52.07	2.0	50	0	104	60-135	50.65	2.78	20	
Xylenes, Total	197.6	15	150	0	132	75-125	202.8	2.6	20	S
Surr:1,2-Dichloroethane-d4	46.52	5.0	50	0	93	70-130	46.52	0.0044	20	
Surr:4-Bromofluorobenzene	48.65	5.0	50	0	97.3	70-130	48.1	1.14	20	
Surr:Dibromofluoromethane	50.56	5.0	50	0	101	70-130	50.38	0.358	20	
Surr:Toluene-d8	49	5.0	50	0	98	70-130	48.2	1.64	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01A 0310305-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16958** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1030** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/30/03 11:42**

Client ID: Run ID: **VOA_I_031030A** SeqNo: **386842** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	43.22	5.0	50	0	86.4	70-130	0			
Surr: 4-Bromofluorobenzene	46.78	5.0	50	0	93.6	70-130	0			
Surr: Dibromofluoromethane	46.33	5.0	50	0	92.7	70-130	0			
Surr: Toluene-d8	48.57	5.0	50	0	97.1	70-130	0			

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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16958** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1030** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/30/03 10:21**

Client ID: Run ID: **VOA_I_031030A** SeqNo: **386840** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.89	5.0	50	0	93.8	75-118	0			
1,1,2,2-Tetrachloroethane	47.47	5.0	50	0	94.9	79-120	0			
1,1,2-Trichloroethane	48.46	5.0	50	0	96.9	81-119	0			
1,1-Dichloroethane	48.31	5.0	50	0	96.6	80-120	0			
1,1-Dichloroethene	43.76	5.0	50	0	87.5	80-120	0			
1,2-Dichloroethane	44.76	5.0	50	0	89.5	80-120	0			
2-Butanone	93.7	10	100	0	93.7	70-130	0			
2-Chloroethyl vinyl ether	68.67	10	100	0	68.7	72-120	0			S
2-Hexanone	79.55	10	100	0	79.6	70-130	0			
4-Methyl-2-pentanone	92.02	10	100	0	92	78-120	0			
Acetone	86.61	10	100	0	86.6	60-135	0			
Benzene	47.89	5.0	50	0	95.8	82-119	0			
Bromodichloromethane	47.48	5.0	50	0	95	81-119	0			
Bromoform	48.22	5.0	50	0	96.4	80-120	0			
Bromomethane	44.8	5.0	50	0	89.6	75-130	0			
Carbon disulfide	83.82	10	100	0	83.8	78-120	0			
Carbontetrachloride	47.85	5.0	50	0	95.7	77-120	0			
Chlorobenzene	47.22	5.0	50	0	94.4	82-118	0			
Chloroethane	42.12	5.0	50	0	84.2	78-122	0			
Chloroform	48.34	5.0	50	0	96.7	78-120	0			
Chloromethane	38.02	5.0	50	0	76	75-125	0			
cis-1,3-Dichloropropene	47.28	5.0	50	0	94.6	81-120	0			
Dibromochloromethane	47.6	5.0	50	0	95.2	81-118	0			
Ethylbenzene	48.41	5.0	50	0	96.8	82-120	0			
m,p-Xylene	95.5	10	100	0	95.5	82-122	0			
Methylene chloride	41.23	10	50	0	82.5	80-122	0			
Styrene	49.44	5.0	50	0	98.9	82-121	0			
Tetrachloroethene	47.11	5.0	50	0	94.2	79-118	0			
Toluene	48.02	5.0	50	0	96	81-119	0			
trans-1,3-Dichloropropene	47.39	5.0	50	0	94.8	82-121	0			
Trichloroethene	47.46	5.0	50	0	94.9	78-118	0			
Vinyl acetate	101.7	10	100	0	102	75-120	0			
Vinyl chloride	43.07	2.0	50	0	86.1	73-127	0			
Xylenes, Total	143.7	15	150	0	95.8	80-120	0			
Surr:1,2-Dichloroethane-d4	43.05	5.0	50	0	86.1	70-130	0			
Surr:4-Bromofluorobenzene	49.3	5.0	50	0	98.6	70-130	0			
Surr:Dibromofluoromethane	47.13	5.0	50	0	94.3	70-130	0			
Surr: Toluene-d8	47.57	5.0	50	0	95.1	70-130	0			

ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16958** InstrumentID: **VOA_I**

MS Sample ID: **0310319-02AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/30/03 14:25**

Client ID: Run ID: **VOA_I_031030A** SeqNo: **387390** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.12	5.0	50	0	100	75-125	0			
1,1,2,2-Tetrachloroethane	48.5	5.0	50	0	97	75-125	0			
1,1,2-Trichloroethane	51.16	5.0	50	0	102	75-125	0			
1,1-Dichloroethane	40.73	5.0	50	0	81.5	75-125	0			
1,1-Dichloroethene	41.09	5.0	50	0	82.2	65-130	0			
1,2-Dichloroethane	53.68	5.0	50	0	107	70-130	0			
2-Butanone	93.37	10	100	0	93.4	64-128	0			
2-Chloroethyl vinyl ether	8.862	10	100	0	8.86	75-125	0			JS
2-Hexanone	78.64	10	100	0	78.6	72-124	0			
4-Methyl-2-pentanone	94.07	10	100	0	94.1	75-125	0			
Acetone	79.56	10	100	0	79.6	60-130	0			
Benzene	48.56	5.0	50	0	97.1	76-127	0			
Bromodichloromethane	54.28	5.0	50	0	109	75-125	0			
Bromoform	57.1	5.0	50	0	114	75-125	0			
Bromomethane	57.32	5.0	50	0	115	75-125	0			
Carbon disulfide	81.56	10	100	0	81.6	75-125	0			
Carbon tetrachloride	52.52	5.0	50	0	105	70-130	0			
Chlorobenzene	50.37	5.0	50	0	101	75-126	0			
Chloroethane	37.14	5.0	50	0	74.3	70-130	0			
Chloroform	51.73	5.0	50	0	103	75-125	0			
Chloromethane	39.85	5.0	50	4.841	70	75-125	0			S
cis-1,3-Dichloropropene	50.21	5.0	50	0	100	75-125	0			
Dibromochloromethane	55.82	5.0	50	0	112	75-125	0			
Ethylbenzene	51.27	5.0	50	0	103	75-125	0			
m,p-Xylene	103.4	10	100	0	103	75-125	0			
Methylene chloride	41.21	10	50	0	82.4	75-125	0			
Styrene	53.36	5.0	50	0	107	75-125	0			
Tetrachloroethene	49.79	5.0	50	0	99.6	75-125	0			
Toluene	49.27	5.0	50	0	98.5	76-125	0			
trans-1,3-Dichloropropene	53.37	5.0	50	0	107	70-130	0			
Trichloroethene	51.89	5.0	50	0	104	71-120	0			
Vinyl acetate	86.56	10	100	0	86.6	75-125	0			
Vinyl chloride	35.62	2.0	50	0	71.2	60-135	0			
Xylenes, Total	154.8	15	150	0	103	75-125	0			
Surr: 1,2-Dichloroethane-d4	45.48	5.0	50	0	91	70-130	0			
Surr: 4-Bromofluorobenzene	50.58	5.0	50	0	101	70-130	0			
Surr: Dibromofluoromethane	46.49	5.0	50	0	93	70-130	0			
Surr: Toluene-d8	46.95	5.0	50	0	93.9	70-130	0			

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16958** InstrumentID: **VOA_I**

MSD Sample ID: **0310319-02AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/30/03 14:52**

Client ID: Run ID: **VOA_I_031030A** SeqNo: **387392** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.77	5.0	50	0	95.5	75-125	50.12	4.8	20	
1,1,2,2-Tetrachloroethane	44.51	5.0	50	0	89	75-125	48.5	8.58	20	
1,1,2-Trichloroethane	48.93	5.0	50	0	97.9	75-125	51.16	4.46	20	
1,1-Dichloroethane	42.62	5.0	50	0	85.2	75-125	40.73	4.54	20	
1,1-Dichloroethene	41.7	5.0	50	0	83.4	65-130	41.09	1.48	20	
1,2-Dichloroethane	50.15	5.0	50	0	100	70-130	53.68	6.8	20	
2-Butanone	96.53	10	100	0	96.5	64-128	93.37	3.33	20	
2-Chloroethyl vinyl ether	5.57	10	100	0	5.57	75-125	8.862	0	20	JS
2-Hexanone	78.5	10	100	0	78.5	72-124	78.64	0.174	20	
4-Methyl-2-pentanone	94.23	10	100	0	94.2	75-125	94.07	0.168	20	
Acetone	77.41	10	100	0	77.4	60-130	79.56	2.74	20	
Benzene	47	5.0	50	0	94	76-127	48.56	3.26	20	
Bromodichloromethane	50.79	5.0	50	0	102	75-125	54.28	6.65	20	
Bromoform	55.96	5.0	50	0	112	75-125	57.1	2.03	20	
Bromomethane	55.68	5.0	50	0	111	75-125	57.32	2.91	20	
Carbon disulfide	83.34	10	100	0	83.3	75-125	81.56	2.16	20	
Carbontetrachloride	48.26	5.0	50	0	96.5	70-130	52.52	8.46	20	
Chlorobenzene	50.08	5.0	50	0	100	75-126	50.37	0.581	20	
Chloroethane	41.44	5.0	50	0	82.9	70-130	37.14	10.9	20	
Chloroform	51.07	5.0	50	0	102	75-125	51.73	1.28	20	
Chloromethane	44.43	5.0	50	4.841	79.2	75-125	39.85	10.9	20	
cis-1,3-Dichloropropene	44.14	5.0	50	0	88.3	75-125	50.21	12.9	20	
Dibromochloromethane	54.11	5.0	50	0	108	75-125	55.82	3.11	20	
Ethylbenzene	47.36	5.0	50	0	94.7	75-125	51.27	7.92	20	
m,p-Xylene	102.2	10	100	0	102	75-125	103.4	1.16	20	
Methylene chloride	43.81	10	50	0	87.6	75-125	41.21	6.13	20	
Styrene	52.27	5.0	50	0	105	75-125	53.36	2.07	20	
Tetrachloroethene	49.7	5.0	50	0	99.4	75-125	49.79	0.195	20	
Toluene	48.87	5.0	50	0	97.7	76-125	49.27	0.82	20	
trans-1,3-Dichloropropene	51.94	5.0	50	0	104	70-130	53.37	2.71	20	
Trichloroethene	51.31	5.0	50	0	103	71-120	51.89	1.13	20	
Vinyl acetate	99.6	10	100	0	99.6	75-125	86.56	14	20	
Vinyl chloride	39.33	2.0	50	0	78.7	60-135	35.62	9.92	20	
Xylenes, Total	153.7	15	150	0	102	75-125	154.8	0.706	20	
Surr:1,2-Dichloroethane-d4	41.07	5.0	50	0	82.1	70-130	45.48	10.2	20	
Surr:4-Bromofluorobenzene	43.34	5.0	50	0	86.7	70-130	50.58	15.4	20	
Surr:Dibromofluoromethane	45.49	5.0	50	0	91	70-130	46.49	2.18	20	
Surr: Toluene-d8	46.97	5.0	50	0	93.9	70-130	46.95	0.0364	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01A

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16976** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-102903** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 17:11**
Client ID: Run ID: **IC201_031029A** SeqNo: **387269** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-102903** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 17:44**
Client ID: Run ID: **IC201_031029A** SeqNo: **387270** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.12	0.50	10	0	91.2	80-120	0			
Fluoride	2.1	0.10	2	0	105	80-120	0			
Sulfate	9.73	1.0	10	0	97.3	80-120	0			
Surr: Dichloroacetic acid (surr)	2.11	0.10	2	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-10290** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 18:16**
Client ID: Run ID: **IC201_031029A** SeqNo: **387271** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.23	0.50	10	0	92.3	80-120	9.12	1.2	20	
Fluoride	2.09	0.10	2	0	104	80-120	2.1	0.477	20	
Sulfate	9.69	1.0	10	0	96.9	80-120	9.73	0.412	20	
Surr: Dichloroacetic acid (surr)	2.09	0.10	2	0	104	80-120	2.11	0.952	20	

MS Sample ID: **0310305-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 20:59**
Client ID: **RW-7** Run ID: **IC201_031029A** SeqNo: **387276** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	236.3	0.50	10	227.9	83.6	75-125	0			EO
Fluoride	3.28	0.10	2	1.32	98	75-125	0			
Sulfate	391.5	1.0	10	379.8	118	75-125	0			EO
Nitrate/Nitrite (as N)	3.52	0.10	4	0	88	75-125	0			
Surr: Dichloroacetic acid (surr)	4.85	0.10	5	0	97	80-120	0			

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CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16976** InstrumentID: **IC201**

MSD Sample ID: **0310305-02BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 21:31**
Client ID: **RW-7** Run ID: **IC201_031029A** SeqNo: **387277** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	235.8	0.50	10	227.9	79.4	75-125	236.3	0.178	20	EO
Fluoride	3.09	0.10	2	1.32	88.5	75-125	3.28	5.97	20	
Sulfate	389.7	1.0	10	379.8	99.5	75-125	391.5	0.468	20	EO
Nitrate/Nitrite (as N)	3.58	0.10	4	0	89.5	75-125	3.52	1.69	20	
Surr: Dichloroacetic acid (surr)	4.8	0.10	5	0	96	80-120	4.85	1.04	20	

DUP Sample ID: **0310305-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/29/03 20:26**
Client ID: **RW-7** Run ID: **IC201_031029A** SeqNo: **387275** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	229.1	0.50	0	0	0	0-0	227.9	0.516	20	E
Fluoride	1.23	0.10	0	0	0	0-0	1.32	7.06	20	
Sulfate	384.3	1.0	0	0	0	0-0	379.8	1.19	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.4	0.10	5	0	88	80-120	4.93	11.4	20	

DUP Sample ID: **0310301-01BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/30/03 7:49**
Client ID: Run ID: **IC201_031029A** SeqNo: **387294** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	874	25	0	0	0	0-0	877.5	0.4	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	292.5	50	0	0	0	0-0	291	0.514	20	
Nitrate/Nitrite (as N)	ND	5.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	291.5	5.0	250	0	117	80-120	292.5	0.342	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01B 0310305-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R16996** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-110103** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/01/03 0:00**
Client ID: Run ID: **UV-2101PC_031101B** SeqNo: **387972** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-110103** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/01/03 0:00**
Client ID: Run ID: **UV-2101PC_031101B** SeqNo: **387973** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2012	0.020	0.2	0	101	80-120	0			

MS Sample ID: **0310301-01G MS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/01/03 0:00**
Client ID: Run ID: **UV-2101PC_031101B** SeqNo: **387981** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1994	0.020	0.2	0.0008	99.3	75-125	0			

MSD Sample ID: **0310301-01G MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/01/03 0:00**
Client ID: Run ID: **UV-2101PC_031101B** SeqNo: **387982** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2026	0.020	0.2	0.0008	101	75-125	0.1994	1.59	25	

DUP Sample ID: **0310301-01G DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **11/01/03 0:00**
Client ID: Run ID: **UV-2101PC_031101B** SeqNo: **387980** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	0.0008	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01D 0310305-02D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R17027** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW2-110303** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/03/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **388929** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW2-110303** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/03/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **388930** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	931.6	5.0	1000	0	93.2	80-120	0			

DUP Sample ID: **0310300-03F DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **11/03/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0311** SeqNo: **388934** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	686.4	5.0	0	0	0	0-0	686.4	0	20	
Alkalinity, Carbonate (As CaCO3)	137.3	5.0	0	0	0	0-0	137.3	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	823.7	5.0	0	0	0	0-0	823.7	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01B 0310305-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R17137** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-110803** Test Code: **E300** Units: **mg/L** Analysis Date: **11/08/03 16:01**
Client ID: Run ID: **IC201_031108A** SeqNo: **391729** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-110803** Test Code: **E300** Units: **mg/L** Analysis Date: **11/08/03 16:34**
Client ID: Run ID: **IC201_031108A** SeqNo: **391730** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.41	0.50	10	0	94.1	80-120	0			
Fluoride	1.99	0.10	2	0	99.5	80-120	0			
Sulfate	9.78	1.0	10	0	97.8	80-120	0			
Surr: Dichloroacetic acid (surr)	1.99	0.10	2	0	99.5	80-120	0			

LCSD Sample ID: **WLCSDW1-11080** Test Code: **E300** Units: **mg/L** Analysis Date: **11/08/03 17:06**
Client ID: Run ID: **IC201_031108A** SeqNo: **391731** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.31	0.50	10	0	93.1	80-120	9.41	1.07	20	
Fluoride	1.93	0.10	2	0	96.5	80-120	1.99	3.06	20	
Sulfate	9.66	1.0	10	0	96.6	80-120	9.78	1.23	20	
Surr: Dichloroacetic acid (surr)	1.93	0.10	2	0	96.5	80-120	1.99	3.06	20	

MS Sample ID: **0310224-28FMS** Test Code: **E300** Units: **mg/L** Analysis Date: **11/08/03 23:36**
Client ID: Run ID: **IC201_031108A** SeqNo: **391741** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2554	25	500	2037	103	75-125	0			EO
Fluoride	98.5	5.0	100	0	98.5	75-125	0			
Sulfate	1817	50	500	1342	95.1	75-125	0			
Nitrate/Nitrite (as N)	197	5.0	200	0	98.5	75-125	0			
Surr: Dichloroacetic acid (surr)	211	5.0	250	0	84.4	80-120	0			

ND - Not Detected at the Reporting Limit
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O - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310305
Project: Annual

QC BATCH REPORT

Batch ID: **R17137** InstrumentID: **IC201**

MSD Sample ID: **0310224-28FMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **11/09/03 0:09**
Client ID: Run ID: **IC201_031108A** SeqNo: **391742** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2566	25	500	2037	106	75-125	2554	0.469	20	EO
Fluoride	98.5	5.0	100	0	98.5	75-125	98.5	0	20	
Sulfate	1830	50	500	1342	97.8	75-125	1817	0.74	20	
Nitrate/Nitrite (as N)	187	5.0	200	0	93.5	75-125	197	5.21	20	
Surr: Dichloroacetic acid (surr)	214	5.0	250	0	85.6	80-120	211	1.41	20	

DUP Sample ID: **0310224-28FDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/08/03 23:04**
Client ID: Run ID: **IC201_031108A** SeqNo: **391740** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2040	25	0	0	0	0-0	2037	0.172	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1343	50	0	0	0	0-0	1342	0.112	20	
Nitrate/Nitrite (as N)	ND	5.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	263.5	5.0	250	0	105	80-120	261	0.953	20	

DUP Sample ID: **0310298-08HDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **11/09/03 9:21**
Client ID: Run ID: **IC201_031108A** SeqNo: **391759** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1961	25	0	0	0	0-0	1964	0.178	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	323.5	50	0	0	0	0-0	323.5	0	20	
Nitrate/Nitrite (as N)	ND	5.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	265	5.0	250	0	106	80-120	266	0.377	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310305-01B 0310305-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab
QUALITY • INTEGRITY • SERVICE

10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

3352 128th Avenue
Holland, Michigan-494
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager: G Jones | e-Lab Work Order #: 03835

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Annual	A	Metals (6020/7000)
Work Order		Project Number		B	Cyanide
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	Annual
Send Report To	Jeff Byrd	Invoice Attn	Jeff Byrd	D	
Address	P.O. Box 159	Address	P.O. Box 159	E	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	F	
Phone	505-748-3311	Phone	505-748-3311	G	
Fax	505-746-5421	Fax	505-746-5421	H	
e-Mail Address				I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RW-3	10/27/03	0930	L	4	8			X								
2	RW-4	10/27/03	1000	L	4	8			X								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: JB

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
JB	10/28/03	1615		
Relinquished by:	Date:	Time:	Received by (Laboratory): RICHARD SANCHEZ 10-29-03 0815	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

e-Lab Cooler ID	Cooler Temp.

QC Package: (Check Box Below)
- Level II: Standard QC
- Level III: Standard QC + Raw Data
- Level IV: SW846 Methods/CLP
- Other:

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 10/29/2003 8:45:00 AM

Work Order Number 0310305 | Received by: RSZ

Checklist completed by RICHARD SANCHEZ 10.29.03 (Signature / Date) | Reviewed by JC 10/29/03 (Initials / Date)

Matrix: W | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.0c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

NAVAJO REFINING COMPANY

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 28OCT2003
ACCOUNT 113684186
ACTUAL WGT: 65.00 LBS

TO:

2815305656

E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
-
HOUSTON TX 77099

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

WED

DELIVER BY:
29OCT2003

System # 2223500 28OCT2003
TRK# 7904 5366 7329 Form 0201

IAH A2

77099-TX-US A9 JGQA

05US v5.2.00 2223500 2644 04/02

Track: 790453667329
Mode: FedEx Express Standard

Invoice:		Date: 10/28/2003		Shipping:	108.13
Customer: ELAB		Weight:	65.00	Special:	4.87
Dept: ENV		COD:	0.00	Handling:	0.00
		DV:	0.00	Total:	113.00

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

November 10, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Semi-Annual

Work Order : **0310316**

Dear Jeff Byrd,

e-Lab, Inc. received 8 samples on 10/29/2003 8:45:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 15.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT: Navajo Refining Company
Project: Semi-Annual
Work Order: **0310316**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310316-01	MW-52	Wate		10/28/2003 09:0C	10/29/2003 08:4	☐
0310316-02	KWB-13	Wate		10/28/2003 09:1C	10/29/2003 08:4	☐
0310316-03	KWB-11A	Wate		10/28/2003 10:45	10/29/2003 08:4	☐
0310316-04	KWB-7	Wate		10/28/2003 10:2C	10/29/2003 08:4	☐
0310316-05	NP-1	Wate		10/28/2003 11:2C	10/29/2003 08:4	☐
0310316-06	NP-2	Wate		10/28/2003 11:0C	10/29/2003 08:4	☐
0310316-07	KWB-9	Wate		10/28/2003 09:4C	10/29/2003 08:4	☐
0310316-08	KWB-3R	Wate		10/28/2003 10:0C	10/29/2003 08:4	☐

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	MW-52
Work Order:	0310316	**Collection Date:**	10/28/2003 9:00:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-01	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	34	1.0		µg/L	1	11/7/2003 3:36:00 PM
Toluene	11	1.0		µg/L	1	11/7/2003 3:36:00 PM
Ethylbenzene	17	1.0		µg/L	1	11/7/2003 3:36:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	11/7/2003 3:36:00 PM
Xylenes, Total	28	3.0		µg/L	1	11/7/2003 3:36:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/7/2003 3:36:00 PM
Surr: Trifluorotoluene	109	70-130		%REC	1	11/7/2003 3:36:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	KWB-13
Work Order:	0310316	**Collection Date:**	10/28/2003 9:10:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-02	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	18	1.0		µg/L	1	11/6/2003 7:19:00 PM
Toluene	7.6	1.0		µg/L	1	11/6/2003 7:19:00 PM
Ethylbenzene	13	1.0		µg/L	1	11/6/2003 7:19:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	11/6/2003 7:19:00 PM
Xylenes, Total	15	3.0		µg/L	1	11/6/2003 7:19:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	11/6/2003 7:19:00 PM
Surr: Trifluorotoluene	110	70-130		%REC	1	11/6/2003 7:19:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	KWB-11A
Work Order:	0310316	**Collection Date:**	10/28/2003 10:45:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-03	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	9.1	1.0		µg/L	1	11/6/2003 7:44:00 PM
Toluene	4.5	1.0		µg/L	1	11/6/2003 7:44:00 PM
Ethylbenzene	9.2	1.0		µg/L	1	11/6/2003 7:44:00 PM
Methyl tert-butyl ether	8.3	5.0		µg/L	1	11/6/2003 7:44:00 PM
Xylenes, Total	11	3.0		µg/L	1	11/6/2003 7:44:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	11/6/2003 7:44:00 PM
Surr: Trifluorotoluene	108	70-130		%REC	1	11/6/2003 7:44:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	KWB-7
Work Order:	0310316	**Collection Date:**	10/28/2003 10:20:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-04	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	22	1.0		µg/L	1	11/6/2003 8:10:00 PM
Toluene	5.4	1.0		µg/L	1	11/6/2003 8:10:00 PM
Ethylbenzene	10	1.0		µg/L	1	11/6/2003 8:10:00 PM
Methyl tert-butyl ether	10	5.0		µg/L	1	11/6/2003 8:10:00 PM
Xylenes, Total	13	3.0		µg/L	1	11/6/2003 8:10:00 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	11/6/2003 8:10:00 PM
Surr: Trifluorotoluene	107	70-130		%REC	1	11/6/2003 8:10:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	NP-1
Work Order:	0310316	**Collection Date:**	10/28/2003 11:20:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-05	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	7.9	1.0		µg/L	1	11/6/2003 8:35:00 PM
Toluene	4.1	1.0		µg/L	1	11/6/2003 8:35:00 PM
Ethylbenzene	8.7	1.0		µg/L	1	11/6/2003 8:35:00 PM
Methyl tert-butyl ether	9.7	5.0		µg/L	1	11/6/2003 8:35:00 PM
Xylenes, Total	11	3.0		µg/L	1	11/6/2003 8:35:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	11/6/2003 8:35:00 PM
Surr: Trifluorotoluene	105	70-130		%REC	1	11/6/2003 8:35:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *November 10, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	NP-2
Work Order:	0310316	**Collection Date:**	10/28/2003 11:00:00 AM
Project:	Semi-Annual		
Lab ID:	0310316-06	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
BTEX, WATER		**SW8021B**				Analyst: **WLR**
Benzene	9.1	1.0		µg/L	1	11/6/2003 9:01:00 PM
Toluene	4.7	1.0		µg/L	1	11/6/2003 9:01:00 PM
Ethylbenzene	9.6	1.0		µg/L	1	11/6/2003 9:01:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	11/6/2003 9:01:00 PM
Xylenes, Total	12	3.0		µg/L	1	11/6/2003 9:01:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	11/6/2003 9:01:00 PM
Surr: Trifluorotoluene	105	70-130		%REC	1	11/6/2003 9:01:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0310316
Project: Semi-Annual

Date: *Nov 10 2003*

QC BATCH REPORT

Batch ID: **R17088** InstrumentID: **BTEX1**

MBLK Sample ID: **BBLKW1-110603** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/06/03 11:03**
Client ID: Run ID: **BTEX1_031106A** SeqNo: **390302** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether	ND	5.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	32.05	1.0	30	0	107	70-130		0		
Surr: Trifluorotoluene	32.94	1.0	30	0	110	70-130		0		

LCS Sample ID: **BLCSW1-110603** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/06/03 10:12**
Client ID: Run ID: **BTEX1_031106A** SeqNo: **390301** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.61	1.0	20	0	108	70-130		0		
Toluene	21.89	1.0	20	0	109	70-130		0		
Ethylbenzene	21.86	1.0	20	0	109	70-130		0		
Methyl tert-butyl ether	105.3	5.0	100	0	105	70-130		0		
Xylenes, Total	65.89	3.0	60	0	110	70-130		0		
Surr: 4-Bromofluorobenzene	32.72	1.0	30	0	109	70-130		0		
Surr: Trifluorotoluene	33.36	1.0	30	0	111	70-130		0		

MS Sample ID: **0311006-03AMS** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/06/03 11:54**
Client ID: Run ID: **BTEX1_031106A** SeqNo: **390304** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.33	1.0	20	2.461	84.3	70-130		0		
Toluene	19.69	1.0	20	0	98.5	70-130		0		
Ethylbenzene	20.04	1.0	20	0	100	70-130		0		
Methyl tert-butyl ether	91.33	5.0	100	0	91.3	70-130		0		
Xylenes, Total	60.65	3.0	60	0	101	70-130		0		
Surr: 4-Bromofluorobenzene	37.84	1.0	30	0	126	70-130		0		
Surr: Trifluorotoluene	33.82	1.0	30	0	113	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310316
Project: Semi-Annual

QC BATCH REPORT

Batch ID: **R17088** InstrumentID: **BTEX1**

MSD Sample ID: **0311006-03AMSD** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/06/03 12:19**

Client ID: Run ID: **BTEX1_031106A** SeqNo: **390305** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.74	1.0	20	2.461	86.4	70-130	19.33	2.13	20	
Toluene	20.55	1.0	20	0	103	70-130	19.69	4.27	20	
Ethylbenzene	23.95	1.0	20	0	120	70-130	20.04	17.7	20	
Methyl tert-butyl ether	91.98	5.0	100	0	92	70-130	91.33	0.71	20	
Xylenes, Total	61.85	3.0	60	0	103	70-130	60.65	1.95	20	
Surr: 4-Bromofluorobenzene	37.05	1.0	30	0	123	70-130	37.84	2.12	20	
Surr: Trifluorotoluene	33.7	1.0	30	0	112	70-130	33.82	0.349	20	

Thefollowingsampleswereanalyzedinthisbatch:

0310316-02A	0310316-03A	0310316-04A
0310316-05A	0310316-06A	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310316
Project: Semi-Annual

QC BATCH REPORT

Batch ID: **R17113** InstrumentID: **BTEX3**

MBLK Sample ID: **BBLKW1-110703** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/07/03 9:59**
Client ID: Run ID: **BTEX3_031107A** SeqNo: **390961** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether	ND	5.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	25.96	1.0	30	0	86.5	70-130	0			
Surr: Trifluorotoluene	30.86	1.0	30	0	103	70-130	0			

LCS Sample ID: **BLCSW1-110703** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/07/03 9:06**
Client ID: Run ID: **BTEX3_031107A** SeqNo: **390960** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22.78	1.0	20	0	114	70-130	0			
Toluene	22.13	1.0	20	0	111	70-130	0			
Ethylbenzene	23.18	1.0	20	0	116	70-130	0			
Methyl tert-butyl ether	101.5	5.0	100	0	101	70-130	0			
Xylenes, Total	66.93	3.0	60	0	112	70-130	0			
Surr: 4-Bromofluorobenzene	30.95	1.0	30	0	103	70-130	0			
Surr: Trifluorotoluene	32.09	1.0	30	0	107	70-130	0			

MS Sample ID: **0311032-02AMS** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/07/03 12:06**
Client ID: Run ID: **BTEX3_031107A** SeqNo: **390963** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	24.64	1.0	20	0.8297	119	70-130	0			
Toluene	24.31	1.0	20	0	122	70-130	0			
Ethylbenzene	24.92	1.0	20	0	125	70-130	0			
Methyl tert-butyl ether	110.8	5.0	100	0	111	70-130	0			
Xylenes, Total	93.31	3.0	60	26.18	112	70-130	0			
Surr: 4-Bromofluorobenzene	31.36	1.0	30	0	105	70-130	0			
Surr: Trifluorotoluene	32.3	1.0	30	0	108	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310316
Project: Semi-Annual

QC BATCH REPORT

Batch ID: **R17113** InstrumentID: **BTEX3**

MSD Sample ID: **0311032-02AMSD** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **11/07/03 12:32**

Client ID: Run ID: **BTEX3_031107A** SeqNo: **390964** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	25.96	1.0	20	0.8297	126	70-130	24.64	5.22	20	
Toluene	25.77	1.0	20	0	129	70-130	24.31	5.84	20	
Ethylbenzene	25.31	1.0	20	0	127	70-130	24.92	1.56	20	
Methyl tert-butyl ether	114.9	5.0	100	0	115	70-130	110.8	3.66	20	
Xylenes, Total	101.6	3.0	60	26.18	126	70-130	93.31	8.52	20	
Surr: 4-Bromofluorobenzene	35.56	1.0	30	0	119	70-130	31.36	12.6	20	
Surr: Trifluorotoluene	35.23	1.0	30	0	117	70-130	32.3	8.69	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310316-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

021016

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Navajo
Address: (Street, City, Zip)
Phone #: 505 748-3311
Fax #:
Contact Person: Jeff Byrd
Invoice to: (If different from above)
Project #:
Project Name: Semi-Annual
Project Location: Artesia
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Turn Around Time if different from standard	Hold
	MW-52	3	VOA	X										10/28	900	X	X															
	KWB-13														910	X	X															
	~~KWB-3R~~															X	X															
	KWB-11A														1045	X	X															
	KWB-7														1020	X	X															
	MP-1														1120	X	X															
	MP-2														1100	X	X															

Relinquished by: Date: Time:
Byrd 10/28/03 1615

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Date: Time:
[illegible] 10/29/03 0845

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp °
Log-in Review

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 10/29/2003 8:45:00 AM

Work Order Number 0310316 | Received by: RSZ

Checklist completed by RICHARD SANCHEZ 10-29-03 (Signature / Date) | Reviewed by JL (Initials) 10/30/03 (Date)

Matrix: W | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.0c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑

Adjusted? _____ Checked by _____

Login Notes: Extra samples logged in without analysis per client.

Any No and/or NA (not applicable) response must be detailed in the comments section below.

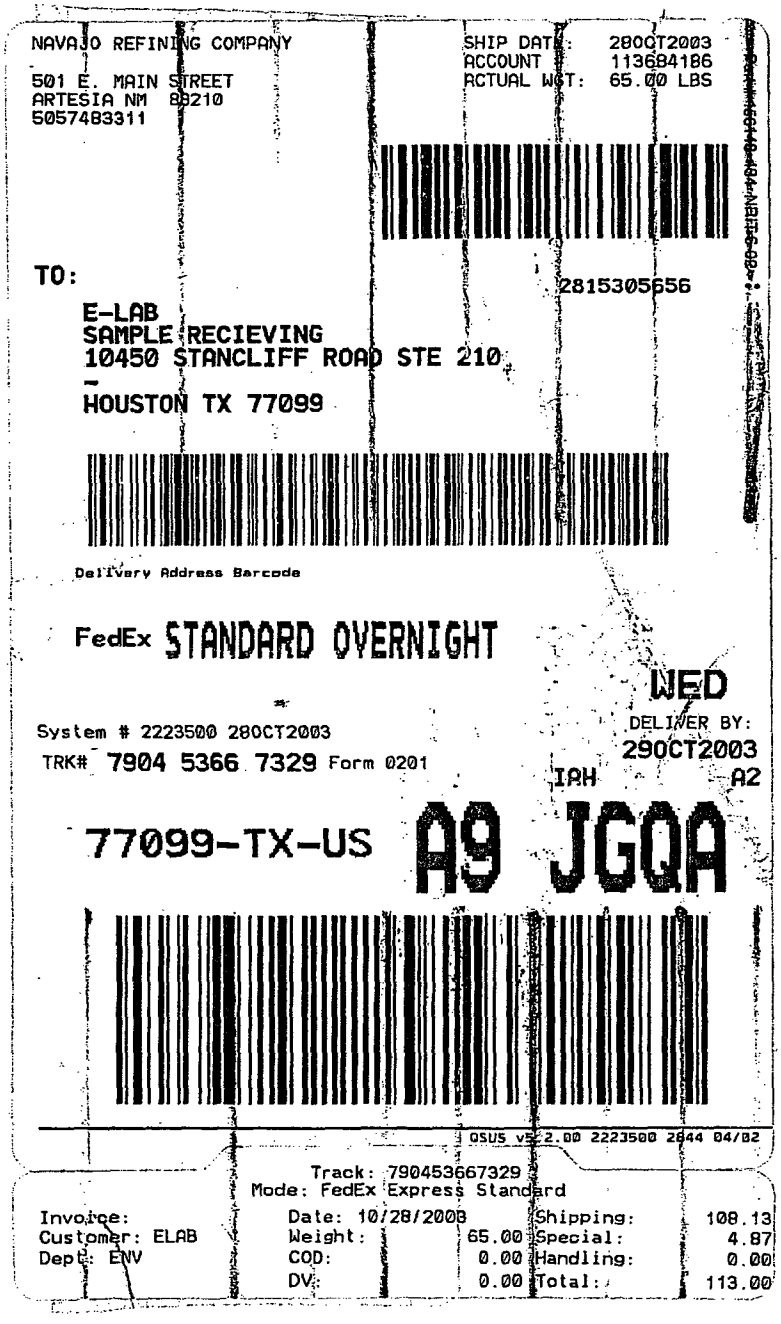
Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

031036



NAVAJO REFINING COMPANY
501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 28OCT2003
ACCOUNT 113684186
ACTUAL WGT: 65.00 LBS

TO:
2815305656
E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77099

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

WED
DELIVER BY:
29OCT2003
A2

System # 2223500 28OCT2003
TRK# 7904 5366 7329 Form 0201

IAH

77099-TX-US A9 JGQA

QSUS v5.2.00 2223500 2644 04/02

Track: 790453667329
Mode: FedEx Express Standard

Invoice:		Date: 10/28/2003		Shipping:	108.13
Customer: ELAB		Weight:	65.00	Special:	4.87
Dept: ENV		COD:	0.00	Handling:	0.00
		DV:	0.00	Total:	113.00

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

October 30, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Samples Work Order : **0310198**

Dear Jeff Byrd,

e-Lab, Inc. received 5 samples on 10/17/2003 8:45:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 55.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Project: Annual Samples
Work Order: **0310198**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310198-01	RW-17	Water		10/15/2003 09:00	10/17/2003 08:45	☐
0310198-02	RW-16	Water		10/15/2003 10:10	10/17/2003 08:45	☐
0310198-03	RW-11	Water		10/16/2003 09:30	10/17/2003 08:45	☐
0310198-04	RW-12	Water		10/16/2003 13:45	10/17/2003 08:45	☐
0310198-05	RW-13	Water		10/16/2003 14:15	10/17/2003 08:45	☐

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Project: Annual Samples
Work Order: 0310198

Case Narrative

Volatiles Batch R16795 LCS/LCSD recovery above control limits for Tetrachloroethene because of coelution with 1,3-Dichloropropane. The associated samples were ND for this compound.

Volatiles Batch R16808 LCS/LCSD recovery above control limits for 1,1-Dichloroethane. The associated samples were ND for this compound.

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-01

Client Sample ID: RW-17
Collection Date: 10/15/2003 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			**SW7470**		Prep Date: **10/27/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/28/2003 1:44:26 PM
ICP METALS, TOTAL			**SW6020**		Prep Date: **10/21/2003**	Analyst: **ALR**
Aluminum	0.115	0.0100		mg/L	1	10/23/2003 10:53:00 PM
Arsenic	0.0107	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Barium	0.0594	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Beryllium	ND	0.00200		mg/L	1	10/24/2003 3:27:00 PM
Boron	0.807	0.200		mg/L	10	10/22/2003 8:56:00 PM
Cadmium	ND	0.00100		mg/L	1	10/23/2003 10:53:00 PM
Calcium	236	25.0		mg/L	50	10/22/2003 8:08:00 PM
Chromium	ND	0.00200		mg/L	1	10/23/2003 10:53:00 PM
Cobalt	ND	0.00200		mg/L	1	10/23/2003 10:53:00 PM
Copper	0.00739	0.00200		mg/L	1	10/23/2003 10:53:00 PM
Iron	0.466	0.200		mg/L	1	10/23/2003 10:53:00 PM
Lead	ND	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Magnesium	351	10.0		mg/L	50	10/22/2003 8:08:00 PM
Manganese	0.663	0.0500		mg/L	10	10/22/2003 8:56:00 PM
Nickel	ND	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Potassium	4.19	0.200		mg/L	1	10/23/2003 10:53:00 PM
Selenium	0.0321	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Silver	ND	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Sodium	304	10.0		mg/L	50	10/22/2003 8:08:00 PM
Vanadium	0.00819	0.00500		mg/L	1	10/23/2003 10:53:00 PM
Zinc	0.0187	0.00500		mg/L	1	10/23/2003 10:53:00 PM
SEMIVOLATILE ORGANICS BY GC/MS			**SW8270**		Prep Date: **10/17/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2-Methylphenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/21/2003 9:38:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/21/2003 9:38:00 PM
4-Methylphenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/21/2003 9:38:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Acenaphthene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Acenaphthylene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Aniline	ND	10		µg/L	1	10/21/2003 9:38:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-01

Client Sample ID: RW-17
Collection Date: 10/15/2003 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Benzidine	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Hexachloroethane	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Isophorone	ND	10		µg/L	1	10/21/2003 9:38:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/21/2003 9:38:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/21/2003 9:38:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Naphthalene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Nitrobenzene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Phenanthrene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Phenol	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Pyrene	ND	10		µg/L	1	10/21/2003 9:38:00 PM
Surr: 2,4,6-Tribromophenol	91.5	39-153		%REC	1	10/21/2003 9:38:00 PM
Surr: 2-Fluorobiphenyl	82.9	40-147		%REC	1	10/21/2003 9:38:00 PM
Surr: 2-Fluorophenol	44.3	21-100		%REC	1	10/21/2003 9:38:00 PM
Surr: 4-Terphenyl-d14	90.9	39-141		%REC	1	10/21/2003 9:38:00 PM
Surr: Nitrobenzene-d5	77.3	37-140		%REC	1	10/21/2003 9:38:00 PM
Surr: Phenol-d6	29.0	11-100		%REC	1	10/21/2003 9:38:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 6:30:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 6:30:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 6:30:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 6:30:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 6:30:00 PM
Benzene	48	5.0		µg/L	1	10/20/2003 6:30:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 6:30:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-01

Client Sample ID: RW-17
Collection Date: 10/15/2003 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Ethylbenzene	6.5	5.0		µg/L	1	10/20/2003 6:30:00 PM
m,p-Xylene	23	10		µg/L	1	10/20/2003 6:30:00 PM
Methylene chloride	ND	10		µg/L	1	10/20/2003 6:30:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Toluene	22	5.0		µg/L	1	10/20/2003 6:30:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 6:30:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 6:30:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 6:30:00 PM
Xylenes, Total	33	15		µg/L	1	10/20/2003 6:30:00 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	10/20/2003 6:30:00 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	1	10/20/2003 6:30:00 PM
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	10/20/2003 6:30:00 PM
Surr: Toluene-d8	98.8	70-130		%REC	1	10/20/2003 6:30:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	259	5.00		mg/L	10	10/27/2003 7:17:00 PM
Fluoride	2.23	0.100		mg/L	1	10/17/2003 1:49:00 PM
Sulfate	3,000	100		mg/L	100	10/27/2003 7:49:00 PM
Nitrate/Nitrite (as N)	9.74	0.100		mg/L	1	10/17/2003 1:49:00 PM
Surr: Dichloroacetic acid (surr)	112	80-120		%REC	100	10/27/2003 7:49:00 PM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	10	10/27/2003 7:17:00 PM
Surr: Dichloroacetic acid (surr)	83.6	80-120		%REC	1	10/17/2003 1:49:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	642	5.00		mg/L	1	10/22/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Total (As CaCO3)	642	5.00		mg/L	1	10/22/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

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E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-02

Client Sample ID: RW-16
Collection Date: 10/15/2003 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/27/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/28/2003 1:50:35 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/21/2003**	Analyst: **ALR**
Aluminum	0.0927	0.0100		mg/L	1	10/23/2003 10:57:00 PM
Arsenic	0.0151	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Barium	0.0277	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Beryllium	ND	0.00200		mg/L	1	10/24/2003 3:32:00 PM
Boron	0.569	0.200		mg/L	10	10/22/2003 9:00:00 PM
Cadmium	ND	0.00100		mg/L	1	10/23/2003 10:57:00 PM
Calcium	415	25.0		mg/L	50	10/22/2003 8:13:00 PM
Chromium	ND	0.00200		mg/L	1	10/23/2003 10:57:00 PM
Cobalt	ND	0.00200		mg/L	1	10/23/2003 10:57:00 PM
Copper	0.00427	0.00200		mg/L	1	10/23/2003 10:57:00 PM
Iron	1.02	0.200		mg/L	1	10/23/2003 10:57:00 PM
Lead	ND	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Magnesium	180	10.0		mg/L	50	10/22/2003 8:13:00 PM
Manganese	0.958	0.0500		mg/L	10	10/22/2003 9:00:00 PM
Nickel	0.0123	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Potassium	2.43	0.200		mg/L	1	10/23/2003 10:57:00 PM
Selenium	0.00676	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Silver	ND	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Sodium	248	10.0		mg/L	50	10/22/2003 8:13:00 PM
Vanadium	ND	0.00500		mg/L	1	10/23/2003 10:57:00 PM
Zinc	0.0130	0.00500		mg/L	1	10/23/2003 10:57:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/17/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2-Methylphenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:04:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:04:00 PM
4-Methylphenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:04:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Acenaphthene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Acenaphthylene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Aniline	ND	10		µg/L	1	10/21/2003 10:04:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-02

Client Sample ID: RW-16
Collection Date: 10/15/2003 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Benzidine	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Hexachloroethane	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Isophorone	ND	10		µg/L	1	10/21/2003 10:04:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/21/2003 10:04:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/21/2003 10:04:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Naphthalene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Nitrobenzene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Phenanthrene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Phenol	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Pyrene	ND	10		µg/L	1	10/21/2003 10:04:00 PM
Surr: 2,4,6-Tribromophenol	92.4	39-153		%REC	1	10/21/2003 10:04:00 PM
Surr: 2-Fluorobiphenyl	82.8	40-147		%REC	1	10/21/2003 10:04:00 PM
Surr: 2-Fluorophenol	52.3	21-100		%REC	1	10/21/2003 10:04:00 PM
Surr: 4-Terphenyl-d14	92.2	39-141		%REC	1	10/21/2003 10:04:00 PM
Surr: Nitrobenzene-d5	77.9	37-140		%REC	1	10/21/2003 10:04:00 PM
Surr: Phenol-d6	32.7	11-100		%REC	1	10/21/2003 10:04:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 6:57:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 6:57:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 6:57:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 6:57:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 6:57:00 PM
Benzene	42	5.0		µg/L	1	10/20/2003 6:57:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 6:57:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-02

Client Sample ID: RW-16
Collection Date: 10/15/2003 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Ethylbenzene	19	5.0		µg/L	1	10/20/2003 6:57:00 PM
m,p-Xylene	24	10		µg/L	1	10/20/2003 6:57:00 PM
Methylene chloride	ND	10		µg/L	1	10/20/2003 6:57:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Toluene	35	5.0		µg/L	1	10/20/2003 6:57:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 6:57:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 6:57:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 6:57:00 PM
Xylenes, Total	36	15		µg/L	1	10/20/2003 6:57:00 PM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	10/20/2003 6:57:00 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	10/20/2003 6:57:00 PM
Surr: Dibromofluoromethane	93.3	70-130		%REC	1	10/20/2003 6:57:00 PM
Surr: Toluene-d8	97.1	70-130		%REC	1	10/20/2003 6:57:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	534	10.0		mg/L	20	10/27/2003 8:22:00 PM
Fluoride	3.87	0.100		mg/L	1	10/17/2003 2:22:00 PM
Sulfate	1,990	100		mg/L	100	10/27/2003 8:54:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/17/2003 2:22:00 PM
Surr: Dichloroacetic acid (surr)	116	80-120		%REC	100	10/27/2003 8:54:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	20	10/27/2003 8:22:00 PM
Surr: Dichloroacetic acid (surr)	85.2	80-120		%REC	1	10/17/2003 2:22:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	618	5.00		mg/L	1	10/22/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Total (As CaCO3)	618	5.00		mg/L	1	10/22/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-03

Client Sample ID: RW-11
Collection Date: 10/16/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			**SW7470**		Prep Date: **10/27/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/28/2003 1:52:06 PM
ICP METALS, TOTAL			**SW6020**		Prep Date: **10/21/2003**	Analyst: **ALR**
Aluminum	0.0697	0.0100		mg/L	1	10/23/2003 11:02:00 PM
Arsenic	ND	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Barium	0.540	0.0500		mg/L	10	10/22/2003 9:05:00 PM
Beryllium	ND	0.00200		mg/L	1	10/24/2003 3:37:00 PM
Boron	0.210	0.200		mg/L	10	10/22/2003 9:05:00 PM
Cadmium	ND	0.00100		mg/L	1	10/23/2003 11:02:00 PM
Calcium	150	5.00		mg/L	10	10/22/2003 9:05:00 PM
Chromium	ND	0.00200		mg/L	1	10/23/2003 11:02:00 PM
Cobalt	ND	0.00200		mg/L	1	10/23/2003 11:02:00 PM
Copper	ND	0.00200		mg/L	1	10/23/2003 11:02:00 PM
Iron	1.23	0.200		mg/L	1	10/23/2003 11:02:00 PM
Lead	0.00638	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Magnesium	71.8	2.00		mg/L	10	10/22/2003 9:05:00 PM
Manganese	0.695	0.0500		mg/L	10	10/22/2003 9:05:00 PM
Nickel	ND	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Potassium	1.80	0.200		mg/L	1	10/23/2003 11:02:00 PM
Selenium	ND	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Silver	ND	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Sodium	58.9	2.00		mg/L	10	10/22/2003 9:05:00 PM
Vanadium	ND	0.00500		mg/L	1	10/23/2003 11:02:00 PM
Zinc	0.143	0.00500		mg/L	1	10/23/2003 11:02:00 PM
SEMIVOLATILE ORGANICS BY GC/MS			**SW8270**		Prep Date: **10/17/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
2-Methylnaphthalene	43	10		µg/L	1	10/21/2003 10:30:00 PM
2-Methylphenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:30:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:30:00 PM
4-Methylphenol	13	10		µg/L	1	10/21/2003 10:30:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/21/2003 10:30:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Acenaphthene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Acenaphthylene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Aniline	ND	10		µg/L	1	10/21/2003 10:30:00 PM

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-03

Client Sample ID: RW-11
Collection Date: 10/16/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Benzidine	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Hexachloroethane	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Isophorone	ND	10		µg/L	1	10/21/2003 10:30:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/21/2003 10:30:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/21/2003 10:30:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Naphthalene	250	50		µg/L	5	10/22/2003 6:05:00 PM
Nitrobenzene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Phenanthrene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Phenol	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Pyrene	ND	10		µg/L	1	10/21/2003 10:30:00 PM
Surr: 2,4,6-Tribromophenol	94.4	39-153		%REC	1	10/21/2003 10:30:00 PM
Surr: 2,4,6-Tribromophenol	114	39-153		%REC	5	10/22/2003 6:05:00 PM
Surr: 2-Fluorobiphenyl	107	40-147		%REC	5	10/22/2003 6:05:00 PM
Surr: 2-Fluorobiphenyl	78.3	40-147		%REC	1	10/21/2003 10:30:00 PM
Surr: 2-Fluorophenol	60.5	21-100		%REC	5	10/22/2003 6:05:00 PM
Surr: 2-Fluorophenol	46.4	21-100		%REC	1	10/21/2003 10:30:00 PM
Surr: 4-Terphenyl-d14	92.3	39-141		%REC	1	10/21/2003 10:30:00 PM
Surr: 4-Terphenyl-d14	116	39-141		%REC	5	10/22/2003 6:05:00 PM
Surr: Nitrobenzene-d5	76.4	37-140		%REC	1	10/21/2003 10:30:00 PM
Surr: Nitrobenzene-d5	98.1	37-140		%REC	5	10/22/2003 6:05:00 PM
Surr: Phenol-d6	30.7	11-100		%REC	1	10/21/2003 10:30:00 PM
Surr: Phenol-d6	40.5	11-100		%REC	5	10/22/2003 6:05:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 7:24:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 7:24:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 7:24:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 7:24:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 7:24:00 PM
Benzene	1,300	100		µg/L	20	10/22/2003 4:59:00 AM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-03

Client Sample ID: RW-11
Collection Date: 10/16/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 7:24:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Chloroethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Ethylbenzene	2,400	100		µg/L	20	10/22/2003 4:59:00 AM
m,p-Xylene	940	200		µg/L	20	10/22/2003 4:59:00 AM
Methylene chloride	ND	10		µg/L	1	10/20/2003 7:24:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Toluene	76	5.0		µg/L	1	10/20/2003 7:24:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 7:24:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 7:24:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 7:24:00 PM
Xylenes, Total	1,100	300		µg/L	20	10/22/2003 4:59:00 AM
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	1	10/20/2003 7:24:00 PM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	20	10/22/2003 4:59:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/20/2003 7:24:00 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	20	10/22/2003 4:59:00 AM
Surr: Dibromofluoromethane	98.3	70-130		%REC	1	10/20/2003 7:24:00 PM
Surr: Dibromofluoromethane	92.6	70-130		%REC	20	10/22/2003 4:59:00 AM
Surr: Toluene-d8	96.7	70-130		%REC	1	10/20/2003 7:24:00 PM
Surr: Toluene-d8	96.1	70-130		%REC	20	10/22/2003 4:59:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	102	2.50		mg/L	5	10/27/2003 9:27:00 PM
Fluoride	0.880	0.100		mg/L	1	10/17/2003 2:54:00 PM
Sulfate	118	5.00		mg/L	5	10/27/2003 9:27:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/17/2003 2:54:00 PM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	5	10/27/2003 9:27:00 PM
Surr: Dichloroacetic acid (surr)	96.4	80-120		%REC	1	10/17/2003 2:54:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	755	5.00		mg/L	1	10/22/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/22/2003

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E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	RW-11
Work Order:	0310198	**Collection Date:**	10/16/2003 9:30:00 AM
Project:	Annual Samples		
Lab ID:	0310198-03	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Total (As CaCO3)	755	5.00		mg/L	1	10/22/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	0.0342	0.0200		mg/L	1	10/20/2003

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- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-04

Client Sample ID: RW-12
Collection Date: 10/16/2003 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/27/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/28/2003 1:53:38 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/21/2003**	Analyst: **ALR**
Aluminum	0.396	0.100		mg/L	10	10/22/2003 9:09:00 PM
Arsenic	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Barium	0.0968	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Beryllium	ND	0.00200		mg/L	1	10/24/2003 3:41:00 PM
Boron	0.299	0.200		mg/L	10	10/22/2003 9:09:00 PM
Cadmium	ND	0.00100		mg/L	1	10/23/2003 11:07:00 PM
Calcium	277	25.0		mg/L	50	10/22/2003 8:21:00 PM
Chromium	ND	0.00200		mg/L	1	10/23/2003 11:07:00 PM
Cobalt	ND	0.00200		mg/L	1	10/23/2003 11:07:00 PM
Copper	0.00457	0.00200		mg/L	1	10/23/2003 11:07:00 PM
Iron	0.725	0.200		mg/L	1	10/23/2003 11:07:00 PM
Lead	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Magnesium	232	10.0		mg/L	50	10/22/2003 8:21:00 PM
Manganese	0.397	0.0500		mg/L	10	10/22/2003 9:09:00 PM
Nickel	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Potassium	0.326	0.200		mg/L	1	10/23/2003 11:07:00 PM
Selenium	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Silver	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Sodium	137	2.00		mg/L	10	10/22/2003 9:09:00 PM
Vanadium	ND	0.00500		mg/L	1	10/23/2003 11:07:00 PM
Zinc	0.0282	0.00500		mg/L	1	10/23/2003 11:07:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/20/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:23:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:23:00 PM
4-Methylphenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:23:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Acenaphthene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Aniline	ND	10		µg/L	1	10/22/2003 7:23:00 PM

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E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-04

Client Sample ID: RW-12
Collection Date: 10/16/2003 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Benzidine	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Isophorone	ND	10		µg/L	1	10/22/2003 7:23:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2003 7:23:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2003 7:23:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Naphthalene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Phenanthrene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Phenol	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Pyrene	ND	10		µg/L	1	10/22/2003 7:23:00 PM
Surr: 2,4,6-Tribromophenol	83.4	39-153		%REC	1	10/22/2003 7:23:00 PM
Surr: 2-Fluorobiphenyl	72.9	40-147		%REC	1	10/22/2003 7:23:00 PM
Surr: 2-Fluorophenol	44.8	21-100		%REC	1	10/22/2003 7:23:00 PM
Surr: 4-Terphenyl-d14	82.8	39-141		%REC	1	10/22/2003 7:23:00 PM
Surr: Nitrobenzene-d5	70.5	37-140		%REC	1	10/22/2003 7:23:00 PM
Surr: Phenol-d6	30.6	11-100		%REC	1	10/22/2003 7:23:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 7:51:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 7:51:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 7:51:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 7:51:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 7:51:00 PM
Benzene	5,000	120		µg/L	25	10/22/2003 5:26:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 7:51:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM

Qualifiers:

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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-04

Client Sample ID: RW-12
Collection Date: 10/16/2003 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Ethylbenzene	140	5.0		µg/L	1	10/20/2003 7:51:00 PM
m,p-Xylene	430	100		µg/L	10	10/22/2003 5:52:00 PM
Methylene chloride	ND	10		µg/L	1	10/20/2003 7:51:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Toluene	54	5.0		µg/L	1	10/20/2003 7:51:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 7:51:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 7:51:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 7:51:00 PM
Xylenes, Total	430	150		µg/L	10	10/22/2003 5:52:00 PM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	1	10/20/2003 7:51:00 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	10/22/2003 5:52:00 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	25	10/22/2003 5:26:00 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	10/20/2003 7:51:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	10/22/2003 5:52:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	25	10/22/2003 5:26:00 AM
Surr: Dibromofluoromethane	94.2	70-130		%REC	1	10/20/2003 7:51:00 PM
Surr: Dibromofluoromethane	92.8	70-130		%REC	10	10/22/2003 5:52:00 PM
Surr: Dibromofluoromethane	92.0	70-130		%REC	25	10/22/2003 5:26:00 AM
Surr: Toluene-d8	97.8	70-130		%REC	1	10/20/2003 7:51:00 PM
Surr: Toluene-d8	96.0	70-130		%REC	10	10/22/2003 5:52:00 PM
Surr: Toluene-d8	95.5	70-130		%REC	25	10/22/2003 5:26:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	188	5.00		mg/L	10	10/27/2003 9:59:00 PM
Fluoride	0.840	0.100		mg/L	1	10/17/2003 3:27:00 PM
Sulfate	1,280	50.0		mg/L	50	10/27/2003 10:32:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/17/2003 3:27:00 PM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	50	10/27/2003 10:32:00 PM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	10	10/27/2003 9:59:00 PM
Surr: Dichloroacetic acid (surr)	90.2	80-120		%REC	1	10/17/2003 3:27:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	726	5.00		mg/L	1	10/22/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/22/2003

Qualifiers:

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* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	RW-12
Work Order:	0310198	**Collection Date:**	10/16/2003 1:45:00 PM
Project:	Annual Samples		
Lab ID:	0310198-04	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Total (As CaCO3)	726	5.00		mg/L	1	10/22/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	0.0244	0.0200		mg/L	1	10/20/2003

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-05

Client Sample ID: RW-13
Collection Date: 10/16/2003 2:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			**SW7470**		Prep Date: **10/27/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/28/2003 2:02:19 PM
ICP METALS, TOTAL			**SW6020**		Prep Date: **10/21/2003**	Analyst: **ALR**
Aluminum	0.123	0.0100		mg/L	1	10/23/2003 11:11:00 PM
Arsenic	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Barium	0.180	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Beryllium	ND	0.00200		mg/L	1	10/24/2003 3:46:00 PM
Boron	0.329	0.200		mg/L	10	10/22/2003 9:13:00 PM
Cadmium	ND	0.00100		mg/L	1	10/23/2003 11:11:00 PM
Calcium	148	5.00		mg/L	10	10/22/2003 9:13:00 PM
Chromium	ND	0.00200		mg/L	1	10/23/2003 11:11:00 PM
Cobalt	ND	0.00200		mg/L	1	10/23/2003 11:11:00 PM
Copper	0.00229	0.00200		mg/L	1	10/23/2003 11:11:00 PM
Iron	0.403	0.200		mg/L	1	10/23/2003 11:11:00 PM
Lead	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Magnesium	.114	2.00		mg/L	10	10/22/2003 9:13:00 PM
Manganese	0.711	0.0500		mg/L	10	10/22/2003 9:13:00 PM
Nickel	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Potassium	0.484	0.200		mg/L	1	10/23/2003 11:11:00 PM
Selenium	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Silver	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Sodium	146	2.00		mg/L	10	10/22/2003 9:13:00 PM
Vanadium	ND	0.00500		mg/L	1	10/23/2003 11:11:00 PM
Zinc	0.0104	0.00500		mg/L	1	10/23/2003 11:11:00 PM
SEMIVOLATILE ORGANICS BY GC/MS			**SW8270**		Prep Date: **10/20/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:49:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:49:00 PM
4-Methylphenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2003 7:49:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Acenaphthene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Aniline	ND	10		µg/L	1	10/22/2003 7:49:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-05

Client Sample ID: RW-13
Collection Date: 10/16/2003 2:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Benzidine	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Isophorone	ND	10		µg/L	1	10/22/2003 7:49:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2003 7:49:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2003 7:49:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Naphthalene	49	10		µg/L	1	10/22/2003 7:49:00 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Phenanthrene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Phenol	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Pyrene	ND	10		µg/L	1	10/22/2003 7:49:00 PM
Surr: 2,4,6-Tribromophenol	86.2	39-153		%REC	1	10/22/2003 7:49:00 PM
Surr: 2-Fluorobiphenyl	75.6	40-147		%REC	1	10/22/2003 7:49:00 PM
Surr: 2-Fluorophenol	47.5	21-100		%REC	1	10/22/2003 7:49:00 PM
Surr: 4-Terphenyl-d14	86.1	39-141		%REC	1	10/22/2003 7:49:00 PM
Surr: Nitrobenzene-d5	74.8	37-140		%REC	1	10/22/2003 7:49:00 PM
Surr: Phenol-d6	31.4	11-100		%REC	1	10/22/2003 7:49:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 8:18:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 8:18:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 8:18:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 8:18:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 8:18:00 PM
Benzene	3,500	120		µg/L	25	10/22/2003 5:53:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 8:18:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM

Qualifiers:

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e-Lab, Inc.

Date: *October 30, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples
Lab ID: 0310198-05

Client Sample ID: RW-13
Collection Date: 10/16/2003 2:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Ethylbenzene	540	120		µg/L	25	10/22/2003 5:53:00 AM
m,p-Xylene	420	250		µg/L	25	10/22/2003 5:53:00 AM
Methylene chloride	ND	10		µg/L	1	10/20/2003 8:18:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Toluene	230	120		µg/L	25	10/22/2003 5:53:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 8:18:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 8:18:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 8:18:00 PM
Xylenes, Total	530	380		µg/L	25	10/22/2003 5:53:00 AM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	1	10/20/2003 8:18:00 PM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	25	10/22/2003 5:53:00 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	10/20/2003 8:18:00 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	25	10/22/2003 5:53:00 AM
Surr: Dibromofluoromethane	94.7	70-130		%REC	1	10/20/2003 8:18:00 PM
Surr: Dibromofluoromethane	92.9	70-130		%REC	25	10/22/2003 5:53:00 AM
Surr: Toluene-d8	96.7	70-130		%REC	1	10/20/2003 8:18:00 PM
Surr: Toluene-d8	96.2	70-130		%REC	25	10/22/2003 5:53:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	282	5.00		mg/L	10	10/27/2003 11:37:00 PM
Fluoride	1.01	0.100		mg/L	1	10/17/2003 3:59:00 PM
Sulfate	164	5.00		mg/L	5	10/27/2003 11:04:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/17/2003 3:59:00 PM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	10/27/2003 11:37:00 PM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	5	10/27/2003 11:04:00 PM
Surr: Dichloroacetic acid (surr)	99.8	80-120		%REC	1	10/17/2003 3:59:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	1,070	5.00		mg/L	1	10/22/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/22/2003
Alkalinity, Total (As CaCO3)	1,070	5.00		mg/L	1	10/22/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

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e-Lab, Inc.

Date: *Oct 30 2003*

CLIENT: Navajo Refining Company

Work Order: 0310198

Project: Annual Samples

QC BATCH REPORT

Batch ID: **6979** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW3-102103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 20:00**

Client ID: Run ID: **ICP4500_031022A** SeqNo: **383245** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.007942	0.010								J
Arsenic	ND	0.0050								
Barium	0.0007285	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	ND	0.0020								
Copper	ND	0.0020								
Iron	ND	0.20								
Lead	0.0004607	0.0050								J
Magnesium	ND	0.20								
Manganese	0.002409	0.0050								J
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								

MBLK Sample ID: **MBLKW3-102103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 15:52**

Client ID: Run ID: **ICP4500_031023A** SeqNo: **383668** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	ND	0.0050								

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6979** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW3-102103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 20:04**
Client ID: Run ID: **ICP4500_031022A** SeqNo: **383246** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09966	0.010	0.1	0	99.7	80-120	0			
Arsenic	0.09146	0.0050	0.1	0	91.5	80-120	0			
Barium	0.09051	0.0050	0.1	0	90.5	80-120	0			
Beryllium	0.0937	0.0020	0.1	0	93.7	80-120	0			
Boron	0.4311	0.020	0.5	0	86.2	80-120	0			
Cadmium	0.09309	0.0010	0.1	0	93.1	80-120	0			
Calcium	9.344	0.50	10	0	93.4	80-120	0			
Chromium	0.0931	0.0020	0.1	0	93.1	80-120	0			
Cobalt	0.09681	0.0020	0.1	0	96.8	80-120	0			
Copper	0.0944	0.0020	0.1	0	94.4	80-120	0			
Iron	9.415	0.20	10	0	94.2	80-120	0			
Lead	0.09314	0.0050	0.1	0	93.1	80-120	0			
Magnesium	9.718	0.20	10	0	97.2	80-120	0			
Manganese	0.09426	0.0050	0.1	0	94.3	80-120	0			
Nickel	0.09518	0.0050	0.1	0	95.2	80-120	0			
Potassium	9.639	0.20	10	0	96.4	80-120	0			
Selenium	0.09635	0.0050	0.1	0	96.4	80-120	0			
Silver	0.09267	0.0050	0.1	0	92.7	80-120	0			
Sodium	9.366	0.20	10	0	93.7	80-120	0			
Vanadium	0.09618	0.0050	0.1	0	96.2	80-120	0			

LCS Sample ID: **MLCSW3-102103** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 14:54**
Client ID: Run ID: **ICP4500_031023A** SeqNo: **383656** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.107	0.0050	0.1	0	107	80-120	0			

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6979** InstrumentID: **ICP4500**

MS Sample ID: **0310189-09BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 22:21**

Client ID: Run ID: **ICP4500_031023A** SeqNo: **383770** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1446	0.010	0.1	0.05568	88.9	75-125	0			
Arsenic	0.09163	0.0050	0.1	0.008934	82.7	75-125	0			
Barium	0.1643	0.0050	0.1	0.05756	107	75-125	0			
Beryllium	0.08484	0.0020	0.1	-6.925E-06	84.8	75-125	0			
Boron	0.853	0.020	0.5	0.4015	90.3	75-125	0			
Cadmium	0.07579	0.0010	0.1	0.0002444	75.5	75-125	0			
Calcium	779.2	0.50	10	812.7	-335	75-125	0			SEO
Chromium	0.1043	0.0020	0.1	0.002144	102	75-125	0			
Cobalt	0.1053	0.0020	0.1	0.01193	93.4	75-125	0			
Copper	0.091	0.0020	0.1	0.01204	79	75-125	0			
Iron	11.5	0.20	10	1.704	98	75-125	0			
Lead	0.117	0.0050	0.1	0.001119	116	75-125	0			
Magnesium	ND	0.20	10	0	0	75-125	0			S
Manganese	8.347	0.0050	0.1	8.711	-364	75-125	0			SEO
Nickel	0.09972	0.0050	0.1	0.01879	80.9	75-125	0			
Potassium	70.24	0.20	10	62.52	77.2	75-125	0			EO
Selenium	0.08478	0.0050	0.1	0.01253	72.2	75-125	0			S
Silver	0.07687	0.0050	0.1	0.0000378	76.8	75-125	0			
Sodium	ND	0.20	10	0	0	75-125	0			S
Vanadium	0.1181	0.0050	0.1	0.003468	115	75-125	0			
Zinc	0.09941	0.0050	0.1	0.03597	63.4	75-125	0			S

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O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6979** InstrumentID: **ICP4500**

MSD Sample ID: **0310189-09BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 22:26**

Client ID: Run ID: **ICP4500_031023A** SeqNo: **383771** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1538	0.010	0.1	0.05568	98.1	75-125	0.1446	6.17	25	
Arsenic	0.09454	0.0050	0.1	0.008934	85.6	75-125	0.09163	3.13	25	
Barium	0.1693	0.0050	0.1	0.05756	112	75-125	0.1643	3	25	
Beryllium	0.08573	0.0020	0.1	-6.925E-06	85.7	75-125	0.08484	1.04	25	
Boron	0.8808	0.020	0.5	0.4015	95.9	75-125	0.853	3.21	25	
Cadmium	0.07697	0.0010	0.1	0.0002444	76.7	75-125	0.07579	1.54	25	
Calcium	785.7	0.50	10	812.7	-270	75-125	779.2	0.831	25	SEO
Chromium	0.1044	0.0020	0.1	0.002144	102	75-125	0.1043	0.0958	25	
Cobalt	0.1063	0.0020	0.1	0.01193	94.4	75-125	0.1053	0.945	25	
Copper	0.09175	0.0020	0.1	0.01204	79.7	75-125	0.091	0.821	25	
Iron	11.55	0.20	10	1.704	98.5	75-125	11.5	0.434	25	
Lead	0.1207	0.0050	0.1	0.001119	120	75-125	0.117	3.11	25	
Magnesium	ND	0.20	10	0	0	75-125	0	0	25	S
Manganese	8.442	0.0050	0.1	8.711	-269	75-125	8.347	1.13	25	SEO
Nickel	0.09952	0.0050	0.1	0.01879	80.7	75-125	0.09972	0.201	25	
Potassium	70.84	0.20	10	62.52	83.2	75-125	70.24	0.851	25	EO
Selenium	0.08444	0.0050	0.1	0.01253	71.9	75-125	0.08478	0.402	25	S
Silver	0.07779	0.0050	0.1	0.0000378	77.8	75-125	0.07687	1.19	25	
Sodium	ND	0.20	10	0	0	75-125	0	0	25	S
Vanadium	0.1188	0.0050	0.1	0.003468	115	75-125	0.1181	0.591	25	
Zinc	0.09903	0.0050	0.1	0.03597	63.1	75-125	0.09941	0.383	25	S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6979** InstrumentID: **ICP4500**

DUP Sample ID: **0310189-09BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 22:16**
Client ID: Run ID: **ICP4500_031023A** SeqNo: **383769** Prep Date: **10/21/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.03867	0.010	0	0	0	0-0	0.05568	36.1	25	R
Arsenic	0.007262	0.0050	0	0	0	0-0	0.008934	20.6	25	
Barium	0.04927	0.0050	0	0	0	0-0	0.05756	15.5	25	
Beryllium	ND	0.0020	0	0	0	0-0	-6.925E-06	0	25	
Boron	0.3502	0.020	0	0	0	0-0	0.4015	13.6	25	
Cadmium	0.0002252	0.0010	0	0	0	0-0	0.0002444	0	25	J
Chromium	0.001968	0.0020	0	0	0	0-0	0.002144	0	25	J
Cobalt	0.01041	0.0020	0	0	0	0-0	0.01193	13.6	25	
Copper	0.0105	0.0020	0	0	0	0-0	0.01204	13.7	25	
Iron	1.527	0.20	0	0	0	0-0	1.704	11	25	
Lead	0.001093	0.0050	0	0	0	0-0	0.001119	0	25	J
Nickel	0.01474	0.0050	0	0	0	0-0	0.01879	24.2	25	
Selenium	0.008917	0.0050	0	0	0	0-0	0.01253	33.7	25	R
Silver	ND	0.0050	0	0	0	0-0	0.0000378	0	25	
Vanadium	0.002989	0.0050	0	0	0	0-0	0.003468	0	25	J
Zinc	0.0321	0.0050	0	0	0	0-0	0.03597	11.4	25	

DUP Sample ID: **0310189-09BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/24/03 14:16**
Client ID: Run ID: **ICP4500_031024A** SeqNo: **384095** Prep Date: **10/21/2003** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	7.635	0.50	0	0	0	0-0	7.811	2.28	25	

DUP Sample ID: **0310189-09BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/24/03 14:25**
Client ID: Run ID: **ICP4500_031024A** SeqNo: **384097** Prep Date: **10/21/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	600.4	25	0	0	0	0-0	617.4	2.79	25	
Magnesium	281.5	10	0	0	0	0-0	288.5	2.46	25	
Sodium	1120	10	0	0	0	0-0	1131	0.977	25	

DUP Sample ID: **0310189-09BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/24/03 14:34**
Client ID: Run ID: **ICP4500_031024A** SeqNo: **384099** Prep Date: **10/21/2003** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	58.48	1.0	0	0	0	0-0	58.01	0.807	25	

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01B	0310198-02B	0310198-03B
0310198-04B	0310198-05B	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **7030** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW2-102703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:33**
Client ID: Run ID: **MERCURY_031028C** SeqNo: **385828** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW2-102703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:37**
Client ID: Run ID: **MERCURY_031028C** SeqNo: **385829** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00496	0.00020	0.005	0	99.2	83-115		0		

LCSD Sample ID: **GLCSDW2-102703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:42**
Client ID: Run ID: **MERCURY_031028C** SeqNo: **385830** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00496	0.00020	0.005	0	99.2	83-115	0.00496	0	20	

MS Sample ID: **0310198-01BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:47**
Client ID: **RW-17** Run ID: **MERCURY_031028C** SeqNo: **385833** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00474	0.00020	0.005	-0.000004	94.9	70-124		0		

MSD Sample ID: **0310198-01BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:49**
Client ID: **RW-17** Run ID: **MERCURY_031028C** SeqNo: **385834** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00489	0.00020	0.005	-0.000004	97.9	70-124	0.00474	3.12	20	

DUP Sample ID: **0310198-01BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/28/03 13:46**
Client ID: **RW-17** Run ID: **MERCURY_031028C** SeqNo: **385832** Prep Date: **10/27/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000004	0	20	

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01B	0310198-02B	0310198-03B
0310198-04B	0310198-05B	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6955** InstrumentID: **SV-2**

MBLK Sample ID: **SBLKW2-031017** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/17/03 17:53**

Client ID: Run ID: **SV-2_031017A** SeqNo: **382221** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	94.88	0	100	0	94.9	39-153	0			
Surr: 2-Fluorobiphenyl	84.12	0	100	0	84.1	40-147	0			
Surr: 2-Fluorophenol	58.4	0	100	0	58.4	21-100	0			
Surr:4-Terphenyl-d14	104	0	100	0	104	39-141	0			
Surr: Nitrobenzene-d5	84.55	0	100	0	84.6	37-140	0			
Surr: Phenol-d6	39.02	0	100	0	39	11-100	0			

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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6955** InstrumentID: **SV-2**

LCS Sample ID: **SLCSW2-031017** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/17/03 18:20**

Client ID: Run ID: **SV-2_031017A** SeqNo: **382222** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	44.19	10	50	0	88.4	50-115	0			
2,4,5-Trichlorophenol	93.81	10	100	0	93.8	72-118	0			
2,4,6-Trichlorophenol	91.44	10	100	0	91.4	72-117	0			
2-Methylnaphthalene	44.07	10	50	0	88.1	47-122	0			
2-Methylphenol	84	10	100	0	84	51-115	0			
2-Nitroaniline	46.3	10	50	0	92.6	73-119	0			
2-Nitrophenol	91.6	10	100	0	91.6	60-119	0			
3-Nitroaniline	47.9	10	50	0	95.8	61-118	0			
4-Methylphenol	115.1	10	150	0	76.8	44-115	0			
4-Nitroaniline	46.13	10	50	0	92.3	61-123	0			
4-Nitrophenol	48.31	10	100	0	48.3	17-100	0			
Acenaphthene	45.2	10	50	0	90.4	68-115	0			
Acenaphthylene	44.89	10	50	0	89.8	67-116	0			
Anthracene	48.34	10	50	0	96.7	72-124	0			
Benz(a)anthracene	48.86	10	50	0	97.7	55-131	0			
Hexachloroethane	43.72	10	50	0	87.4	46-115	0			
Indeno(1,2,3-cd)pyrene	43.98	10	50	0	88	42-123	0			
Isophorone	45.12	10	50	0	90.2	63-117	0			
N-Nitrosodi-n-propylamine	47.1	10	50	0	94.2	67-115	0			
N-Nitrosodimethylamine	28.26	10	50	0	56.5	28-115	0			
N-Nitrosodiphenylamine	51.06	10	50	0	102	72-144	0			
Naphthalene	44.14	10	50	0	88.3	52-115	0			
Nitrobenzene	44.25	10	50	0	88.5	65-115	0			
Pentachlorophenol	86.23	10	100	0	86.2	65-123	0			
Phenanthrene	45.5	10	50	0	91	69-119	0			
Phenol	44.95	10	100	0	44.9	16-115	0			
Pyrene	45.64	10	50	0	91.3	51-130	0			
Surr: 2,4,6-Tribromophenol	97.58	0	100	0	97.6	39-153	0			
Surr: 2-Fluorobiphenyl	89.1	0	100	0	89.1	40-147	0			
Surr: 2-Fluorophenol	64.09	0	100	0	64.1	21-100	0			
Surr:4-Terphenyl-d14	100.3	0	100	0	100	39-141	0			
Surr: Nitrobenzene-d5	89.11	0	100	0	89.1	37-140	0			
Surr: Phenol-d6	43.51	0	100	0	43.5	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6955** InstrumentID: **SV-2**

LCSD Sample ID: **SLCSDW2-031017** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/17/03 18:46**

Client ID: Run ID: **SV-2_031017A** SeqNo: **382223** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	44.38	10	50	0	88.8	50-115	44.19	0.431	30	
2,4,5-Trichlorophenol	97.81	10	100	0	97.8	72-118	93.81	4.18	30	
2,4,6-Trichlorophenol	96.33	10	100	0	96.3	72-117	91.44	5.21	30	
2-Methylnaphthalene	45.97	10	50	0	91.9	47-122	44.07	4.22	30	
2-Methylphenol	85.68	10	100	0	85.7	51-115	84	1.98	30	
2-Nitroaniline	49.02	10	50	0	98	73-119	46.3	5.71	30	
2-Nitrophenol	95.58	10	100	0	95.6	60-119	91.6	4.25	30	
3-Nitroaniline	49.32	10	50	0	98.6	61-118	47.9	2.91	30	
4-Methylphenol	119	10	150	0	79.3	44-115	115.1	3.27	30	
4-Nitroaniline	47.38	10	50	0	94.8	61-123	46.13	2.69	30	
4-Nitrophenol	50.88	10	100	0	50.9	17-100	48.31	5.17	30	
Acenaphthene	45.61	10	50	0	91.2	68-115	45.2	0.903	30	
Acenaphthylene	46.45	10	50	0	92.9	67-116	44.89	3.43	30	
Anthracene	50.84	10	50	0	102	72-124	48.34	5.05	30	
Benz(a)anthracene	51.49	10	50	0	103	55-131	48.86	5.25	30	
Hexachloroethane	42.72	10	50	0	85.4	46-115	43.72	2.32	30	
Indeno(1,2,3-cd)pyrene	47.45	10	50	0	94.9	42-123	43.98	7.58	30	
Isophorone	47.38	10	50	0	94.8	63-117	45.12	4.9	30	
N-Nitrosodi-n-propylamine	48.19	10	50	0	96.4	67-115	47.1	2.28	30	
N-Nitrosodimethylamine	28.5	10	50	0	57	28-115	28.26	0.869	30	
N-Nitrosodiphenylamine	53.98	10	50	0	108	72-144	51.06	5.56	30	
Naphthalene	44.44	10	50	0	88.9	52-115	44.14	0.688	30	
Nitrobenzene	45.5	10	50	0	91	65-115	44.25	2.78	30	
Pentachlorophenol	91.41	10	100	0	91.4	65-123	86.23	5.84	30	
Phenanthrene	47.99	10	50	0	96	69-119	45.5	5.33	30	
Phenol	45.35	10	100	0	45.4	16-115	44.95	0.894	30	
Pyrene	48.54	10	50	0	97.1	51-130	45.64	6.14	30	
Surr: 2,4,6-Tribromophenol	103	0	100	0	103	39-153	97.58	5.45	30	
Surr: 2-Fluorobiphenyl	91.4	0	100	0	91.4	40-147	89.1	2.54	30	
Surr: 2-Fluorophenol	64.13	0	100	0	64.1	21-100	64.09	0.0621	30	
Surr:4-Terphenyl-d14	105.8	0	100	0	106	39-141	100.3	5.31	30	
Surr: Nitrobenzene-d5	91.57	0	100	0	91.6	37-140	89.11	2.72	30	
Surr: Phenol-d6	44.47	0	100	0	44.5	11-100	43.51	2.2	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310198-01E 0310198-02E 0310198-03E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6965** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031020** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/20/03 16:44**
Client ID: Run ID: **SV-3_031020A** SeqNo: **382369** Prep Date: **10/20/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	95.11	0	100	0	95.1	39-153	0			
Surr: 2-Fluorobiphenyl	75.95	0	100	0	75.9	40-147	0			
Surr: 2-Fluorophenol	51.78	0	100	0	51.8	21-100	0			
Surr:4-Terphenyl-d14	96.24	0	100	0	96.2	39-141	0			
Surr: Nitrobenzene-d5	71.68	0	100	0	71.7	37-140	0			
Surr: Phenol-d6	36.24	0	100	0	36.2	11-100	0			

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U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6965** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031020** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/20/03 17:11**
Client ID: Run ID: **SV-3_031020A** SeqNo: **382370** Prep Date: **10/20/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	37.93	10	50	0	75.9	50-115	0			
2,4,5-Trichlorophenol	94.4	10	100	0	94.4	72-118	0			
2,4,6-Trichlorophenol	91.44	10	100	0	91.4	72-117	0			
2-Methylnaphthalene	41.74	10	50	0	83.5	47-122	0			
2-Methylphenol	83.25	10	100	0	83.3	51-115	0			
2-Nitroaniline	43.37	10	50	0	86.7	73-119	0			
2-Nitrophenol	86.55	10	100	0	86.6	60-119	0			
3-Nitroaniline	46.18	10	50	0	92.4	61-118	0			
4-Methylphenol	114.8	10	150	0	76.5	44-115	0			
4-Nitroaniline	47.02	10	50	0	94	61-123	0			
4-Nitrophenol	44.84	10	100	0	44.8	17-100	0			
Acenaphthene	43.19	10	50	0	86.4	68-115	0			
Acenaphthylene	42.42	10	50	0	84.8	67-116	0			
Anthracene	49.7	10	50	0	99.4	72-124	0			
Benz(a)anthracene	46.4	10	50	0	92.8	55-131	0			
Benzidine	29.88	10	50	0	59.8	10-115	0			
Hexachloroethane	35.2	10	50	0	70.4	46-115	0			
Indeno(1,2,3-cd)pyrene	48.3	10	50	0	96.6	42-123	0			
Isophorone	42.68	10	50	0	85.4	63-117	0			
N-Nitrosodi-n-propylamine	43.7	10	50	0	87.4	67-115	0			
N-Nitrosodimethylamine	29.52	10	50	0	59	28-115	0			
N-Nitrosodiphenylamine	50.18	10	50	0	100	72-144	0			
Naphthalene	38.82	10	50	0	77.6	52-115	0			
Nitrobenzene	38.94	10	50	0	77.9	65-115	0			
Pentachlorophenol	74.92	10	100	0	74.9	65-123	0			
Phenanthrene	45.9	10	50	0	91.8	69-119	0			
Phenol	41.93	10	100	0	41.9	16-115	0			
Pyrene	44.9	10	50	0	89.8	51-130	0			
Surr: 2,4,6-Tribromophenol	111.1	0	100	0	111	39-153	0			
Surr: 2-Fluorobiphenyl	87.19	0	100	0	87.2	40-147	0			
Surr: 2-Fluorophenol	58.54	0	100	0	58.5	21-100	0			
Surr:4-Terphenyl-d14	101.2	0	100	0	101	39-141	0			
Surr: Nitrobenzene-d5	80.07	0	100	0	80.1	37-140	0			
Surr: Phenol-d6	41.93	0	100	0	41.9	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6965** InstrumentID: **SV-3**

LCSD Sample ID: **SLCSDW1-031020** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/20/03 17:38**

Client ID: Run ID: **SV-3_031020A** SeqNo: **382371** Prep Date: **10/20/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.24	10	50	0	86.5	50-115	37.93	13.1	30	
2,4,5-Trichlorophenol	97.43	10	100	0	97.4	72-118	94.4	3.16	30	
2,4,6-Trichlorophenol	96.03	10	100	0	96	72-117	91.44	4.89	30	
2-Methylnaphthalene	46.13	10	50	0	92.3	47-122	41.74	10	30	
2-Methylphenol	83.44	10	100	0	83.4	51-115	83.25	0.229	30	
2-Nitroaniline	43.44	10	50	0	86.9	73-119	43.37	0.17	30	
2-Nitrophenol	91.24	10	100	0	91.2	60-119	86.55	5.27	30	
3-Nitroaniline	46.99	10	50	0	94	61-118	46.18	1.73	30	
4-Methylphenol	118.3	10	150	0	78.8	44-115	114.8	3	30	
4-Nitroaniline	48.09	10	50	0	96.2	61-123	47.02	2.26	30	
4-Nitrophenol	43.55	10	100	0	43.6	17-100	44.84	2.91	30	
Acenaphthene	45.94	10	50	0	91.9	68-115	43.19	6.18	30	
Acenaphthylene	44.85	10	50	0	89.7	67-116	42.42	5.56	30	
Anthracene	51.48	10	50	0	103	72-124	49.7	3.52	30	
Benz(a)anthracene	46.73	10	50	0	93.5	55-131	46.4	0.699	30	
Benzidine	27.64	10	50	0	55.3	10-115	29.88	7.77	30	
Hexachloroethane	44.04	10	50	0	88.1	46-115	35.2	22.3	30	
Indeno(1,2,3-cd)pyrene	46.76	10	50	0	93.5	42-123	48.3	3.23	30	
Isophorone	44.18	10	50	0	88.4	63-117	42.68	3.45	30	
N-Nitrosodi-n-propylamine	43.82	10	50	0	87.6	67-115	43.7	0.283	30	
N-Nitrosodimethylamine	27.52	10	50	0	55	28-115	29.52	7.03	30	
N-Nitrosodiphenylamine	53.09	10	50	0	106	72-144	50.18	5.65	30	
Naphthalene	43.51	10	50	0	87	52-115	38.82	11.4	30	
Nitrobenzene	41.22	10	50	0	82.4	65-115	38.94	5.68	30	
Pentachlorophenol	79.94	10	100	0	79.9	65-123	74.92	6.49	30	
Phenanthrene	46.59	10	50	0	93.2	69-119	45.9	1.5	30	
Phenol	43.15	10	100	0	43.2	16-115	41.93	2.89	30	
Pyrene	45.72	10	50	0	91.4	51-130	44.9	1.8	30	
Surr: 2,4,6-Tribromophenol	116.1	0	100	0	116	39-153	111.1	4.41	30	
Surr: 2-Fluorobiphenyl	88.22	0	100	0	88.2	40-147	87.19	1.18	30	
Surr: 2-Fluorophenol	57.69	0	100	0	57.7	21-100	58.54	1.47	30	
Surr:4-Terphenyl-d14	101.4	0	100	0	101	39-141	101.2	0.231	30	
Surr: Nitrobenzene-d5	80.75	0	100	0	80.8	37-140	80.07	0.853	30	
Surr: Phenol-d6	43.2	0	100	0	43.2	11-100	41.93	2.97	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310198-04E 0310198-05E

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 11:43**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382009** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	49.28	5.0	50	0	98.6	70-130		0		
Surr:4-Bromofluorobenzene	47.48	5.0	50	0	95	70-130		0		
Surr:Dibromofluoromethane	48.16	5.0	50	0	96.3	70-130		0		
Surr: Toluene-d8	48.14	5.0	50	0	96.3	70-130		0		

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 10:50**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382007** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.84	5.0	50	0	104	75-118	0			
1,1,2,2-Tetrachloroethane	42.06	5.0	50	0	84.1	79-120	0			
1,1,2-Trichloroethane	46.47	5.0	50	0	92.9	81-119	0			
1,1-Dichloroethane	51.25	5.0	50	0	103	80-120	0			
1,1-Dichloroethene	52.57	5.0	50	0	105	80-120	0			
1,2-Dichloroethane	51.23	5.0	50	0	102	80-120	0			
2-Butanone	77.82	10	100	0	77.8	70-130	0			
2-Chloroethyl vinyl ether	81.24	10	100	0	81.2	72-120	0			
2-Hexanone	74.07	10	100	0	74.1	70-130	0			
4-Methyl-2-pentanone	80.5	10	80.5	0	100	78-120	0			
Acetone	93.56	10	100	0	93.6	60-135	0			
Benzene	45.85	5.0	50	0	91.7	82-119	0			
Bromodichloromethane	50.42	5.0	50	0	101	81-119	0			
Bromoform	45.67	5.0	50	0	91.3	80-120	0			
Bromomethane	54.57	5.0	50	0	109	75-130	0			
Carbon disulfide	102.2	10	100	0	102	78-120	0			
Carbontetrachloride	51.9	5.0	50	0	104	77-120	0			
Chlorobenzene	47.42	5.0	50	0	94.8	82-118	0			
Chloroethane	52.45	5.0	50	0	105	78-122	0			
Chloroform	51.96	5.0	50	0	104	78-120	0			
Chloromethane	47.7	5.0	50	0	95.4	75-125	0			
cis-1,3-Dichloropropene	51.78	5.0	50	0	104	81-120	0			
Dibromochloromethane	49.32	5.0	50	0	98.6	81-118	0			
Ethylbenzene	48.97	5.0	50	0	97.9	82-120	0			
m,p-Xylene	96.43	10	100	0	96.4	82-122	0			
Methylene chloride	46.51	10	50	0	93	80-122	0			
Styrene	51	5.0	50	0	102	82-121	0			
Tetrachloroethene	47.65	5.0	50	0	95.3	79-118	0			
Toluene	49.89	5.0	50	0	99.8	81-119	0			
trans-1,3-Dichloropropene	55.18	5.0	50	0	110	82-121	0			
Trichloroethene	47.62	5.0	50	0	95.2	78-118	0			
Vinyl acetate	96.94	10	100	0	96.9	75-120	0			
Vinyl chloride	49.42	2.0	50	0	98.8	73-127	0			
Xylenes, Total	145.1	15	150	0	96.7	80-120	0			
Surr:1,2-Dichloroethane-d4	47.63	5.0	50	0	95.3	70-130	0			
Surr:4-Bromofluorobenzene	49.73	5.0	50	0	99.5	70-130	0			
Surr:Dibromofluoromethane	46.8	5.0	50	0	93.6	70-130	0			
Surr: Toluene-d8	48.32	5.0	50	0	96.6	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 11:17**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382008** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.43	5.0	50	0	103	75-118	51.84	0.799	20	
1,1,2,2-Tetrachloroethane	43.84	5.0	50	0	87.7	79-120	42.06	4.15	20	
1,1,2-Trichloroethane	46.47	5.0	50	0	92.9	81-119	46.47	0.0198	20	
1,1-Dichloroethane	51.55	5.0	50	0	103	80-120	51.25	0.578	20	
1,1-Dichloroethene	51.22	5.0	50	0	102	80-120	52.57	2.6	20	
1,2-Dichloroethane	51.49	5.0	50	0	103	80-120	51.23	0.509	20	
2-Butanone	81.55	10	100	0	81.5	70-130	77.82	4.68	20	
2-Chloroethyl vinyl ether	82.95	10	100	0	83	72-120	81.24	2.09	20	
2-Hexanone	74.74	10	100	0	74.7	70-130	74.07	0.894	20	
4-Methyl-2-pentanone	80.05	10	80.5	0	99.4	78-120	80.5	0.554	20	
Acetone	102.9	10	100	0	103	60-135	93.56	9.47	20	
Benzene	45.39	5.0	50	0	90.8	82-119	45.85	1	20	
Bromodichloromethane	50.57	5.0	50	0	101	81-119	50.42	0.301	20	
Bromoform	47	5.0	50	0	94	80-120	45.67	2.86	20	
Bromomethane	55.24	5.0	50	0	110	75-130	54.57	1.23	20	
Carbon disulfide	100.7	10	100	0	101	78-120	102.2	1.5	20	
Carbontetrachloride	50.98	5.0	50	0	102	77-120	51.9	1.79	20	
Chlorobenzene	47.31	5.0	50	0	94.6	82-118	47.42	0.231	20	
Chloroethane	52.14	5.0	50	0	104	78-122	52.45	0.594	20	
Chloroform	51.97	5.0	50	0	104	78-120	51.96	0.0219	20	
Chloromethane	48.58	5.0	50	0	97.2	75-125	47.7	1.83	20	
cis-1,3-Dichloropropene	51.82	5.0	50	0	104	81-120	51.78	0.0892	20	
Dibromochloromethane	49.37	5.0	50	0	98.7	81-118	49.32	0.0895	20	
Ethylbenzene	47.29	5.0	50	0	94.6	82-120	48.97	3.47	20	
m,p-Xylene	95.49	10	100	0	95.5	82-122	96.43	0.978	20	
Methylene chloride	46.3	10	50	0	92.6	80-122	46.51	0.464	20	
Styrene	49.99	5.0	50	0	100	82-121	51	1.99	20	
Tetrachloroethene	46.33	5.0	50	0	92.7	79-118	47.65	2.8	20	
Toluene	47.25	5.0	50	0	94.5	81-119	49.89	5.43	20	
trans-1,3-Dichloropropene	54.77	5.0	50	0	110	82-121	55.18	0.75	20	
Trichloroethene	47.13	5.0	50	0	94.3	78-118	47.62	1.02	20	
Vinyl acetate	96.85	10	100	0	96.9	75-120	96.94	0.0844	20	
Vinyl chloride	49.39	2.0	50	0	98.8	73-127	49.42	0.0583	20	
Xylenes, Total	143.2	15	150	0	95.4	80-120	145.1	1.32	20	
Surr:1,2-Dichloroethane-d4	47.7	5.0	50	0	95.4	70-130	47.63	0.151	20	
Surr:4-Bromofluorobenzene	48.96	5.0	50	0	97.9	70-130	49.73	1.55	20	
Surr:Dibromofluoromethane	47.21	5.0	50	0	94.4	70-130	46.8	0.871	20	
Surr:Toluene-d8	47.64	5.0	50	0	95.3	70-130	48.32	1.42	20	

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MS Sample ID: **0310129-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 14:54**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382249** Prep Date: DF: **10000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	514900	50,000	500000	0	103	75-125	0			
1,1,2,2-Tetrachloroethane	470600	50,000	500000	0	94.1	75-125	0			
1,1,2-Trichloroethane	495800	50,000	500000	0	99.2	75-125	0			
1,1-Dichloroethane	543300	50,000	500000	0	109	75-125	0			
1,1-Dichloroethene	505000	50,000	500000	0	101	65-130	0			
1,2-Dichloroethane	519900	50,000	500000	0	104	70-130	0			
2-Butanone	864200	100,000	1000000	0	86.4	64-128	0			
2-Chloroethyl vinyl ether	810300	100,000	1000000	0	81	75-125	0			
2-Hexanone	732000	100,000	1000000	0	73.2	72-124	0			
4-Methyl-2-pentanone	884400	100,000	805000	0	110	75-125	0			
Acetone	835700	100,000	1000000	0	83.6	60-130	0			
Benzene	479300	50,000	500000	0	95.9	76-127	0			
Bromodichloromethane	495000	50,000	500000	0	99	75-125	0			
Bromoform	481900	50,000	500000	0	96.4	75-125	0			
Bromomethane	524400	50,000	500000	0	105	75-125	0			
Carbon disulfide	1008000	100,000	1000000	0	101	75-125	0			
Carbon tetrachloride	504600	50,000	500000	0	101	70-130	0			
Chlorobenzene	487300	50,000	500000	0	97.5	75-126	0			
Chloroethane	503700	50,000	500000	0	101	70-130	0			
Chloroform	524400	50,000	500000	0	105	75-125	0			
Chloromethane	482100	50,000	500000	0	96.4	75-125	0			
cis-1,3-Dichloropropene	526400	50,000	500000	0	105	75-125	0			
Dibromochloromethane	498000	50,000	500000	0	99.6	75-125	0			
Ethylbenzene	505800	50,000	500000	0	101	75-125	0			
m,p-Xylene	1006000	100,000	1000000	0	101	75-125	0			
Methylene chloride	475700	100,000	500000	0	95.1	75-125	0			
Styrene	524400	50,000	500000	0	105	75-125	0			
Tetrachloroethene	481200	50,000	500000	0	96.2	75-125	0			
Toluene	500000	50,000	500000	0	100	76-125	0			
trans-1,3-Dichloropropene	550400	50,000	500000	0	110	70-130	0			
Trichloroethene	470200	50,000	500000	0	94	71-120	0			
Vinyl acetate	1084000	100,000	1000000	0	108	75-125	0			
Vinyl chloride	470400	20,000	500000	0	94.1	60-135	0			
Xylenes, Total	1510000	150,000	1500000	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	470000	50,000	500000	0	94	70-130	0			
Surr: 4-Bromofluorobenzene	500000	50,000	500000	0	100	70-130	0			
Surr: Dibromofluoromethane	466000	50,000	500000	0	93.2	70-130	0			
Surr: Toluene-d8	495300	50,000	500000	0	99.1	70-130	0			

ND - Not Detected at the Reporting Limit
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MSD Sample ID: **0310129-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 15:21**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382250** Prep Date: DF: **10000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	503400	50,000	500000	0	101	75-125	514900	2.25	20	
1,1,2,2-Tetrachloroethane	457100	50,000	500000	0	91.4	75-125	470600	2.9	20	
1,1,2-Trichloroethane	485300	50,000	500000	0	97.1	75-125	495800	2.13	20	
1,1-Dichloroethane	535400	50,000	500000	0	107	75-125	543300	1.47	20	
1,1-Dichloroethene	496900	50,000	500000	0	99.4	65-130	505000	1.63	20	
1,2-Dichloroethane	504100	50,000	500000	0	101	70-130	519900	3.08	20	
2-Butanone	833400	100,000	1000000	0	83.3	64-128	864200	3.63	20	
2-Chloroethyl vinyl ether	839400	100,000	1000000	0	83.9	75-125	810300	3.52	20	
2-Hexanone	721800	100,000	1000000	0	72.2	72-124	732000	1.4	20	
4-Methyl-2-pentanone	851400	100,000	805000	0	106	75-125	884400	3.81	20	
Acetone	804100	100,000	1000000	0	80.4	60-130	835700	3.85	20	
Benzene	478800	50,000	500000	0	95.8	76-127	479300	0.12	20	
Bromodichloromethane	494200	50,000	500000	0	98.8	75-125	495000	0.148	20	
Bromoform	466100	50,000	500000	0	93.2	75-125	481900	3.34	20	
Bromomethane	503900	50,000	500000	0	101	75-125	524400	3.99	20	
Carbon disulfide	994300	100,000	1000000	0	99.4	75-125	1008000	1.39	20	
Carbon tetrachloride	494300	50,000	500000	0	98.9	70-130	504600	2.07	20	
Chlorobenzene	478200	50,000	500000	0	95.6	75-126	487300	1.89	20	
Chloroethane	494300	50,000	500000	0	98.9	70-130	503700	1.88	20	
Chloroform	517000	50,000	500000	0	103	75-125	524400	1.42	20	
Chloromethane	476900	50,000	500000	0	95.4	75-125	482100	1.08	20	
cis-1,3-Dichloropropene	524200	50,000	500000	0	105	75-125	526400	0.431	20	
Dibromochloromethane	484000	50,000	500000	0	96.8	75-125	498000	2.85	20	
Ethylbenzene	496400	50,000	500000	0	99.3	75-125	505800	1.87	20	
m,p-Xylene	980500	100,000	1000000	0	98	75-125	1006000	2.61	20	
Methylene chloride	463800	100,000	500000	0	92.8	75-125	475700	2.53	20	
Styrene	514600	50,000	500000	0	103	75-125	524400	1.89	20	
Tetrachloroethene	470400	50,000	500000	0	94.1	75-125	481200	2.27	20	
Toluene	492200	50,000	500000	0	98.4	76-125	500000	1.57	20	
trans-1,3-Dichloropropene	534100	50,000	500000	0	107	70-130	550400	3.01	20	
Trichloroethene	460100	50,000	500000	0	92	71-120	470200	2.17	20	
Vinyl acetate	1059000	100,000	1000000	0	106	75-125	1084000	2.32	20	
Vinyl chloride	458000	20,000	500000	0	91.6	60-135	470400	2.66	20	
Xylenes, Total	1471000	150,000	1500000	0	98.1	75-125	1510000	2.6	20	
Surr:1,2-Dichloroethane-d4	464700	50,000	500000	0	92.9	70-130	470000	1.14	20	
Surr:4-Bromofluorobenzene	501900	50,000	500000	0	100	70-130	500000	0.37	20	
Surr: Dibromofluoromethane	462700	50,000	500000	0	92.5	70-130	466000	0.712	20	
Surr: Toluene-d8	491000	50,000	500000	0	98.2	70-130	495300	0.873	20	

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01A	0310198-02A	0310198-03A
0310198-04A	0310198-05A	

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 0:57**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382972** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	46.89	5.0	50	0	93.8	70-130		0		
Surr:4-Bromofluorobenzene	48.16	5.0	50	0	96.3	70-130		0		
Surr:Dibromofluoromethane	46.91	5.0	50	0	93.8	70-130		0		
Surr: Toluene-d8	48.9	5.0	50	0	97.8	70-130		0		

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/21/03 23:09**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382970** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.77	5.0	50	0	102	75-118	0			
1,1,2,2-Tetrachloroethane	43	5.0	50	0	86	79-120	0			
1,1,2-Trichloroethane	48.21	5.0	50	0	96.4	81-119	0			
1,1-Dichloroethane	52.87	5.0	50	0	106	80-120	0			
1,1-Dichloroethene	53.85	5.0	50	0	108	80-120	0			
1,2-Dichloroethane	51.04	5.0	50	0	102	80-120	0			
2-Butanone	86.38	10	100	0	86.4	70-130	0			
2-Chloroethyl vinyl ether	96.96	10	100	0	97	72-120	0			
2-Hexanone	73.04	10	100	0	73	70-130	0			
4-Methyl-2-pentanone	79.46	10	100	0	79.5	78-120	0			
Acetone	99.59	10	100	0	99.6	60-135	0			
Benzene	48.31	5.0	50	0	96.6	82-119	0			
Bromodichloromethane	50.37	5.0	50	0	101	81-119	0			
Bromoform	46.83	5.0	50	0	93.7	80-120	0			
Bromomethane	58.66	5.0	50	0	117	75-130	0			
Carbon disulfide	107.5	10	100	0	107	78-120	0			
Carbontetrachloride	49.66	5.0	50	0	99.3	77-120	0			
Chlorobenzene	48.75	5.0	50	0	97.5	82-118	0			
Chloroethane	55.73	5.0	50	0	111	78-122	0			
Chloroform	52.26	5.0	50	0	105	78-120	0			
Chloromethane	46.71	5.0	50	0	93.4	75-125	0			
cis-1,3-Dichloropropene	52.61	5.0	50	0	105	81-120	0			
Dibromochloromethane	50.06	5.0	50	0	100	81-118	0			
Ethylbenzene	50.77	5.0	50	0	102	82-120	0			
m,p-Xylene	101.1	10	100	0	101	82-122	0			
Methylene chloride	50.2	10	50	0	100	80-122	0			
Styrene	53.78	5.0	50	0	108	82-121	0			
Tetrachloroethene	79.28	5.0	50	0	159	79-118	0			S
Toluene	50.26	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	54.21	5.0	50	0	108	82-121	0			
Trichloroethene	48.49	5.0	50	0	97	78-118	0			
Vinylacetate	89.11	10	100	0	89.1	75-120	0			
Vinyl chloride	50.41	2.0	50	0	101	73-127	0			
Xylenes, Total	151.5	15	150	0	101	80-120	0			
Surr:1,2-Dichloroethane-d4	46.11	5.0	50	0	92.2	70-130	0			
Surr:4-Bromofluorobenzene	50.81	5.0	50	0	102	70-130	0			
Surr:Dibromofluoromethane	46.65	5.0	50	0	93.3	70-130	0			
Surr:Toluene-d8	49.26	5.0	50	0	98.5	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/21/03 23:36**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382971** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.73	5.0	50	0	101	75-118	50.77	0.0872	20	
1,1,2,2-Tetrachloroethane	43.02	5.0	50	0	86	79-120	43	0.0388	20	
1,1,2-Trichloroethane	47.87	5.0	50	0	95.7	81-119	48.21	0.712	20	
1,1-Dichloroethane	52.18	5.0	50	0	104	80-120	52.87	1.31	20	
1,1-Dichloroethene	54.02	5.0	50	0	108	80-120	53.85	0.302	20	
1,2-Dichloroethane	50.04	5.0	50	0	100	80-120	51.04	1.99	20	
2-Butanone	87.19	10	100	0	87.2	70-130	86.38	0.931	20	
2-Chloroethyl vinyl ether	100.5	10	100	0	101	72-120	96.96	3.61	20	
2-Hexanone	73.57	10	100	0	73.6	70-130	73.04	0.725	20	
4-Methyl-2-pentanone	79.52	10	100	0	79.5	78-120	79.46	0.0705	20	
Acetone	99.17	10	100	0	99.2	60-135	99.59	0.42	20	
Benzene	47.98	5.0	50	0	96	82-119	48.31	0.692	20	
Bromodichloromethane	49.09	5.0	50	0	98.2	81-119	50.37	2.57	20	
Bromoform	46.8	5.0	50	0	93.6	80-120	46.83	0.0571	20	
Bromomethane	57.02	5.0	50	0	114	75-130	58.66	2.83	20	
Carbon disulfide	107.8	10	100	0	108	78-120	107.5	0.325	20	
Carbon tetrachloride	50.7	5.0	50	0	101	77-120	49.66	2.08	20	
Chlorobenzene	48.13	5.0	50	0	96.3	82-118	48.75	1.28	20	
Chloroethane	55.54	5.0	50	0	111	78-122	55.73	0.341	20	
Chloroform	51.28	5.0	50	0	103	78-120	52.26	1.9	20	
Chloromethane	47.56	5.0	50	0	95.1	75-125	46.71	1.82	20	
cis-1,3-Dichloropropene	51.52	5.0	50	0	103	81-120	52.61	2.11	20	
Dibromochloromethane	48.81	5.0	50	0	97.6	81-118	50.06	2.53	20	
Ethylbenzene	51.13	5.0	50	0	102	82-120	50.77	0.703	20	
m,p-Xylene	100.6	10	100	0	101	82-122	101.1	0.528	20	
Methylene chloride	49.06	10	50	0	98.1	80-122	50.2	2.29	20	
Styrene	53.38	5.0	50	0	107	82-121	53.78	0.749	20	
Tetrachloroethene	82.42	5.0	50	0	165	79-118	79.28	3.89	20	S
Toluene	50.08	5.0	50	0	100	81-119	50.26	0.359	20	
trans-1,3-Dichloropropene	52.77	5.0	50	0	106	82-121	54.21	2.69	20	
Trichloroethene	48.3	5.0	50	0	96.6	78-118	48.49	0.401	20	
Vinyl acetate	87.97	10	100	0	88	75-120	89.11	1.29	20	
Vinyl chloride	51.18	2.0	50	0	102	73-127	50.41	1.52	20	
Xylenes, Total	151.5	15	150	0	101	80-120	151.5	0.0104	20	
Surr: 1,2-Dichloroethane-d4	45.36	5.0	50	0	90.7	70-130	46.11	1.64	20	
Surr: 4-Bromofluorobenzene	50.02	5.0	50	0	100	70-130	50.81	1.56	20	
Surr: Dibromofluoromethane	46.15	5.0	50	0	92.3	70-130	46.65	1.07	20	
Surr: Toluene-d8	49.13	5.0	50	0	98.3	70-130	49.26	0.271	20	

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MS Sample ID: **0310125-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 1:50**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382973** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.87	5.0	50	0	108	75-125	0			
1,1,2,2-Tetrachloroethane	54.24	5.0	50	0	108	75-125	0			
1,1,2-Trichloroethane	57.88	5.0	50	0	116	75-125	0			
1,1-Dichloroethane	58.94	5.0	50	0	118	75-125	0			
1,1-Dichloroethene	53.75	5.0	50	0	107	65-130	0			
1,2-Dichloroethane	63.45	5.0	50	0	127	70-130	0			
2-Butanone	104.1	10	100	0	104	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	76.35	10	100	0	76.4	72-124	0			
4-Methyl-2-pentanone	107.6	10	100	0	108	75-125	0			
Acetone	98.52	10	100	0	98.5	60-130	0			
Benzene	54.66	5.0	50	0	109	76-127	0			
Bromodichloromethane	60.61	5.0	50	0	121	75-125	0			
Bromoform	59.23	5.0	50	0	118	75-125	0			
Bromomethane	60.62	5.0	50	0	121	75-125	0			
Carbon disulfide	109.1	10	100	0	109	75-125	0			
Carbontetrachloride	51.81	5.0	50	0	104	70-130	0			
Chlorobenzene	56.31	5.0	50	0	113	75-126	0			
Chloroethane	58.23	5.0	50	0	116	70-130	0			
Chloroform	60.69	5.0	50	0	121	75-125	0			
Chloromethane	48.74	5.0	50	0	97.5	75-125	0			
cis-1,3-Dichloropropene	61.69	5.0	50	0	123	75-125	0			
Dibromochloromethane	60.04	5.0	50	0	120	75-125	0			
Ethylbenzene	56.24	5.0	50	0	112	75-125	0			
m,p-Xylene	112.7	10	100	0	113	75-125	0			
Methylene chloride	58.74	10	50	0	117	75-125	0			
Styrene	61.15	5.0	50	0	122	75-125	0			
Tetrachloroethene	51.96	5.0	50	0	104	75-125	0			
Toluene	56.08	5.0	50	0	112	76-125	0			
trans-1,3-Dichloropropene	64.88	5.0	50	0	130	70-130	0			
Trichloroethene	53.92	5.0	50	0	108	71-120	0			
Vinyl acetate	110.7	10	100	0	111	75-125	0			
Vinyl chloride	48.07	2.0	50	0	96.1	60-135	0			
Xylenes, Total	170	15	150	0	113	75-125	0			
Surr:1,2-Dichloroethane-d4	47.01	5.0	50	0	94	70-130	0			
Surr:4-Bromofluorobenzene	50.56	5.0	50	0	101	70-130	0			
Surr:Dibromofluoromethane	47.17	5.0	50	0	94.3	70-130	0			
Surr:Toluene-d8	48.6	5.0	50	0	97.2	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MSD Sample ID: **0310125-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 2:17**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382974** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.54	5.0	50	0	101	75-125	53.87	6.37	20	
1,1,2,2-Tetrachloroethane	52.09	5.0	50	0	104	75-125	54.24	4.04	20	
1,1,2-Trichloroethane	55.07	5.0	50	0	110	75-125	57.88	4.98	20	
1,1-Dichloroethane	56.8	5.0	50	0	114	75-125	58.94	3.69	20	
1,1-Dichloroethene	51.98	5.0	50	0	104	65-130	53.75	3.34	20	
1,2-Dichloroethane	59.63	5.0	50	0	119	70-130	63.45	6.21	20	
2-Butanone	100.5	10	100	0	101	64-128	104.1	3.46	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	75.1	10	100	0	75.1	72-124	76.35	1.65	20	
4-Methyl-2-pentanone	104.1	10	100	0	104	75-125	107.6	3.36	20	
Acetone	94.46	10	100	0	94.5	60-130	98.52	4.21	20	
Benzene	52.18	5.0	50	0	104	76-127	54.66	4.64	20	
Bromodichloromethane	58.53	5.0	50	0	117	75-125	60.61	3.49	20	
Bromoform	55.96	5.0	50	0	112	75-125	59.23	5.67	20	
Bromomethane	60.83	5.0	50	0	122	75-125	60.62	0.341	20	
Carbon disulfide	105.2	10	100	0	105	75-125	109.1	3.64	20	
Carbontetrachloride	49.57	5.0	50	0	99.1	70-130	51.81	4.42	20	
Chlorobenzene	54.32	5.0	50	0	109	75-126	56.31	3.6	20	
Chloroethane	56.42	5.0	50	0	113	70-130	58.23	3.16	20	
Chloroform	58.15	5.0	50	0	116	75-125	60.69	4.28	20	
Chloromethane	48.01	5.0	50	0	96	75-125	48.74	1.51	20	
cis-1,3-Dichloropropene	59.13	5.0	50	0	118	75-125	61.69	4.24	20	
Dibromochloromethane	57.3	5.0	50	0	115	75-125	60.04	4.67	20	
Ethylbenzene	53.69	5.0	50	0	107	75-125	56.24	4.64	20	
m,p-Xylene	106.9	10	100	0	107	75-125	112.7	5.25	20	
Methylene chloride	55.73	10	50	0	111	75-125	58.74	5.26	20	
Styrene	58.05	5.0	50	0	116	75-125	61.15	5.2	20	
Tetrachloroethene	49.52	5.0	50	0	99	75-125	51.96	4.8	20	
Toluene	53.48	5.0	50	0	107	76-125	56.08	4.74	20	
trans-1,3-Dichloropropene	62.07	5.0	50	0	124	70-130	64.88	4.43	20	
Trichloroethene	51.02	5.0	50	0	102	71-120	53.92	5.53	20	
Vinylacetate	105.8	10	100	0	106	75-125	110.7	4.52	20	
Vinyl chloride	47.02	2.0	50	0	94	60-135	48.07	2.2	20	
Xylenes, Total	162.1	15	150	0	108	75-125	170	4.72	20	
Surr:1,2-Dichloroethane-d4	46.49	5.0	50	0	93	70-130	47.01	1.11	20	
Surr:4-Bromofluorobenzene	48.93	5.0	50	0	97.9	70-130	50.56	3.28	20	
Surr: Dibromofluoromethane	46.66	5.0	50	0	93.3	70-130	47.17	1.08	20	
Surr: Toluene-d8	48.33	5.0	50	0	96.7	70-130	48.6	0.573	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310198-03A 0310198-04A 0310198-05A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16808** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1022** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 13:47**

Client ID: Run ID: **VOA_I_031022A** SeqNo: **383312** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	49.14	5.0	50	0	98.3	70-130		0		
Surr:4-Bromofluorobenzene	49.8	5.0	50	0	99.6	70-130		0		
Surr:Dibromofluoromethane	45.48	5.0	50	0	91	70-130		0		
Surr: Toluene-d8	50.24	5.0	50	0	100	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16808** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1022** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 11:31**

Client ID: Run ID: **VOA_I_031022A** SeqNo: **383310** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.51	5.0	50	0	105	75-118	0			
1,1,2,2-Tetrachloroethane	46.16	5.0	50	0	92.3	79-120	0			
1,1,2-Trichloroethane	49.68	5.0	50	0	99.4	81-119	0			
1,1-Dichloroethane	61.74	5.0	50	0	123	80-120	0			S
1,1-Dichloroethene	55.39	5.0	50	0	111	80-120	0			
1,2-Dichloroethane	51.49	5.0	50	0	103	80-120	0			
2-Butanone	97.3	10	100	0	97.3	70-130	0			
2-Chloroethyl vinyl ether	92.2	10	100	0	92.2	72-120	0			
2-Hexanone	75.97	10	100	0	76	70-130	0			
4-Methyl-2-pentanone	90.07	10	100	0	90.1	78-120	0			
Acetone	98.03	10	100	0	98	60-135	0			
Benzene	53.45	5.0	50	0	107	82-119	0			
Bromodichloromethane	48.49	5.0	50	0	97	81-119	0			
Bromoform	43.45	5.0	50	0	86.9	80-120	0			
Bromomethane	56.68	5.0	50	0	113	75-130	0			
Carbon disulfide	116.2	10	100	0	116	78-120	0			
Carbontetrachloride	50	5.0	50	0	100	77-120	0			
Chlorobenzene	49.49	5.0	50	0	99	82-118	0			
Chloroethane	59.19	5.0	50	0	118	78-122	0			
Chloroform	54.01	5.0	50	0	108	78-120	0			
Chloromethane	52.65	5.0	50	0	105	75-125	0			
cis-1,3-Dichloropropene	55	5.0	50	0	110	81-120	0			
Dibromochloromethane	46.95	5.0	50	0	93.9	81-118	0			
Ethylbenzene	52.06	5.0	50	0	104	82-120	0			
m,p-Xylene	102.5	10	100	0	103	82-122	0			
Methylene chloride	51.55	10	50	0	103	80-122	0			
Styrene	54.62	5.0	50	0	109	82-121	0			
Tetrachloroethene	47.19	5.0	50	0	94.4	79-118	0			
Toluene	55.5	5.0	50	0	111	81-119	0			
trans-1,3-Dichloropropene	55.75	5.0	50	0	112	82-121	0			
Trichloroethene	46.24	5.0	50	0	92.5	78-118	0			
Vinyl acetate	116.8	10	100	0	117	75-120	0			
Vinyl chloride	56.17	2.0	50	0	112	73-127	0			
Xylenes, Total	154	15	150	0	103	80-120	0			
Surr: 1,2-Dichloroethane-d4	48.62	5.0	50	0	97.2	70-130	0			
Surr: 4-Bromofluorobenzene	50.76	5.0	50	0	102	70-130	0			
Surr: Dibromofluoromethane	47.29	5.0	50	0	94.6	70-130	0			
Surr: Toluene-d8	50.18	5.0	50	0	100	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16808** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1022** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 11:58**

Client ID: Run ID: **VOA_I_031022A** SeqNo: **383311** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.68	5.0	50	0	103	75-118	52.51	1.6	20	
1,1,2,2-Tetrachloroethane	45.95	5.0	50	0	91.9	79-120	46.16	0.451	20	
1,1,2-Trichloroethane	48.63	5.0	50	0	97.3	81-119	49.68	2.14	20	
1,1-Dichloroethane	60.37	5.0	50	0	121	80-120	61.74	2.24	20	S
1,1-Dichloroethene	53.06	5.0	50	0	106	80-120	55.39	4.3	20	
1,2-Dichloroethane	49.62	5.0	50	0	99.2	80-120	51.49	3.71	20	
2-Butanone	96.41	10	100	0	96.4	70-130	97.3	0.919	20	
2-Chloroethyl vinyl ether	90.57	10	100	0	90.6	72-120	92.2	1.78	20	
2-Hexanone	74.68	10	100	0	74.7	70-130	75.97	1.71	20	
4-Methyl-2-pentanone	88.88	10	100	0	88.9	78-120	90.07	1.33	20	
Acetone	95.54	10	100	0	95.5	60-135	98.03	2.58	20	
Benzene	51.68	5.0	50	0	103	82-119	53.45	3.35	20	
Bromodichloromethane	47.59	5.0	50	0	95.2	81-119	48.49	1.87	20	
Bromoform	43.17	5.0	50	0	86.3	80-120	43.45	0.657	20	
Bromomethane	56.71	5.0	50	0	113	75-130	56.68	0.0483	20	
Carbon disulfide	113.9	10	100	0	114	78-120	116.2	1.94	20	
Carbontetrachloride	49.17	5.0	50	0	98.3	77-120	50	1.67	20	
Chlorobenzene	48.05	5.0	50	0	96.1	82-118	49.49	2.95	20	
Chloroethane	57.48	5.0	50	0	115	78-122	59.19	2.93	20	
Chloroform	52.72	5.0	50	0	105	78-120	54.01	2.43	20	
Chloromethane	52.08	5.0	50	0	104	75-125	52.65	1.1	20	
cis-1,3-Dichloropropene	54.24	5.0	50	0	108	81-120	55	1.39	20	
Dibromochloromethane	46.37	5.0	50	0	92.7	81-118	46.95	1.24	20	
Ethylbenzene	51	5.0	50	0	102	82-120	52.06	2.07	20	
m,p-Xylene	101.4	10	100	0	101	82-122	102.5	1.13	20	
Methylene chloride	51.44	10	50	0	103	80-122	51.55	0.215	20	
Styrene	53.18	5.0	50	0	106	82-121	54.62	2.67	20	
Tetrachloroethene	44.93	5.0	50	0	89.9	79-118	47.19	4.92	20	
Toluene	53.71	5.0	50	0	107	81-119	55.5	3.27	20	
trans-1,3-Dichloropropene	54.96	5.0	50	0	110	82-121	55.75	1.43	20	
Trichloroethene	45.45	5.0	50	0	90.9	78-118	46.24	1.73	20	
Vinyl acetate	116	10	100	0	116	75-120	116.8	0.72	20	
Vinyl chloride	54.49	2.0	50	0	109	73-127	56.17	3.04	20	
Xylenes, Total	151.9	15	150	0	101	80-120	154	1.33	20	
Surr:1,2-Dichloroethane-d4	49.19	5.0	50	0	98.4	70-130	48.62	1.16	20	
Surr:4-Bromofluorobenzene	50.89	5.0	50	0	102	70-130	50.76	0.257	20	
Surr: Dibromofluoromethane	46.71	5.0	50	0	93.4	70-130	47.29	1.24	20	
Surr: Toluene-d8	49.89	5.0	50	0	99.8	70-130	50.18	0.58	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16808** InstrumentID: **VOA_I**

MS Sample ID: **0310243-02AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 15:08**

Client ID: Run ID: **VOA_I_031022A** SeqNo: **383313** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.32	5.0	50	0	103	75-125	0			
1,1,2,2-Tetrachloroethane	40.19	5.0	50	0	80.4	75-125	0			
1,1,2-Trichloroethane	43.93	5.0	50	0	87.9	75-125	0			
1,1-Dichloroethane	52.61	5.0	50	0	105	75-125	0			
1,1-Dichloroethene	45.74	5.0	50	0	91.5	65-130	0			
1,2-Dichloroethane	52.3	5.0	50	0	105	70-130	0			
2-Butanone	87.31	10	100	5.259	82.1	64-128	0			
2-Chloroethyl vinyl ether	29.76	10	100	0	29.8	75-125	0			S
2-Hexanone	70.34	10	100	0	70.3	72-124	0			S
4-Methyl-2-pentanone	78.06	10	100	0	78.1	75-125	0			
Acetone	67.81	10	100	0	67.8	60-130	0			
Benzene	46.44	5.0	50	0	92.9	76-127	0			
Bromodichloromethane	47.15	5.0	50	0	94.3	75-125	0			
Bromoform	43.85	5.0	50	0	87.7	75-125	0			
Bromomethane	50.81	5.0	50	0	102	75-125	0			
Carbon disulfide	95.47	10	100	0	95.5	75-125	0			
Carbontetrachloride	51.71	5.0	50	0	103	70-130	0			
Chlorobenzene	45.29	5.0	50	0	90.6	75-126	0			
Chloroethane	47.83	5.0	50	0	95.7	70-130	0			
Chloroform	49.06	5.0	50	0	98.1	75-125	0			
Chloromethane	44.78	5.0	50	0	89.6	75-125	0			
cis-1,3-Dichloropropene	51.04	5.0	50	0	102	75-125	0			
Dibromochloromethane	46.26	5.0	50	0	92.5	75-125	0			
Ethylbenzene	48.4	5.0	50	0	96.8	75-125	0			
m,p-Xylene	95.91	10	100	0	95.9	75-125	0			
Methylene chloride	42.19	10	50	0	84.4	75-125	0			
Styrene	50.32	5.0	50	0	101	75-125	0			
Tetrachloroethene	46.73	5.0	50	0	93.5	75-125	0			
Toluene	48.07	5.0	50	0	96.1	76-125	0			
trans-1,3-Dichloropropene	52.81	5.0	50	0	106	70-130	0			
Trichloroethene	45.49	5.0	50	0	91	71-120	0			
Vinyl acetate	98.27	10	100	0	98.3	75-125	0			
Vinyl chloride	46.34	2.0	50	0	92.7	60-135	0			
Xylenes, Total	143.8	15	150	0	95.9	75-125	0			
Surr:1,2-Dichloroethane-d4	50.61	5.0	50	0	101	70-130	0			
Surr:4-Bromofluorobenzene	52.07	5.0	50	0	104	70-130	0			
Surr: Dibromofluoromethane	46.3	5.0	50	0	92.6	70-130	0			
Surr: Toluene-d8	48.47	5.0	50	0	96.9	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16808** InstrumentID: **VOA_I**

MSD Sample ID: **0310243-02AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 15:35**

Client ID: Run ID: **VOA_I_031022A** SeqNo: **383314** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	55.39	5.0	50	0	111	75-125	51.32	7.64	20	
1,1,2,2-Tetrachloroethane	45.66	5.0	50	0	91.3	75-125	40.19	12.7	20	
1,1,2-Trichloroethane	49.85	5.0	50	0	99.7	75-125	43.93	12.6	20	
1,1-Dichloroethane	57.09	5.0	50	0	114	75-125	52.61	8.17	20	
1,1-Dichloroethene	52.13	5.0	50	0	104	65-130	45.74	13.1	20	
1,2-Dichloroethane	61.64	5.0	50	0	123	70-130	52.3	16.4	20	
2-Butanone	98.37	10	100	5.259	93.1	64-128	87.31	11.9	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	29.76	0	20	S
2-Hexanone	76.67	10	100	0	76.7	72-124	70.34	8.6	20	
4-Methyl-2-pentanone	92.02	10	100	0	92	75-125	78.06	16.4	20	
Acetone	85.55	10	100	0	85.5	60-130	67.81	23.1	20	R
Benzene	51.21	5.0	50	0	102	76-127	46.44	9.77	20	
Bromodichloromethane	56.23	5.0	50	0	112	75-125	47.15	17.5	20	
Bromoform	52.22	5.0	50	0	104	75-125	43.85	17.4	20	
Bromomethane	57.58	5.0	50	0	115	75-125	50.81	12.5	20	
Carbon disulfide	107.4	10	100	0	107	75-125	95.47	11.8	20	
Carbontetrachloride	56.94	5.0	50	0	114	70-130	51.71	9.61	20	
Chlorobenzene	51.53	5.0	50	0	103	75-126	45.29	12.9	20	
Chloroethane	53.78	5.0	50	0	108	70-130	47.83	11.7	20	
Chloroform	55.43	5.0	50	0	111	75-125	49.06	12.2	20	
Chloromethane	47.36	5.0	50	0	94.7	75-125	44.78	5.59	20	
cis-1,3-Dichloropropene	58.08	5.0	50	0	116	75-125	51.04	12.9	20	
Dibromochloromethane	54.94	5.0	50	0	110	75-125	46.26	17.2	20	
Ethylbenzene	53.51	5.0	50	0	107	75-125	48.4	10	20	
m,p-Xylene	107.4	10	100	0	107	75-125	95.91	11.3	20	
Methylene chloride	51.29	10	50	0	103	75-125	42.19	19.5	20	
Styrene	57.12	5.0	50	0	114	75-125	50.32	12.7	20	
Tetrachloroethene	51.89	5.0	50	0	104	75-125	46.73	10.5	20	
Toluene	52.94	5.0	50	0	106	76-125	48.07	9.63	20	
trans-1,3-Dichloropropene	62	5.0	50	0	124	70-130	52.81	16	20	
Trichloroethene	51.37	5.0	50	0	103	71-120	45.49	12.1	20	
Vinylacetate	110.9	10	100	0	111	75-125	98.27	12.1	20	
Vinyl chloride	47	2.0	50	0	94	60-135	46.34	1.4	20	
Xylenes, Total	161.8	15	150	0	108	75-125	143.8	11.7	20	
Surr:1,2-Dichloroethane-d4	50.02	5.0	50	0	100	70-130	50.61	1.18	20	
Surr:4-Bromofluorobenzene	51.64	5.0	50	0	103	70-130	52.07	0.828	20	
Surr:Dibromofluoromethane	45.99	5.0	50	0	92	70-130	46.3	0.669	20	
Surr: Toluene-d8	48.51	5.0	50	0	97	70-130	48.47	0.0937	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310198-04A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16759** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-102003** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382092** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-102003** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382093** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2038	0.020	0.2	0	102	80-120	0			

MS Sample ID: **0310148-01IMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382108** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2076	0.020	0.2	0.0074	100	75-125	0			

MSD Sample ID: **0310148-01I MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382109** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.213	0.020	0.2	0.0074	103	75-125	0.2076	2.57	25	

DUP Sample ID: **0310148-01I DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0074	0.020	0	0	0	0-0	0.0074	0	20	J

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01D	0310198-02D	0310198-03D
0310198-04D	0310198-05D	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16764** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 12:12**
Client ID: Run ID: **IC201_031017A** SeqNo: **382236** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 12:44**
Client ID: Run ID: **IC201_031017A** SeqNo: **382237** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.95	0.50	10	0	99.5	80-120	0			
Fluoride	2.05	0.10	2	0	102	80-120	0			
Sulfate	10.68	1.0	10	0	107	80-120	0			
Surr: Dichloroacetic acid (surr)	1.89	0.10	2	0	94.5	80-120	0			

LCSD Sample ID: **WLCSDW1-10170** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 13:17**
Client ID: Run ID: **IC201_031017A** SeqNo: **382238** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.95	0.50	10	0	99.5	80-120	9.95	0	20	
Fluoride	2.03	0.10	2	0	101	80-120	2.05	0.98	20	
Sulfate	10.63	1.0	10	0	106	80-120	10.68	0.469	20	
Surr: Dichloroacetic acid (surr)	1.84	0.10	2	0	92	80-120	1.89	2.68	20	

MS Sample ID: **0310198-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 18:42**
Client ID: **RW-17** Run ID: **IC201_031017A** SeqNo: **382251** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	323.2	0.50	10	318.1	50.5	75-125	0			SEO
Fluoride	4.02	0.10	2	2.23	89.5	75-125	0			
Sulfate	4207	1.0	10	4300	-921	75-125	0			SEO
Nitrate/Nitrite (as N)	14.53	0.10	4	9.74	120	75-125	0			
Surr: Dichloroacetic acid (surr)	4.47	0.10	5	0	89.4	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16764** InstrumentID: **IC201**

MSD Sample ID: **0310198-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 19:14**
Client ID: **RW-17** Run ID: **IC201_031017A** SeqNo: **382252** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	325.8	0.50	10	318.1	76.6	75-125	323.2	0.804	20	EO
Fluoride	4.08	0.10	2	2.23	92.5	75-125	4.02	1.48	20	
Sulfate	4204	1.0	10	4300	-957	75-125	4207	0.0861	20	SEO
Nitrate/Nitrite (as N)	14.06	0.10	4	9.74	108	75-125	14.53	3.29	20	
Surr: Dichloroacetic acid (surr)	4.63	0.10	5	0	92.6	80-120	4.47	3.52	20	

DUP Sample ID: **0310198-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/17/03 18:09**
Client ID: **RW-17** Run ID: **IC201_031017A** SeqNo: **382244** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	317.6	0.50	0	0	0	0-0	318.1	0.182	20	E
Fluoride	2.2	0.10	0	0	0	0-0	2.23	1.35	20	
Sulfate	4270	1.0	0	0	0	0-0	4300	0.697	20	E
Nitrate/Nitrite (as N)	9.92	0.10	0	0	0	0-0	9.74	1.83	20	
Surr: Dichloroacetic acid (surr)	5.24	0.10	5	0	105	80-120	4.18	22.5	20	R

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01C	0310198-02C	0310198-03C
0310198-04C	0310198-05C	

ND - Not Detected at the Reporting Limit
- Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16805** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-102203** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/22/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **383162** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-102203** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/22/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **383163** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1030	5.0	1000	0	103	80-120	0			

DUP Sample ID: **0310175-11C DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/22/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **383183** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	289.3	5.0	0	0	0	0-0	284.4	1.71	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	289.3	5.0	0	0	0	0-0	284.4	1.71	20	

Thefollowingsampleswereanalyzedinthisbatch:

0310198-01C	0310198-02C	0310198-03C
0310198-04C	0310198-05C	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16945** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-102703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/27/03 16:02**
Client ID: Run ID: **IC201_031027A** SeqNo: **386538** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-102703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/27/03 16:34**
Client ID: Run ID: **IC201_031027A** SeqNo: **386539** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.63	0.50	10	0	96.3	80-120	0			
Fluoride	2.02	0.10	2	0	101	80-120	0			
Sulfate	9.7	1.0	10	0	97	80-120	0			
Surr: Dichloroacetic acid (surr)	2.13	0.10	2	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-10270** Test Code: **E300** Units: **mg/L** Analysis Date: **10/27/03 17:07**
Client ID: Run ID: **IC201_031027A** SeqNo: **386540** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.14	0.50	10	0	91.4	80-120	9.63	5.22	20	
Fluoride	2.1	0.10	2	0	105	80-120	2.02	3.88	20	
Sulfate	9.52	1.0	10	0	95.2	80-120	9.7	1.87	20	
Surr: Dichloroacetic acid (surr)	2.06	0.10	2	0	103	80-120	2.13	3.34	20	

MS Sample ID: **0310223-15CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/28/03 14:47**
Client ID: Run ID: **IC201_031027A** SeqNo: **386562** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	514.8	10	200	286.2	114	75-125	0			
Fluoride	42.2	2.0	40	0	106	75-125	0			
Sulfate	951	20	200	690	130	75-125	0			S
Nitrate/Nitrite (as N)	86.6	2.0	80	11.4	94	75-125	0			
Surr: Dichloroacetic acid (surr)	107	2.0	100	0	107	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310198
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16945** InstrumentID: **IC201**

MSD Sample ID: **0310223-15CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/28/03 15:20**
Client ID: Run ID: **IC201_031027A** SeqNo: **386563** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	513	10	200	286.2	113	75-125	514.8	0.35	20	
Fluoride	41.8	2.0	40	0	104	75-125	42.2	0.952	20	
Sulfate	944	20	200	690	127	75-125	951	0.739	20	S
Nitrate/Nitrite (as N)	89.8	2.0	80	11.4	98	75-125	86.6	3.63	20	
Surr: Dichloroacetic acid (surr)	109	2.0	100	0	109	80-120	107	1.85	20	

DUP Sample ID: **0310223-15CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/28/03 14:15**
Client ID: Run ID: **IC201_031027A** SeqNo: **386561** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	309	10	0	0	0	0-0	286.2	7.66	20	
Fluoride	ND	2.0	0	0	0	0-0	0	0	20	
Sulfate	745.8	20	0	0	0	0-0	690	7.77	20	
Nitrate/Nitrite (as N)	12.2	2.0	0	0	0	0-0	11.4	6.78	20	
Surr: Dichloroacetic acid (surr)	106.8	2.0	100	0	107	80-120	109.2	2.22	20	

The following samples were analyzed in this batch:

0310198-01C	0310198-02C	0310198-03C
0310198-04C	0310198-05C	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager: G Jones | e-Lab Work Order #: 0310198

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order:		Project Name:	Annual Samples	A	VOA (8260)
Work Order:		Project Number:		B	Metals (WQCC + Cations) (6020/7000)
Company Name:	Navajo Refining Company	Bill To Company:	Navajo Refining Company	C	SVOC (Select list) (8270)
Send Report To:	Jeff Byrd	Invoice Attn:	Jeff Byrd	D	Anions: Nitrate-Ite,Flouride,Sulfate,Chloride
Address:	P.O. Box 159	Address:	P.O. Box 159	E	Alkalinity
				F	Cyanide
City/State/Zip:	Artesia, NM 88211	City/State/Zip:	Artesia, NM 88211	G	
Phone:	505-748-3311	Phone:	505-748-3311	H	
Fax:	505-746-5421	Fax:	505-746-5421	I	
e-Mail Address:				J	

No	Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RW-17	10/15/03	0900	L	Y	8	X										
2	RW-16	10/15/03	1010				X										
3	RW-11	10/16/03	0930				X										
4	RW-12		1345				X										
5	RW-13		1415				X										
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: JB

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
JB Byrd	10/16	1615		2 Coolers
Relinquished by:	Date:	Time:	Received by (Laboratory):	
			RICHARD SAMARRIPA 10-17-03 0845	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

e-Lab Cooler ID	Cooler Temp.

QC Package: (Check Box Below)

Level II: Standard QC	X
Level III: Standard QC + Raw Data	
Level IV: SW846 Methods/CLP	
Other:	

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 10/17/2003 8:40:00 AM

Work Order Number 0310198 | Received by: RSZ

Checklist completed by RICHARD SANCHEZ 10-16-03 (Signature / Date) | Reviewed by (Initials) 10/17/03 (Date)

Matrix: | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9c / 3.2c	003	
Water - VOA vials have zero headspace?	Yes ☑ qv	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

October 29, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Samples Work Order : **0310160**

Dear Jeff Byrd,

e-Lab, Inc. received 3 samples on 10/15/2003 9:00:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 40.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Project: Annual Samples
Work Order: **0310160**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310160-01	MW-45	Wate		10/14/2003 08:3C	10/15/2003 09:0(	☐
0310160-02	MW-48	Wate		10/14/2003 09:3C	10/15/2003 09:0(	☐
0310160-03	MW-57	Wate		10/14/2003 15:0C	10/15/2003 09:0(	☐

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-01

Client Sample ID: MW-45
Collection Date: 10/14/2003 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/22/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/22/2003 5:38:16 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/17/2003**	Analyst: **ALR**
Aluminum	0.0864	0.0100		mg/L	1	10/22/2003 5:55:00 PM
Arsenic	ND	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Barium	0.0174	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Beryllium	ND	0.00200		mg/L	1	10/22/2003 5:55:00 PM
Boron	0.519	0.200		mg/L	10	10/22/2003 12:59:00 AM
Cadmium	ND	0.00100		mg/L	1	10/22/2003 5:55:00 PM
Calcium	395	25.0		mg/L	50	10/22/2003 12:33:00 AM
Chromium	0.00255	0.00200		mg/L	1	10/22/2003 5:55:00 PM
Cobalt	ND	0.00200		mg/L	1	10/22/2003 5:55:00 PM
Copper	0.00352	0.00200		mg/L	1	10/22/2003 5:55:00 PM
Iron	1.30	0.200		mg/L	1	10/22/2003 5:55:00 PM
Lead	0.0119	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Magnesium	220	10.0		mg/L	50	10/22/2003 12:33:00 AM
Manganese	0.394	0.0500		mg/L	10	10/22/2003 12:59:00 AM
Nickel	0.0133	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Potassium	6.17	0.200		mg/L	1	10/22/2003 5:55:00 PM
Selenium	ND	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Silver	ND	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Sodium	417	10.0		mg/L	50	10/22/2003 12:33:00 AM
Vanadium	ND	0.00500		mg/L	1	10/22/2003 5:55:00 PM
Zinc	0.0162	0.00500		mg/L	1	10/22/2003 5:55:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/16/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:22:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:22:00 PM
4-Methylphenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:22:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Acenaphthene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Aniline	ND	10		µg/L	1	10/16/2003 3:22:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-01

Client Sample ID: MW-45
Collection Date: 10/14/2003 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Benzidine	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Isophorone	ND	10		µg/L	1	10/16/2003 3:22:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/16/2003 3:22:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2003 3:22:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Naphthalene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Phenanthrene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Phenol	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Pyrene	ND	10		µg/L	1	10/16/2003 3:22:00 PM
Surr:2,4,6-Tribromophenol	98.3	39-153		%REC	1	10/16/2003 3:22:00 PM
Surr: 2-Fluorobiphenyl	86.3	40-147		%REC	1	10/16/2003 3:22:00 PM
Surr: 2-Fluorophenol	52.5	21-100		%REC	1	10/16/2003 3:22:00 PM
Surr:4-Terphenyl-d14	99.8	39-141		%REC	1	10/16/2003 3:22:00 PM
Surr:Nitrobenzene-d5	83.9	37-140		%REC	1	10/16/2003 3:22:00 PM
Surr: Phenol-d6	34.8	11-100		%REC	1	10/16/2003 3:22:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 5:09:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 5:09:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 5:09:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Benzene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-01

Client Sample ID: MW-45
Collection Date: 10/14/2003 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
m,p-Xylene	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Methylene chloride	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Toluene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 5:09:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 5:09:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 5:09:00 PM
Xylenes, Total	ND	15		µg/L	1	10/20/2003 5:09:00 PM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	10/20/2003 5:09:00 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	1	10/20/2003 5:09:00 PM
Surr: Dibromofluoromethane	92.8	70-130		%REC	1	10/20/2003 5:09:00 PM
Surr: Toluene-d8	96.6	70-130		%REC	1	10/20/2003 5:09:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	320	5.00		mg/L	10	10/16/2003 10:20:00 PM
Fluoride	2.24	0.100		mg/L	1	10/15/2003 8:11:00 PM
Sulfate	1,960	100		mg/L	100	10/16/2003 10:53:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/15/2003 8:11:00 PM
Surr: Dichloroacetic acid (surr)	94.6	80-120		%REC	1	10/15/2003 8:11:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	10	10/16/2003 10:20:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	100	10/16/2003 10:53:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	450	5.00		mg/L	1	10/21/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Total (As CaCO3)	450	5.00		mg/L	1	10/21/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-02

Client Sample ID: MW-48
Collection Date: 10/14/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/22/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/22/2003 5:39:48 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/17/2003**	Analyst: **ALR**
Aluminum	0.801	0.100		mg/L	10	10/22/2003 1:07:00 AM
Arsenic	0.0442	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Barium	0.0755	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Beryllium	ND	0.00200		mg/L	1	10/22/2003 4:53:00 AM
Boron	0.689	0.200		mg/L	10	10/22/2003 1:07:00 AM
Cadmium	ND	0.00100		mg/L	1	10/22/2003 4:53:00 AM
Calcium	187	5.00		mg/L	10	10/22/2003 1:07:00 AM
Chromium	ND	0.00200		mg/L	1	10/22/2003 4:53:00 AM
Cobalt	0.00631	0.00200		mg/L	1	10/22/2003 4:53:00 AM
Copper	0.00355	0.00200		mg/L	1	10/22/2003 4:53:00 AM
Iron	0.997	0.200		mg/L	1	10/22/2003 4:53:00 AM
Lead	ND	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Magnesium	136	2.00		mg/L	10	10/22/2003 1:07:00 AM
Manganese	2.44	0.250		mg/L	50	10/22/2003 12:50:00 AM
Nickel	0.0172	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Potassium	0.747	0.200		mg/L	1	10/22/2003 4:53:00 AM
Selenium	ND	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Silver	ND	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Sodium	434	10.0		mg/L	50	10/22/2003 12:50:00 AM
Vanadium	ND	0.00500		mg/L	1	10/22/2003 4:53:00 AM
Zinc	0.00955	0.00500		mg/L	1	10/22/2003 4:53:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/16/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:48:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:48:00 PM
4-Methylphenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2003 3:48:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Acenaphthene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Aniline	ND	10		µg/L	1	10/16/2003 3:48:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-02

Client Sample ID: MW-48
Collection Date: 10/14/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Benzidine	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Isophorone	ND	10		µg/L	1	10/16/2003 3:48:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/16/2003 3:48:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2003 3:48:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Naphthalene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Phenanthrene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Phenol	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Pyrene	ND	10		µg/L	1	10/16/2003 3:48:00 PM
Surr:2,4,6-Tribromophenol	103	39-153		%REC	1	10/16/2003 3:48:00 PM
Surr:2-Fluorobiphenyl	87.6	40-147		%REC	1	10/16/2003 3:48:00 PM
Surr:2-Fluorophenol	48.0	21-100		%REC	1	10/16/2003 3:48:00 PM
Surr:4-Terphenyl-d14	99.5	39-141		%REC	1	10/16/2003 3:48:00 PM
Surr:Nitrobenzene-d5	81.1	37-140		%REC	1	10/16/2003 3:48:00 PM
Surr: Phenol-d6	32.6	11-100		%REC	1	10/16/2003 3:48:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 5:36:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 5:36:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 5:36:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 5:36:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 5:36:00 PM
Benzene	1,500	120		µg/L	25	10/22/2003 4:05:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 5:36:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-02

Client Sample ID: MW-48
Collection Date: 10/14/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Ethylbenzene	110	5.0		µg/L	1	10/20/2003 5:36:00 PM
m,p-Xylene	88	10		µg/L	1	10/20/2003 5:36:00 PM
Methylene chloride	ND	10		µg/L	1	10/20/2003 5:36:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Toluene	49	5.0		µg/L	1	10/20/2003 5:36:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 5:36:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 5:36:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 5:36:00 PM
Xylenes, Total	90	15		µg/L	1	10/20/2003 5:36:00 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%REC	1	10/20/2003 5:36:00 PM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	25	10/22/2003 4:05:00 AM
Surr:4-Bromofluorobenzene	98.9	70-130		%REC	1	10/20/2003 5:36:00 PM
Surr:4-Bromofluorobenzene	96.5	70-130		%REC	25	10/22/2003 4:05:00 AM
Surr: Dibromofluoromethane	92.2	70-130		%REC	25	10/22/2003 4:05:00 AM
Surr: Dibromofluoromethane	94.8	70-130		%REC	1	10/20/2003 5:36:00 PM
Surr: Toluene-d8	96.4	70-130		%REC	1	10/20/2003 5:36:00 PM
Surr: Toluene-d8	97.3	70-130		%REC	25	10/22/2003 4:05:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	212	10.0		mg/L	20	10/16/2003 11:25:00 PM
Fluoride	0.930	0.100		mg/L	1	10/15/2003 8:43:00 PM
Sulfate	152	20.0		mg/L	20	10/16/2003 11:25:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/15/2003 8:43:00 PM
Surr: Dichloroacetic acid (surr)	83.6	80-120		%REC	1	10/15/2003 8:43:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	20	10/16/2003 11:25:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	900	5.00		mg/L	1	10/21/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Total (As CaCO3)	900	5.00		mg/L	1	10/21/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-03

Client Sample ID: MW-57
Collection Date: 10/14/2003 3:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/22/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/22/2003 5:41:18 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/17/2003**	Analyst: **ALR**
Aluminum	0.546	0.100		mg/L	10	10/22/2003 1:12:00 AM
Arsenic	0.0473	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Barium	0.264	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Beryllium	ND	0.00200		mg/L	1	10/22/2003 4:58:00 AM
Boron	0.406	0.200		mg/L	10	10/22/2003 1:12:00 AM
Cadmium	ND	0.00100		mg/L	1	10/22/2003 4:58:00 AM
Calcium	232	25.0		mg/L	50	10/22/2003 12:54:00 AM
Chromium	0.00561	0.00200		mg/L	1	10/22/2003 4:58:00 AM
Cobalt	0.00623	0.00200		mg/L	1	10/22/2003 4:58:00 AM
Copper	0.00244	0.00200		mg/L	1	10/22/2003 4:58:00 AM
Iron	2.83	0.200		mg/L	1	10/22/2003 4:58:00 AM
Lead	ND	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Magnesium	124	2.00		mg/L	10	10/22/2003 1:12:00 AM
Manganese	0.724	0.0500		mg/L	10	10/22/2003 1:12:00 AM
Nickel	0.0121	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Potassium	0.448	0.200		mg/L	1	10/22/2003 4:58:00 AM
Selenium	ND	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Silver	ND	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Sodium	76.0	2.00		mg/L	10	10/22/2003 1:12:00 AM
Vanadium	ND	0.00500		mg/L	1	10/22/2003 4:58:00 AM
Zinc	0.00660	0.00500		mg/L	1	10/22/2003 4:58:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/16/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
2-Methylnaphthalene	94	10		µg/L	1	10/16/2003 4:14:00 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2003 4:14:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2003 4:14:00 PM
4-Methylphenol	130	10		µg/L	1	10/16/2003 4:14:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2003 4:14:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Acenaphthene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Aniline	ND	10		µg/L	1	10/16/2003 4:14:00 PM

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E - Value above quantitation range
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e-Lab, Inc. **Date:** *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-03

Client Sample ID: MW-57
Collection Date: 10/14/2003 3:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Benzidine	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Isophorone	ND	10		µg/L	1	10/16/2003 4:14:00 PM
N-Nitrosodi-*n*-propylamine	ND	10		µg/L	1	10/16/2003 4:14:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2003 4:14:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Naphthalene	210	50		µg/L	5	10/16/2003 9:58:00 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Phenanthrene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Phenol	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Pyrene	ND	10		µg/L	1	10/16/2003 4:14:00 PM
Surr:2,4,6-Tribromophenol	99.2	39-153		%REC	5	10/16/2003 9:58:00 PM
Surr:2,4,6-Tribromophenol	103	39-153		%REC	1	10/16/2003 4:14:00 PM
Surr: 2-Fluorobiphenyl	86.9	40-147		%REC	1	10/16/2003 4:14:00 PM
Surr: 2-Fluorobiphenyl	90.6	40-147		%REC	5	10/16/2003 9:58:00 PM
Surr: 2-Fluorophenol	50.7	21-100		%REC	1	10/16/2003 4:14:00 PM
Surr: 2-Fluorophenol	53.9	21-100		%REC	5	10/16/2003 9:58:00 PM
Surr:4-Terphenyl-d14	101	39-141		%REC	5	10/16/2003 9:58:00 PM
Surr:4-Terphenyl-d14	99.4	39-141		%REC	1	10/16/2003 4:14:00 PM
Surr:Nitrobenzene-d5	84.1	37-140		%REC	5	10/16/2003 9:58:00 PM
Surr:Nitrobenzene-d5	81.9	37-140		%REC	1	10/16/2003 4:14:00 PM
Surr: Phenol-d6	34.0	11-100		%REC	1	10/16/2003 4:14:00 PM
Surr: Phenol-d6	35.1	11-100		%REC	5	10/16/2003 9:58:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
2-Butanone	ND	10		µg/L	1	10/20/2003 6:03:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/20/2003 6:03:00 PM
2-Hexanone	ND	10		µg/L	1	10/20/2003 6:03:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2003 6:03:00 PM
Acetone	ND	10		µg/L	1	10/20/2003 6:03:00 PM
Benzene	12,000	500		µg/L	100	10/22/2003 9:28:00 AM

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e-Lab, Inc.

Date: *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-03

Client Sample ID: MW-57
Collection Date: 10/14/2003 3:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Bromoform	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Bromomethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Carbon disulfide	ND	10		µg/L	1	10/20/2003 6:03:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Chloroethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Chloroform	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Chloromethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Ethylbenzene	1,900	250		µg/L	50	10/22/2003 4:32:00 AM
m,p-Xylene	2,400	500		µg/L	50	10/22/2003 4:32:00 AM
Methylene chloride	ND	10		µg/L	1	10/20/2003 6:03:00 PM
Styrene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Toluene	5,100	250		µg/L	50	10/22/2003 4:32:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/20/2003 6:03:00 PM
Vinyl acetate	ND	10		µg/L	1	10/20/2003 6:03:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/20/2003 6:03:00 PM
Xylenes, Total	3,800	750		µg/L	50	10/22/2003 4:32:00 AM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	100	10/22/2003 9:28:00 AM
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	1	10/20/2003 6:03:00 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	50	10/22/2003 4:32:00 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	100	10/22/2003 9:28:00 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	1	10/20/2003 6:03:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	50	10/22/2003 4:32:00 AM
Surr: Dibromofluoromethane	96.5	70-130		%REC	1	10/20/2003 6:03:00 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	50	10/22/2003 4:32:00 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	100	10/22/2003 9:28:00 AM
Surr: Toluene-d8	101	70-130		%REC	100	10/22/2003 9:28:00 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	10/20/2003 6:03:00 PM
Surr: Toluene-d8	97.2	70-130		%REC	50	10/22/2003 4:32:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	280	5.00		mg/L	10	10/16/2003 11:58:00 PM
Fluoride	1.44	0.100		mg/L	1	10/15/2003 9:16:00 PM
Sulfate	194	10.0		mg/L	10	10/16/2003 11:58:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/15/2003 9:16:00 PM
Surr: Dichloroacetic acid (surr)	86.6	80-120		%REC	1	10/15/2003 9:16:00 PM

Qualifiers:

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e-Lab, Inc. **Date:** *October 28, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples
Lab ID: 0310160-03

Client Sample ID: MW-57
Collection Date: 10/14/2003 3:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	10	10/16/2003 11:58:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	750	5.00		mg/L	1	10/21/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/21/2003
Alkalinity, Total (As CaCO3)	750	5.00		mg/L	1	10/21/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/20/2003

Qualifiers:
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*- Value exceeds Maximum Contaminant Level
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E - Value above quantitation range
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e-Lab, Inc.

Date: *Oct 28 2003*

CLIENT: Navajo Refining Company

QC BATCH REPORT

Work Order: 0310160

Project: Annual Samples

Batch ID: **6963** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-101703** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/21/03 23:57**

Client ID: Run ID: **ICP4500_031021A** SeqNo: **382860** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	ND	0.0020								
Copper	ND	0.0020								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW1-101703** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 16:44**

Client ID: Run ID: **ICP4500_031022A** SeqNo: **383128** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.0020								
Boron	ND	0.020								

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6963** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-101703** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 0:28**
Client ID: Run ID: **ICP4500_031021A** SeqNo: **382866** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.119	0.010	0.1	0	119	80-120	0			
Arsenic	0.1016	0.0050	0.1	0	102	80-120	0			
Barium	0.0971	0.0050	0.1	0	97.1	80-120	0			
Cadmium	0.1028	0.0010	0.1	0	103	80-120	0			
Calcium	10.26	0.50	10	0	103	80-120	0			
Chromium	0.1063	0.0020	0.1	0	106	80-120	0			
Cobalt	0.1058	0.0020	0.1	0	106	80-120	0			
Copper	0.1029	0.0020	0.1	0	103	80-120	0			
Iron	10.3	0.20	10	0	103	80-120	0			
Lead	0.1019	0.0050	0.1	0	102	80-120	0			
Magnesium	10.78	0.20	10	0	108	80-120	0			
Manganese	0.1053	0.0050	0.1	0	105	80-120	0			
Nickel	0.1026	0.0050	0.1	0	103	80-120	0			
Potassium	10.45	0.20	10	0	104	80-120	0			
Selenium	0.09379	0.0050	0.1	0	93.8	80-120	0			
Silver	0.1026	0.0050	0.1	0	103	80-120	0			
Sodium	10.74	0.20	10	0	107	80-120	0			
Vanadium	0.1075	0.0050	0.1	0	108	80-120	0			
Zinc	0.1035	0.0050	0.1	0	103	80-120	0			

LCS Sample ID: **MLCSW1-101703** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/23/03 14:33**
Client ID: Run ID: **ICP4500_031023A** SeqNo: **383630** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.1036	0.0020	0.1	0	104	80-120	0			
Boron	0.519	0.020	0.5	0	104	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6963** InstrumentID: **ICP4500**

MS Sample ID: **0310160-01CMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 18:04**

Client ID: **MW-45** Run ID: **ICP4500_031022A** SeqNo: **383222** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1832	0.010	0.1	0.08635	96.8	75-125	0			
Arsenic	0.1043	0.0050	0.1	0.00302	101	75-125	0			
Barium	0.1249	0.0050	0.1	0.01742	107	75-125	0			
Beryllium	0.09104	0.0020	0.1	0.00001752	91	75-125	0			
Boron	0.9933	0.020	0.5	0.5392	90.8	75-125	0			
Cadmium	0.08585	0.0010	0.1	0.0001111	85.7	75-125	0			
Calcium	470.9	0.50	10	467.2	37	75-125	0			SEO
Chromium	0.1062	0.0020	0.1	0.002548	104	75-125	0			
Cobalt	0.1002	0.0020	0.1	0.0003954	99.8	75-125	0			
Copper	0.09243	0.0020	0.1	0.00352	88.9	75-125	0			
Iron	11.51	0.20	10	1.305	102	75-125	0			
Lead	0.123	0.0050	0.1	0.01192	111	75-125	0			
Magnesium	246.8	0.20	10	241.6	52	75-125	0			SEO
Manganese	0.5162	0.0050	0.1	0.4133	103	75-125	0			EO
Nickel	0.104	0.0050	0.1	0.01328	90.7	75-125	0			
Potassium	16.94	0.20	10	6.171	108	75-125	0			
Selenium	0.09255	0.0050	0.1	0.001754	90.8	75-125	0			
Silver	0.08491	0.0050	0.1	-0.00002988	84.9	75-125	0			
Sodium	ND	0.20	10	0	0	75-125	0			S
Vanadium	0.1151	0.0050	0.1	0.0009267	114	75-125	0			
Zinc	0.0932	0.0050	0.1	0.01623	77	75-125	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6963** InstrumentID: **ICP4500**

MSD Sample ID: **0310160-01CMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 18:09**
Client ID: **MW-45** Run ID: **ICP4500_031022A** SeqNo: **383223** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.2036	0.010	0.1	0.08635	117	75-125	0.1832	10.5	25	
Arsenic	0.1028	0.0050	0.1	0.00302	99.8	75-125	0.1043	1.45	25	
Barium	0.1223	0.0050	0.1	0.01742	105	75-125	0.1249	2.1	25	
Beryllium	0.09132	0.0020	0.1	0.00001752	91.3	75-125	0.09104	0.307	25	
Boron	0.9881	0.020	0.5	0.5392	89.8	75-125	0.9933	0.525	25	
Cadmium	0.08434	0.0010	0.1	0.0001111	84.2	75-125	0.08585	1.77	25	
Calcium	462.9	0.50	10	467.2	-43	75-125	470.9	1.71	25	SEO
Chromium	0.1062	0.0020	0.1	0.002548	104	75-125	0.1062	0	25	
Cobalt	0.1015	0.0020	0.1	0.0003954	101	75-125	0.1002	1.29	25	
Copper	0.09167	0.0020	0.1	0.00352	88.2	75-125	0.09243	0.826	25	
Iron	11.38	0.20	10	1.305	101	75-125	11.51	1.14	25	
Lead	0.1206	0.0050	0.1	0.01192	109	75-125	0.123	1.97	25	
Magnesium	243.2	0.20	10	241.6	16	75-125	246.8	1.47	25	SEO
Manganese	0.5055	0.0050	0.1	0.4133	92.2	75-125	0.5162	2.09	25	EO
Nickel	0.1038	0.0050	0.1	0.01328	90.5	75-125	0.104	0.192	25	
Potassium	16.82	0.20	10	6.171	106	75-125	16.94	0.711	25	
Selenium	0.09269	0.0050	0.1	0.001754	90.9	75-125	0.09255	0.151	25	
Silver	0.08358	0.0050	0.1	-0.00002988	83.6	75-125	0.08491	1.58	25	
Sodium	ND	0.20	10	0	0	75-125	0	0	25	S
Vanadium	0.1147	0.0050	0.1	0.0009267	114	75-125	0.1151	0.348	25	
Zinc	0.09242	0.0050	0.1	0.01623	76.2	75-125	0.0932	0.84	25	

DUP Sample ID: **0310160-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 0:37**
Client ID: **MW-45** Run ID: **ICP4500_031021A** SeqNo: **382868** Prep Date: **10/17/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	403.2	25	0	0	0	0-0	395	2.05	25	
Magnesium	227	10	0	0	0	0-0	220.2	3.04	25	
Sodium	422.3	10	0	0	0	0-0	417.2	1.22	25	

DUP Sample ID: **0310160-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 1:03**
Client ID: **MW-45** Run ID: **ICP4500_031021A** SeqNo: **382874** Prep Date: **10/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5476	0.20	0	0	0	0-0	0.5189	5.38	25	
Manganese	0.3882	0.050	0	0	0	0-0	0.3937	1.41	25	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6963** InstrumentID: **ICP4500**

DUP Sample ID: **0310160-01CDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/22/03 17:59**

Client ID: **MW-45** Run ID: **ICP4500_031022A** SeqNo: **383221** Prep Date: **10/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.07867	0.010	0	0	0	0-0	0.08635	9.31	25	
Arsenic	0.003292	0.0050	0	0	0	0-0	0.00302	0	25	J
Barium	0.01797	0.0050	0	0	0	0-0	0.01742	3.11	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00001752	0	25	
Cadmium	ND	0.0010	0	0	0	0-0	0.0001111	0	25	
Chromium	0.002452	0.0020	0	0	0	0-0	0.002548	3.84	25	
Cobalt	0.0003244	0.0020	0	0	0	0-0	0.0003954	0	25	J
Copper	0.00346	0.0020	0	0	0	0-0	0.00352	1.72	25	
Iron	1.234	0.20	0	0	0	0-0	1.305	5.59	25	
Lead	0.0121	0.0050	0	0	0	0-0	0.01192	1.5	25	
Nickel	0.01339	0.0050	0	0	0	0-0	0.01328	0.825	25	
Potassium	6.102	0.20	0	0	0	0-0	6.171	1.12	25	
Selenium	ND	0.0050	0	0	0	0-0	0.001754	0	25	
Silver	ND	0.0050	0	0	0	0-0	-0.00002988	0	25	
Vanadium	0.001283	0.0050	0	0	0	0-0	0.0009267	0	25	J
Zinc	0.01617	0.0050	0	0	0	0-0	0.01623	0.37	25	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01C 0310160-02C 0310160-03C

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6995** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-102203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 16:59**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383141** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-102203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 17:01**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383142** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00519	0.00020	0.005	0	104	83-115	0			

LCSD Sample ID: **GLCSDW1-102203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 17:02**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383143** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0053	0.00020	0.005	0	106	83-115	0.00519	2.1	20	

MS Sample ID: **0310173-02AMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 17:30**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383146** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00519	0.00020	0.005	0.000006	104	70-124	0			

MSD Sample ID: **0310173-02AMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 17:32**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383147** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00535	0.00020	0.005	0.000006	107	70-124	0.00519	3.04	20	

DUP Sample ID: **0310173-02ADUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/22/03 17:28**
Client ID: Run ID: **MERCURY_031022B** SeqNo: **383145** Prep Date: **10/22/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	0.000006	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01C 0310160-02C 0310160-03C

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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6947** InstrumentID: **SV-2**

MBLK Sample ID: **SBLKW1-031016** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/16/03 12:46**

Client ID: Run ID: **SV-2_031016B** SeqNo: **381035** Prep Date: **10/16/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	95.86	0	100	0	95.9	39-153	0			
Surr: 2-Fluorobiphenyl	89.61	0	100	0	89.6	40-147	0			
Surr: 2-Fluorophenol	60.83	0	100	0	60.8	21-100	0			
Surr:4-Terphenyl-d14	105	0	100	0	105	39-141	0			
Surr: Nitrobenzene-d5	89.16	0	100	0	89.2	37-140	0			
Surr: Phenol-d6	40.44	0	100	0	40.4	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6947** InstrumentID: **SV-2**

LCS Sample ID: **SLCSW1-031016** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/16/03 13:12**

Client ID: Run ID: **SV-2_031016B** SeqNo: **381036** Prep Date: **10/16/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	44.79	10	50	0	89.6	50-115	0			
2,4,5-Trichlorophenol	96.05	10	100	0	96	72-118	0			
2,4,6-Trichlorophenol	94.65	10	100	0	94.6	72-117	0			
2-Methylnaphthalene	45.44	10	50	0	90.9	47-122	0			
2-Methylphenol	87.41	10	100	0	87.4	51-115	0			
2-Nitroaniline	46.43	10	50	0	92.9	73-119	0			
2-Nitrophenol	93.34	10	100	0	93.3	60-119	0			
3-Nitroaniline	48.26	10	50	0	96.5	61-118	0			
4-Methylphenol	123	10	150	0	82	44-115	0			
4-Nitroaniline	47.08	10	50	0	94.2	61-123	0			
4-Nitrophenol	51.45	10	100	0	51.5	17-100	0			
Acenaphthene	44.7	10	50	0	89.4	68-115	0			
Acenaphthylene	44.44	10	50	0	88.9	67-116	0			
Anthracene	47.67	10	50	0	95.3	72-124	0			
Benz(a)anthracene	47.55	10	50	0	95.1	55-131	0			
Benzidine	68.83	10	50	0	138	10-115	0			S
Hexachloroethane	45.03	10	50	0	90.1	46-115	0			
Indeno(1,2,3-cd)pyrene	55.67	10	50	0	111	42-123	0			
Isophorone	45.84	10	50	0	91.7	63-117	0			
N-Nitrosodi-n-propylamine	47.13	10	50	0	94.3	67-115	0			
N-Nitrosodimethylamine	35.62	10	50	0	71.2	28-115	0			
N-Nitrosodiphenylamine	51.23	10	50	0	102	72-144	0			
Naphthalene	44.36	10	50	0	88.7	52-115	0			
Nitrobenzene	45.5	10	50	0	91	65-115	0			
Pentachlorophenol	95.07	10	100	0	95.1	65-123	0			
Phenanthrene	46.13	10	50	0	92.3	69-119	0			
Phenol	49.84	10	100	0	49.8	16-115	0			
Pyrene	47.45	10	50	0	94.9	51-130	0			
Surr: 2,4,6-Tribromophenol	100.5	0	100	0	101	39-153	0			
Surr: 2-Fluorobiphenyl	90.67	0	100	0	90.7	40-147	0			
Surr: 2-Fluorophenol	71.74	0	100	0	71.7	21-100	0			
Surr:4-Terphenyl-d14	103.8	0	100	0	104	39-141	0			
Surr: Nitrobenzene-d5	91.26	0	100	0	91.3	37-140	0			
Surr: Phenol-d6	49.17	0	100	0	49.2	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **6947** InstrumentID: **SV-2**

LCSD Sample ID: **SLCSDW1-031016** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/16/03 13:38**

Client ID: Run ID: **SV-2_031016B** SeqNo: **381037** Prep Date: **10/16/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	44.08	10	50	0	88.2	50-115	44.79	1.58	30	
2,4,5-Trichlorophenol	98.41	10	100	0	98.4	72-118	96.05	2.44	30	
2,4,6-Trichlorophenol	94.94	10	100	0	94.9	72-117	94.65	0.308	30	
2-Methylnaphthalene	44.39	10	50	0	88.8	47-122	45.44	2.34	30	
2-Methylphenol	85.06	10	100	0	85.1	51-115	87.41	2.72	30	
2-Nitroaniline	48.08	10	50	0	96.2	73-119	46.43	3.49	30	
2-Nitrophenol	91.87	10	100	0	91.9	60-119	93.34	1.59	30	
3-Nitroaniline	48.7	10	50	0	97.4	61-118	48.26	0.912	30	
4-Methylphenol	116.4	10	150	0	77.6	44-115	123	5.49	30	
4-Nitroaniline	48.17	10	50	0	96.3	61-123	47.08	2.28	30	
4-Nitrophenol	45.57	10	100	0	45.6	17-100	51.45	12.1	30	
Acenaphthene	45.93	10	50	0	91.9	68-115	44.7	2.71	30	
Acenaphthylene	44.46	10	50	0	88.9	67-116	44.44	0.0335	30	
Anthracene	48.54	10	50	0	97.1	72-124	47.67	1.81	30	
Benz(a)anthracene	49.69	10	50	0	99.4	55-131	47.55	4.4	30	
Benzidine	86.33	10	50	0	173	10-115	68.83	22.5	30	S
Hexachloroethane	42.07	10	50	0	84.1	46-115	45.03	6.8	30	
Indeno(1,2,3-cd)pyrene	59.48	10	50	0	119	42-123	55.67	6.62	30	
Isophorone	46.17	10	50	0	92.3	63-117	45.84	0.709	30	
N-Nitrosodi-n-propylamine	46.58	10	50	0	93.2	67-115	47.13	1.17	30	
N-Nitrosodimethylamine	32.02	10	50	0	64	28-115	35.62	10.6	30	
N-Nitrosodiphenylamine	53.57	10	50	0	107	72-144	51.23	4.45	30	
Naphthalene	44.15	10	50	0	88.3	52-115	44.36	0.469	30	
Nitrobenzene	43.75	10	50	0	87.5	65-115	45.5	3.91	30	
Pentachlorophenol	99.5	10	100	0	99.5	65-123	95.07	4.56	30	
Phenanthrene	47.38	10	50	0	94.8	69-119	46.13	2.68	30	
Phenol	44.88	10	100	0	44.9	16-115	49.84	10.5	30	
Pyrene	49.29	10	50	0	98.6	51-130	47.45	3.8	30	
Surr: 2,4,6-Tribromophenol	100.8	0	100	0	101	39-153	100.5	0.334	30	
Surr: 2-Fluorobiphenyl	90.78	0	100	0	90.8	40-147	90.67	0.124	30	
Surr: 2-Fluorophenol	63	0	100	0	63	21-100	71.74	13	30	
Surr:4-Terphenyl-d14	106.2	0	100	0	106	39-141	103.8	2.31	30	
Surr: Nitrobenzene-d5	86.3	0	100	0	86.3	37-140	91.26	5.58	30	
Surr: Phenol-d6	43.29	0	100	0	43.3	11-100	49.17	12.7	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01E 0310160-02E 0310160-03E

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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 11:43**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382009** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	49.28	5.0	50	0	98.6	70-130		0		
Surr: 4-Bromofluorobenzene	47.48	5.0	50	0	95	70-130		0		
Surr: Dibromofluoromethane	48.16	5.0	50	0	96.3	70-130		0		
Surr: Toluene-d8	48.14	5.0	50	0	96.3	70-130		0		

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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 10:50**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382007** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.84	5.0	50	0	104	75-118	0			
1,1,2,2-Tetrachloroethane	42.06	5.0	50	0	84.1	79-120	0			
1,1,2-Trichloroethane	46.47	5.0	50	0	92.9	81-119	0			
1,1-Dichloroethane	51.25	5.0	50	0	103	80-120	0			
1,1-Dichloroethene	52.57	5.0	50	0	105	80-120	0			
1,2-Dichloroethane	51.23	5.0	50	0	102	80-120	0			
2-Butanone	77.82	10	100	0	77.8	70-130	0			
2-Chloroethyl vinyl ether	81.24	10	100	0	81.2	72-120	0			
2-Hexanone	74.07	10	100	0	74.1	70-130	0			
4-Methyl-2-pentanone	80.5	10	80.5	0	100	78-120	0			
Acetone	93.56	10	100	0	93.6	60-135	0			
Benzene	45.85	5.0	50	0	91.7	82-119	0			
Bromodichloromethane	50.42	5.0	50	0	101	81-119	0			
Bromoform	45.67	5.0	50	0	91.3	80-120	0			
Bromomethane	54.57	5.0	50	0	109	75-130	0			
Carbon disulfide	102.2	10	100	0	102	78-120	0			
Carbontetrachloride	51.9	5.0	50	0	104	77-120	0			
Chlorobenzene	47.42	5.0	50	0	94.8	82-118	0			
Chloroethane	52.45	5.0	50	0	105	78-122	0			
Chloroform	51.96	5.0	50	0	104	78-120	0			
Chloromethane	47.7	5.0	50	0	95.4	75-125	0			
cis-1,3-Dichloropropene	51.78	5.0	50	0	104	81-120	0			
Dibromochloromethane	49.32	5.0	50	0	98.6	81-118	0			
Ethylbenzene	48.97	5.0	50	0	97.9	82-120	0			
m,p-Xylene	96.43	10	100	0	96.4	82-122	0			
Methylene chloride	46.51	10	50	0	93	80-122	0			
Styrene	51	5.0	50	0	102	82-121	0			
Tetrachloroethene	47.65	5.0	50	0	95.3	79-118	0			
Toluene	49.89	5.0	50	0	99.8	81-119	0			
trans-1,3-Dichloropropene	55.18	5.0	50	0	110	82-121	0			
Trichloroethene	47.62	5.0	50	0	95.2	78-118	0			
Vinylacetate	96.94	10	100	0	96.9	75-120	0			
Vinyl chloride	49.42	2.0	50	0	98.8	73-127	0			
Xylenes, Total	145.1	15	150	0	96.7	80-120	0			
Surr:1,2-Dichloroethane-d4	47.63	5.0	50	0	95.3	70-130	0			
Surr:4-Bromofluorobenzene	49.73	5.0	50	0	99.5	70-130	0			
Surr: Dibromofluoromethane	46.8	5.0	50	0	93.6	70-130	0			
Surr: Toluene-d8	48.32	5.0	50	0	96.6	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1020** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 11:17**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382008** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.43	5.0	50	0	103	75-118	51.84	0.799	20	
1,1,2,2-Tetrachloroethane	43.84	5.0	50	0	87.7	79-120	42.06	4.15	20	
1,1,2-Trichloroethane	46.47	5.0	50	0	92.9	81-119	46.47	0.0198	20	
1,1-Dichloroethane	51.55	5.0	50	0	103	80-120	51.25	0.578	20	
1,1-Dichloroethene	51.22	5.0	50	0	102	80-120	52.57	2.6	20	
1,2-Dichloroethane	51.49	5.0	50	0	103	80-120	51.23	0.509	20	
2-Butanone	81.55	10	100	0	81.5	70-130	77.82	4.68	20	
2-Chloroethyl vinyl ether	82.95	10	100	0	83	72-120	81.24	2.09	20	
2-Hexanone	74.74	10	100	0	74.7	70-130	74.07	0.894	20	
4-Methyl-2-pentanone	80.05	10	80.5	0	99.4	78-120	80.5	0.554	20	
Acetone	102.9	10	100	0	103	60-135	93.56	9.47	20	
Benzene	45.39	5.0	50	0	90.8	82-119	45.85	1	20	
Bromodichloromethane	50.57	5.0	50	0	101	81-119	50.42	0.301	20	
Bromoform	47	5.0	50	0	94	80-120	45.67	2.86	20	
Bromomethane	55.24	5.0	50	0	110	75-130	54.57	1.23	20	
Carbon disulfide	100.7	10	100	0	101	78-120	102.2	1.5	20	
Carbon tetrachloride	50.98	5.0	50	0	102	77-120	51.9	1.79	20	
Chlorobenzene	47.31	5.0	50	0	94.6	82-118	47.42	0.231	20	
Chloroethane	52.14	5.0	50	0	104	78-122	52.45	0.594	20	
Chloroform	51.97	5.0	50	0	104	78-120	51.96	0.0219	20	
Chloromethane	48.58	5.0	50	0	97.2	75-125	47.7	1.83	20	
cis-1,3-Dichloropropene	51.82	5.0	50	0	104	81-120	51.78	0.0892	20	
Dibromochloromethane	49.37	5.0	50	0	98.7	81-118	49.32	0.0895	20	
Ethylbenzene	47.29	5.0	50	0	94.6	82-120	48.97	3.47	20	
m,p-Xylene	95.49	10	100	0	95.5	82-122	96.43	0.978	20	
Methylene chloride	46.3	10	50	0	92.6	80-122	46.51	0.464	20	
Styrene	49.99	5.0	50	0	100	82-121	51	1.99	20	
Tetrachloroethene	46.33	5.0	50	0	92.7	79-118	47.65	2.8	20	
Toluene	47.25	5.0	50	0	94.5	81-119	49.89	5.43	20	
trans-1,3-Dichloropropene	54.77	5.0	50	0	110	82-121	55.18	0.75	20	
Trichloroethene	47.13	5.0	50	0	94.3	78-118	47.62	1.02	20	
Vinyl acetate	96.85	10	100	0	96.9	75-120	96.94	0.0844	20	
Vinyl chloride	49.39	2.0	50	0	98.8	73-127	49.42	0.0583	20	
Xylenes, Total	143.2	15	150	0	95.4	80-120	145.1	1.32	20	
Surr: 1,2-Dichloroethane-d4	47.7	5.0	50	0	95.4	70-130	47.63	0.151	20	
Surr: 4-Bromofluorobenzene	48.96	5.0	50	0	97.9	70-130	49.73	1.55	20	
Surr: Dibromofluoromethane	47.21	5.0	50	0	94.4	70-130	46.8	0.871	20	
Surr: Toluene-d8	47.64	5.0	50	0	95.3	70-130	48.32	1.42	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: *0310160*
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MS Sample ID: **0310129-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 14:54**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382249** Prep Date: DF: **10000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	514900	50,000	500000	0	103	75-125	0			
1,1,2,2-Tetrachloroethane	470600	50,000	500000	0	94.1	75-125	0			
1,1,2-Trichloroethane	495800	50,000	500000	0	99.2	75-125	0			
1,1-Dichloroethane	543300	50,000	500000	0	109	75-125	0			
1,1-Dichloroethene	505000	50,000	500000	0	101	65-130	0			
1,2-Dichloroethane	519900	50,000	500000	0	104	70-130	0			
2-Butanone	864200	100,000	1000000	0	86.4	64-128	0			
2-Chloroethyl vinyl ether	810300	100,000	1000000	0	81	75-125	0			
2-Hexanone	732000	100,000	1000000	0	73.2	72-124	0			
4-Methyl-2-pentanone	884400	100,000	805000	0	110	75-125	0			
Acetone	835700	100,000	1000000	0	83.6	60-130	0			
Benzene	479300	50,000	500000	0	95.9	76-127	0			
Bromodichloromethane	495000	50,000	500000	0	99	75-125	0			
Bromoform	481900	50,000	500000	0	96.4	75-125	0			
Bromomethane	524400	50,000	500000	0	105	75-125	0			
Carbon disulfide	1008000	100,000	1000000	0	101	75-125	0			
Carbontetrachloride	504600	50,000	500000	0	101	70-130	0			
Chlorobenzene	487300	50,000	500000	0	97.5	75-126	0			
Chloroethane	503700	50,000	500000	0	101	70-130	0			
Chloroform	524400	50,000	500000	0	105	75-125	0			
Chloromethane	482100	50,000	500000	0	96.4	75-125	0			
cis-1,3-Dichloropropene	526400	50,000	500000	0	105	75-125	0			
Dibromochloromethane	498000	50,000	500000	0	99.6	75-125	0			
Ethylbenzene	505800	50,000	500000	0	101	75-125	0			
m,p-Xylene	1006000	100,000	1000000	0	101	75-125	0			
Methylene chloride	475700	100,000	500000	0	95.1	75-125	0			
Styrene	524400	50,000	500000	0	105	75-125	0			
Tetrachloroethene	481200	50,000	500000	0	96.2	75-125	0			
Toluene	500000	50,000	500000	0	100	76-125	0			
trans-1,3-Dichloropropene	550400	50,000	500000	0	110	70-130	0			
Trichloroethene	470200	50,000	500000	0	94	71-120	0			
Vinyl acetate	1084000	100,000	1000000	0	108	75-125	0			
Vinyl chloride	470400	20,000	500000	0	94.1	60-135	0			
Xylenes, Total	1510000	150,000	1500000	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	470000	50,000	500000	0	94	70-130	0			
Surr: 4-Bromofluorobenzene	500000	50,000	500000	0	100	70-130	0			
Surr: Dibromofluoromethane	466000	50,000	500000	0	93.2	70-130	0			
Surr: Toluene-d8	495300	50,000	500000	0	99.1	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16755** InstrumentID: **VOA_I**

MSD Sample ID: **0310129-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/20/03 15:21**

Client ID: Run ID: **VOA_I_031020A** SeqNo: **382250** Prep Date: DF: **10000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	503400	50,000	500000	0	101	75-125	514900	2.25	20	
1,1,2,2-Tetrachloroethane	457100	50,000	500000	0	91.4	75-125	470600	2.9	20	
1,1,2-Trichloroethane	485300	50,000	500000	0	97.1	75-125	495800	2.13	20	
1,1-Dichloroethane	535400	50,000	500000	0	107	75-125	543300	1.47	20	
1,1-Dichloroethene	496900	50,000	500000	0	99.4	65-130	505000	1.63	20	
1,2-Dichloroethane	504100	50,000	500000	0	101	70-130	519900	3.08	20	
2-Butanone	833400	100,000	1000000	0	83.3	64-128	864200	3.63	20	
2-Chloroethyl vinyl ether	839400	100,000	1000000	0	83.9	75-125	810300	3.52	20	
2-Hexanone	721800	100,000	1000000	0	72.2	72-124	732000	1.4	20	
4-Methyl-2-pentanone	851400	100,000	805000	0	106	75-125	884400	3.81	20	
Acetone	804100	100,000	1000000	0	80.4	60-130	835700	3.85	20	
Benzene	478800	50,000	500000	0	95.8	76-127	479300	0.12	20	
Bromodichloromethane	494200	50,000	500000	0	98.8	75-125	495000	0.148	20	
Bromoform	466100	50,000	500000	0	93.2	75-125	481900	3.34	20	
Bromomethane	503900	50,000	500000	0	101	75-125	524400	3.99	20	
Carbon disulfide	994300	100,000	1000000	0	99.4	75-125	1008000	1.39	20	
Carbontetrachloride	494300	50,000	500000	0	98.9	70-130	504600	2.07	20	
Chlorobenzene	478200	50,000	500000	0	95.6	75-126	487300	1.89	20	
Chloroethane	494300	50,000	500000	0	98.9	70-130	503700	1.88	20	
Chloroform	517000	50,000	500000	0	103	75-125	524400	1.42	20	
Chloromethane	476900	50,000	500000	0	95.4	75-125	482100	1.08	20	
cis-1,3-Dichloropropene	524200	50,000	500000	0	105	75-125	526400	0.431	20	
Dibromochloromethane	484000	50,000	500000	0	96.8	75-125	498000	2.85	20	
Ethylbenzene	496400	50,000	500000	0	99.3	75-125	505800	1.87	20	
m,p-Xylene	980500	100,000	1000000	0	98	75-125	1006000	2.61	20	
Methylene chloride	463800	100,000	500000	0	92.8	75-125	475700	2.53	20	
Styrene	514600	50,000	500000	0	103	75-125	524400	1.89	20	
Tetrachloroethene	470400	50,000	500000	0	94.1	75-125	481200	2.27	20	
Toluene	492200	50,000	500000	0	98.4	76-125	500000	1.57	20	
trans-1,3-Dichloropropene	534100	50,000	500000	0	107	70-130	550400	3.01	20	
Trichloroethene	460100	50,000	500000	0	92	71-120	470200	2.17	20	
Vinyl acetate	1059000	100,000	1000000	0	106	75-125	1084000	2.32	20	
Vinyl chloride	458000	20,000	500000	0	91.6	60-135	470400	2.66	20	
Xylenes, Total	1471000	150,000	1500000	0	98.1	75-125	1510000	2.6	20	
Surr:1,2-Dichloroethane-d4	464700	50,000	500000	0	92.9	70-130	470000	1.14	20	
Surr:4-Bromofluorobenzene	501900	50,000	500000	0	100	70-130	500000	0.37	20	
Surr: Dibromofluoromethane	462700	50,000	500000	0	92.5	70-130	466000	0.712	20	
Surr: Toluene-d8	491000	50,000	500000	0	98.2	70-130	495300	0.873	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01A 0310160-02A 0310160-03A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 0:57**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382972** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	46.89	5.0	50	0	93.8	70-130	0			
Surr:4-Bromofluorobenzene	48.16	5.0	50	0	96.3	70-130	0			
Surr:Dibromofluoromethane	46.91	5.0	50	0	93.8	70-130	0			
Surr:Toluene-d8	48.9	5.0	50	0	97.8	70-130	0			

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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/21/03 23:09**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382970** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.77	5.0	50	0	102	75-118	0			
1,1,2,2-Tetrachloroethane	43	5.0	50	0	86	79-120	0			
1,1,2-Trichloroethane	48.21	5.0	50	0	96.4	81-119	0			
1,1-Dichloroethane	52.87	5.0	50	0	106	80-120	0			
1,1-Dichloroethene	53.85	5.0	50	0	108	80-120	0			
1,2-Dichloroethane	51.04	5.0	50	0	102	80-120	0			
2-Butanone	86.38	10	100	0	86.4	70-130	0			
2-Chloroethyl vinyl ether	96.96	10	100	0	97	72-120	0			
2-Hexanone	73.04	10	100	0	73	70-130	0			
4-Methyl-2-pentanone	79.46	10	100	0	79.5	78-120	0			
Acetone	99.59	10	100	0	99.6	60-135	0			
Benzene	48.31	5.0	50	0	96.6	82-119	0			
Bromodichloromethane	50.37	5.0	50	0	101	81-119	0			
Bromoform	46.83	5.0	50	0	93.7	80-120	0			
Bromomethane	58.66	5.0	50	0	117	75-130	0			
Carbon disulfide	107.5	10	100	0	107	78-120	0			
Carbon tetrachloride	49.66	5.0	50	0	99.3	77-120	0			
Chlorobenzene	48.75	5.0	50	0	97.5	82-118	0			
Chloroethane	55.73	5.0	50	0	111	78-122	0			
Chloroform	52.26	5.0	50	0	105	78-120	0			
Chloromethane	46.71	5.0	50	0	93.4	75-125	0			
cis-1,3-Dichloropropene	52.61	5.0	50	0	105	81-120	0			
Dibromochloromethane	50.06	5.0	50	0	100	81-118	0			
Ethylbenzene	50.77	5.0	50	0	102	82-120	0			
m,p-Xylene	101.1	10	100	0	101	82-122	0			
Methylene chloride	50.2	10	50	0	100	80-122	0			
Styrene	53.78	5.0	50	0	108	82-121	0			
Tetrachloroethene	79.28	5.0	50	0	159	79-118	0			S
Toluene	50.26	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	54.21	5.0	50	0	108	82-121	0			
Trichloroethene	48.49	5.0	50	0	97	78-118	0			
Vinyl acetate	89.11	10	100	0	89.1	75-120	0			
Vinyl chloride	50.41	2.0	50	0	101	73-127	0			
Xylenes, Total	151.5	15	150	0	101	80-120	0			
Surr: 1,2-Dichloroethane-d4	46.11	5.0	50	0	92.2	70-130	0			
Surr: 4-Bromofluorobenzene	50.81	5.0	50	0	102	70-130	0			
Surr: Dibromofluoromethane	46.65	5.0	50	0	93.3	70-130	0			
Surr: Toluene-d8	49.26	5.0	50	0	98.5	70-130	0			

ND - Not Detected at the Reporting Limit
- Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1021** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/21/03 23:36**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382971** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.73	5.0	50	0	101	75-118	50.77	0.0872	20	
1,1,2,2-Tetrachloroethane	43.02	5.0	50	0	86	79-120	43	0.0388	20	
1,1,2-Trichloroethane	47.87	5.0	50	0	95.7	81-119	48.21	0.712	20	
1,1-Dichloroethane	52.18	5.0	50	0	104	80-120	52.87	1.31	20	
1,1-Dichloroethene	54.02	5.0	50	0	108	80-120	53.85	0.302	20	
1,2-Dichloroethane	50.04	5.0	50	0	100	80-120	51.04	1.99	20	
2-Butanone	87.19	10	100	0	87.2	70-130	86.38	0.931	20	
2-Chloroethyl vinyl ether	100.5	10	100	0	101	72-120	96.96	3.61	20	
2-Hexanone	73.57	10	100	0	73.6	70-130	73.04	0.725	20	
4-Methyl-2-pentanone	79.52	10	100	0	79.5	78-120	79.46	0.0705	20	
Acetone	99.17	10	100	0	99.2	60-135	99.59	0.42	20	
Benzene	47.98	5.0	50	0	96	82-119	48.31	0.692	20	
Bromodichloromethane	49.09	5.0	50	0	98.2	81-119	50.37	2.57	20	
Bromoform	46.8	5.0	50	0	93.6	80-120	46.83	0.0571	20	
Bromomethane	57.02	5.0	50	0	114	75-130	58.66	2.83	20	
Carbon disulfide	107.8	10	100	0	108	78-120	107.5	0.325	20	
Carbon tetrachloride	50.7	5.0	50	0	101	77-120	49.66	2.08	20	
Chlorobenzene	48.13	5.0	50	0	96.3	82-118	48.75	1.28	20	
Chloroethane	55.54	5.0	50	0	111	78-122	55.73	0.341	20	
Chloroform	51.28	5.0	50	0	103	78-120	52.26	1.9	20	
Chloromethane	47.56	5.0	50	0	95.1	75-125	46.71	1.82	20	
cis-1,3-Dichloropropene	51.52	5.0	50	0	103	81-120	52.61	2.11	20	
Dibromochloromethane	48.81	5.0	50	0	97.6	81-118	50.06	2.53	20	
Ethylbenzene	51.13	5.0	50	0	102	82-120	50.77	0.703	20	
m,p-Xylene	100.6	10	100	0	101	82-122	101.1	0.528	20	
Methylene chloride	49.06	10	50	0	98.1	80-122	50.2	2.29	20	
Styrene	53.38	5.0	50	0	107	82-121	53.78	0.749	20	
Tetrachloroethene	82.42	5.0	50	0	165	79-118	79.28	3.89	20	S
Toluene	50.08	5.0	50	0	100	81-119	50.26	0.359	20	
trans-1,3-Dichloropropene	52.77	5.0	50	0	106	82-121	54.21	2.69	20	
Trichloroethene	48.3	5.0	50	0	96.6	78-118	48.49	0.401	20	
Vinyl acetate	87.97	10	100	0	88	75-120	89.11	1.29	20	
Vinyl chloride	51.18	2.0	50	0	102	73-127	50.41	1.52	20	
Xylenes, Total	151.5	15	150	0	101	80-120	151.5	0.0104	20	
Surr:1,2-Dichloroethane-d4	45.36	5.0	50	0	90.7	70-130	46.11	1.64	20	
Surr:4-Bromofluorobenzene	50.02	5.0	50	0	100	70-130	50.81	1.56	20	
Surr: Dibromofluoromethane	46.15	5.0	50	0	92.3	70-130	46.65	1.07	20	
Surr: Toluene-d8	49.13	5.0	50	0	98.3	70-130	49.26	0.271	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MS Sample ID: **0310125-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 1:50**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382973** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.87	5.0	50	0	108	75-125	0			
1,1,2,2-Tetrachloroethane	54.24	5.0	50	0	108	75-125	0			
1,1,2-Trichloroethane	57.88	5.0	50	0	116	75-125	0			
1,1-Dichloroethane	58.94	5.0	50	0	118	75-125	0			
1,1-Dichloroethene	53.75	5.0	50	0	107	65-130	0			
1,2-Dichloroethane	63.45	5.0	50	0	127	70-130	0			
2-Butanone	104.1	10	100	0	104	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	76.35	10	100	0	76.4	72-124	0			
4-Methyl-2-pentanone	107.6	10	100	0	108	75-125	0			
Acetone	98.52	10	100	0	98.5	60-130	0			
Benzene	54.66	5.0	50	0	109	76-127	0			
Bromodichloromethane	60.61	5.0	50	0	121	75-125	0			
Bromoform	59.23	5.0	50	0	118	75-125	0			
Bromomethane	60.62	5.0	50	0	121	75-125	0			
Carbon disulfide	109.1	10	100	0	109	75-125	0			
Carbon tetrachloride	51.81	5.0	50	0	104	70-130	0			
Chlorobenzene	56.31	5.0	50	0	113	75-126	0			
Chloroethane	58.23	5.0	50	0	116	70-130	0			
Chloroform	60.69	5.0	50	0	121	75-125	0			
Chloromethane	48.74	5.0	50	0	97.5	75-125	0			
cis-1,3-Dichloropropene	61.69	5.0	50	0	123	75-125	0			
Dibromochloromethane	60.04	5.0	50	0	120	75-125	0			
Ethylbenzene	56.24	5.0	50	0	112	75-125	0			
m,p-Xylene	112.7	10	100	0	113	75-125	0			
Methylene chloride	58.74	10	50	0	117	75-125	0			
Styrene	61.15	5.0	50	0	122	75-125	0			
Tetrachloroethene	51.96	5.0	50	0	104	75-125	0			
Toluene	56.08	5.0	50	0	112	76-125	0			
trans-1,3-Dichloropropene	64.88	5.0	50	0	130	70-130	0			
Trichloroethene	53.92	5.0	50	0	108	71-120	0			
Vinyl acetate	110.7	10	100	0	111	75-125	0			
Vinyl chloride	48.07	2.0	50	0	96.1	60-135	0			
Xylenes, Total	170	15	150	0	113	75-125	0			
Surr: 1,2-Dichloroethane-d4	47.01	5.0	50	0	94	70-130	0			
Surr: 4-Bromofluorobenzene	50.56	5.0	50	0	101	70-130	0			
Surr: Dibromofluoromethane	47.17	5.0	50	0	94.3	70-130	0			
Surr: Toluene-d8	48.6	5.0	50	0	97.2	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16795** InstrumentID: **VOA_I**

MSD Sample ID: **0310125-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/22/03 2:17**

Client ID: Run ID: **VOA_I_031021C** SeqNo: **382974** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.54	5.0	50	0	101	75-125	53.87	6.37	20	
1,1,2,2-Tetrachloroethane	52.09	5.0	50	0	104	75-125	54.24	4.04	20	
1,1,2-Trichloroethane	55.07	5.0	50	0	110	75-125	57.88	4.98	20	
1,1-Dichloroethane	56.8	5.0	50	0	114	75-125	58.94	3.69	20	
1,1-Dichloroethene	51.98	5.0	50	0	104	65-130	53.75	3.34	20	
1,2-Dichloroethane	59.63	5.0	50	0	119	70-130	63.45	6.21	20	
2-Butanone	100.5	10	100	0	101	64-128	104.1	3.46	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	75.1	10	100	0	75.1	72-124	76.35	1.65	20	
4-Methyl-2-pentanone	104.1	10	100	0	104	75-125	107.6	3.36	20	
Acetone	94.46	10	100	0	94.5	60-130	98.52	4.21	20	
Benzene	52.18	5.0	50	0	104	76-127	54.66	4.64	20	
Bromodichloromethane	58.53	5.0	50	0	117	75-125	60.61	3.49	20	
Bromoform	55.96	5.0	50	0	112	75-125	59.23	5.67	20	
Bromomethane	60.83	5.0	50	0	122	75-125	60.62	0.341	20	
Carbon disulfide	105.2	10	100	0	105	75-125	109.1	3.64	20	
Carbontetrachloride	49.57	5.0	50	0	99.1	70-130	51.81	4.42	20	
Chlorobenzene	54.32	5.0	50	0	109	75-126	56.31	3.6	20	
Chloroethane	56.42	5.0	50	0	113	70-130	58.23	3.16	20	
Chloroform	58.15	5.0	50	0	116	75-125	60.69	4.28	20	
Chloromethane	48.01	5.0	50	0	96	75-125	48.74	1.51	20	
cis-1,3-Dichloropropene	59.13	5.0	50	0	118	75-125	61.69	4.24	20	
Dibromochloromethane	57.3	5.0	50	0	115	75-125	60.04	4.67	20	
Ethylbenzene	53.69	5.0	50	0	107	75-125	56.24	4.64	20	
m,p-Xylene	106.9	10	100	0	107	75-125	112.7	5.25	20	
Methylene chloride	55.73	10	50	0	111	75-125	58.74	5.26	20	
Styrene	58.05	5.0	50	0	116	75-125	61.15	5.2	20	
Tetrachloroethene	49.52	5.0	50	0	99	75-125	51.96	4.8	20	
Toluene	53.48	5.0	50	0	107	76-125	56.08	4.74	20	
trans-1,3-Dichloropropene	62.07	5.0	50	0	124	70-130	64.88	4.43	20	
Trichloroethene	51.02	5.0	50	0	102	71-120	53.92	5.53	20	
Vinyl acetate	105.8	10	100	0	106	75-125	110.7	4.52	20	
Vinyl chloride	47.02	2.0	50	0	94	60-135	48.07	2.2	20	
Xylenes, Total	162.1	15	150	0	108	75-125	170	4.72	20	
Surr:1,2-Dichloroethane-d4	46.49	5.0	50	0	93	70-130	47.01	1.11	20	
Surr:4-Bromofluorobenzene	48.93	5.0	50	0	97.9	70-130	50.56	3.28	20	
Surr:Dibromofluoromethane	46.66	5.0	50	0	93.3	70-130	47.17	1.08	20	
Surr: Toluene-d8	48.33	5.0	50	0	96.7	70-130	48.6	0.573	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-02A 0310160-03A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16709** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101503** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 12:35**
Client ID: Run ID: **IC201_031015A** SeqNo: **380656** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101503** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 13:08**
Client ID: Run ID: **IC201_031015A** SeqNo: **380657** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.9	0.50	10	0	99	80-120	0			
Fluoride	1.95	0.10	2	0	97.5	80-120	0			
Sulfate	10.68	1.0	10	0	107	80-120	0			
Surr: Dichloroacetic acid (surr)	2.12	0.10	2	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-10150** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 13:40**
Client ID: Run ID: **IC201_031015A** SeqNo: **380658** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.91	0.50	10	0	99.1	80-120	9.9	0.101	20	
Fluoride	2.02	0.10	2	0	101	80-120	1.95	3.53	20	
Sulfate	10.72	1.0	10	0	107	80-120	10.68	0.374	20	
Surr: Dichloroacetic acid (surr)	2.11	0.10	2	0	106	80-120	2.12	0.473	20	

MS Sample ID: **0310157-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 14:46**
Client ID: Run ID: **IC201_031015A** SeqNo: **380660** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2849	0.50	10	2699	1490	75-125	0			SEO
Fluoride	5.65	0.10	2	1.73	196	75-125	0			S
Sulfate	31.53	1.0	10	21.35	102	75-125	0			
Nitrate/Nitrite (as N)	1.71	0.10	4	0.31	35	75-125	0			S
Surr: Dichloroacetic acid (surr)	3.97	0.10	5	0	79.4	80-120	0			S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16709** InstrumentID: **IC201**

MSD Sample ID: **0310157-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 15:18**
Client ID: Run ID: **IC201_031015A** SeqNo: **380661** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2857	0.50	10	2699	1580	75-125	2849	0.293	20	SEO
Fluoride	5.69	0.10	2	1.73	198	75-125	5.65	0.705	20	S
Sulfate	31.44	1.0	10	21.35	101	75-125	31.53	0.286	20	
Nitrate/Nitrite (as N)	1.81	0.10	4	0.31	37.5	75-125	1.71	5.68	20	S
Surr: Dichloroacetic acid (surr)	3.56	0.10	5	0	71.2	80-120	3.97	10.9	20	S

DUP Sample ID: **0310157-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/15/03 14:13**
Client ID: Run ID: **IC201_031015A** SeqNo: **380659** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2733	0.50	0	0	0	0-0	2699	1.24	20	E
Fluoride	1.76	0.10	0	0	0	0-0	1.73	1.72	20	
Sulfate	21.29	1.0	0	0	0	0-0	21.35	0.281	20	
Nitrate/Nitrite (as N)	0.29	0.10	0	0	0	0-0	0.31	6.67	20	
Surr: Dichloroacetic acid (surr)	4.36	0.10	5	0	87.2	80-120	4.25	2.56	20	

DUP Sample ID: **0310178-05DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 0:31**
Client ID: Run ID: **IC201_031015A** SeqNo: **380675** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2399	0.50	0	0	0	0-0	2399	0.00917	20	E
Fluoride	1.74	0.10	0	0	0	0-0	1.93	10.4	20	
Sulfate	3195	1.0	0	0	0	0-0	3196	0.0225	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.22	0.10	5	0	84.4	80-120	4.35	3.03	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01B 0310160-02B 0310160-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16735** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101603** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 15:50**
Client ID: Run ID: **IC201_031016A** SeqNo: **381133** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101603** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 16:23**
Client ID: Run ID: **IC201_031016A** SeqNo: **381134** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.91	0.50	10	0	99.1	80-120	0			
Fluoride	2.03	0.10	2	0	101	80-120	0			
Sulfate	10.72	1.0	10	0	107	80-120	0			
Surr: Dichloroacetic acid (surr)	2.12	0.10	2	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-10160** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 16:55**
Client ID: Run ID: **IC201_031016A** SeqNo: **381135** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.91	0.50	10	0	99.1	80-120	9.91	0	20	
Fluoride	2.1	0.10	2	0	105	80-120	2.03	3.39	20	
Sulfate	10.71	1.0	10	0	107	80-120	10.72	0.0933	20	
Surr: Dichloroacetic acid (surr)	2.16	0.10	2	0	108	80-120	2.12	1.87	20	

MS Sample ID: **0310180-02CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 20:10**
Client ID: Run ID: **IC201_031016A** SeqNo: **381140** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1120	0.50	10	1130	-97.9	75-125	0			SEO
Fluoride	3.84	0.10	2	1.88	98	75-125	0			
Sulfate	2911	1.0	10	2933	-218	75-125	0			SEO
Nitrate/Nitrite (as N)	3.69	0.10	4	0	92.2	75-125	0			
Surr: Dichloroacetic acid (surr)	4.26	0.10	5	0	85.2	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16735** InstrumentID: **IC201**

MSD Sample ID: **0310180-02CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 20:43**
Client ID: Run ID: **IC201_031016A** SeqNo: **381141** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1120	0.50	10	1130	-99.1	75-125	1120	0.0107	20	SEO
Fluoride	4.54	0.10	2	1.88	133	75-125	3.84	16.7	20	S
Sulfate	2910	1.0	10	2933	-226	75-125	2911	0.0268	20	SEO
Nitrate/Nitrite (as N)	3.13	0.10	4	0	78.2	75-125	3.69	16.4	20	
Surr: Dichloroacetic acid (surr)	4.38	0.10	5	0	87.6	80-120	4.26	2.78	20	

DUP Sample ID: **0310180-05DUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 14:13**
Client ID: Run ID: **IC201_031016A** SeqNo: **381130** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2399	0.50	0	0	0	0-0	0			E
Fluoride	1.71	0.10	0	0	0	0-0	0			
Sulfate	3198	1.0	0	0	0	0-0	0			E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0			
Surr: Dichloroacetic acid (surr)	4.07	0.10	5	0	81.4	80-120	0			

DUP Sample ID: **0310180-02CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/16/03 19:38**
Client ID: Run ID: **IC201_031016A** SeqNo: **381139** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1127	0.50	0	0	0	0-0	1130	0.226	20	E
Fluoride	2.63	0.10	0	0	0	0-0	1.88	33.3	20	R
Sulfate	2944	1.0	0	0	0	0-0	2933	0.4	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.44	0.10	5	0	88.8	80-120	4.26	4.14	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01B 0310160-02B 0310160-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16759** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-102003** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382092** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-102003** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382093** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2038	0.020	0.2	0	102	80-120	0			

MS Sample ID: **0310148-01IMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382108** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2076	0.020	0.2	0.0074	100	75-125	0			

MSD Sample ID: **0310148-01I MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382109** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.213	0.020	0.2	0.0074	103	75-125	0.2076	2.57	25	

DUP Sample ID: **0310148-01I DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: Run ID: **UV-2101PC_031020A** SeqNo: **382107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0074	0.020	0	0	0	0-0	0.0074	0	20	J

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01D 0310160-02D 0310160-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310160
Project: Annual Samples

QC BATCH REPORT

Batch ID: **R16791** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-102103** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/21/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **382827** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-102103** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/21/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **382828** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0310174-12G DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/21/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **382844** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Carbonate (As CaCO3)	340.1	5.0	0	0	0	0-0	340.1	0	20	
Alkalinity, Hydroxide (As CaCO3)	10	5.0	0	0	0	0-0	10	0	20	
Alkalinity, Total (As CaCO3)	350.1	5.0	0	0	0	0-0	350.1	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310160-01B 0310160-02B 0310160-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager: G Jones | e-Lab Work Order #: 8010

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Annual Samples	A	VOA (8260)
Work Order		Project Number		B	Metals (WQCC + Cations) (6020/7000)
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	SVOC (Select list) (8270)
Send Report To	Jeff Byrd	Invoice Attn	Jeff Byrd	D	Anions: Nitrate-ite,Flouride,Sulfate,Chloride
Address	P.O. Box 159	Address	P.O. Box 159	E	Alkalinity
				F	Cyanide
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	505-748-3311	Phone	505-748-3311	H	
Fax	505-746-5421	Fax	505-746-5421	I	
e-Mail Address				J	

No	Sample Description	Date	Time	Matrix	Pres	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-45	10/14/03	0830	G	4	8	X	X	X	X	X	X					
2	MW-48	"	0930	"	"	"	X	X	X	X	X	X					
3	MW-57	"	1520	"	"	"	X	X	X	X	X	X					
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: JB

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
JByrd	10/14/03	1615		
Relinquished by:	Date:	Time:	Received by (Laboratory): RICHARD SANCHEZ 10/15/03 0900	e-Lab Cooler ID: / Cooler Temp:
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check Box Below)

	X
Level II: Standard QC	
Level III: Standard QC + Raw Data	
Level IV: SW846 Methods/CLP	
Other:	

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 10/15/2003 9:00:00 AM

Work Order Number 0310160

Received by: RSZ

Checklist completed by [signature] Signature 10/15/03 Date

Reviewed by [initials] Initials 10/15/03 Date

Matrix: W

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.2c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

W.O. # ~~B0~~ B5 11/14/03
B10160

NAVAJO REFINING COMPANY
501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 140CT2003
ACCOUNT # 113684186
ACTUAL WGT: 75.00 LBS

Part # 156148-434 NRITG-02

TO:

2815305656

E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77099

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

WED
DELIVER BY:
150CT2003

System # 2223500 140CT2003
TRK# 7910 3112 7252 Form 0201

IAH A2

77099-TX-US A9 JGQA

QSUS v5.2.00 2223500 2844 04/02

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

October 21, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0310085**

Dear Jeff Byrd,

e-Lab, Inc. received 2 samples on 10/8/2003 9:30:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 32.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0310085**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310085-01	RW-9	Water		10/7/2003 09:30	10/8/2003 09:30	☐
0310085-02	MW-29	Water		10/7/2003 08:45	10/8/2003 09:30	☐

e-Lab, Inc. **Date:** *October 21, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0310085

Case Narrative

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-01

Client Sample ID: RW-9
Collection Date: 10/7/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:45:56 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/15/2003**	Analyst: **ALR**
Aluminum	ND	0.0100		mg/L	1	10/19/2003 2:50:00 AM
Arsenic	ND	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Barium	0.0496	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Beryllium	ND	0.00200		mg/L	1	10/19/2003 2:50:00 AM
Boron	0.731	0.0200		mg/L	1	10/20/2003 12:18:00 AM
Cadmium	ND	0.00100		mg/L	1	10/19/2003 2:50:00 AM
Calcium	24.0	5.00		mg/L	10	10/19/2003 2:37:00 AM
Chromium	ND	0.00200		mg/L	1	10/19/2003 2:50:00 AM
Cobalt	ND	0.00200		mg/L	1	10/19/2003 2:50:00 AM
Copper	0.00417	0.00200		mg/L	1	10/19/2003 2:50:00 AM
Iron	1.64	0.200		mg/L	1	10/19/2003 2:50:00 AM
Lead	ND	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Magnesium	168	2.00		mg/L	10	10/20/2003 12:04:00 AM
Manganese	0.0160	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Nickel	ND	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Potassium	1.50	0.200		mg/L	1	10/19/2003 2:50:00 AM
Selenium	0.00653	0.00500		mg/L	1	10/20/2003 12:18:00 AM
Silver	ND	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Sodium	338	10.0		mg/L	50	10/19/2003 11:51:00 PM
Vanadium	ND	0.00500		mg/L	1	10/19/2003 2:50:00 AM
Zinc	0.0489	0.00500		mg/L	1	10/19/2003 2:50:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/9/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2-Methylphenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:21:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:21:00 PM
4-Methylphenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:21:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Acenaphthene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Acenaphthylene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Aniline	ND	10		µg/L	1	10/14/2003 7:21:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - *Analyte detected below quantitation limits*
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-01

Client Sample ID: RW-9
Collection Date: 10/7/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Benzidine	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Hexachloroethane	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Isophorone	ND	10		µg/L	1	10/14/2003 7:21:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/14/2003 7:21:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/14/2003 7:21:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Naphthalene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Nitrobenzene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Phenanthrene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Phenol	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Pyrene	ND	10		µg/L	1	10/14/2003 7:21:00 PM
Surr: 2,4,6-Tribromophenol	118	39-153		%REC	1	10/14/2003 7:21:00 PM
Surr: 2-Fluorobiphenyl	103	40-147		%REC	1	10/14/2003 7:21:00 PM
Surr: 2-Fluorophenol	44.4	21-100		%REC	1	10/14/2003 7:21:00 PM
Surr: 4-Terphenyl-d14	118	39-141		%REC	1	10/14/2003 7:21:00 PM
Surr: Nitrobenzene-d5	99.6	37-140		%REC	1	10/14/2003 7:21:00 PM
Surr: Phenol-d6	27.5	11-100		%REC	1	10/14/2003 7:21:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
2-Butanone	ND	10		µg/L	1	10/10/2003 3:43:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/10/2003 3:43:00 AM
2-Hexanone	ND	10		µg/L	1	10/10/2003 3:43:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Acetone	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Benzene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Bromoform	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Bromomethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Carbon disulfide	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Chlorobenzene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-01

Client Sample ID: RW-9
Collection Date: 10/7/2003 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Chloroform	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Chloromethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Ethylbenzene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
m,p-Xylene	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Methylene chloride	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Styrene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Toluene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Trichloroethene	ND	5.0		µg/L	1	10/10/2003 3:43:00 AM
Vinyl acetate	ND	10		µg/L	1	10/10/2003 3:43:00 AM
Vinyl chloride	ND	2.0		µg/L	1	10/10/2003 3:43:00 AM
Xylenes, Total	ND	15		µg/L	1	10/10/2003 3:43:00 AM
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%REC	1	10/10/2003 3:43:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	10/10/2003 3:43:00 AM
Surr: Dibromofluoromethane	89.7	70-130		%REC	1	10/10/2003 3:43:00 AM
Surr: Toluene-d8	107	70-130		%REC	1	10/10/2003 3:43:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	372	5.00		mg/L	10	10/11/2003 9:48:00 AM
Fluoride	1.00	0.100		mg/L	1	10/8/2003 5:48:00 PM
Sulfate	257	10.0		mg/L	10	10/11/2003 9:48:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/8/2003 5:48:00 PM
Surr: Dichloroacetic acid (surr)	99.6	80-120		%REC	10	10/11/2003 9:48:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	1	10/8/2003 5:48:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	720	5.00		mg/L	1	10/9/2003
Alkalinity, Carbonate (As CaCO3)	40.0	5.00		mg/L	1	10/9/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Total (As CaCO3)	760	5.00		mg/L	1	10/9/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/13/2003

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-02

Client Sample ID: MW-29
Collection Date: 10/7/2003 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:47:29 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/15/2003**	Analyst: **ALR**
Aluminum	0.0109	0.0100		mg/L	1	10/19/2003 2:54:00 AM
Arsenic	0.0244	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Barium	0.0185	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Beryllium	ND	0.00200		mg/L	1	10/19/2003 2:54:00 AM
Boron	1.39	0.100		mg/L	5	10/20/2003 12:09:00 AM
Cadmium	ND	0.00100		mg/L	1	10/19/2003 2:54:00 AM
Calcium	389	25.0		mg/L	50	10/19/2003 2:28:00 AM
Chromium	ND	0.00200		mg/L	1	10/19/2003 2:54:00 AM
Cobalt	0.00233	0.00200		mg/L	1	10/19/2003 2:54:00 AM
Copper	0.00630	0.00200		mg/L	1	10/19/2003 2:54:00 AM
Iron	1.01	0.200		mg/L	1	10/19/2003 2:54:00 AM
Lead	ND	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Magnesium	335	10.0		mg/L	50	10/19/2003 11:56:00 PM
Manganese	0.434	0.0500		mg/L	10	10/19/2003 2:41:00 AM
Nickel	0.00695	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Potassium	10.2	0.200		mg/L	1	10/19/2003 2:54:00 AM
Selenium	0.00529	0.00500		mg/L	1	10/20/2003 12:22:00 AM
Silver	ND	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Sodium	306	10.0		mg/L	50	10/19/2003 11:56:00 PM
Vanadium	0.0416	0.00500		mg/L	1	10/19/2003 2:54:00 AM
Zinc	0.0155	0.00500		mg/L	1	10/19/2003 2:54:00 AM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/9/2003**	Analyst: **RKG**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2-Methylphenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:46:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:46:00 PM
4-Methylphenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/14/2003 7:46:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Acenaphthene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Acenaphthylene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Aniline	ND	10		µg/L	1	10/14/2003 7:46:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-02

Client Sample ID: MW-29
Collection Date: 10/7/2003 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Benzidine	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Hexachloroethane	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Isophorone	ND	10		µg/L	1	10/14/2003 7:46:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/14/2003 7:46:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/14/2003 7:46:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Naphthalene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Nitrobenzene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Phenanthrene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Phenol	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Pyrene	ND	10		µg/L	1	10/14/2003 7:46:00 PM
Surr: 2,4,6-Tribromophenol	107	39-153		%REC	1	10/14/2003 7:46:00 PM
Surr: 2-Fluorobiphenyl	91.9	40-147		%REC	1	10/14/2003 7:46:00 PM
Surr: 2-Fluorophenol	42.7	21-100		%REC	1	10/14/2003 7:46:00 PM
Surr: 4-Terphenyl-d14	105	39-141		%REC	1	10/14/2003 7:46:00 PM
Surr: Nitrobenzene-d5	88.6	37-140		%REC	1	10/14/2003 7:46:00 PM
Surr: Phenol-d6	26.4	11-100		%REC	1	10/14/2003 7:46:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
2-Butanone	ND	10		µg/L	1	10/10/2003 5:04:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/10/2003 5:04:00 AM
2-Hexanone	ND	10		µg/L	1	10/10/2003 5:04:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Acetone	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Benzene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Bromoform	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Bromomethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Carbon disulfide	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Chlorobenzene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 20, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual
Lab ID: 0310085-02

Client Sample ID: MW-29
Collection Date: 10/7/2003 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Chloroform	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Chloromethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Ethylbenzene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
m,p-Xylene	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Methylene chloride	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Styrene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Toluene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Trichloroethene	ND	5.0		µg/L	1	10/10/2003 5:04:00 AM
Vinyl acetate	ND	10		µg/L	1	10/10/2003 5:04:00 AM
Vinyl chloride	ND	2.0		µg/L	1	10/10/2003 5:04:00 AM
Xylenes, Total	ND	15		µg/L	1	10/10/2003 5:04:00 AM
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	1	10/10/2003 5:04:00 AM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	1	10/10/2003 5:04:00 AM
Surr: Dibromofluoromethane	88.8	70-130		%REC	1	10/10/2003 5:04:00 AM
Surr: Toluene-d8	96.8	70-130		%REC	1	10/10/2003 5:04:00 AM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	400	10.0		mg/L	20	10/11/2003 10:21:00 AM
Fluoride	4.89	0.100		mg/L	1	10/8/2003 7:58:00 PM
Sulfate	1,870	100		mg/L	100	10/11/2003 10:53:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/8/2003 7:58:00 PM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	100	10/11/2003 10:53:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	20	10/11/2003 10:21:00 AM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	1	10/8/2003 7:58:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	600	5.00		mg/L	1	10/9/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/9/2003
Alkalinity, Total (As CaCO3)	600	5.00		mg/L	1	10/9/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/13/2003

Qualifiers:

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E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *Oct 20 2003*

CLIENT: Navajo Refining Company

QC BATCH REPORT

Work Order: 0310085

Project: Annual

Batch ID: **6871** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:43**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378370** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:54**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378371** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00491	0.00020	0.005	0	98.2	83-115	0			

LCSD Sample ID: **GLCSDW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:57**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378372** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00516	0.00020	0.005	0	103	83-115	0.00491	4.97	20	

MS Sample ID: **0310008-02BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:09**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378376** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00437	0.00020	0.005	-0.000063	88.7	70-124	0			

MSD Sample ID: **0310008-02BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:31**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378379** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00463	0.00020	0.005	-0.000063	93.9	70-124	0.00437	5.78	20	

DUP Sample ID: **0310008-02BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:05**

Client ID: Run ID: **MERCURY_031010B** SeqNo: **378375** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000063	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01B 0310085-02B

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6937** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW3-101503** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 2:15**

Client ID: Run ID: **ICP4500_031018A** SeqNo: **381628** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.002247	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	ND	0.0020								
Copper	0.0005407	0.0020								J
Iron	ND	0.20								
Lead	ND	0.0050								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Silver	ND	0.0050								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW3-101503** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 22:56**

Client ID: Run ID: **ICP4500_031019A** SeqNo: **381827** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	ND	0.020								
Magnesium	ND	0.20								
Selenium	ND	0.0050								
Sodium	ND	0.20								

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6937** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW3-101503** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 2:19**
Client ID: Run ID: **ICP4500_031018A** SeqNo: **381629** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1037	0.010	0.1	0	104	80-120	0			
Arsenic	0.1019	0.0050	0.1	0	102	80-120	0			
Barium	0.09693	0.0050	0.1	0	96.9	80-120	0			
Beryllium	0.1041	0.0020	0.1	0	104	80-120	0			
Cadmium	0.1013	0.0010	0.1	0	101	80-120	0			
Calcium	10.14	0.50	10	0	101	80-120	0			
Chromium	0.1002	0.0020	0.1	0	100	80-120	0			
Cobalt	0.1022	0.0020	0.1	0	102	80-120	0			
Copper	0.102	0.0020	0.1	0	102	80-120	0			
Iron	10.3	0.20	10	0	103	80-120	0			
Lead	0.09979	0.0050	0.1	0	99.8	80-120	0			
Manganese	0.1028	0.0050	0.1	0	103	80-120	0			
Nickel	0.1014	0.0050	0.1	0	101	80-120	0			
Potassium	10.31	0.20	10	0	103	80-120	0			
Silver	0.0986	0.0050	0.1	0	98.6	80-120	0			
Vanadium	0.1029	0.0050	0.1	0	103	80-120	0			
Zinc	0.104	0.0050	0.1	0	104	80-120	0			

LCS Sample ID: **MLCSW3-101503** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 23:00**
Client ID: Run ID: **ICP4500_031019A** SeqNo: **381828** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4858	0.020	0.5	0	97.2	80-120	0			
Magnesium	9.681	0.20	10	0	96.8	80-120	0			
Selenium	0.09742	0.0050	0.1	0	97.4	80-120	0			
Sodium	9.666	0.20	10	0	96.7	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6937** InstrumentID: **ICP4500**

MS Sample ID: **0310085-02BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 3:50**

Client ID: **MW-29** Run ID: **ICP4500_031018A** SeqNo: **381643** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09817	0.010	0.1	0.01087	87.3	75-125	0			
Arsenic	0.1031	0.0050	0.1	0.02439	78.7	75-125	0			
Barium	0.1136	0.0050	0.1	0.01849	95.1	75-125	0			
Beryllium	0.0828	0.0020	0.1	0	82.8	75-125	0			
Boron	1.659	0.020	0.5	1.28	75.8	75-125	0			E
Cadmium	0.0788	0.0010	0.1	0	78.8	75-125	0			
Calcium	368.1	0.50	10	399.3	-312	75-125	0			SEO
Chromium	0.08845	0.0020	0.1	0	88.4	75-125	0			
Cobalt	0.08579	0.0020	0.1	0.002333	83.5	75-125	0			
Copper	0.08105	0.0020	0.1	0.006298	74.8	75-125	0			S
Iron	9.503	0.20	10	1.008	85	75-125	0			
Lead	0.0997	0.0050	0.1	0.0002793	99.4	75-125	0			
Magnesium	294.3	0.20	10	326	-317	75-125	0			SEO
Manganese	0.4704	0.0050	0.1	0.4202	50.2	75-125	0			SO
Nickel	0.08387	0.0050	0.1	0.006951	76.9	75-125	0			
Potassium	18.11	0.20	10	10.21	79	75-125	0			
Selenium	0.07044	0.0050	0.1	0.005812	64.6	75-125	0			S
Silver	0.07775	0.0050	0.1	0	77.8	75-125	0			
Sodium	0	0.20	10	0	0	75-125	0			S
Vanadium	0.134	0.0050	0.1	0.04156	92.4	75-125	0			
Zinc	0.08125	0.0050	0.1	0.01553	65.7	75-125	0			S

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U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6937** InstrumentID: **ICP4500**

MSD Sample ID: **0310085-02BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 3:55**
Client ID: **MW-29** Run ID: **ICP4500_031018A** SeqNo: **381644** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1055	0.010	0.1	0.01087	94.6	75-125	0.09817	7.2	25	
Arsenic	0.11	0.0050	0.1	0.02439	85.6	75-125	0.1031	6.48	25	
Barium	0.1214	0.0050	0.1	0.01849	103	75-125	0.1136	6.64	25	
Beryllium	0.09084	0.0020	0.1	0	90.8	75-125	0.0828	9.26	25	
Boron	1.816	0.020	0.5	1.28	107	75-125	1.659	9.04	25	E
Cadmium	0.08396	0.0010	0.1	0	84	75-125	0.0788	6.34	25	
Calcium	393.4	0.50	10	399.3	-59	75-125	368.1	6.64	25	SEO
Chromium	0.09609	0.0020	0.1	0	96.1	75-125	0.08845	8.28	25	
Cobalt	0.09329	0.0020	0.1	0.002333	91	75-125	0.08579	8.38	25	
Copper	0.0886	0.0020	0.1	0.006298	82.3	75-125	0.08105	8.9	25	
Iron	10.26	0.20	10	1.008	92.5	75-125	9.503	7.66	25	
Lead	0.1082	0.0050	0.1	0.0002793	108	75-125	0.0997	8.18	25	
Magnesium	ND	0.20	10	326	-3260	75-125	294.3	0	25	SO
Manganese	0.5036	0.0050	0.1	0.4202	83.4	75-125	0.4704	6.82	25	EO
Nickel	0.09037	0.0050	0.1	0.006951	83.4	75-125	0.08387	7.46	25	
Potassium	19.71	0.20	10	10.21	95	75-125	18.11	8.46	25	
Selenium	0.07217	0.0050	0.1	0.005812	66.4	75-125	0.07044	2.43	25	S
Silver	0.08596	0.0050	0.1	0	86	75-125	0.07775	10	25	
Sodium	0	0.20	10	0	0	75-125	0	0	25	S
Vanadium	0.1448	0.0050	0.1	0.04156	103	75-125	0.134	7.75	25	
Zinc	0.08623	0.0050	0.1	0.01553	70.7	75-125	0.08125	5.95	25	S

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 2:32**
Client ID: **MW-29** Run ID: **ICP4500_031018A** SeqNo: **381632** Prep Date: **10/15/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	368.7	25	0	0	0	0-0	388.6	5.26	25	

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 2:45**
Client ID: **MW-29** Run ID: **ICP4500_031018A** SeqNo: **381635** Prep Date: **10/15/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	0.4504	0.050	0	0	0	0-0	0.4344	3.62	25	

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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6937** InstrumentID: **ICP4500**

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/19/03 3:46**
Client ID: **MW-29** Run ID: **ICP4500_031018A** SeqNo: **381642** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.01194	0.010	0	0	0	0-0	0.01087	9.38	25	
Arsenic	0.02225	0.0050	0	0	0	0-0	0.02439	9.18	25	
Barium	0.01763	0.0050	0	0	0	0-0	0.01849	4.76	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00002078	0	25	
Cadmium	ND	0.0010	0	0	0	0-0	-1.192E-06	0	25	
Chromium	ND	0.0020	0	0	0	0-0	0.0003536	0	25	
Cobalt	0.002407	0.0020	0	0	0	0-0	0.002333	3.12	25	
Copper	0.00676	0.0020	0	0	0	0-0	0.006298	7.08	25	
Iron	1.031	0.20	0	0	0	0-0	1.008	2.26	25	
Lead	0.0004762	0.0050	0	0	0	0-0	0.0002793	0	25	J
Nickel	0.007549	0.0050	0	0	0	0-0	0.006951	8.25	25	
Potassium	9.843	0.20	0	0	0	0-0	10.21	3.66	25	
Silver	ND	0.0050	0	0	0	0-0	-0.00002583	0	25	
Vanadium	0.04129	0.0050	0	0	0	0-0	0.04156	0.652	25	
Zinc	0.01501	0.0050	0	0	0	0-0	0.01553	3.41	25	

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/20/03 0:00**
Client ID: **MW-29** Run ID: **ICP4500_031019A** SeqNo: **381852** Prep Date: **10/15/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	345	10	0	0	0	0-0	335.4	2.82	25	
Sodium	310.4	10	0	0	0	0-0	305.5	1.59	25	

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/20/03 0:13**
Client ID: **MW-29** Run ID: **ICP4500_031019A** SeqNo: **381855** Prep Date: **10/15/2003** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1.38	0.10	0	0	0	0-0	1.394	1.01	25	

DUP Sample ID: **0310085-02BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/20/03 0:27**
Client ID: **MW-29** Run ID: **ICP4500_031019A** SeqNo: **381858** Prep Date: **10/15/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Selenium	0.007189	0.0050	0	0	0	0-0	0.005286	30.5	25	R

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01B 0310085-02B

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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031009** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/10/03 17:15**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379249** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	122.4	0	100	0	122	39-153	0			
Surr: 2-Fluorobiphenyl	97.43	0	100	0	97.4	40-147	0			
Surr: 2-Fluorophenol	72.64	0	100	0	72.6	21-100	0			
Surr:4-Terphenyl-d14	135.8	0	100	0	136	39-141	0			
Surr: Nitrobenzene-d5	92.02	0	100	0	92	37-140	0			
Surr: Phenol-d6	48.45	0	100	0	48.5	11-100	0			

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B - Analyte detected in assoc. Method Blank
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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031009** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 15:46**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379258** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	45.08	10	50	0	90.2	50-115	0			
2,4,5-Trichlorophenol	100.1	10	100	0	100	72-118	0			
2,4,6-Trichlorophenol	99.39	10	100	0	99.4	72-117	0			
2-Methylnaphthalene	43.51	10	50	0	87	47-122	0			
2-Methylphenol	86.74	10	100	0	86.7	51-115	0			
2-Nitroaniline	45.14	10	50	0	90.3	73-119	0			
2-Nitrophenol	98.67	10	100	0	98.7	60-119	0			
3-Nitroaniline	37.17	10	50	0	74.3	61-118	0			
4-Methylphenol	118.9	10	150	0	79.2	44-115	0			
4-Nitroaniline	46.73	10	50	0	93.5	61-123	0			
4-Nitrophenol	52.44	10	100	0	52.4	17-100	0			
Acenaphthene	47.89	10	50	0	95.8	68-115	0			
Acenaphthylene	45.99	10	50	0	92	67-116	0			
Anthracene	49.57	10	50	0	99.1	72-124	0			
Benz(a)anthracene	52.7	10	50	0	105	55-131	0			
Benzidine	10.09	10	50	0	20.2	10-115	0			
Hexachloroethane	41.22	10	50	0	82.4	46-115	0			
[redacted]ndeno(1,2,3-cd)pyrene	64	10	50	0	128	42-123	0			S
Isophorone	46.91	10	50	0	93.8	63-117	0			
N-Nitrosodi-n-propylamine	44.43	10	50	0	88.9	67-115	0			
N-Nitrosodimethylamine	33.41	10	50	0	66.8	28-115	0			
N-Nitrosodiphenylamine	54.48	10	50	0	109	72-144	0			
Naphthalene	45.01	10	50	0	90	52-115	0			
Nitrobenzene	46.09	10	50	0	92.2	65-115	0			
Pentachlorophenol	110.5	10	100	0	111	65-123	0			
Phenanthrene	49.4	10	50	0	98.8	69-119	0			
Phenol	46.88	10	100	0	46.9	16-115	0			
Pyrene	50.58	10	50	0	101	51-130	0			
Surr: 2,4,6-Tribromophenol	118.6	0	100	0	119	39-153	0			
Surr: 2-Fluorobiphenyl	94	0	100	0	94	40-147	0			
Surr: 2-Fluorophenol	72.12	0	100	0	72.1	21-100	0			
Surr:4-Terphenyl-d14	112.8	0	100	0	113	39-141	0			
Surr: Nitrobenzene-d5	91.97	0	100	0	92	37-140	0			
Surr: Phenol-d6	47.73	0	100	0	47.7	11-100	0			

ND - Not Detected at the Reporting Limit
[redacted] - Analyte detected below quantitation limits
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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MS Sample ID: **0310073-01CMS** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 16:40**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379259** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	45.31	10	50	0	90.6	45-115	0			
2,4,5-Trichlorophenol	95.09	10	100	0	95.1	47-129	0			
2,4,6-Trichlorophenol	94.38	10	100	0	94.4	45-127	0			
2-Methylnaphthalene	44.07	10	50	0	88.1	30-144	0			
2-Methylphenol	70.29	10	100	0	70.3	42-115	0			
2-Nitroaniline	42.85	10	50	0	85.7	48-129	0			
2-Nitrophenol	94.91	10	100	0	94.9	32-144	0			
3-Nitroaniline	39.52	10	50	0	79	23-122	0			
4-Methylphenol	89.13	10	150	0	59.4	35-115	0			
4-Nitroaniline	43.68	10	50	0	87.4	12-138	0			
4-Nitrophenol	34.07	10	100	0	34.1	10-80	0			
Acenaphthene	45.32	10	50	0	90.6	55-117	0			
Acenaphthylene	45.13	10	50	0	90.3	39-128	0			
Anthracene	49.68	10	50	0	99.4	58-129	0			
Benz(a)anthracene	49.57	10	50	0	99.1	42-135	0			
Benzidine	9.938	10	50	0	19.9	10-127	0			J
Hexachloroethane	43.51	10	50	0	87	45-115	0			
ndeno(1,2,3-cd)pyrene	46.95	10	50	0	93.9	32-132	0			
Isophorone	45.95	10	50	0	91.9	51-122	0			
N-Nitrosodi-n-propylamine	43.67	10	50	0	87.3	55-115	0			
N-Nitrosodimethylamine	24.15	10	50	0	48.3	30-115	0			
N-Nitrosodiphenylamine	51.67	10	50	0	103	47-146	0			
Naphthalene	45.6	10	50	0	91.2	46-116	0			
Nitrobenzene	44.83	10	50	0	89.7	48-126	0			
Pentachlorophenol	104.4	10	100	0	104	53-134	0			
Phenanthrene	47.47	10	50	0	94.9	57-123	0			
Phenol	28.41	10	100	0	28.4	10-115	0			
Pyrene	46.46	10	50	0	92.9	40-130	0			
Surr: 2,4,6-Tribromophenol	114.1	0	100	0	114	39-153	0			
Surr: 2-Fluorobiphenyl	88.21	0	100	0	88.2	40-147	0			
Surr: 2-Fluorophenol	47.47	0	100	0	47.5	21-100	0			
Surr:4-Terphenyl-d14	101.2	0	100	0	101	39-141	0			
Surr: Nitrobenzene-d5	86.95	0	100	0	86.9	37-140	0			
Surr: Phenol-d6	27.86	0	100	0	27.9	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **6869** InstrumentID: **SV-3**

MSD Sample ID: **0310073-01CMSD** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/11/03 17:07**

Client ID: Run ID: **SV-3_031010B** SeqNo: **379260** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	49.29	10	50	0	98.6	45-115	45.31	8.43	30	
2,4,5-Trichlorophenol	106.7	10	100	0	107	47-129	95.09	11.5	30	
2,4,6-Trichlorophenol	107.5	10	100	0	108	45-127	94.38	13	30	
2-Methylnaphthalene	47.52	10	50	0	95	30-144	44.07	7.53	30	
2-Methylphenol	74.43	10	100	0	74.4	42-115	70.29	5.73	30	
2-Nitroaniline	47.19	10	50	0	94.4	48-129	42.85	9.64	30	
2-Nitrophenol	102.1	10	100	0	102	32-144	94.91	7.32	30	
3-Nitroaniline	41.82	10	50	0	83.6	23-122	39.52	5.66	30	
4-Methylphenol	95.81	10	150	0	63.9	35-115	89.13	7.22	30	
4-Nitroaniline	47.04	10	50	0	94.1	12-138	43.68	7.4	30	
4-Nitrophenol	35.69	10	100	0	35.7	10-80	34.07	4.64	30	
Acenaphthene	51.1	10	50	0	102	55-117	45.32	12	30	
Acenaphthylene	49.67	10	50	0	99.3	39-128	45.13	9.58	30	
Anthracene	55.09	10	50	0	110	58-129	49.68	10.3	30	
Benz(a)anthracene	54.37	10	50	0	109	42-135	49.57	9.23	30	
Benzidine	10.62	10	50	0	21.2	10-127	9.938	6.68	30	
Hexachloroethane	46.61	10	50	0	93.2	45-115	43.51	6.88	30	
Indeno(1,2,3-cd)pyrene	49.95	10	50	0	99.9	32-132	46.95	6.19	30	
Isophorone	49.62	10	50	0	99.2	51-122	45.95	7.68	30	
N-Nitrosodi-n-propylamine	47.56	10	50	0	95.1	55-115	43.67	8.52	30	
N-Nitrosodimethylamine	26.43	10	50	0	52.9	30-115	24.15	9.01	30	
N-Nitrosodiphenylamine	57.12	10	50	0	114	47-146	51.67	10	30	
Naphthalene	50.08	10	50	0	100	46-116	45.6	9.36	30	
Nitrobenzene	48.78	10	50	0	97.6	48-126	44.83	8.44	30	
Pentachlorophenol	113.3	10	100	0	113	53-134	104.4	8.13	30	
Phenanthrene	51.76	10	50	0	104	57-123	47.47	8.64	30	
Phenol	30.16	10	100	0	30.2	10-115	28.41	5.99	30	
Pyrene	51.81	10	50	0	104	40-130	46.46	10.9	30	
Surr: 2,4,6-Tribromophenol	122.1	0	100	0	122	39-153	114.1	6.81	30	
Surr: 2-Fluorobiphenyl	97.83	0	100	0	97.8	40-147	88.21	10.3	30	
Surr: 2-Fluorophenol	51.65	0	100	0	51.7	21-100	47.47	8.44	30	
Surr:4-Terphenyl-d14	114.6	0	100	0	115	39-141	101.2	12.3	30	
Surr: Nitrobenzene-d5	94.61	0	100	0	94.6	37-140	86.95	8.45	30	
Surr: Phenol-d6	29.31	0	100	0	29.3	11-100	27.86	5.09	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01E 0310085-02E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16603** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/10/03 3:16**

Client ID: Run ID: **VOA_I_031009B** SeqNo: **378076** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	43.68	5.0	50	0	87.4	70-130		0		
Surr:4-Bromofluorobenzene	46.53	5.0	50	0	93.1	70-130		0		
Surr:Dibromofluoromethane	45.63	5.0	50	0	91.3	70-130		0		
Surr: Toluene-d8	49.07	5.0	50	0	98.1	70-130		0		

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U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16603** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/10/03 2:22**

Client ID: Run ID: **VOA_I_031009B** SeqNo: **378075** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.42	5.0	50	0	101	75-118	0			
1,1,2,2-Tetrachloroethane	44.95	5.0	50	0	89.9	79-120	0			
1,1,2-Trichloroethane	49.49	5.0	50	0	99	81-119	0			
1,1-Dichloroethane	51.04	5.0	50	0	102	80-120	0			
1,1-Dichloroethene	52.79	5.0	50	0	106	80-120	0			
1,2-Dichloroethane	49.43	5.0	50	0	98.9	80-120	0			
2-Butanone	97.05	10	100	0	97.1	70-130	0			
2-Chloroethyl vinyl ether	90.16	10	100	0	90.2	72-120	0			
2-Hexanone	73.84	10	100	0	73.8	70-130	0			
4-Methyl-2-pentanone	86.98	10	100	0	87	78-120	0			
Acetone	99.63	10	100	0	99.6	60-135	0			
Benzene	50.69	5.0	50	0	101	82-119	0			
Bromodichloromethane	50.24	5.0	50	0	100	81-119	0			
Bromoform	47.27	5.0	50	0	94.5	80-120	0			
Bromomethane	42.5	5.0	50	0	85	75-130	0			
Carbon disulfide	104.5	10	100	0	105	78-120	0			
Carbontetrachloride	50.68	5.0	50	0	101	77-120	0			
Chlorobenzene	50.35	5.0	50	0	101	82-118	0			
Chloroethane	54.26	5.0	50	0	109	78-122	0			
Chloroform	49.73	5.0	50	0	99.5	78-120	0			
Chloromethane	48.55	5.0	50	0	97.1	75-125	0			
cis-1,3-Dichloropropene	51.28	5.0	50	0	103	81-120	0			
Dibromochloromethane	48.95	5.0	50	0	97.9	81-118	0			
Ethylbenzene	51.36	5.0	50	0	103	82-120	0			
m,p-Xylene	100.4	10	100	0	100	82-122	0			
Methylene chloride	51.8	10	50	0	104	80-122	0			
Styrene	52.2	5.0	50	0	104	82-121	0			
Tetrachloroethene	50.52	5.0	50	0	101	79-118	0			
Toluene	50.61	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	51.14	5.0	50	0	102	82-121	0			
Trichloroethene	54.41	5.0	50	0	109	78-118	0			
Vinyl acetate	84	10	100	0	84	75-120	0			
Vinyl chloride	52.59	2.0	50	0	105	73-127	0			
Xylenes, Total	151.1	15	150	0	101	80-120	0			
Surr: 1,2-Dichloroethane-d4	43.47	5.0	50	0	86.9	70-130	0			
Surr: 4-Bromofluorobenzene	48.26	5.0	50	0	96.5	70-130	0			
Surr: Dibromofluoromethane	45.78	5.0	50	0	91.6	70-130	0			
Surr: Toluene-d8	48.31	5.0	50	0	96.6	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16603** InstrumentID: **VOA_I**

MS Sample ID: **0310085-01AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/10/03 4:10**

Client ID: **RW-9** Run ID: **VOA_I_031009B** SeqNo: **378077** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.98	5.0	50	0	110	75-125	0			
1,1,2,2-Tetrachloroethane	56.53	5.0	50	0	113	75-125	0			
1,1,2-Trichloroethane	59.27	5.0	50	0	119	75-125	0			
1,1-Dichloroethane	58.51	5.0	50	0	117	75-125	0			
1,1-Dichloroethene	55.1	5.0	50	0	110	65-130	0			
1,2-Dichloroethane	59.16	5.0	50	0	118	70-130	0			
2-Butanone	109.5	10	100	0	109	64-128	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0			S
2-Hexanone	77.15	10	100	0	77.2	72-124	0			
4-Methyl-2-pentanone	111.7	10	100	0	112	75-125	0			
Acetone	121.1	10	100	0	121	60-130	0			
Benzene	58.07	5.0	50	2.167	112	76-127	0			
Bromodichloromethane	59.36	5.0	50	0	119	75-125	0			
Bromoform	58.16	5.0	50	0	116	75-125	0			
Bromomethane	49.2	5.0	50	0	98.4	75-125	0			
Carbon disulfide	110.3	10	100	0	110	75-125	0			
Carbontetrachloride	53.6	5.0	50	0	107	70-130	0			
Chlorobenzene	57.76	5.0	50	0	116	75-126	0			
Chloroethane	57.69	5.0	50	0	115	70-130	0			
Chloroform	58.56	5.0	50	0	117	75-125	0			
Chloromethane	53.67	5.0	50	0	107	75-125	0			
cis-1,3-Dichloropropene	59.37	5.0	50	0	119	75-125	0			
Dibromochloromethane	58.2	5.0	50	0	116	75-125	0			
Ethylbenzene	60.39	5.0	50	2.196	116	75-125	0			
m,p-Xylene	116.8	10	100	2.223	115	75-125	0			
Methylene chloride	60.15	10	50	0	120	75-125	0			
Styrene	60.94	5.0	50	0	122	75-125	0			
Tetrachloroethene	54.82	5.0	50	0	110	75-125	0			
Toluene	58.36	5.0	50	0	117	76-125	0			
trans-1,3-Dichloropropene	61.32	5.0	50	0	123	70-130	0			
Trichloroethene	57.49	5.0	50	1.964	111	71-120	0			
Vinyl acetate	111.6	10	100	0	112	75-125	0			
Vinyl chloride	53.17	2.0	50	0	106	60-135	0			
Xylenes, Total	175.8	15	150	2.223	116	75-125	0			
Surr:1,2-Dichloroethane-d4	44.56	5.0	50	0	89.1	70-130	0			
Surr:4-Bromofluorobenzene	48.65	5.0	50	0	97.3	70-130	0			
Surr: Dibromofluoromethane	45.39	5.0	50	0	90.8	70-130	0			
Surr: Toluene-d8	48.49	5.0	50	0	97	70-130	0			

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16603** InstrumentID: **VOA_I**

MSD Sample ID: **0310085-01AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/10/03 4:37**
Client ID: **RW-9** Run ID: **VOA_I_031009B** SeqNo: **378078** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.14	5.0	50	0	106	75-125	54.98	3.39	20	
1,1,2,2-Tetrachloroethane	56.01	5.0	50	0	112	75-125	56.53	0.911	20	
1,1,2-Trichloroethane	57.52	5.0	50	0	115	75-125	59.27	3	20	
1,1-Dichloroethane	56.08	5.0	50	0	112	75-125	58.51	4.23	20	
1,1-Dichloroethene	54.32	5.0	50	0	109	65-130	55.1	1.44	20	
1,2-Dichloroethane	55.64	5.0	50	0	111	70-130	59.16	6.13	20	
2-Butanone	113.6	10	100	0	114	64-128	109.5	3.68	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	75-125	0	0	20	S
2-Hexanone	82.54	10	100	0	82.5	72-124	77.15	6.75	20	
4-Methyl-2-pentanone	110.6	10	100	0	111	75-125	111.7	1.02	20	
Acetone	119.3	10	100	0	119	60-130	121.1	1.51	20	
Benzene	57.41	5.0	50	2.167	110	76-127	58.07	1.14	20	
Bromodichloromethane	57.42	5.0	50	0	115	75-125	59.36	3.31	20	
Bromoform	55.61	5.0	50	0	111	75-125	58.16	4.49	20	
Bromomethane	49.18	5.0	50	0	98.4	75-125	49.2	0.036	20	
Carbon disulfide	109.1	10	100	0	109	75-125	110.3	1.04	20	
Carbontetrachloride	51.8	5.0	50	0	104	70-130	53.6	3.43	20	
Chlorobenzene	56.12	5.0	50	0	112	75-126	57.76	2.88	20	
Chloroethane	56.78	5.0	50	0	114	70-130	57.69	1.59	20	
Chloroform	56.23	5.0	50	0	112	75-125	58.56	4.07	20	
Chloromethane	52.22	5.0	50	0	104	75-125	53.67	2.74	20	
cis-1,3-Dichloropropene	57.07	5.0	50	0	114	75-125	59.37	3.95	20	
Dibromochloromethane	56.19	5.0	50	0	112	75-125	58.2	3.52	20	
Ethylbenzene	58.51	5.0	50	2.196	113	75-125	60.39	3.16	20	
m,p-Xylene	113.5	10	100	2.223	111	75-125	116.8	2.86	20	
Methylene chloride	58.55	10	50	0	117	75-125	60.15	2.71	20	
Styrene	58.8	5.0	50	0	118	75-125	60.94	3.59	20	
Tetrachloroethene	53.85	5.0	50	0	108	75-125	54.82	1.78	20	
Toluene	56.82	5.0	50	0	114	76-125	58.36	2.68	20	
trans-1,3-Dichloropropene	57.36	5.0	50	0	115	70-130	61.32	6.67	20	
Trichloroethene	56.51	5.0	50	1.964	109	71-120	57.49	1.72	20	
Vinylacetate	107	10	100	0	107	75-125	111.6	4.18	20	
Vinyl chloride	53.5	2.0	50	0	107	60-135	53.17	0.616	20	
Xylenes, Total	170.8	15	150	2.223	112	75-125	175.8	2.86	20	
Surr:1,2-Dichloroethane-d4	42.35	5.0	50	0	84.7	70-130	44.56	5.07	20	
Surr:4-Bromofluorobenzene	47.59	5.0	50	0	95.2	70-130	48.65	2.22	20	
Surr:Dibromofluoromethane	44.59	5.0	50	0	89.2	70-130	45.39	1.77	20	
Surr:Toluene-d8	47.5	5.0	50	0	95	70-130	48.49	2.08	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01A 0310085-02A

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16576** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-100803** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 16:10**
Client ID: Run ID: **IC201_031008A** SeqNo: **377568** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-100803** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 16:43**
Client ID: Run ID: **IC201_031008A** SeqNo: **377569** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.8	0.50	10	0	98	80-120	0			
Fluoride	2.02	0.10	2	0	101	80-120	0			
Sulfate	10.64	1.0	10	0	106	80-120	0			
Surr: Dichloroacetic acid (surr)	2.1	0.10	2	0	105	80-120	0			

LCSD Sample ID: **WLCSDW1-10080** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 17:15**
Client ID: Run ID: **IC201_031008A** SeqNo: **377570** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.69	0.50	10	0	96.9	80-120	9.8	1.13	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.02	3.02	20	
Sulfate	10.44	1.0	10	0	104	80-120	10.64	1.9	20	
Surr: Dichloroacetic acid (surr)	2.11	0.10	2	0	106	80-120	2.1	0.475	20	

MS Sample ID: **0310085-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 18:53**
Client ID: **RW-9** Run ID: **IC201_031008A** SeqNo: **377573** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	452.7	0.50	10	442.6	101	75-125	0			EO
Fluoride	2.84	0.10	2	1	92	75-125	0			
Sulfate	326.7	1.0	10	319.9	67.9	75-125	0			SEO
Nitrate/Nitrite (as N)	4.11	0.10	4	0	103	75-125	0			
Surr: Dichloroacetic acid (surr)	5	0.10	5	0	100	80-120	0			

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CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16576** InstrumentID: **IC201**

MSD Sample ID: **0310085-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 19:25**
Client ID: **RW-9** Run ID: **IC201_031008A** SeqNo: **377574** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	453.4	0.50	10	442.6	108	75-125	452.7	0.155	20	EO
Fluoride	2.91	0.10	2	1	95.5	75-125	2.84	2.43	20	
Sulfate	329.6	1.0	10	319.9	97.2	75-125	326.7	0.893	20	EO
Nitrate/Nitrite (as N)	3.85	0.10	4	0	96.2	75-125	4.11	6.53	20	
Surr: Dichloroacetic acid (surr)	4.67	0.10	5	0	93.4	80-120	5	6.83	20	

DUP Sample ID: **0310085-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 18:20**
Client ID: **RW-9** Run ID: **IC201_031008A** SeqNo: **377572** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	443.7	0.50	0	0	0	0-0	442.6	0.253	20	E
Fluoride	0.95	0.10	0	0	0	0-0	1	5.13	20	
Sulfate	321.2	1.0	0	0	0	0-0	319.9	0.399	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.39	0.10	5	0	108	80-120	5.4	0.185	20	

DUP Sample ID: **0310082-03DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 23:45**
Client ID: Run ID: **IC201_031008A** SeqNo: **377580** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	288.4	0.50	0	0	0	0-0	289	0.225	20	E
Fluoride	ND	0.10	0	0	0	0-0	0	0	20	
Sulfate	13.7	1.0	0	0	0	0-0	13.65	0.366	20	
Nitrate/Nitrite (as N)	0.43	0.10	0	0	0	0-0	0.43	0	20	
Surr: Dichloroacetic acid (surr)	5.2	0.10	5	0	104	80-120	4.99	4.12	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01C 0310085-02C

ND - Not Detected at the Reporting Limit
- Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16581** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-100903** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377666** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-100903** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377667** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	950.2	5.0	1000	0	95	80-120	0			

DUP Sample ID: **0310082-01D DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/09/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **377676** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	340.1	5.0	0	0	0	0-0	340.1	0	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	340.1	5.0	0	0	0	0-0	340.1	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01C 0310085-02C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16649** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-101003** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 18:05**
Client ID: Run ID: **IC201_031010A** SeqNo: **379317** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-101003** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 18:38**
Client ID: Run ID: **IC201_031010A** SeqNo: **379318** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.66	0.50	10	0	96.6	80-120	0			
Fluoride	2.03	0.10	2	0	101	80-120	0			
Sulfate	10.28	1.0	10	0	103	80-120	0			
Surr: Dichloroacetic acid (surr)	1.92	0.10	2	0	96	80-120	0			

LCSD Sample ID: **WLCSDW1-10100** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 19:10**
Client ID: Run ID: **IC201_031010A** SeqNo: **379319** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.7	0.50	10	0	97	80-120	9.66	0.413	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.03	3.51	20	
Sulfate	10.01	1.0	10	0	100	80-120	10.28	2.66	20	
Surr: Dichloroacetic acid (surr)	2.16	0.10	2	0	108	80-120	1.92	11.8	20	

MS Sample ID: **0310112-01BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 20:48**
Client ID: Run ID: **IC201_031010A** SeqNo: **379322** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.52	0.50	10	27.9	106	75-125	0			
Fluoride	1.96	0.10	2	0.34	81	75-125	0			
Sulfate	47.88	1.0	10	37.63	102	75-125	0			
Nitrate/Nitrite (as N)	3.91	0.10	4	0	97.7	75-125	0			
Surr: Dichloroacetic acid (surr)	4.37	0.10	5	0	87.4	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16649** InstrumentID: **IC201**

MSD Sample ID: **0310112-01BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 21:20**
Client ID: Run ID: **IC201_031010A** SeqNo: **379323** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	38.36	0.50	10	27.9	105	75-125	38.52	0.416	20	
Fluoride	2.04	0.10	2	0.34	85	75-125	1.96	4	20	
Sulfate	47.56	1.0	10	37.63	99.3	75-125	47.88	0.671	20	
Nitrate/Nitrite (as N)	3.95	0.10	4	0	98.8	75-125	3.91	1.02	20	
Surr: Dichloroacetic acid (surr)	4.37	0.10	5	0	87.4	80-120	4.37	0	20	

DUP Sample ID: **0310112-01BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/10/03 20:15**
Client ID: Run ID: **IC201_031010A** SeqNo: **379321** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	27.88	0.50	0	0	0	0-0	27.9	0.0717	20	
Fluoride	0.29	0.10	0	0	0	0-0	0.34	15.9	20	
Sulfate	37.78	1.0	0	0	0	0-0	37.63	0.398	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.92	0.10	5	0	98.4	80-120	4.94	0.406	20	

DUP Sample ID: **0310073-02DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/11/03 4:56**
Client ID: Run ID: **IC201_031010A** SeqNo: **379340** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	224.5	25	0	0	0	0-0	224.5	0	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1156	50	0	0	0	0-0	1150	0.521	20	
Nitrate/Nitrite (as N)	19	5.0	0	0	0	0-0	19	0	20	
Surr: Dichloroacetic acid (surr)	258	5.0	250	0	103	80-120	263	1.92	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310085-01C 0310085-02C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310085
Project: Annual

QC BATCH REPORT

Batch ID: **R16655** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMB-101303** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379410** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-101303** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379411** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.204	0.020	0.2	0	102	80-120	0			

MS Sample ID: **0310073-01E MS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379427** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2027	0.020	0.2	-0.000017	101	75-125	0			

MSD Sample ID: **0310073-01E MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379428** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1946	0.020	0.2	-0.000017	97.3	75-125	0.2027	4.08	25	

DUP Sample ID: **0310073-01E DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/13/03 0:00**
Client ID: Run ID: **UV-2101PC_031013A** SeqNo: **379426** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	-0.000017	0	20	

The following samples were analyzed in this batch: 0310085-01D 0310085-02D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager:	G Jones	e-Lab Work Order #:	0210-35

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order:		Project Name:	Annual Samples	A	VOA (8260)
Work Order:		Project Number:		B	Metals (WQCC + Cations) (6020/7000)
Company Name:	Navajo Refining Company	Bill To Company:	Navajo Refining Company	C	SVOC (Select list) (8270)
Send Report To:	Jeff Byrd	Invoice Attn:	Jeff Byrd	D	Anions: Nitrate-Ite,Flouride,Sulfate,Chloride
Address:	P.O. Box 159	Address:	P.O. Box 159	E	Alkalinity
				F	Cyanide
City/State/Zip:	Artesia, NM 88211	City/State/Zip:	Artesia, NM 88211	G	
Phone:	505-748-3311	Phone:	505-748-3311	H	
Fax:	505-746-5421	Fax:	505-746-5421	I	
e-Mail Address:				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RW-9	10/7/03	0930	L	Y	8	X	X	X	X	X	X					
2	MW-29	"	0845	"		8	X	X	X	X	X	X					
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: JB

Shipment Method: Fed Ex

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
JB	10/7	1615		
Relinquished by:	Date:	Time:	Received by (Laboratory):	e-Lab Cooler ID: / Cooler Temp:
			RICHARD PATCH 10-8-03 0930	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

QC Package: (Check Box Below)

- Level II: Standard QC — X
- Level III: Standard QC + Raw Data
- Level IV: SW846 Methods/CLP
- Other:

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 10/8/2003 9:30:00 AM

Work Order Number 0310085 | Received by: RSZ

Checklist completed by RICHARD SANCHEZ 10-8-03 (Signature / Date) | Reviewed by LT 10/9/03 (Initials / Date)

Matrix: L | Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.9c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

STANDARD OVERNIGHT
WED
Emp# 359013 00:12 08OCT03
Deliver By:
08OCT03
TRK# 7910 2413 3131 FORM 0201
IAH
77099 TX US
43 JGQA

WEEK#
42-03

RECOVERY WELLS OIL DATA
REPORTING PERIOD : OCTOBER 13 OCTOBER 20

WELL#	OLD RDING	NEW RDING	OIL OUTPUT	GPM	GPD
1	39356	39365	9	0	1
2	15826	16007	181	0	26
3	NA	NA	NA	NA	NA
4	34666	34760	94	0	13
5	29199	29274	75	0	11
6	47217	49803	2586	0	369
7	67	67	0	0	0
8	31094	33669	2575	0	368
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA
				GPM	GPD
	TOTAL OIL IN PLANT IN GAL.		5520	1	789
				GPM	GPD
	BOLTON RD. WELLS OIL DATA				
11	1216	1216	0	0	0
12	15	15	0	0	0
13	9135	9135	0	0	0
14	96377	97169	792	0	113
	TOTAL OIL IN GAL.		792	0	113

	TOOL PUSHERS OIL PRODUCED				
15	3239	3361	122		
	PUMPING TIME		92		
	PUMPING TIME TOTAL		2419		
	TOTAL OIL IN GALLONS		914		
	TOTAL OIL IN BARRELS		22		
	TOTAL FLOW RATE		0	GPM	131 GPD

CLOCK SETTING 30 MINUTES 24 TIMES DAILY

[1] Produce aproxamitely 95% water

WEEK# 42-03

RECOVERY WELLS H20 DATA
REPORTING PERIOD: OCTOBER 13 OCTOBER 20

WELL#	OLD RDING	NEW RDING	TOTAL	GPM	GPD
1	264	266	2400	0.2	343
NEW 2	716	721	6000	0.6	857
3	0	0	0	0.0	0
4	630	632	2400	0.2	343
5	1086	1086	0	0.0	0
6	0	0	0	0.0	0
7	20870	20871	1200	0.1	171
8	993	1010	20400	2.0	2914
9	552	552	0	0.0	0
10	258	258	0	0.0	0
			TOTAL	GPM	GPD
	TOTAL H20 IN PLANT		32400	3	4629

	BOLTON RD. H20 DATA		TOTAL	GPM	GPD
11	774	774	0	0.0	0
12	13038	13038	0	0.0	0
13	28137	28175	22800	2.3	3257
14	27470	27516	91995	9.1	13142
	BOLTON RD. TOTAL		114795	11	16399

TOTAL GAL.	TOTAL BBL	GPM	GPD
147195	3505	15	21028

NOTES: Volume of water produced is estimated based on time pumped and not actual flow.

WEEK# RECOVERY WELLS WEEKLY WELL INFORMATION
42-03 REPORTING PERIOD : OCTOBER 13 OCTOBER 20

WELL #	DEPTH	TOP	WATER	HYDRO-C
1	19-2	9'[9"	9' 9"	0' 0"
2	19-7	6' 8"	6' 8"	0' 0"
3	21-2	8' 9"	8' 9"	0' 0"
4	21-2	5' 3"	5' 1"	0' 2"
5	18-2	2' 3"	2' 3"	0' 0"
6	21-6	1' 3"	0'4"	0' 11"
7	21-6	9' 2"	9' 2"	0' 0"
8	22-3	9' 5"	8' 0"	1' 5"
9	22-8	13' 5"	13' 5"	0' 0"
10	24-8	14' 7"	14' 7"	0' 0"
11	23-8	4' 5"	4' 5"	0' 0"
12	23-10	1' 4"	1' 4"	0' 0"
13	26-10	9' 7"	9' 7"	0' 0"
14	23-6	8' 4"	8' 1"	0' 3"
		TOOLPUS HERS		
1	26-2	9' 8"	9' 8"	0' 0"
2	25-8	9' 11"	9' 11"	0' 0"
3	21-8	6' 7"	6' 5"	0' 2"
4	22-5	7' 8"	7' 3"	0' 5"
RW-13		7' 5"	7' 5"	0' 0"
RW-14		9' 6"	9' 6"	0' 0"
RW-15		11' 7"	11' 7"	0' 0 "

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

December 03, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Artesia-Annual Work Order : **0310008**

Dear Jeff Byrd,

e-Lab, Inc. received 3 samples on 10/1/2003 9:00:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 45. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Jeff L Croston

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Project: Artesia-Annual
Work Order: **0310008**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310008-01	KWB-1A	Water		9/30/2003 10:00	10/1/2003 09:00	☐
0310008-02	KWB-1C	Water		9/30/2003 10:15	10/1/2003 09:00	☐
0310008-03	RW-18	Water		9/30/2003 10:45	10/1/2003 09:00	☐

e-Lab. Inc.

Date: *December 03, 2003*

CLIENT:	Navajo Refining Company
Project:	Artesia-Annual
Work Order:	0310008

CaseNarrative

Request from Jeff Byrd to rename RW-15 to RW-18.

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc.

Date: *October 21, 2003*

CLIENT: Navajo Refining Company
Project: Artesia-Annual
Work Order: 0310008

Case Narrative

Request from Jeff Byrd to rename RW-15 to RW-18.

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-01

Client Sample ID: KWB-1A
Collection Date: 9/30/2003 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 2:59:22 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.428	0.0100		mg/L	1	10/13/2003 6:01:00 PM
Arsenic	ND	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Barium	0.0143	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Beryllium	ND	0.00200		mg/L	1	10/13/2003 6:01:00 PM
Boron	0.950	0.0200		mg/L	1	10/13/2003 6:01:00 PM
Cadmium	ND	0.00100		mg/L	1	10/13/2003 6:01:00 PM
Calcium	445	25.0		mg/L	50	10/14/2003 5:21:00 PM
Chromium	ND	0.00200		mg/L	1	10/13/2003 6:01:00 PM
Cobalt	0.00349	0.00200		mg/L	1	10/13/2003 6:01:00 PM
Copper	0.00627	0.00200		mg/L	1	10/13/2003 6:01:00 PM
Iron	0.900	0.200		mg/L	1	10/13/2003 6:01:00 PM
Lead	ND	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Magnesium	323	10.0		mg/L	50	10/14/2003 5:21:00 PM
Manganese	0.256	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Nickel	0.0133	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Potassium	1.16	0.200		mg/L	1	10/13/2003 6:01:00 PM
Selenium	0.00629	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Silver	ND	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Sodium	211	10.0		mg/L	50	10/14/2003 5:21:00 PM
Vanadium	0.0219	0.00500		mg/L	1	10/13/2003 6:01:00 PM
Zinc	0.0134	0.00500		mg/L	1	10/13/2003 6:01:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/2/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2-Methylphenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:18:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:18:00 PM
4-Methylphenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:18:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Acenaphthene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Acenaphthylene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Aniline	ND	10		µg/L	1	10/3/2003 6:18:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-01

Client Sample ID: KWB-1A
Collection Date: 9/30/2003 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Benzidine	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Hexachloroethane	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Isophorone	ND	10		µg/L	1	10/3/2003 6:18:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/3/2003 6:18:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/3/2003 6:18:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Naphthalene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Nitrobenzene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Phenanthrene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Phenol	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Pyrene	ND	10		µg/L	1	10/3/2003 6:18:00 PM
Surr: 2,4,6-Tribromophenol	101	39-153		%REC	1	10/3/2003 6:18:00 PM
Surr: 2-Fluorobiphenyl	82.3	40-147		%REC	1	10/3/2003 6:18:00 PM
Surr: 2-Fluorophenol	35.6	21-100		%REC	1	10/3/2003 6:18:00 PM
Surr: 4-Terphenyl-d14	101	39-141		%REC	1	10/3/2003 6:18:00 PM
Surr: Nitrobenzene-d5	80.2	37-140		%REC	1	10/3/2003 6:18:00 PM
Surr: Phenol-d6	22.8	11-100		%REC	1	10/3/2003 6:18:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
2-Butanone	ND	10		µg/L	1	10/8/2003 7:20:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 7:20:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 7:20:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Acetone	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Benzene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-01

Client Sample ID: KWB-1A
Collection Date: 9/30/2003 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
m,p-Xylene	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Toluene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 7:20:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 7:20:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 7:20:00 PM
Xylenes, Total	ND	15		µg/L	1	10/8/2003 7:20:00 PM
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	1	10/8/2003 7:20:00 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	1	10/8/2003 7:20:00 PM
Surr: Dibromofluoromethane	97.8	70-130		%REC	1	10/8/2003 7:20:00 PM
Surr: Toluene-d8	96.1	70-130		%REC	1	10/8/2003 7:20:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	233	5.00		mg/L	10	10/8/2003 2:02:00 AM
Fluoride	1.54	0.200		mg/L	2	10/4/2003 2:52:00 AM
Sulfate	2,160	100		mg/L	100	10/8/2003 2:35:00 AM
Nitrate/Nitrite (as N)	ND	0.200		mg/L	2	10/4/2003 2:52:00 AM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	100	10/8/2003 2:35:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	10/8/2003 2:02:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	2	10/4/2003 2:52:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	515	5.00		mg/L	1	10/7/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	515	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-02

Client Sample ID: KWB-1C
Collection Date: 9/30/2003 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:03:35 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	ND	0.0200		mg/L	2	10/17/2003 5:09:00 PM
Arsenic	0.00715	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Barium	0.0129	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 10:27:00 PM
Boron	0.781	0.0400		mg/L	2	10/17/2003 5:09:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 10:27:00 PM
Calcium	520	25.0		mg/L	50	10/16/2003 9:12:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 10:27:00 PM
Cobalt	0.00373	0.00200		mg/L	1	10/16/2003 10:27:00 PM
Copper	0.00584	0.00200		mg/L	1	10/16/2003 10:27:00 PM
Iron	2.03	0.200		mg/L	1	10/16/2003 10:27:00 PM
Lead	ND	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Magnesium	368	10.0		mg/L	50	10/16/2003 9:12:00 PM
Manganese	0.357	0.0500		mg/L	10	10/16/2003 9:21:00 PM
Nickel	0.0150	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Potassium	1.72	0.200		mg/L	1	10/16/2003 10:27:00 PM
Selenium	ND	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Sodium	274	10.0		mg/L	50	10/16/2003 9:12:00 PM
Vanadium	0.00505	0.00500		mg/L	1	10/16/2003 10:27:00 PM
Zinc	0.0124	0.00500		mg/L	1	10/16/2003 10:27:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/2/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2-Methylphenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:46:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:46:00 PM
4-Methylphenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/3/2003 6:46:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Acenaphthene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Acenaphthylene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Aniline	ND	10		µg/L	1	10/3/2003 6:46:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-02

Client Sample ID: KWB-1C
Collection Date: 9/30/2003 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Benzidine	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Hexachloroethane	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Isophorone	ND	10		µg/L	1	10/3/2003 6:46:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/3/2003 6:46:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/3/2003 6:46:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Naphthalene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Nitrobenzene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Phenanthrene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Phenol	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Pyrene	ND	10		µg/L	1	10/3/2003 6:46:00 PM
Surr: 2,4,6-Tribromophenol	105	39-153		%REC	1	10/3/2003 6:46:00 PM
Surr: 2-Fluorobiphenyl	87.1	40-147		%REC	1	10/3/2003 6:46:00 PM
Surr: 2-Fluorophenol	40.1	21-100		%REC	1	10/3/2003 6:46:00 PM
Surr: 4-Terphenyl-d14	102	39-141		%REC	1	10/3/2003 6:46:00 PM
Surr: Nitrobenzene-d5	86.5	37-140		%REC	1	10/3/2003 6:46:00 PM
Surr: Phenol-d6	24.2	11-100		%REC	1	10/3/2003 6:46:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
2-Butanone	ND	10		µg/L	1	10/8/2003 7:48:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 7:48:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 7:48:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Acetone	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Benzene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-02

Client Sample ID: KWB-1C
Collection Date: 9/30/2003 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
m,p-Xylene	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Toluene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 7:48:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 7:48:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 7:48:00 PM
Xylenes, Total	ND	15		µg/L	1	10/8/2003 7:48:00 PM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	10/8/2003 7:48:00 PM
Surr: 4-Bromofluorobenzene	92.5	70-130		%REC	1	10/8/2003 7:48:00 PM
Surr: Dibromofluoromethane	93.2	70-130		%REC	1	10/8/2003 7:48:00 PM
Surr: Toluene-d8	97.4	70-130		%REC	1	10/8/2003 7:48:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	272	5.00		mg/L	10	10/4/2003 10:27:00 AM
Fluoride	0.410	0.100		mg/L	1	10/3/2003 5:03:00 AM
Sulfate	2,210	100		mg/L	100	10/4/2003 11:00:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/3/2003 5:03:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	100	10/4/2003 11:00:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	10	10/4/2003 10:27:00 AM
Surr: Dichloroacetic acid (surr)	116	80-120		%REC	1	10/3/2003 5:03:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	500	5.00		mg/L	1	10/7/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	500	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-03

Client Sample ID: RW-18
Collection Date: 9/30/2003 10:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:32:57 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.186	0.0200		mg/L	2	10/17/2003 5:14:00 PM
Arsenic	0.00686	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Barium	0.0180	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 10:32:00 PM
Boron	0.881	0.0400		mg/L	2	10/17/2003 5:14:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 10:32:00 PM
Calcium	605	25.0		mg/L	50	10/16/2003 9:16:00 PM
Chromium	0.00426	0.00200		mg/L	1	10/16/2003 10:32:00 PM
Cobalt	0.00597	0.00200		mg/L	1	10/16/2003 10:32:00 PM
Copper	0.00815	0.00200		mg/L	1	10/16/2003 10:32:00 PM
Iron	3.41	0.200		mg/L	1	10/16/2003 10:32:00 PM
Lead	ND	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Magnesium	536	10.0		mg/L	50	10/16/2003 9:16:00 PM
Manganese	1.45	0.0500		mg/L	10	10/16/2003 9:25:00 PM
Nickel	0.0150	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Potassium	1.86	0.200		mg/L	1	10/16/2003 10:32:00 PM
Selenium	0.00582	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Sodium	315	10.0		mg/L	50	10/16/2003 9:16:00 PM
Vanadium	0.0120	0.00500		mg/L	1	10/16/2003 10:32:00 PM
Zinc	0.0177	0.00500		mg/L	1	10/16/2003 10:32:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/2/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2-Methylphenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/3/2003 7:13:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/3/2003 7:13:00 PM
4-Methylphenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/3/2003 7:13:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Acenaphthene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Acenaphthylene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Aniline	ND	10		µg/L	1	10/3/2003 7:13:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-03

Client Sample ID: RW-18
Collection Date: 9/30/2003 10:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Benzidine	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Hexachloroethane	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Isophorone	ND	10		µg/L	1	10/3/2003 7:13:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/3/2003 7:13:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/3/2003 7:13:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Naphthalene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Nitrobenzene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Phenanthrene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Phenol	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Pyrene	ND	10		µg/L	1	10/3/2003 7:13:00 PM
Surr: 2,4,6-Tribromophenol	98.1	39-153		%REC	1	10/3/2003 7:13:00 PM
Surr: 2-Fluorobiphenyl	85.9	40-147		%REC	1	10/3/2003 7:13:00 PM
Surr: 2-Fluorophenol	38.5	21-100		%REC	1	10/3/2003 7:13:00 PM
Surr: 4-Terphenyl-d14	102	39-141		%REC	1	10/3/2003 7:13:00 PM
Surr: Nitrobenzene-d5	80.9	37-140		%REC	1	10/3/2003 7:13:00 PM
Surr: Phenol-d6	22.9	11-100		%REC	1	10/3/2003 7:13:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
2-Butanone	ND	10		µg/L	1	10/8/2003 8:15:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 8:15:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 8:15:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Acetone	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Benzene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual
Lab ID: 0310008-03

Client Sample ID: RW-18
Collection Date: 9/30/2003 10:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Ethylbenzene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
m,p-Xylene	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Toluene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 8:15:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 8:15:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 8:15:00 PM
Xylenes, Total	ND	15		µg/L	1	10/8/2003 8:15:00 PM
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%REC	1	10/8/2003 8:15:00 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	10/8/2003 8:15:00 PM
Surr: Dibromofluoromethane	95.1	70-130		%REC	1	10/8/2003 8:15:00 PM
Surr: Toluene-d8	98.1	70-130		%REC	1	10/8/2003 8:15:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	412	5.00		mg/L	10	10/4/2003 11:32:00 AM
Fluoride	0.880	0.100		mg/L	1	10/3/2003 5:36:00 AM
Sulfate	3,140	100		mg/L	100	10/4/2003 12:05:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/3/2003 5:36:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	100	10/4/2003 12:05:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	10	10/4/2003 11:32:00 AM
Surr: Dichloroacetic acid (surr)	90.2	80-120		%REC	1	10/3/2003 5:36:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	300	5.00		mg/L	1	10/7/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	300	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

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* - Value exceeds Maximum Contaminant Level
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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *Oct 20 2003*

CLIENT: Navajo Refining Company

QC BATCH REPORT

Work Order: 0310008

Project: Artesia-Annual

Batch ID: **6861** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:28**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	0.0008166	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	0.0004216	0.0020								J
Copper	0.000435	0.0020								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	0.1386	0.20								J
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 12:12**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.005454	0.010								J

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:33**
Client ID: Run ID: **ICP4500_031010A** SeqNo: **378070** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1147	0.010	0.1	0	115	80-120	0			
Arsenic	0.1005	0.0050	0.1	0	100	80-120	0			
Barium	0.09615	0.0050	0.1	0	96.2	80-120	0			
Beryllium	0.09888	0.0020	0.1	0	98.9	80-120	0			
Boron	0.4858	0.020	0.5	0	97.2	80-120	0			
Cadmium	0.09925	0.0010	0.1	0	99.2	80-120	0			
Calcium	9.913	0.50	10	0	99.1	80-120	0			
Chromium	0.1009	0.0020	0.1	0	101	80-120	0			
Cobalt	0.1031	0.0020	0.1	0	103	80-120	0			
Copper	0.1006	0.0020	0.1	0	101	80-120	0			
Iron	10.03	0.20	10	0	100	80-120	0			
Lead	0.09909	0.0050	0.1	0	99.1	80-120	0			
Magnesium	10.22	0.20	10	0	102	80-120	0			
Manganese	0.1001	0.0050	0.1	0	100	80-120	0			
Nickel	0.1018	0.0050	0.1	0	102	80-120	0			
Potassium	10.12	0.20	10	0	101	80-120	0			
Selenium	0.09856	0.0050	0.1	0	98.6	80-120	0			
Silver	0.09816	0.0050	0.1	0	98.2	80-120	0			
Sodium	10.05	0.20	10	0	100	80-120	0			
Vanadium	0.1028	0.0050	0.1	0	103	80-120	0			
Zinc	0.09876	0.0050	0.1	0	98.8	80-120	0			

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O - Referenced analyte value is > 4 times amount spiked
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MS Sample ID: **0310008-01BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:10**

Client ID: **KWB-1A** Run ID: **ICP4500_031013A** SeqNo: **379652** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5644	0.010	0.1	0.4276	137	75-125	0			SEO
Arsenic	0.09767	0.0050	0.1	0.001921	95.7	75-125	0			
Barium	0.1316	0.0050	0.1	0.01434	117	75-125	0			
Beryllium	0.09161	0.0020	0.1	0.0001465	91.5	75-125	0			
Boron	1.492	0.020	0.5	0.95	108	75-125	0			E
Cadmium	0.08999	0.0010	0.1	0.0001326	89.9	75-125	0			
Calcium	492.5	0.50	10	481.2	113	75-125	0			EO
Chromium	0.1008	0.0020	0.1	0.0008088	100	75-125	0			
Cobalt	0.1017	0.0020	0.1	0.003492	98.2	75-125	0			
Copper	0.09023	0.0020	0.1	0.006268	84	75-125	0			
Iron	10.82	0.20	10	0.9004	99.2	75-125	0			
Lead	0.1171	0.0050	0.1	0.000977	116	75-125	0			
Magnesium	316.9	0.20	10	303.8	131	75-125	0			SEO
Manganese	0.3674	0.0050	0.1	0.2557	112	75-125	0			
Nickel	0.1014	0.0050	0.1	0.01327	88.1	75-125	0			
Potassium	11.45	0.20	10	1.156	103	75-125	0			
Selenium	0.1024	0.0050	0.1	0.006292	96.1	75-125	0			
Silver	0.08347	0.0050	0.1	-0.0000166	83.5	75-125	0			
Sodium	0	0.20	10	0	0	75-125	0			S
Vanadium	0.1364	0.0050	0.1	0.0219	114	75-125	0			
Zinc	0.08689	0.0050	0.1	0.0134	73.5	75-125	0			S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MSD Sample ID: **0310008-01BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:15**
Client ID: **KWB-1A** Run ID: **ICP4500_031013A** SeqNo: **379653** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5604	0.010	0.1	0.4276	133	75-125	0.5644	0.711	25	SEO
Arsenic	0.08512	0.0050	0.1	0.001921	83.2	75-125	0.09767	13.7	25	
Barium	0.115	0.0050	0.1	0.01434	101	75-125	0.1316	13.5	25	
Beryllium	0.08377	0.0020	0.1	0.0001465	83.6	75-125	0.09161	8.94	25	
Boron	1.37	0.020	0.5	0.95	84	75-125	1.492	8.53	25	E
Cadmium	0.07706	0.0010	0.1	0.0001326	76.9	75-125	0.08999	15.5	25	
Calcium	428.9	0.50	10	481.2	-523	75-125	492.5	13.8	25	SEO
Chromium	0.09102	0.0020	0.1	0.0008088	90.2	75-125	0.1008	10.2	25	
Cobalt	0.0894	0.0020	0.1	0.003492	85.9	75-125	0.1017	12.9	25	
Copper	0.07698	0.0020	0.1	0.006268	70.7	75-125	0.09023	15.8	25	S
Iron	9.648	0.20	10	0.9004	87.5	75-125	10.82	11.5	25	
Lead	0.1009	0.0050	0.1	0.000977	99.9	75-125	0.1171	14.9	25	
Magnesium	286	0.20	10	303.8	-178	75-125	316.9	10.3	25	SEO
Manganese	0.3153	0.0050	0.1	0.2557	59.6	75-125	0.3674	15.3	25	S
Nickel	0.08813	0.0050	0.1	0.01327	74.9	75-125	0.1014	14	25	S
Potassium	10.41	0.20	10	1.156	92.5	75-125	11.45	9.52	25	
Selenium	0.08306	0.0050	0.1	0.006292	76.8	75-125	0.1024	20.9	25	
Silver	0.07252	0.0050	0.1	-0.0000166	72.5	75-125	0.08347	14	25	S
Sodium	0	0.20	10	0	0	75-125	0	0	25	SR
Vanadium	0.1183	0.0050	0.1	0.0219	96.4	75-125	0.1364	14.2	25	
Zinc	0.07854	0.0050	0.1	0.0134	65.1	75-125	0.08689	10.1	25	S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:06**
Client ID: **KWB-1A** Run ID: **ICP4500_031013A** SeqNo: **379651** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.4303	0.010	0	0	0	0-0	0.4276	0.629	25	
Arsenic	0.003704	0.0050	0	0	0	0-0	0.001921	0	25	J
Barium	0.01528	0.0050	0	0	0	0-0	0.01434	6.35	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.0001465	0	25	
Boron	0.9431	0.020	0	0	0	0-0	0.95	0.729	25	
Cadmium	ND	0.0010	0	0	0	0-0	0.0001326	0	25	
Chromium	0.0007482	0.0020	0	0	0	0-0	0.0008088	0	25	J
Cobalt	0.003404	0.0020	0	0	0	0-0	0.003492	2.55	25	
Copper	0.006757	0.0020	0	0	0	0-0	0.006268	7.51	25	
Iron	0.8962	0.20	0	0	0	0-0	0.9004	0.468	25	
Lead	0.0009688	0.0050	0	0	0	0-0	0.000977	0	25	J
Manganese	0.2492	0.0050	0	0	0	0-0	0.2557	2.57	25	
Nickel	0.01332	0.0050	0	0	0	0-0	0.01327	0.376	25	
Potassium	1.102	0.20	0	0	0	0-0	1.156	4.78	25	
Selenium	0.002516	0.0050	0	0	0	0-0	0.006292	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.0000166	0	25	
Vanadium	0.02156	0.0050	0	0	0	0-0	0.0219	1.56	25	
Zinc	0.01373	0.0050	0	0	0	0-0	0.0134	2.43	25	

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/14/03 17:25**
Client ID: **KWB-1A** Run ID: **ICP4500_031014A** SeqNo: **379949** Prep Date: **10/8/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	480	25	0	0	0	0-0	444.9	7.59	25	
Magnesium	342.8	10	0	0	0	0-0	323.1	5.92	25	
Sodium	226.4	10	0	0	0	0-0	210.7	7.18	25	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01B 0310008-02B 0310008-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6871** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:43**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378370** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:54**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378371** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00491	0.00020	0.005	0	98.2	83-115		0		

LCSD Sample ID: **GLCSDW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:57**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378372** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00516	0.00020	0.005	0	103	83-115	0.00491	4.97	20	

MS Sample ID: **0310008-02BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:09**
Client ID: **KWB-1C** Run ID: **MERCURY_031010B** SeqNo: **378376** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00437	0.00020	0.005	-0.000063	88.7	70-124		0		

MSD Sample ID: **0310008-02BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:31**
Client ID: **KWB-1C** Run ID: **MERCURY_031010B** SeqNo: **378379** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00463	0.00020	0.005	-0.000063	93.9	70-124	0.00437	5.78	20	

DUP Sample ID: **0310008-02BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:05**
Client ID: **KWB-1C** Run ID: **MERCURY_031010B** SeqNo: **378375** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000063	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01B 0310008-02B 0310008-03B

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6814** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031002** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/02/03 17:09**

Client ID: Run ID: **SV-3_031002B** SeqNo: **376174** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	111.5	0	100	0	111	39-153	0			
Surr: 2-Fluorobiphenyl	93.17	0	100	0	93.2	40-147	0			
Surr: 2-Fluorophenol	67.18	0	100	0	67.2	21-100	0			
Surr:4-Terphenyl-d14	119.5	0	100	0	119	39-141	0			
Surr: Nitrobenzene-d5	91.17	0	100	0	91.2	37-140	0			
Surr: Phenol-d6	48.9	0	100	0	48.9	11-100	0			

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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6814** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031002** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/06/03 17:53**
Client ID: Run ID: **SV-3_031002B** SeqNo: **378002** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	51.49	10	50	0	103	50-115	0			
2,4,5-Trichlorophenol	111.9	10	100	0	112	72-118	0			
2,4,6-Trichlorophenol	106.1	10	100	0	106	72-117	0			
2-Methylnaphthalene	52.1	10	50	0	104	47-122	0			
2-Methylphenol	98.74	10	100	0	98.7	51-115	0			
2-Nitroaniline	52.2	10	50	0	104	73-119	0			
2-Nitrophenol	105.1	10	100	0	105	60-119	0			
3-Nitroaniline	50.1	10	50	0	100	61-118	0			
4-Methylphenol	137.4	10	150	0	91.6	44-115	0			
4-Nitroaniline	55.21	10	50	0	110	61-123	0			
4-Nitrophenol	57.32	10	100	0	57.3	17-100	0			
Acenaphthene	54.11	10	50	0	108	68-115	0			
Acenaphthylene	51.65	10	50	0	103	67-116	0			
Anthracene	56.67	10	50	0	113	72-124	0			
Benz(a)anthracene	57.6	10	50	0	115	55-131	0			
Benzidine	12.68	10	50	0	25.4	10-115	0			
Hexachloroethane	48.96	10	50	0	97.9	46-115	0			
Indeno(1,2,3-cd)pyrene	49.16	10	50	0	98.3	42-123	0			
Isophorone	53.92	10	50	0	108	63-117	0			
N-Nitrosodi-n-propylamine	51.56	10	50	0	103	67-115	0			
N-Nitrosodimethylamine	34.44	10	50	0	68.9	28-115	0			
N-Nitrosodiphenylamine	61.23	10	50	0	122	72-144	0			
Naphthalene	51.62	10	50	0	103	52-115	0			
Nitrobenzene	51.46	10	50	0	103	65-115	0			
Pentachlorophenol	104.7	10	100	0	105	65-123	0			
Phenanthrene	54.89	10	50	0	110	69-119	0			
Phenol	55.71	10	100	0	55.7	16-115	0			
Pyrene	57.33	10	50	0	115	51-130	0			
Surr: 2,4,6-Tribromophenol	115.3	0	100	0	115	39-153	0			
Surr: 2-Fluorobiphenyl	102.3	0	100	0	102	40-147	0			
Surr: 2-Fluorophenol	76.61	0	100	0	76.6	21-100	0			
Surr:4-Terphenyl-d14	119.9	0	100	0	120	39-141	0			
Surr: Nitrobenzene-d5	100.5	0	100	0	100	37-140	0			
Surr: Phenol-d6	55.62	0	100	0	55.6	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **6814** InstrumentID: **SV-3**

LCSD Sample ID: **SLCSDW1-031002** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/02/03 18:03**
Client ID: Run ID: **SV-3_031002B** SeqNo: **376175** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	51.86	10	50	0	104	50-115	51.49	0.72	30	
2,4,5-Trichlorophenol	110.7	10	100	0	111	72-118	111.9	1.15	30	
2,4,6-Trichlorophenol	109	10	100	0	109	72-117	106.1	2.68	30	
2-Methylnaphthalene	52.04	10	50	0	104	47-122	52.1	0.125	30	
2-Methylphenol	102.5	10	100	0	103	51-115	98.74	3.79	30	
2-Nitroaniline	53.41	10	50	0	107	73-119	52.2	2.3	30	
2-Nitrophenol	106.3	10	100	0	106	60-119	105.1	1.11	30	
3-Nitroaniline	52.99	10	50	0	106	61-118	50.1	5.6	30	
4-Methylphenol	143.4	10	150	0	95.6	44-115	137.4	4.26	30	
4-Nitroaniline	54.23	10	50	0	108	61-123	55.21	1.78	30	
4-Nitrophenol	61.03	10	100	0	61	17-100	57.32	6.26	30	
Acenaphthene	53.38	10	50	0	107	68-115	54.11	1.36	30	
Acenaphthylene	52.05	10	50	0	104	67-116	51.65	0.782	30	
Anthracene	56.5	10	50	0	113	72-124	56.67	0.302	30	
Benz(a)anthracene	57.35	10	50	0	115	55-131	57.6	0.449	30	
Benzidine	19.67	10	50	0	39.3	10-115	12.68	43.2	30	R
Hexachloroethane	51.25	10	50	0	103	46-115	48.96	4.57	30	
Indeno(1,2,3-cd)pyrene	52.48	10	50	0	105	42-123	49.16	6.53	30	
Isophorone	55	10	50	0	110	63-117	53.92	1.99	30	
N-Nitrosodi-n-propylamine	55.81	10	50	0	112	67-115	51.56	7.92	30	
N-Nitrosodimethylamine	34.07	10	50	0	68.1	28-115	34.44	1.09	30	
N-Nitrosodiphenylamine	58.48	10	50	0	117	72-144	61.23	4.6	30	
Naphthalene	51.59	10	50	0	103	52-115	51.62	0.0555	30	
Nitrobenzene	51.79	10	50	0	104	65-115	51.46	0.638	30	
Pentachlorophenol	109.9	10	100	0	110	65-123	104.7	4.89	30	
Phenanthrene	53.71	10	50	0	107	69-119	54.89	2.18	30	
Phenol	58.15	10	100	0	58.2	16-115	55.71	4.28	30	
Pyrene	57.64	10	50	0	115	51-130	57.33	0.531	30	
Surr: 2,4,6-Tribromophenol	116.5	0	100	0	117	39-153	115.3	1.01	30	
Surr: 2-Fluorobiphenyl	100.7	0	100	0	101	40-147	102.3	1.66	30	
Surr: 2-Fluorophenol	79.37	0	100	0	79.4	21-100	76.61	3.54	30	
Surr:4-Terphenyl-d14	119.6	0	100	0	120	39-141	119.9	0.284	30	
Surr: Nitrobenzene-d5	100.4	0	100	0	100	37-140	100.5	0.0781	30	
Surr: Phenol-d6	57.79	0	100	0	57.8	11-100	55.62	3.84	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01E 0310008-02E 0310008-03E

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:59**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377268** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	46.24	5.0	50	0	92.5	70-130	0			
Surr: 4-Bromofluorobenzene	46.45	5.0	50	0	92.9	70-130	0			
Surr: Dibromofluoromethane	47.97	5.0	50	0	95.9	70-130	0			
Surr: Toluene-d8	48.99	5.0	50	0	98	70-130	0			

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R - RPD outside accepted recovery limits
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:04**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377266** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.53	5.0	50	0	101	75-118	0			
1,1,2,2-Tetrachloroethane	48.81	5.0	50	0	97.6	79-120	0			
1,1,2-Trichloroethane	51.57	5.0	50	0	103	81-119	0			
1,1-Dichloroethane	50.05	5.0	50	0	100	80-120	0			
1,1-Dichloroethene	50	5.0	50	0	100	80-120	0			
1,2-Dichloroethane	50.47	5.0	50	0	101	80-120	0			
2-Butanone	109.5	10	100	0	110	70-130	0			
2-Chloroethyl vinyl ether	99.2	10	100	0	99.2	72-120	0			
2-Hexanone	81.33	10	100	0	81.3	70-130	0			
4-Methyl-2-pentanone	94.15	10	100	0	94.2	78-120	0			
Acetone	113.5	10	100	0	114	60-135	0			
Benzene	49.61	5.0	50	0	99.2	82-119	0			
Bromodichloromethane	51.17	5.0	50	0	102	81-119	0			
Bromoform	52.12	5.0	50	0	104	80-120	0			
Bromomethane	44.33	5.0	50	0	88.7	75-130	0			
Carbon disulfide	101.6	10	100	0	102	78-120	0			
Carbontetrachloride	50.25	5.0	50	0	101	77-120	0			
Chlorobenzene	49.6	5.0	50	0	99.2	82-118	0			
Chloroethane	51.18	5.0	50	0	102	78-122	0			
Chloroform	50.41	5.0	50	0	101	78-120	0			
Chloromethane	51.69	5.0	50	0	103	75-125	0			
cis-1,3-Dichloropropene	51.53	5.0	50	0	103	81-120	0			
Dibromochloromethane	50.6	5.0	50	0	101	81-118	0			
Ethylbenzene	50.26	5.0	50	0	101	82-120	0			
m,p-Xylene	99.75	10	100	0	99.8	82-122	0			
Methylene chloride	48.56	10	50	0	97.1	80-122	0			
Styrene	52.74	5.0	50	0	105	82-121	0			
Tetrachloroethene	49.66	5.0	50	0	99.3	79-118	0			
Toluene	50.41	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	53.19	5.0	50	0	106	82-121	0			
Trichloroethene	50.85	5.0	50	0	102	78-118	0			
Vinyl acetate	105.8	10	100	0	106	75-120	0			
Vinyl chloride	51.19	2.0	50	0	102	73-127	0			
Xylenes, Total	150.3	15	150	0	100	80-120	0			
Surr:1,2-Dichloroethane-d4	47.15	5.0	50	0	94.3	70-130	0			
Surr: 4-Bromofluorobenzene	49.05	5.0	50	0	98.1	70-130	0			
Surr: Dibromofluoromethane	47.61	5.0	50	0	95.2	70-130	0			
Surr: Toluene-d8	48.83	5.0	50	0	97.7	70-130	0			

ND - Not Detected at the Reporting Limit
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O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:31**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377267** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.87	5.0	50	0	104	75-118	50.53	2.63	20	
1,1,2,2-Tetrachloroethane	51.16	5.0	50	0	102	79-120	48.81	4.69	20	
1,1,2-Trichloroethane	52.3	5.0	50	0	105	81-119	51.57	1.4	20	
1,1-Dichloroethane	51.76	5.0	50	0	104	80-120	50.05	3.36	20	
1,1-Dichloroethene	51.73	5.0	50	0	103	80-120	50	3.4	20	
1,2-Dichloroethane	51.07	5.0	50	0	102	80-120	50.47	1.18	20	
2-Butanone	106.2	10	100	0	106	70-130	109.5	3.1	20	
2-Chloroethyl vinyl ether	102.9	10	100	0	103	72-120	99.2	3.7	20	
2-Hexanone	78.1	10	100	0	78.1	70-130	81.33	4.05	20	
4-Methyl-2-pentanone	97.56	10	100	0	97.6	78-120	94.15	3.56	20	
Acetone	113.8	10	100	0	114	60-135	113.5	0.213	20	
Benzene	51.09	5.0	50	0	102	82-119	49.61	2.94	20	
Bromodichloromethane	51.35	5.0	50	0	103	81-119	51.17	0.349	20	
Bromoform	53.78	5.0	50	0	108	80-120	52.12	3.13	20	
Bromomethane	44.91	5.0	50	0	89.8	75-130	44.33	1.29	20	
Carbon disulfide	104.7	10	100	0	105	78-120	101.6	3.01	20	
Carbontetrachloride	51.48	5.0	50	0	103	77-120	50.25	2.42	20	
Chlorobenzene	51.53	5.0	50	0	103	82-118	49.6	3.82	20	
Chloroethane	52.9	5.0	50	0	106	78-122	51.18	3.31	20	
Chloroform	51.26	5.0	50	0	103	78-120	50.41	1.66	20	
Chloromethane	53.56	5.0	50	0	107	75-125	51.69	3.55	20	
cis-1,3-Dichloropropene	52.58	5.0	50	0	105	81-120	51.53	2.02	20	
Dibromochloromethane	51.68	5.0	50	0	103	81-118	50.6	2.11	20	
Ethylbenzene	52.4	5.0	50	0	105	82-120	50.26	4.16	20	
m,p-Xylene	103.1	10	100	0	103	82-122	99.75	3.26	20	
Methylene chloride	49.54	10	50	0	99.1	80-122	48.56	2	20	
Styrene	53.62	5.0	50	0	107	82-121	52.74	1.66	20	
Tetrachloroethene	52.96	5.0	50	0	106	79-118	49.66	6.42	20	
Toluene	52.16	5.0	50	0	104	81-119	50.41	3.41	20	
trans-1,3-Dichloropropene	53.22	5.0	50	0	106	82-121	53.19	0.0504	20	
Trichloroethene	51.76	5.0	50	0	104	78-118	50.85	1.78	20	
Vinyl acetate	105.7	10	100	0	106	75-120	105.8	0.109	20	
Vinyl chloride	53.25	2.0	50	0	106	73-127	51.19	3.93	20	
Xylenes, Total	155.2	15	150	0	103	80-120	150.3	3.22	20	
Surr:1,2-Dichloroethane-d4	46.04	5.0	50	0	92.1	70-130	47.15	2.39	20	
Surr:4-Bromofluorobenzene	49.58	5.0	50	0	99.2	70-130	49.05	1.06	20	
Surr:Dibromofluoromethane	46.75	5.0	50	0	93.5	70-130	47.61	1.81	20	
Surr:Toluene-d8	49.23	5.0	50	0	98.5	70-130	48.83	0.812	20	

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U - Analyzed for but not detected
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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MS Sample ID: **0310083-03AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 14:21**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377271** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.17	5.0	50	0	96.3	75-125	0			
1,1,2,2-Tetrachloroethane	47.97	5.0	50	0	95.9	75-125	0			
1,1,2-Trichloroethane	50.31	5.0	50	0	101	75-125	0			
1,1-Dichloroethane	47.55	5.0	50	0	95.1	75-125	0			
1,1-Dichloroethene	45.93	5.0	50	0	91.9	65-130	0			
1,2-Dichloroethane	49.44	5.0	50	0	98.9	70-130	0			
2-Butanone	101.7	10	100	0	102	64-128	0			
2-Chloroethyl vinyl ether	13.31	10	100	0	13.3	75-125	0			S
2-Hexanone	73.29	10	100	0	73.3	72-124	0			
4-Methyl-2-pentanone	93.37	10	100	0	93.4	75-125	0			
Acetone	93.79	10	100	0	93.8	60-130	0			
Benzene	46.87	5.0	50	0	93.7	76-127	0			
Bromodichloromethane	49.16	5.0	50	0	98.3	75-125	0			
Bromoform	51.95	5.0	50	0	104	75-125	0			
Bromomethane	41.65	5.0	50	0	83.3	75-125	0			
Carbon disulfide	94.11	10	100	0	94.1	75-125	0			
Carbon tetrachloride	47.51	5.0	50	0	95	70-130	0			
Chlorobenzene	48.48	5.0	50	0	97	75-126	0			
Chloroethane	46.15	5.0	50	0	92.3	70-130	0			
Chloroform	48.55	5.0	50	0	97.1	75-125	0			
Chloromethane	47.34	5.0	50	2.35	90	75-125	0			
cis-1,3-Dichloropropene	48.25	5.0	50	0	96.5	75-125	0			
Dibromochloromethane	50.44	5.0	50	0	101	75-125	0			
Ethylbenzene	48.82	5.0	50	0	97.6	75-125	0			
m,p-Xylene	96.5	10	100	0	96.5	75-125	0			
Methylene chloride	45.88	10	50	0	91.8	75-125	0			
Styrene	50.91	5.0	50	0	102	75-125	0			
Tetrachloroethene	48.09	5.0	50	0	96.2	75-125	0			
Toluene	48.03	5.0	50	0	96.1	76-125	0			
trans-1,3-Dichloropropene	51.06	5.0	50	0	102	70-130	0			
Trichloroethene	48.18	5.0	50	0	96.4	71-120	0			
Vinyl acetate	102	10	100	0	102	75-125	0			
Vinyl chloride	44.42	2.0	50	0	88.8	60-135	0			
Xylenes, Total	145.7	15	150	0	97.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	46.66	5.0	50	0	93.3	70-130	0			
Surr: 4-Bromofluorobenzene	49.18	5.0	50	0	98.4	70-130	0			
Surr: Dibromofluoromethane	47.24	5.0	50	0	94.5	70-130	0			
Surr: Toluene-d8	47.55	5.0	50	0	95.1	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MSD Sample ID: **0310083-03AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 14:48**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377272** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.98	5.0	50	0	100	75-125	48.17	3.7	20	
1,1,2,2-Tetrachloroethane	50.02	5.0	50	0	100	75-125	47.97	4.18	20	
1,1,2-Trichloroethane	51.84	5.0	50	0	104	75-125	50.31	3.01	20	
1,1-Dichloroethane	49.59	5.0	50	0	99.2	75-125	47.55	4.2	20	
1,1-Dichloroethene	49.7	5.0	50	0	99.4	65-130	45.93	7.89	20	
1,2-Dichloroethane	50.79	5.0	50	0	102	70-130	49.44	2.7	20	
2-Butanone	102.2	10	100	0	102	64-128	101.7	0.48	20	
2-Chloroethyl vinyl ether	14.11	10	100	0	14.1	75-125	13.31	5.89	20	S
2-Hexanone	73.4	10	100	0	73.4	72-124	73.29	0.153	20	
4-Methyl-2-pentanone	96.05	10	100	0	96.1	75-125	93.37	2.83	20	
Acetone	95.33	10	100	0	95.3	60-130	93.79	1.64	20	
Benzene	49.85	5.0	50	0	99.7	76-127	46.87	6.15	20	
Bromodichloromethane	50.9	5.0	50	0	102	75-125	49.16	3.48	20	
Bromoform	54.79	5.0	50	0	110	75-125	51.95	5.32	20	
Bromomethane	43.92	5.0	50	0	87.8	75-125	41.65	5.32	20	
Carbon disulfide	99.92	10	100	0	99.9	75-125	94.11	6	20	
Carbontetrachloride	51.1	5.0	50	0	102	70-130	47.51	7.27	20	
Chlorobenzene	50.25	5.0	50	0	100	75-126	48.48	3.58	20	
Chloroethane	50.5	5.0	50	0	101	70-130	46.15	9	20	
Chloroform	50.03	5.0	50	0	100	75-125	48.55	2.99	20	
Chloromethane	53.29	5.0	50	2.35	102	75-125	47.34	11.8	20	
cis-1,3-Dichloropropene	50.49	5.0	50	0	101	75-125	48.25	4.54	20	
Dibromochloromethane	52.32	5.0	50	0	105	75-125	50.44	3.65	20	
Ethylbenzene	51.42	5.0	50	0	103	75-125	48.82	5.18	20	
m,p-Xylene	102	10	100	0	102	75-125	96.5	5.53	20	
Methylene chloride	47.76	10	50	0	95.5	75-125	45.88	4.03	20	
Styrene	52.59	5.0	50	0	105	75-125	50.91	3.25	20	
Tetrachloroethene	51	5.0	50	0	102	75-125	48.09	5.88	20	
Toluene	50.74	5.0	50	0	101	76-125	48.03	5.5	20	
trans-1,3-Dichloropropene	53.28	5.0	50	0	107	70-130	51.06	4.26	20	
Trichloroethene	51.25	5.0	50	0	103	71-120	48.18	6.19	20	
Vinyl acetate	107.6	10	100	0	108	75-125	102	5.27	20	
Vinyl chloride	49.83	2.0	50	0	99.7	60-135	44.42	11.5	20	
Xylenes, Total	153.4	15	150	0	102	75-125	145.7	5.18	20	
Surr:1,2-Dichloroethane-d4	45.87	5.0	50	0	91.7	70-130	46.66	1.72	20	
Surr:4-Bromofluorobenzene	49.21	5.0	50	0	98.4	70-130	49.18	0.0572	20	
Surr: Dibromofluoromethane	46.88	5.0	50	0	93.8	70-130	47.24	0.777	20	
Surr: Toluene-d8	48.9	5.0	50	0	97.8	70-130	47.55	2.8	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01A 0310008-02A 0310008-03A

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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16466** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-100203** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 12:15**
Client ID: Run ID: **IC201_031002A** SeqNo: **374996** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-100203** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 12:48**
Client ID: Run ID: **IC201_031002A** SeqNo: **374997** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.9	0.50	10	0	99	80-120	0			
Fluoride	1.9	0.10	2	0	95	80-120	0			
Sulfate	10.42	1.0	10	0	104	80-120	0			
Surr: Dichloroacetic acid (surr)	2.03	0.10	2	0	101	80-120	0			

LCSD Sample ID: **WLCSDW1-10020** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 13:20**
Client ID: Run ID: **IC201_031002A** SeqNo: **374998** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.18	0.50	10	0	102	80-120	9.9	2.79	20	
Fluoride	2.04	0.10	2	0	102	80-120	1.9	7.11	20	
Sulfate	10.64	1.0	10	0	106	80-120	10.42	2.09	20	
Surr: Dichloroacetic acid (surr)	2.17	0.10	2	0	108	80-120	2.03	6.67	20	

MS Sample ID: **0310016-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 14:58**
Client ID: Run ID: **IC201_031002A** SeqNo: **375001** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	214	0.50	10	207.2	68.3	75-125	0			SEO
Fluoride	2.21	0.10	2	0.66	77.5	75-125	0			
Sulfate	12.11	1.0	10	3.78	83.3	75-125	0			
Nitrate/Nitrite (as N)	3.41	0.10	4	0	85.2	75-125	0			
Surr: Dichloroacetic acid (surr)	3.64	0.10	5	0	72.8	80-120	0			S

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CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16466** InstrumentID: **IC201**

MSD Sample ID: **0310016-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 15:30**
Client ID: Run ID: **IC201_031002A** SeqNo: **375002** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	214	0.50	10	207.2	68.5	75-125	214	0.00934	20	SEO
Fluoride	2.24	0.10	2	0.66	79	75-125	2.21	1.35	20	
Sulfate	13.68	1.0	10	3.78	99	75-125	12.11	12.2	20	
Nitrate/Nitrite (as N)	3.36	0.10	4	0	84	75-125	3.41	1.48	20	
Surr: Dichloroacetic acid (surr)	3.6	0.10	5	0	72	80-120	3.64	1.1	20	S

DUP Sample ID: **0310016-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 14:25**
Client ID: Run ID: **IC201_031002A** SeqNo: **375000** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	206.8	0.50	0	0	0	0-0	207.2	0.174	20	E
Fluoride	0.66	0.10	0	0	0	0-0	0.66	0	20	
Sulfate	3.81	1.0	0	0	0	0-0	3.78	0.791	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.1	0.10	5	0	82	80-120	4.05	1.23	20	

DUP Sample ID: **0310016-09CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 21:28**
Client ID: Run ID: **IC201_031002A** SeqNo: **375013** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	17.53	0.50	0	0	0	0-0	17.59	0.342	20	
Fluoride	0.91	0.10	0	0	0	0-0	0.92	1.09	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.22	0.10	5	0	84.4	80-120	4.31	2.11	20	

DUP Sample ID: **0310018-03ADUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 1:48**
Client ID: Run ID: **IC201_031002A** SeqNo: **375019** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	334.7	0.50	0	0	0	0-0	334.7	0.00598	20	E
Fluoride	0.28	0.10	0	0	0	0-0	0.32	13.3	20	
Sulfate	154.3	1.0	0	0	0	0-0	154.5	0.136	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	4.8	13	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-02C 0310008-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16507** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-100603** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376045** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-100603** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376046** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2013	0.020	0.2	0	101	80-120	0			

MS Sample ID: **0309293-01CMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376061** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.202	0.020	0.2	0.002	100	75-125	0			

MSD Sample ID: **0309293-01C MSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376062** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2069	0.020	0.2	0.002	102	75-125	0.202	2.4	25	

DUP Sample ID: **0309293-01C DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376060** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	0.002	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01D 0310008-02D 0310008-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16517** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-100302** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 17:39**
Client ID: Run ID: **IC201_031003A** SeqNo: **376367** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-100302** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 18:12**
Client ID: Run ID: **IC201_031003A** SeqNo: **376368** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.89	0.50	10	0	98.9	80-120	0			
Fluoride	2	0.10	2	0	100	80-120	0			
Sulfate	10.52	1.0	10	0	105	80-120	0			
Surr: Dichloroacetic acid (surr)	2.15	0.10	2	0	108	80-120	0			

LCSD Sample ID: **WLCSDW1-10030** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 18:44**
Client ID: Run ID: **IC201_031003A** SeqNo: **376369** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.94	0.50	10	0	99.4	80-120	9.89	0.504	20	
Fluoride	1.99	0.10	2	0	99.5	80-120	2	0.501	20	
Sulfate	10.56	1.0	10	0	106	80-120	10.52	0.38	20	
Surr: Dichloroacetic acid (surr)	2.11	0.10	2	0	106	80-120	2.15	1.88	20	

MS Sample ID: **0309267-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 20:22**
Client ID: Run ID: **IC201_031003A** SeqNo: **376372** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	57.38	0.50	10	47.03	103	75-125	0			EO
Fluoride	2.47	0.10	2	0.54	96.5	75-125	0			
Sulfate	182	1.0	10	171.3	107	75-125	0			EO
Nitrate/Nitrite (as N)	7.91	0.10	4	4.11	95	75-125	0			
Surr: Dichloroacetic acid (surr)	4.88	0.10	5	0	97.6	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16517** InstrumentID: **IC201**

MSD Sample ID: **0309267-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 20:54**
Client ID: Run ID: **IC201_031003A** SeqNo: **376373** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	58.04	0.50	10	47.03	110	75-125	57.38	1.14	20	EO
Fluoride	2.47	0.10	2	0.54	96.5	75-125	2.47	0	20	
Sulfate	180.2	1.0	10	171.3	89.5	75-125	182	0.955	20	EO
Nitrate/Nitrite (as N)	7.96	0.10	4	4.11	96.2	75-125	7.91	0.63	20	
Surr: Dichloroacetic acid (surr)	5.14	0.10	5	0	103	80-120	4.88	5.19	20	

DUP Sample ID: **0309267-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 19:49**
Client ID: Run ID: **IC201_031003A** SeqNo: **376371** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	46.25	0.50	0	0	0	0-0	47.03	1.67	20	
Fluoride	0.65	0.10	0	0	0	0-0	0.54	18.5	20	
Sulfate	171.6	1.0	0	0	0	0-0	171.3	0.198	20	E
Nitrate/Nitrite (as N)	4.06	0.10	0	0	0	0-0	4.11	1.22	20	
Surr: Dichloroacetic acid (surr)	5.63	0.10	5	0	113	80-120	5.62	0.178	20	

DUP Sample ID: **0310016-07CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/04/03 6:07**
Client ID: Run ID: **IC201_031003A** SeqNo: **376394** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	88.6	5.0	0	0	0	0-0	88.7	0.113	20	
Fluoride	2.4	1.0	0	0	0	0-0	0	200	20	R
Sulfate	257.9	10	0	0	0	0-0	257.9	0	20	
Nitrate/Nitrite (as N)	3.4	1.0	0	0	0	0-0	3.3	2.99	20	
Surr: Dichloroacetic acid (surr)	50	1.0	50	0	100	80-120	53	5.83	20	

DUP Sample ID: **0310018-03ADUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/04/03 9:55**
Client ID: Run ID: **IC201_031003A** SeqNo: **376399** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	302.6	2.5	0	0	0	0-0	299.4	1.06	20	E
Fluoride	ND	0.50	0	0	0	0-0	0	0	20	
Sulfate	134.8	5.0	0	0	0	0-0	132.9	1.46	20	
Nitrate/Nitrite (as N)	ND	0.50	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	26.85	0.50	25	0	107	80-120	27	0.557	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01C 0310008-02C 0310008-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16533** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-100703** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376751** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-100703** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376752** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0309293-03D DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376766** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	175	5.0	0	0	0	0-0	180	2.82	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	175	5.0	0	0	0	0-0	180	2.82	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01C 0310008-02C 0310008-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

LCS Sample ID: **WLCSW-100703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:05**
Client ID: Run ID: **IC201_031007A** SeqNo: **377111** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.88	0.50	10	0	98.8	80-120	0			
Fluoride	2.01	0.10	2	0	100	80-120	0			
Sulfate	10.63	1.0	10	0	106	80-120	0			
Surr: Dichloroacetic acid (surr)	2.14	0.10	2	0	107	80-120	0			

LCSD Sample ID: **WLCSDW1-10070** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:38**
Client ID: Run ID: **IC201_031007A** SeqNo: **377112** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10	0.50	10	0	100	80-120	9.88	1.21	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.01	2.52	20	
Sulfate	10.67	1.0	10	0	107	80-120	10.63	0.376	20	
Surr: Dichloroacetic acid (surr)	2.17	0.10	2	0	108	80-120	2.14	1.39	20	

MS Sample ID: **0310040-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 18:27**
Client ID: Run ID: **IC201_031007A** SeqNo: **377085** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.46	0.50	10	0	94.6	75-125	0			
Fluoride	1.94	0.10	2	0	97	75-125	0			
Sulfate	10.31	1.0	10	0	103	75-125	0			
Nitrate/Nitrite (as N)	3.94	0.10	4	0	98.5	75-125	0			
Surr: Dichloroacetic acid (surr)	4.4	0.10	5	0	88	80-120	0			

MSD Sample ID: **0310040-02BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 19:00**
Client ID: Run ID: **IC201_031007A** SeqNo: **377086** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.72	0.50	10	0	97.2	75-125	9.46	2.71	20	
Fluoride	1.95	0.10	2	0	97.5	75-125	1.94	0.514	20	
Sulfate	10.49	1.0	10	0	105	75-125	10.31	1.73	20	
Nitrate/Nitrite (as N)	4.03	0.10	4	0	101	75-125	3.94	2.26	20	
Surr: Dichloroacetic acid (surr)	4.97	0.10	5	0	99.4	80-120	4.4	12.2	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310008
Project: Artesia-Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

DUP Sample ID: **0310040-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 17:55**
Client ID: Run ID: **IC201_031007A** SeqNo: **377084** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50	0	0	0	0-0	0	0	20	
Fluoride	ND	0.10	0	0	0	0-0	0	0	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.3	0.10	5	0	106	80-120	5.45	2.79	20	

DUP Sample ID: **0310072-01DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 4:12**
Client ID: Run ID: **IC201_031007A** SeqNo: **377107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	729.8	0.50	0	0	0	0-0	737.1	0.998	20	E
Fluoride	0.63	0.10	0	0	0	0-0	0.62	1.6	20	
Sulfate	440.4	1.0	0	0	0	0-0	440.4	0.00908	20	E
Nitrate/Nitrite (as N)	0.39	0.10	0	0	0	0-0	0.39	0	20	
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	5.15	6.03	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310008-01C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

W.O.# 310008 Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Navaya
Address: (Street, City, Zip)
Phone #:
Fax #:
Contact Person: Jeff Byrd
Invoice to: (If different from above)
Project #:
Project Name: Annual
Project Location: Artesia
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
	KWB-1A	9		X				X	X		X	X		9/30	1000
	KWB-1C	8		X											1015
	RW-15	8		X											1045

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602
BTEX 8021B/602
TPH 418.1/TX1005
PAH 8270C
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
TCLP Pesticides
RCI
GC/MS Vol. 8260B/624
GC/MS Semi. Vol. 8270C/625
PCB's 8082/608
Pesticides 8081A/608
BOD, TSS, pH
Turn Around Time if different from standard
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Byrd	9/30	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				10/1/03	09:00 a

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp °
Log-in Review
Carrier #

REMARKS:
there is an extra L w/ KWB-1A for MS/MSD

☐ Check If Special Reporting Limits Are Needed

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING | Date/Time Received: 10/1/2003 9:00:00 AM

Work Order Number 0310008 | Received by: RNG

Checklist completed by [signature] 10/1/03 (Signature / Date) | Reviewed by NT 10/3/03 (Initials / Date)

Matrix: W | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes: One vial received broken for sample KWB-1C (two intact).

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

e-Lab
QUALITY - INTEGRITY - SERVICE

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

December 03, 2003

Jeff Byrd
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Annual Work Order : **0310031**

Dear Jeff Byrd,

e-Lab, Inc. received 3 samples on 10/2/2003 8:35:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 52. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Jeff L Croston

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: **0310031**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0310031-01	KWB-2R	Water		9/30/2003 13:15	10/2/2003 08:35	☐
0310031-02	KWB-3R	Water		9/30/2003 14:00	10/2/2003 08:35	☐
0310031-03	KWB-10	Water		9/30/2003 14:30	10/2/2003 08:35	☐

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0310031

Case Narrative

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc. **Date:** *October 21, 2003*

CLIENT: Navajo Refining Company
Project: Annual
Work Order: 0310031

Case Narrative

The results for Sodium in the MS/MSD @DF1 are above the ability of the instrument to detect (it maximized the instrument reading). Therefore, the result is shown as zero. The calculation for MS/MSD % recovery is also not possible.

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-01

Client Sample ID: KWB-2R
Collection Date: 9/30/2003 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:34:28 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.881	0.100		mg/L	10	10/17/2003 2:18:00 PM
Arsenic	0.0166	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Barium	0.229	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 10:37:00 PM
Boron	0.421	0.100		mg/L	5	10/17/2003 5:41:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 10:37:00 PM
Calcium	327	25.0		mg/L	50	10/16/2003 9:30:00 PM
Chromium	0.00222	0.00200		mg/L	1	10/16/2003 10:37:00 PM
Cobalt	0.00240	0.00200		mg/L	1	10/16/2003 10:37:00 PM
Copper	0.00334	0.00200		mg/L	1	10/16/2003 10:37:00 PM
Iron	3.30	0.200		mg/L	1	10/16/2003 10:37:00 PM
Lead	0.0132	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Magnesium	188	10.0		mg/L	50	10/16/2003 9:30:00 PM
Manganese	0.784	0.0500		mg/L	10	10/16/2003 9:43:00 PM
Nickel	0.00687	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Potassium	0.525	0.200		mg/L	1	10/16/2003 10:37:00 PM
Selenium	0.00522	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Sodium	372	10.0		mg/L	50	10/16/2003 9:30:00 PM
Vanadium	ND	0.00500		mg/L	1	10/16/2003 10:37:00 PM
Zinc	0.00858	0.00500		mg/L	1	10/16/2003 10:37:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/6/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
2-Methylnaphthalene	240	100		µg/L	10	10/9/2003 3:02:00 PM
2-Methylphenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/8/2003 5:58:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/8/2003 5:58:00 PM
4-Methylphenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/8/2003 5:58:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Acenaphthene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Acenaphthylene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Aniline	ND	10		µg/L	1	10/8/2003 5:58:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-01

Client Sample ID: KWB-2R
Collection Date: 9/30/2003 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Benzidine	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Hexachloroethane	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Isophorone	ND	10		µg/L	1	10/8/2003 5:58:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/8/2003 5:58:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/8/2003 5:58:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Naphthalene	250	100		µg/L	10	10/9/2003 3:02:00 PM
Nitrobenzene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Phenanthrene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Phenol	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Pyrene	ND	10		µg/L	1	10/8/2003 5:58:00 PM
Surr: 2,4,6-Tribromophenol	94.4	39-153		%REC	10	10/9/2003 3:02:00 PM
Surr: 2,4,6-Tribromophenol	90.3	39-153		%REC	1	10/8/2003 5:58:00 PM
Surr: 2-Fluorobiphenyl	84.9	40-147		%REC	10	10/9/2003 3:02:00 PM
Surr: 2-Fluorobiphenyl	66.6	40-147		%REC	1	10/8/2003 5:58:00 PM
Surr: 2-Fluorophenol	28.4	21-100		%REC	1	10/8/2003 5:58:00 PM
Surr: 2-Fluorophenol	40.9	21-100		%REC	10	10/9/2003 3:02:00 PM
Surr: 4-Terphenyl-d14	74.1	39-141		%REC	1	10/8/2003 5:58:00 PM
Surr: 4-Terphenyl-d14	162	39-141	S	%REC	10	10/9/2003 3:02:00 PM
Surr: Nitrobenzene-d5	91.2	37-140		%REC	10	10/9/2003 3:02:00 PM
Surr: Nitrobenzene-d5	66.3	37-140		%REC	1	10/8/2003 5:58:00 PM
Surr: Phenol-d6	19.1	11-100		%REC	1	10/8/2003 5:58:00 PM
Surr: Phenol-d6	27.3	11-100		%REC	10	10/9/2003 3:02:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
2-Butanone	17	10		µg/L	1	10/8/2003 8:42:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 8:42:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 8:42:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 8:42:00 PM
Acetone	52	10		µg/L	1	10/8/2003 8:42:00 PM
Benzene	1,600	50		µg/L	10	10/9/2003 9:53:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-01

Client Sample ID: KWB-2R
Collection Date: 9/30/2003 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 8:42:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Chloroethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Ethylbenzene	1,200	50		µg/L	10	10/9/2003 9:53:00 PM
m,p-Xylene	730	100		µg/L	10	10/9/2003 9:53:00 PM
Methyl tert-butyl ether	260	50		µg/L	10	10/9/2003 9:53:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 8:42:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Toluene	29	5.0		µg/L	1	10/8/2003 8:42:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 8:42:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 8:42:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 8:42:00 PM
Xylenes, Total	730	150		µg/L	10	10/9/2003 9:53:00 PM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	10/8/2003 8:42:00 PM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	10	10/9/2003 9:53:00 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	10/8/2003 8:42:00 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	10	10/9/2003 9:53:00 PM
Surr: Dibromofluoromethane	95.5	70-130		%REC	1	10/8/2003 8:42:00 PM
Surr: Dibromofluoromethane	91.4	70-130		%REC	10	10/9/2003 9:53:00 PM
Surr: Toluene-d8	95.6	70-130		%REC	1	10/8/2003 8:42:00 PM
Surr: Toluene-d8	96.5	70-130		%REC	10	10/9/2003 9:53:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	480	10.0		mg/L	20	10/4/2003 12:37:00 PM
Fluoride	1.12	0.100		mg/L	1	10/3/2003 6:08:00 AM
Sulfate	492	20.0		mg/L	20	10/4/2003 12:37:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/3/2003 6:08:00 AM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	1	10/3/2003 6:08:00 AM
Surr: Dichloroacetic acid (surr)	98.8	80-120		%REC	20	10/4/2003 12:37:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	840	5.00		mg/L	1	10/7/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	KWB-2R
Work Order:	0310031	**Collection Date:**	9/30/2003 1:15:00 PM
Project:	Annual		
Lab ID:	0310031-01	**Matrix:**	WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	840	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

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- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-02

Client Sample ID: KWB-3R
Collection Date: 9/30/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:35:58 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.713	0.100		mg/L	10	10/17/2003 2:27:00 PM
Arsenic	0.00556	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Barium	0.0241	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 11:17:00 PM
Boron	0.316	0.100		mg/L	5	10/17/2003 5:46:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 11:17:00 PM
Calcium	732	25.0		mg/L	50	10/17/2003 2:23:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 11:17:00 PM
Cobalt	ND	0.00200		mg/L	1	10/16/2003 11:17:00 PM
Copper	0.00742	0.00200		mg/L	1	10/16/2003 11:17:00 PM
Iron	3.26	0.200		mg/L	1	10/16/2003 11:17:00 PM
Lead	ND	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Magnesium	285	10.0		mg/L	50	10/17/2003 2:23:00 PM
Manganese	0.0737	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Nickel	0.0107	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Potassium	0.786	0.200		mg/L	1	10/16/2003 11:17:00 PM
Selenium	0.0230	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Sodium	421	10.0		mg/L	50	10/17/2003 2:23:00 PM
Vanadium	0.0182	0.00500		mg/L	1	10/16/2003 11:17:00 PM
Zinc	0.0189	0.00500		mg/L	1	10/16/2003 11:17:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/6/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2-Methylphenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/9/2003 2:35:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/9/2003 2:35:00 PM
4-Methylphenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/9/2003 2:35:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Acenaphthene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Acenaphthylene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Aniline	ND	10		µg/L	1	10/9/2003 2:35:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-02

Client Sample ID: KWB-3R
Collection Date: 9/30/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Benzidine	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Hexachloroethane	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Isophorone	ND	10		µg/L	1	10/9/2003 2:35:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/9/2003 2:35:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/9/2003 2:35:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Naphthalene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Nitrobenzene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Phenanthrene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Phenol	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Pyrene	ND	10		µg/L	1	10/9/2003 2:35:00 PM
Surr: 2,4,6-Tribromophenol	82.3	39-153		%REC	1	10/9/2003 2:35:00 PM
Surr: 2-Fluorobiphenyl	65.3	40-147		%REC	1	10/9/2003 2:35:00 PM
Surr: 2-Fluorophenol	30.5	21-100		%REC	1	10/9/2003 2:35:00 PM
Surr: 4-Terphenyl-d14	72.6	39-141		%REC	1	10/9/2003 2:35:00 PM
Surr: Nitrobenzene-d5	63.1	37-140		%REC	1	10/9/2003 2:35:00 PM
Surr: Phenol-d6	18.7	11-100		%REC	1	10/9/2003 2:35:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
2-Butanone	ND	10		µg/L	1	10/8/2003 9:09:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 9:09:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 9:09:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 9:09:00 PM
Acetone	ND	10		µg/L	1	10/8/2003 9:09:00 PM
Benzene	20	5.0		µg/L	1	10/8/2003 9:09:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 9:09:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
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P - Dual Column results percent difference > 40%
E - Value above quantitation range
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e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-02

Client Sample ID: KWB-3R
Collection Date: 9/30/2003 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Ethylbenzene	31	5.0		µg/L	1	10/8/2003 9:09:00 PM
m,p-Xylene	17	10		µg/L	1	10/8/2003 9:09:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 9:09:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Toluene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 9:09:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 9:09:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 9:09:00 PM
Xylenes, Total	18	15		µg/L	1	10/8/2003 9:09:00 PM
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%REC	1	10/8/2003 9:09:00 PM
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	1	10/8/2003 9:09:00 PM
Surr: Dibromofluoromethane	91.8	70-130		%REC	1	10/8/2003 9:09:00 PM
Surr: Toluene-d8	98.9	70-130		%REC	1	10/8/2003 9:09:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	396	5.00		mg/L	10	10/4/2003 1:10:00 PM
Fluoride	0.980	0.100		mg/L	1	10/3/2003 6:41:00 AM
Sulfate	2,660	100		mg/L	100	10/4/2003 1:42:00 PM
Nitrate/Nitrite (as N)	7.41	0.100		mg/L	1	10/3/2003 6:41:00 AM
Surr: Dichloroacetic acid (surr)	96.2	80-120		%REC	1	10/3/2003 6:41:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	10	10/4/2003 1:10:00 PM
Surr: Dichloroacetic acid (surr)	107	80-120		%REC	100	10/4/2003 1:42:00 PM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	415	5.00		mg/L	1	10/7/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	415	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-03

Client Sample ID: KWB-10
Collection Date: 9/30/2003 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		**SW7470**			Prep Date: **10/9/2003**	Analyst: **JCJ**
Mercury	ND	0.000200		mg/L	1	10/10/2003 3:39:48 PM
ICP METALS, TOTAL		**SW6020**			Prep Date: **10/8/2003**	Analyst: **ALR**
Aluminum	0.0310	0.0200		mg/L	2	10/17/2003 5:19:00 PM
Arsenic	*0.0157*	*0.00500*		*mg/L*	1	10/16/2003 11:21:00 PM
Barium	0.682	0.0500		mg/L	10	10/16/2003 10:01:00 PM
Beryllium	ND	0.00200		mg/L	1	10/16/2003 11:21:00 PM
Boron	0.300	0.0400		mg/L	2	10/17/2003 5:19:00 PM
Cadmium	ND	0.00100		mg/L	1	10/16/2003 11:21:00 PM
Calcium	154	10.0		mg/L	20	10/16/2003 9:56:00 PM
Chromium	ND	0.00200		mg/L	1	10/16/2003 11:21:00 PM
Cobalt	0.00561	0.00200		mg/L	1	10/16/2003 11:21:00 PM
Copper	ND	0.00200		mg/L	1	10/16/2003 11:21:00 PM
Iron	1.67	0.200		mg/L	1	10/16/2003 11:21:00 PM
Lead	0.0574	0.00500		mg/L	1	10/16/2003 11:21:00 PM
Magnesium	98.6	2.00		mg/L	10	10/16/2003 10:01:00 PM
Manganese	0.609	0.0500		mg/L	10	10/16/2003 10:01:00 PM
Nickel	0.0153	0.00500		mg/L	1	10/16/2003 11:21:00 PM
Potassium	0.300	0.200		mg/L	1	10/16/2003 11:21:00 PM
Selenium	ND	0.00500		mg/L	1	10/16/2003 11:21:00 PM
Silver	ND	0.00500		mg/L	1	10/16/2003 11:21:00 PM
Sodium	117	2.00		mg/L	10	10/17/2003 2:31:00 PM
Vanadium	ND	0.00500		mg/L	1	10/16/2003 11:21:00 PM
Zinc	ND	0.00500		mg/L	1	10/16/2003 11:21:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		**SW8270**			Prep Date: **10/6/2003**	Analyst: **HV**
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2-Methylphenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/8/2003 6:52:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/8/2003 6:52:00 PM
4-Methylphenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/8/2003 6:52:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Acenaphthene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Acenaphthylene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Aniline	ND	10		µg/L	1	10/8/2003 6:52:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-03

Client Sample ID: KWB-10
Collection Date: 9/30/2003 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Anthracene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Benzidine	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Hexachloroethane	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Isophorone	ND	10		µg/L	1	10/8/2003 6:52:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/8/2003 6:52:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/8/2003 6:52:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Naphthalene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Nitrobenzene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Phenanthrene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Phenol	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Pyrene	ND	10		µg/L	1	10/8/2003 6:52:00 PM
Surr: 2,4,6-Tribromophenol	81.0	39-153		%REC	1	10/8/2003 6:52:00 PM
Surr: 2-Fluorobiphenyl	63.7	40-147		%REC	1	10/8/2003 6:52:00 PM
Surr: 2-Fluorophenol	29.5	21-100		%REC	1	10/8/2003 6:52:00 PM
Surr: 4-Terphenyl-d14	76.2	39-141		%REC	1	10/8/2003 6:52:00 PM
Surr: Nitrobenzene-d5	54.8	37-140		%REC	1	10/8/2003 6:52:00 PM
Surr: Phenol-d6	18.3	11-100		%REC	1	10/8/2003 6:52:00 PM
VOLATILES BY GC/MS		**SW8260**				Analyst: **PC**
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
2-Butanone	ND	10		µg/L	1	10/8/2003 9:36:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	10/8/2003 9:36:00 PM
2-Hexanone	ND	10		µg/L	1	10/8/2003 9:36:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/8/2003 9:36:00 PM
Acetone	ND	10		µg/L	1	10/8/2003 9:36:00 PM
Benzene	23	5.0		µg/L	1	10/8/2003 9:36:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Bromoform	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Bromomethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Carbon disulfide	ND	10		µg/L	1	10/8/2003 9:36:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Chlorobenzene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM

Qualifiers:

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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *December 03, 2003*

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual
Lab ID: 0310031-03

Client Sample ID: KWB-10
Collection Date: 9/30/2003 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chloroethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Chloroform	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Chloromethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Ethylbenzene	20	5.0		µg/L	1	10/8/2003 9:36:00 PM
m,p-Xylene	11	10		µg/L	1	10/8/2003 9:36:00 PM
Methylene chloride	ND	10		µg/L	1	10/8/2003 9:36:00 PM
Styrene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Toluene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Trichloroethene	ND	5.0		µg/L	1	10/8/2003 9:36:00 PM
Vinyl acetate	ND	10		µg/L	1	10/8/2003 9:36:00 PM
Vinyl chloride	ND	2.0		µg/L	1	10/8/2003 9:36:00 PM
Xylenes, Total	ND	15		µg/L	1	10/8/2003 9:36:00 PM
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%REC	1	10/8/2003 9:36:00 PM
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	10/8/2003 9:36:00 PM
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	10/8/2003 9:36:00 PM
Surr: Toluene-d8	99.7	70-130		%REC	1	10/8/2003 9:36:00 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **MG**
Chloride	164	2.50		mg/L	5	10/8/2003 3:07:00 AM
Fluoride	1.09	0.100		mg/L	1	10/4/2003 3:24:00 AM
Sulfate	7.55	1.00		mg/L	1	10/4/2003 3:24:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	10/4/2003 3:24:00 AM
Surr: Dichloroacetic acid (surr)	86.8	80-120		%REC	1	10/4/2003 3:24:00 AM
Surr: Dichloroacetic acid (surr)	96.4	80-120		%REC	5	10/8/2003 3:07:00 AM
ALKALINITY		**E310.1**				Analyst: **LMD**
Alkalinity, Bicarbonate (As CaCO3)	740	5.00		mg/L	1	10/7/2003
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	10/7/2003
Alkalinity, Total (As CaCO3)	740	5.00		mg/L	1	10/7/2003
CYANIDE, TOTAL		**E335.3**				Analyst: **LMD**
Cyanide	ND	0.0200		mg/L	1	10/6/2003

Qualifiers:

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J - Analyte detected below quantitation limits
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* - Value exceeds Maximum Contaminant Level
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E - Value above quantitation range
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e-Lab, Inc.

Date: *Oct 20 2003*

CLIENT: Navajo Refining Company

Work Order: 0310031

Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:28**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	0.0008166	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0010								
Calcium	ND	0.50								
Chromium	ND	0.0020								
Cobalt	0.0004216	0.0020								J
Copper	0.000435	0.0020								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	0.1386	0.20								J
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: **MBLKW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 12:12**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378101** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.005454	0.010								J

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-100803** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/10/03 11:33**

Client ID: Run ID: **ICP4500_031010A** SeqNo: **378070** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1147	0.010	0.1	0	115	80-120	0			
Arsenic	0.1005	0.0050	0.1	0	100	80-120	0			
Barium	0.09615	0.0050	0.1	0	96.2	80-120	0			
Beryllium	0.09888	0.0020	0.1	0	98.9	80-120	0			
Boron	0.4858	0.020	0.5	0	97.2	80-120	0			
Cadmium	0.09925	0.0010	0.1	0	99.2	80-120	0			
Calcium	9.913	0.50	10	0	99.1	80-120	0			
Chromium	0.1009	0.0020	0.1	0	101	80-120	0			
Cobalt	0.1031	0.0020	0.1	0	103	80-120	0			
Copper	0.1006	0.0020	0.1	0	101	80-120	0			
Iron	10.03	0.20	10	0	100	80-120	0			
Lead	0.09909	0.0050	0.1	0	99.1	80-120	0			
Magnesium	10.22	0.20	10	0	102	80-120	0			
Manganese	0.1001	0.0050	0.1	0	100	80-120	0			
Nickel	0.1018	0.0050	0.1	0	102	80-120	0			
Potassium	10.12	0.20	10	0	101	80-120	0			
Selenium	0.09856	0.0050	0.1	0	98.6	80-120	0			
Silver	0.09816	0.0050	0.1	0	98.2	80-120	0			
Sodium	10.05	0.20	10	0	100	80-120	0			
Vanadium	0.1028	0.0050	0.1	0	103	80-120	0			
Zinc	0.09876	0.0050	0.1	0	98.8	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MS Sample ID: **0310008-01BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:10**

Client ID: Run ID: **ICP4500_031013A** SeqNo: **379652** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5644	0.010	0.1	0.4276	137	75-125	0			SEO
Arsenic	0.09767	0.0050	0.1	0.001921	95.7	75-125	0			
Barium	0.1316	0.0050	0.1	0.01434	117	75-125	0			
Beryllium	0.09161	0.0020	0.1	0.0001465	91.5	75-125	0			
Boron	1.492	0.020	0.5	0.95	108	75-125	0			E
Cadmium	0.08999	0.0010	0.1	0.0001326	89.9	75-125	0			
Calcium	492.5	0.50	10	481.2	113	75-125	0			EO
Chromium	0.1008	0.0020	0.1	0.0008088	100	75-125	0			
Cobalt	0.1017	0.0020	0.1	0.003492	98.2	75-125	0			
Copper	0.09023	0.0020	0.1	0.006268	84	75-125	0			
Iron	10.82	0.20	10	0.9004	99.2	75-125	0			
Lead	0.1171	0.0050	0.1	0.000977	116	75-125	0			
Magnesium	316.9	0.20	10	303.8	131	75-125	0			SEO
Manganese	0.3674	0.0050	0.1	0.2557	112	75-125	0			
Nickel	0.1014	0.0050	0.1	0.01327	88.1	75-125	0			
Potassium	11.45	0.20	10	1.156	103	75-125	0			
Selenium	0.1024	0.0050	0.1	0.006292	96.1	75-125	0			
Silver	0.08347	0.0050	0.1	-0.0000166	83.5	75-125	0			
Sodium	0	0.20	10	0	0	75-125	0			S
Vanadium	0.1364	0.0050	0.1	0.0219	114	75-125	0			
Zinc	0.08689	0.0050	0.1	0.0134	73.5	75-125	0			S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

MSD Sample ID: **0310008-01BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:15**

Client ID: Run ID: **ICP4500_031013A** SeqNo: **379653** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.5604	0.010	0.1	0.4276	133	75-125	0.5644	0.711	25	SEO
Arsenic	0.08512	0.0050	0.1	0.001921	83.2	75-125	0.09767	13.7	25	
Barium	0.115	0.0050	0.1	0.01434	101	75-125	0.1316	13.5	25	
Beryllium	0.08377	0.0020	0.1	0.0001465	83.6	75-125	0.09161	8.94	25	
Boron	1.37	0.020	0.5	0.95	84	75-125	1.492	8.53	25	E
Cadmium	0.07706	0.0010	0.1	0.0001326	76.9	75-125	0.08999	15.5	25	
Calcium	428.9	0.50	10	481.2	-523	75-125	492.5	13.8	25	SEO
Chromium	0.09102	0.0020	0.1	0.0008088	90.2	75-125	0.1008	10.2	25	
Cobalt	0.0894	0.0020	0.1	0.003492	85.9	75-125	0.1017	12.9	25	
Copper	0.07698	0.0020	0.1	0.006268	70.7	75-125	0.09023	15.8	25	S
Iron	9.648	0.20	10	0.9004	87.5	75-125	10.82	11.5	25	
Lead	0.1009	0.0050	0.1	0.000977	99.9	75-125	0.1171	14.9	25	
Magnesium	286	0.20	10	303.8	-178	75-125	316.9	10.3	25	SEO
Manganese	0.3153	0.0050	0.1	0.2557	59.6	75-125	0.3674	15.3	25	S
Nickel	0.08813	0.0050	0.1	0.01327	74.9	75-125	0.1014	14	25	S
Potassium	10.41	0.20	10	1.156	92.5	75-125	11.45	9.52	25	
Selenium	0.08306	0.0050	0.1	0.006292	76.8	75-125	0.1024	20.9	25	
Silver	0.07252	0.0050	0.1	-0.0000166	72.5	75-125	0.08347	14	25	S
Sodium	0	0.20	10	0	0	75-125	0	0	25	SR
Vanadium	0.1183	0.0050	0.1	0.0219	96.4	75-125	0.1364	14.2	25	
Zinc	0.07854	0.0050	0.1	0.0134	65.1	75-125	0.08689	10.1	25	S

ND - Not Detected at the Reporting Limit
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B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6861** InstrumentID: **ICP4500**

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/13/03 18:06**
Client ID: Run ID: **ICP4500_031013A** SeqNo: **379651** Prep Date: **10/8/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.4303	0.010	0	0	0	0-0	0.4276	0.629	25	
Arsenic	0.003704	0.0050	0	0	0	0-0	0.001921	0	25	J
Barium	0.01528	0.0050	0	0	0	0-0	0.01434	6.35	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.0001465	0	25	
Boron	0.9431	0.020	0	0	0	0-0	0.95	0.729	25	
Cadmium	ND	0.0010	0	0	0	0-0	0.0001326	0	25	
Chromium	0.0007482	0.0020	0	0	0	0-0	0.0008088	0	25	J
Cobalt	0.003404	0.0020	0	0	0	0-0	0.003492	2.55	25	
Copper	0.006757	0.0020	0	0	0	0-0	0.006268	7.51	25	
Iron	0.8962	0.20	0	0	0	0-0	0.9004	0.468	25	
Lead	0.0009688	0.0050	0	0	0	0-0	0.000977	0	25	J
Manganese	0.2492	0.0050	0	0	0	0-0	0.2557	2.57	25	
Nickel	0.01332	0.0050	0	0	0	0-0	0.01327	0.376	25	
Potassium	1.102	0.20	0	0	0	0-0	1.156	4.78	25	
Selenium	0.002516	0.0050	0	0	0	0-0	0.006292	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.0000166	0	25	
Vanadium	0.02156	0.0050	0	0	0	0-0	0.0219	1.56	25	
Zinc	0.01373	0.0050	0	0	0	0-0	0.0134	2.43	25	

DUP Sample ID: **0310008-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **10/14/03 17:25**
Client ID: Run ID: **ICP4500_031014A** SeqNo: **379949** Prep Date: **10/8/2003** DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	480	25	0	0	0	0-0	444.9	7.59	25	
Magnesium	342.8	10	0	0	0	0-0	323.1	5.92	25	
Sodium	226.4	10	0	0	0	0-0	210.7	7.18	25	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01C 0310031-02C 0310031-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6871** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:43**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378370** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								

LCS Sample ID: **GLCSW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:54**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378371** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00491	0.00020	0.005	0	98.2	83-115	0			

LCSD Sample ID: **GLCSDW1-100903** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 14:57**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378372** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00516	0.00020	0.005	0	103	83-115	0.00491	4.97	20	

MS Sample ID: **0310008-02BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:09**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378376** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	*0.00437*	*0.00020*	*0.005*	*-0.000063*	*88.7*	*70-124*	*0*			

MSD Sample ID: **0310008-02BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:31**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378379** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00463	0.00020	0.005	-0.000063	93.9	70-124	0.00437	5.78	20	

DUP Sample ID: **0310008-02BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/10/03 15:05**
Client ID: Run ID: **MERCURY_031010B** SeqNo: **378375** Prep Date: **10/9/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020	0	0	0	0-0	-0.000063	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01C 0310031-02C 0310031-03C

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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P - Dual Column results percent difference > 40%
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U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6839** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKW1-031006** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/06/03 16:31**

Client ID: Run ID: **SV-3_031006A** SeqNo: **377130** Prep Date: **10/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
3-Nitroaniline	ND	10								
4-Methylphenol	ND	10								
4-Nitroaniline	ND	10								
4-Nitrophenol	ND	10								
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Benz(a)anthracene	ND	10								
Benzidine	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
1,4-Dichlorobenzene-d4	40	0								
Acenaphthene-d10	40	0								
Chrysene-d12	40	0								
Naphthalene-d8	40	0								
Perylene-d12	40	0								
Phenanthrene-d10	40	0								
Surr: 2,4,6-Tribromophenol	72.19	0	100	0	72.2	39-153	0			
Surr: 2-Fluorobiphenyl	61.87	0	100	0	61.9	40-147	0			
Surr: 2-Fluorophenol	50.23	0	100	0	50.2	21-100	0			
Surr:4-Terphenyl-d14	80.23	0	100	0	80.2	39-141	0			
Surr:Nitrobenzene-d5	65.69	0	100	0	65.7	37-140	0			
Surr: Phenol-d6	35.39	0	100	0	35.4	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6839** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-031006** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/08/03 11:32**

Client ID: Run ID: **SV-3_031006A** SeqNo: **377141** Prep Date: **10/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	38.01	10	50	0	76	50-115	0			
2,4,5-Trichlorophenol	81.93	10	100	0	81.9	72-118	0			
2,4,6-Trichlorophenol	78.68	10	100	0	78.7	72-117	0			
2-Methylnaphthalene	36.86	10	50	0	73.7	47-122	0			
2-Methylphenol	74.92	10	100	0	74.9	51-115	0			
2-Nitroaniline	35.79	10	50	0	71.6	73-119	0			S
2-Nitrophenol	78.73	10	100	0	78.7	60-119	0			
3-Nitroaniline	33.51	10	50	0	67	61-118	0			
4-Methylphenol	104.6	10	150	0	69.7	44-115	0			
4-Nitroaniline	38.19	10	50	0	76.4	61-123	0			
4-Nitrophenol	39.05	10	100	0	39.1	17-100	0			
Acenaphthene	37.48	10	50	0	75	68-115	0			
Acenaphthylene	37.09	10	50	0	74.2	67-116	0			
Anthracene	41.53	10	50	0	83.1	72-124	0			
Benz(a)anthracene	39.45	10	50	0	78.9	55-131	0			
Benzidine	8.518	10	50	0	17	10-115	0			J
Hexachloroethane	35.1	10	50	0	70.2	46-115	0			
Indeno(1,2,3-cd)pyrene	37.47	10	50	0	74.9	42-123	0			
Isophorone	38.56	10	50	0	77.1	63-117	0			
N-Nitrosodi-n-propylamine	36.1	10	50	0	72.2	67-115	0			
N-Nitrosodimethylamine	27.89	10	50	0	55.8	28-115	0			
N-Nitrosodiphenylamine	42.59	10	50	0	85.2	72-144	0			
Naphthalene	37.2	10	50	0	74.4	52-115	0			
Nitrobenzene	36.81	10	50	0	73.6	65-115	0			
Pentachlorophenol	85.68	10	100	0	85.7	65-123	0			
Phenanthrene	39.01	10	50	0	78	69-119	0			
Phenol	42.34	10	100	0	42.3	16-115	0			
Pyrene	39.08	10	50	0	78.2	51-130	0			
Surr: 2,4,6-Tribromophenol	92.97	0	100	0	93	39-153	0			
Surr: 2-Fluorobiphenyl	74.45	0	100	0	74.4	40-147	0			
Surr: 2-Fluorophenol	62.37	0	100	0	62.4	21-100	0			
Surr:4-Terphenyl-d14	86.41	0	100	0	86.4	39-141	0			
Surr: Nitrobenzene-d5	73.33	0	100	0	73.3	37-140	0			
Surr: Phenol-d6	44.07	0	100	0	44.1	11-100	0			

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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **6839** InstrumentID: **SV-3**

LCSD Sample ID: **SLCSDW1-031006** Test Code: **SW8270** Units: **µg/L** Analysis Date: **10/08/03 12:00**
Client ID: Run ID: **SV-3_031006A** SeqNo: **377172** Prep Date: **10/6/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	37.93	10	50	0	75.9	50-115	38.01	0.204	30	
2,4,5-Trichlorophenol	82.63	10	100	0	82.6	72-118	81.93	0.849	30	
2,4,6-Trichlorophenol	81.59	10	100	0	81.6	72-117	78.68	3.63	30	
2-Methylnaphthalene	37.03	10	50	0	74.1	47-122	36.86	0.478	30	
2-Methylphenol	74.15	10	100	0	74.1	51-115	74.92	1.04	30	
2-Nitroaniline	35.93	10	50	0	71.9	73-119	35.79	0.403	30	S
2-Nitrophenol	80	10	100	0	80	60-119	78.73	1.61	30	
3-Nitroaniline	33.49	10	50	0	67	61-118	33.51	0.0508	30	
4-Methylphenol	103.8	10	150	0	69.2	44-115	104.6	0.782	30	
4-Nitroaniline	38.92	10	50	0	77.8	61-123	38.19	1.89	30	
4-Nitrophenol	37.61	10	100	0	37.6	17-100	39.05	3.76	30	
Acenaphthene	38.27	10	50	0	76.5	68-115	37.48	2.09	30	
Acenaphthylene	37.32	10	50	0	74.6	67-116	37.09	0.603	30	
Anthracene	41.22	10	50	0	82.4	72-124	41.53	0.758	30	
Benz(a)anthracene	40.05	10	50	0	80.1	55-131	39.45	1.51	30	
Benzidine	8.98	10	50	0	18	10-115	8.518	0	30	J
Hexachloroethane	35.11	10	50	0	70.2	46-115	35.1	0.0473	30	
Indeno(1,2,3-cd)pyrene	39.09	10	50	0	78.2	42-123	37.47	4.23	30	
Isophorone	38.29	10	50	0	76.6	63-117	38.56	0.712	30	
N-Nitrosodi-n-propylamine	35.99	10	50	0	72	67-115	36.1	0.298	30	
N-Nitrosodimethylamine	29.02	10	50	0	58	28-115	27.89	3.97	30	
N-Nitrosodiphenylamine	43.29	10	50	0	86.6	72-144	42.59	1.61	30	
Naphthalene	37.09	10	50	0	74.2	52-115	37.2	0.287	30	
Nitrobenzene	36.61	10	50	0	73.2	65-115	36.81	0.562	30	
Pentachlorophenol	85.42	10	100	0	85.4	65-123	85.68	0.296	30	
Phenanthrene	38.96	10	50	0	77.9	69-119	39.01	0.146	30	
Phenol	42.4	10	100	0	42.4	16-115	42.34	0.133	30	
Pyrene	38.67	10	50	0	77.3	51-130	39.08	1.05	30	
Surr: 2,4,6-Tribromophenol	95.27	0	100	0	95.3	39-153	92.97	2.44	30	
Surr: 2-Fluorobiphenyl	74.14	0	100	0	74.1	40-147	74.45	0.41	30	
Surr: 2-Fluorophenol	62.83	0	100	0	62.8	21-100	62.37	0.742	30	
Surr:4-Terphenyl-d14	86.3	0	100	0	86.3	39-141	86.41	0.118	30	
Surr: Nitrobenzene-d5	73.27	0	100	0	73.3	37-140	73.33	0.0748	30	
Surr: Phenol-d6	44.03	0	100	0	44	11-100	44.07	0.103	30	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01E 0310031-02E 0310031-03E

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:59**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377268** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl acetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr: 1,2-Dichloroethane-d4	46.24	5.0	50	0	92.5	70-130	0			
Surr: 4-Bromofluorobenzene	46.45	5.0	50	0	92.9	70-130	0			
Surr: Dibromofluoromethane	47.97	5.0	50	0	95.9	70-130	0			
Surr: Toluene-d8	48.99	5.0	50	0	98	70-130	0			

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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:04**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377266** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.53	5.0	50	0	101	75-118	0			
1,1,2,2-Tetrachloroethane	48.81	5.0	50	0	97.6	79-120	0			
1,1,2-Trichloroethane	51.57	5.0	50	0	103	81-119	0			
1,1-Dichloroethane	50.05	5.0	50	0	100	80-120	0			
1,1-Dichloroethene	50	5.0	50	0	100	80-120	0			
1,2-Dichloroethane	50.47	5.0	50	0	101	80-120	0			
2-Butanone	109.5	10	100	0	110	70-130	0			
2-Chloroethyl vinyl ether	99.2	10	100	0	99.2	72-120	0			
2-Hexanone	81.33	10	100	0	81.3	70-130	0			
4-Methyl-2-pentanone	94.15	10	100	0	94.2	78-120	0			
Acetone	113.5	10	100	0	114	60-135	0			
Benzene	49.61	5.0	50	0	99.2	82-119	0			
Bromodichloromethane	51.17	5.0	50	0	102	81-119	0			
Bromoform	52.12	5.0	50	0	104	80-120	0			
Bromomethane	44.33	5.0	50	0	88.7	75-130	0			
Carbon disulfide	101.6	10	100	0	102	78-120	0			
Carbontetrachloride	50.25	5.0	50	0	101	77-120	0			
Chlorobenzene	49.6	5.0	50	0	99.2	82-118	0			
Chloroethane	51.18	5.0	50	0	102	78-122	0			
Chloroform	50.41	5.0	50	0	101	78-120	0			
Chloromethane	51.69	5.0	50	0	103	75-125	0			
cis-1,3-Dichloropropene	51.53	5.0	50	0	103	81-120	0			
Dibromochloromethane	50.6	5.0	50	0	101	81-118	0			
Ethylbenzene	50.26	5.0	50	0	101	82-120	0			
m,p-Xylene	99.75	10	100	0	99.8	82-122	0			
Methylene chloride	48.56	10	50	0	97.1	80-122	0			
Styrene	52.74	5.0	50	0	105	82-121	0			
Tetrachloroethene	49.66	5.0	50	0	99.3	79-118	0			
Toluene	50.41	5.0	50	0	101	81-119	0			
trans-1,3-Dichloropropene	53.19	5.0	50	0	106	82-121	0			
Trichloroethene	50.85	5.0	50	0	102	78-118	0			
Vinyl acetate	105.8	10	100	0	106	75-120	0			
Vinyl chloride	51.19	2.0	50	0	102	73-127	0			
Xylenes, Total	150.3	15	150	0	100	80-120	0			
Surr:1,2-Dichloroethane-d4	47.15	5.0	50	0	94.3	70-130	0			
Surr:4-Bromofluorobenzene	49.05	5.0	50	0	98.1	70-130	0			
Surr:Dibromofluoromethane	47.61	5.0	50	0	95.2	70-130	0			
Surr:Toluene-d8	48.83	5.0	50	0	97.7	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1008** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 12:31**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377267** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.87	5.0	50	0	104	75-118	50.53	2.63	20	
1,1,2,2-Tetrachloroethane	51.16	5.0	50	0	102	79-120	48.81	4.69	20	
1,1,2-Trichloroethane	52.3	5.0	50	0	105	81-119	51.57	1.4	20	
1,1-Dichloroethane	51.76	5.0	50	0	104	80-120	50.05	3.36	20	
1,1-Dichloroethene	51.73	5.0	50	0	103	80-120	50	3.4	20	
1,2-Dichloroethane	51.07	5.0	50	0	102	80-120	50.47	1.18	20	
2-Butanone	106.2	10	100	0	106	70-130	109.5	3.1	20	
2-Chloroethyl vinyl ether	102.9	10	100	0	103	72-120	99.2	3.7	20	
2-Hexanone	78.1	10	100	0	78.1	70-130	81.33	4.05	20	
4-Methyl-2-pentanone	97.56	10	100	0	97.6	78-120	94.15	3.56	20	
Acetone	113.8	10	100	0	114	60-135	113.5	0.213	20	
Benzene	51.09	5.0	50	0	102	82-119	49.61	2.94	20	
Bromodichloromethane	51.35	5.0	50	0	103	81-119	51.17	0.349	20	
Bromoform	53.78	5.0	50	0	108	80-120	52.12	3.13	20	
Bromomethane	44.91	5.0	50	0	89.8	75-130	44.33	1.29	20	
Carbon disulfide	104.7	10	100	0	105	78-120	101.6	3.01	20	
Carbontetrachloride	51.48	5.0	50	0	103	77-120	50.25	2.42	20	
Chlorobenzene	51.53	5.0	50	0	103	82-118	49.6	3.82	20	
Chloroethane	52.9	5.0	50	0	106	78-122	51.18	3.31	20	
Chloroform	51.26	5.0	50	0	103	78-120	50.41	1.66	20	
Chloromethane	53.56	5.0	50	0	107	75-125	51.69	3.55	20	
cis-1,3-Dichloropropene	52.58	5.0	50	0	105	81-120	51.53	2.02	20	
Dibromochloromethane	51.68	5.0	50	0	103	81-118	50.6	2.11	20	
Ethylbenzene	52.4	5.0	50	0	105	82-120	50.26	4.16	20	
m,p-Xylene	103.1	10	100	0	103	82-122	99.75	3.26	20	
Methylene chloride	49.54	10	50	0	99.1	80-122	48.56	2	20	
Styrene	53.62	5.0	50	0	107	82-121	52.74	1.66	20	
Tetrachloroethene	52.96	5.0	50	0	106	79-118	49.66	6.42	20	
Toluene	52.16	5.0	50	0	104	81-119	50.41	3.41	20	
trans-1,3-Dichloropropene	53.22	5.0	50	0	106	82-121	53.19	0.0504	20	
Trichloroethene	51.76	5.0	50	0	104	78-118	50.85	1.78	20	
Vinyl acetate	105.7	10	100	0	106	75-120	105.8	0.109	20	
Vinyl chloride	53.25	2.0	50	0	106	73-127	51.19	3.93	20	
Xylenes, Total	155.2	15	150	0	103	80-120	150.3	3.22	20	
Surr:1,2-Dichloroethane-d4	46.04	5.0	50	0	92.1	70-130	47.15	2.39	20	
Surr:4-Bromofluorobenzene	49.58	5.0	50	0	99.2	70-130	49.05	1.06	20	
Surr:Dibromofluoromethane	46.75	5.0	50	0	93.5	70-130	47.61	1.81	20	
Surr:Toluene-d8	49.23	5.0	50	0	98.5	70-130	48.83	0.812	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MS Sample ID: **0310083-03AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 14:21**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377271** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.17	5.0	50	0	96.3	75-125	0			
1,1,2,2-Tetrachloroethane	47.97	5.0	50	0	95.9	75-125	0			
1,1,2-Trichloroethane	50.31	5.0	50	0	101	75-125	0			
1,1-Dichloroethane	47.55	5.0	50	0	95.1	75-125	0			
1,1-Dichloroethene	45.93	5.0	50	0	91.9	65-130	0			
1,2-Dichloroethane	49.44	5.0	50	0	98.9	70-130	0			
2-Butanone	101.7	10	100	0	102	64-128	0			
2-Chloroethyl vinyl ether	13.31	10	100	0	13.3	75-125	0			S
2-Hexanone	73.29	10	100	0	73.3	72-124	0			
4-Methyl-2-pentanone	93.37	10	100	0	93.4	75-125	0			
Acetone	93.79	10	100	0	93.8	60-130	0			
Benzene	46.87	5.0	50	0	93.7	76-127	0			
Bromodichloromethane	49.16	5.0	50	0	98.3	75-125	0			
Bromoform	51.95	5.0	50	0	104	75-125	0			
Bromomethane	41.65	5.0	50	0	83.3	75-125	0			
Carbon disulfide	94.11	10	100	0	94.1	75-125	0			
Carbontetrachloride	47.51	5.0	50	0	95	70-130	0			
Chlorobenzene	48.48	5.0	50	0	97	75-126	0			
Chloroethane	46.15	5.0	50	0	92.3	70-130	0			
Chloroform	48.55	5.0	50	0	97.1	75-125	0			
Chloromethane	47.34	5.0	50	2.35	90	75-125	0			
cis-1,3-Dichloropropene	48.25	5.0	50	0	96.5	75-125	0			
Dibromochloromethane	50.44	5.0	50	0	101	75-125	0			
Ethylbenzene	48.82	5.0	50	0	97.6	75-125	0			
m,p-Xylene	96.5	10	100	0	96.5	75-125	0			
Methylene chloride	45.88	10	50	0	91.8	75-125	0			
Styrene	50.91	5.0	50	0	102	75-125	0			
Tetrachloroethene	48.09	5.0	50	0	96.2	75-125	0			
Toluene	48.03	5.0	50	0	96.1	76-125	0			
trans-1,3-Dichloropropene	51.06	5.0	50	0	102	70-130	0			
Trichloroethene	48.18	5.0	50	0	96.4	71-120	0			
Vinyl acetate	102	10	100	0	102	75-125	0			
Vinyl chloride	44.42	2.0	50	0	88.8	60-135	0			
Xylenes, Total	145.7	15	150	0	97.1	75-125	0			
Surr:1,2-Dichloroethane-d4	46.66	5.0	50	0	93.3	70-130	0			
Surr:4-Bromofluorobenzene	49.18	5.0	50	0	98.4	70-130	0			
Surr:Dibromofluoromethane	47.24	5.0	50	0	94.5	70-130	0			
Surr:Toluene-d8	47.55	5.0	50	0	95.1	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16564** InstrumentID: **VOA_I**

MSD Sample ID: **0310083-03AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/08/03 14:48**

Client ID: Run ID: **VOA_I_031008A** SeqNo: **377272** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.98	5.0	50	0	100	75-125	48.17	3.7	20	
1,1,2,2-Tetrachloroethane	50.02	5.0	50	0	100	75-125	47.97	4.18	20	
1,1,2-Trichloroethane	51.84	5.0	50	0	104	75-125	50.31	3.01	20	
1,1-Dichloroethane	49.59	5.0	50	0	99.2	75-125	47.55	4.2	20	
1,1-Dichloroethene	49.7	5.0	50	0	99.4	65-130	45.93	7.89	20	
1,2-Dichloroethane	50.79	5.0	50	0	102	70-130	49.44	2.7	20	
2-Butanone	102.2	10	100	0	102	64-128	101.7	0.48	20	
2-Chloroethyl vinyl ether	14.11	10	100	0	14.1	75-125	13.31	5.89	20	S
2-Hexanone	73.4	10	100	0	73.4	72-124	73.29	0.153	20	
4-Methyl-2-pentanone	96.05	10	100	0	96.1	75-125	93.37	2.83	20	
Acetone	95.33	10	100	0	95.3	60-130	93.79	1.64	20	
Benzene	49.85	5.0	50	0	99.7	76-127	46.87	6.15	20	
Bromodichloromethane	50.9	5.0	50	0	102	75-125	49.16	3.48	20	
Bromoform	54.79	5.0	50	0	110	75-125	51.95	5.32	20	
Bromomethane	43.92	5.0	50	0	87.8	75-125	41.65	5.32	20	
Carbon disulfide	99.92	10	100	0	99.9	75-125	94.11	6	20	
Carbontetrachloride	51.1	5.0	50	0	102	70-130	47.51	7.27	20	
Chlorobenzene	50.25	5.0	50	0	100	75-126	48.48	3.58	20	
Chloroethane	50.5	5.0	50	0	101	70-130	46.15	9	20	
Chloroform	50.03	5.0	50	0	100	75-125	48.55	2.99	20	
Chloromethane	53.29	5.0	50	2.35	102	75-125	47.34	11.8	20	
cis-1,3-Dichloropropene	50.49	5.0	50	0	101	75-125	48.25	4.54	20	
Dibromochloromethane	52.32	5.0	50	0	105	75-125	50.44	3.65	20	
Ethylbenzene	51.42	5.0	50	0	103	75-125	48.82	5.18	20	
m,p-Xylene	102	10	100	0	102	75-125	96.5	5.53	20	
Methylene chloride	47.76	10	50	0	95.5	75-125	45.88	4.03	20	
Styrene	52.59	5.0	50	0	105	75-125	50.91	3.25	20	
Tetrachloroethene	51	5.0	50	0	102	75-125	48.09	5.88	20	
Toluene	50.74	5.0	50	0	101	76-125	48.03	5.5	20	
trans-1,3-Dichloropropene	53.28	5.0	50	0	107	70-130	51.06	4.26	20	
Trichloroethene	51.25	5.0	50	0	103	71-120	48.18	6.19	20	
Vinyl acetate	107.6	10	100	0	108	75-125	102	5.27	20	
Vinyl chloride	49.83	2.0	50	0	99.7	60-135	44.42	11.5	20	
Xylenes, Total	153.4	15	150	0	102	75-125	145.7	5.18	20	
Surr:1,2-Dichloroethane-d4	45.87	5.0	50	0	91.7	70-130	46.66	1.72	20	
Surr:4-Bromofluorobenzene	49.21	5.0	50	0	98.4	70-130	49.18	0.0572	20	
Surr:Dibromofluoromethane	46.88	5.0	50	0	93.8	70-130	47.24	0.777	20	
Surr:Toluene-d8	48.9	5.0	50	0	97.8	70-130	47.55	2.8	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01A 0310031-02A 0310031-03A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 13:44**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377889** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
2-Butanone	ND	10								
2-Chloroethyl vinyl ether	ND	10								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Acetone	ND	10								
Benzene	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	10								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								
Ethylbenzene	ND	5.0								
m,p-Xylene	ND	10								
Methylene chloride	ND	10								
Styrene	ND	5.0								
Tetrachloroethene	ND	5.0								
Toluene	ND	5.0								
trans-1,3-Dichloropropene	ND	5.0								
Trichloroethene	ND	5.0								
Vinylacetate	ND	10								
Vinyl chloride	ND	2.0								
Xylenes, Total	ND	15								
Surr:1,2-Dichloroethane-d4	45.96	5.0	50	0	91.9	70-130		0		
Surr:4-Bromofluorobenzene	45.79	5.0	50	0	91.6	70-130		0		
Surr:Dibromofluoromethane	47.89	5.0	50	0	95.8	70-130		0		
Surr: Toluene-d8	48.4	5.0	50	0	96.8	70-130		0		

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J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

LCS Sample ID: **VLCSW-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 12:49**

Client ID: Run ID: **VOA_I_031009A** SeqNo: **377887** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.64	5.0	50	0	103	75-118	0			
1,1,2,2-Tetrachloroethane	48.57	5.0	50	0	97.1	79-120	0			
1,1,2-Trichloroethane	51.28	5.0	50	0	103	81-119	0			
1,1-Dichloroethane	53.63	5.0	50	0	107	80-120	0			
1,1-Dichloroethene	54.35	5.0	50	0	109	80-120	0			
1,2-Dichloroethane	50.43	5.0	50	0	101	80-120	0			
2-Butanone	111.4	10	100	0	111	70-130	0			
2-Chloroethyl vinyl ether	99.07	10	100	0	99.1	72-120	0			
2-Hexanone	74.9	10	100	0	74.9	70-130	0			
4-Methyl-2-pentanone	94.38	10	100	0	94.4	78-120	0			
Acetone	112.9	10	100	0	113	60-135	0			
Benzene	51.82	5.0	50	0	104	82-119	0			
Bromodichloromethane	50.5	5.0	50	0	101	81-119	0			
Bromoform	49.81	5.0	50	0	99.6	80-120	0			
Bromomethane	46.98	5.0	50	0	94	75-130	0			
Carbon disulfide	109.8	10	100	0	110	78-120	0			
Carbontetrachloride	49.71	5.0	50	0	99.4	77-120	0			
Chlorobenzene	49.39	5.0	50	0	98.8	82-118	0			
Chloroethane	54.8	5.0	50	0	110	78-122	0			
Chloroform	51.69	5.0	50	0	103	78-120	0			
Chloromethane	54.92	5.0	50	0	110	75-125	0			
cis-1,3-Dichloropropene	54	5.0	50	0	108	81-120	0			
Dibromochloromethane	48.9	5.0	50	0	97.8	81-118	0			
Ethylbenzene	51.07	5.0	50	0	102	82-120	0			
m,p-Xylene	99.26	10	100	0	99.3	82-122	0			
Methylene chloride	53.43	10	50	0	107	80-122	0			
Styrene	51.91	5.0	50	0	104	82-121	0			
Tetrachloroethene	50.06	5.0	50	0	100	79-118	0			
Toluene	50.78	5.0	50	0	102	81-119	0			
trans-1,3-Dichloropropene	53.23	5.0	50	0	106	82-121	0			
Trichloroethene	52.21	5.0	50	0	104	78-118	0			
Vinylacetate	111.5	10	100	0	111	75-120	0			
Vinyl chloride	54.61	2.0	50	0	109	73-127	0			
Xylenes, Total	149.2	15	150	0	99.5	80-120	0			
Surr:1,2-Dichloroethane-d4	45.43	5.0	50	0	90.9	70-130	0			
Surr:4-Bromofluorobenzene	47.91	5.0	50	0	95.8	70-130	0			
Surr: Dibromofluoromethane	48.17	5.0	50	0	96.3	70-130	0			
Surr: Toluene-d8	48.79	5.0	50	0	97.6	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1009** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 13:16**
Client ID: Run ID: **VOA_I_031009A** SeqNo: **377888** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.74	5.0	50	0	99.5	75-118	51.64	3.74	20	
1,1,2,2-Tetrachloroethane	49.23	5.0	50	0	98.5	79-120	48.57	1.35	20	
1,1,2-Trichloroethane	51.44	5.0	50	0	103	81-119	51.28	0.322	20	
1,1-Dichloroethane	52.56	5.0	50	0	105	80-120	53.63	2.01	20	
1,1-Dichloroethene	51.41	5.0	50	0	103	80-120	54.35	5.56	20	
1,2-Dichloroethane	49.71	5.0	50	0	99.4	80-120	50.43	1.43	20	
2-Butanone	113.8	10	100	0	114	70-130	111.4	2.1	20	
2-Chloroethyl vinyl ether	98.42	10	100	0	98.4	72-120	99.07	0.66	20	
2-Hexanone	77.4	10	100	0	77.4	70-130	74.9	3.28	20	
4-Methyl-2-pentanone	93.3	10	100	0	93.3	78-120	94.38	1.15	20	
Acetone	118.9	10	100	0	119	60-135	112.9	5.17	20	
Benzene	51.57	5.0	50	0	103	82-119	51.82	0.492	20	
Bromodichloromethane	49.8	5.0	50	0	99.6	81-119	50.5	1.38	20	
Bromoform	50.23	5.0	50	0	100	80-120	49.81	0.85	20	
Bromomethane	44.67	5.0	50	0	89.3	75-130	46.98	5.05	20	
Carbon disulfide	105.3	10	100	0	105	78-120	109.8	4.24	20	
Carbontetrachloride	48.26	5.0	50	0	96.5	77-120	49.71	2.97	20	
Chlorobenzene	49.46	5.0	50	0	98.9	82-118	49.39	0.133	20	
Chloroethane	53.79	5.0	50	0	108	78-122	54.8	1.85	20	
Chloroform	51.56	5.0	50	0	103	78-120	51.69	0.245	20	
Chloromethane	55	5.0	50	0	110	75-125	54.92	0.14	20	
cis-1,3-Dichloropropene	52.01	5.0	50	0	104	81-120	54	3.74	20	
Dibromochloromethane	48.83	5.0	50	0	97.7	81-118	48.9	0.147	20	
Ethylbenzene	50.81	5.0	50	0	102	82-120	51.07	0.51	20	
m,p-Xylene	99.49	10	100	0	99.5	82-122	99.26	0.229	20	
Methylene chloride	51.53	10	50	0	103	80-122	53.43	3.62	20	
Styrene	52.27	5.0	50	0	105	82-121	51.91	0.688	20	
Tetrachloroethene	49.19	5.0	50	0	98.4	79-118	50.06	1.76	20	
Toluene	50.44	5.0	50	0	101	81-119	50.78	0.674	20	
trans-1,3-Dichloropropene	53.89	5.0	50	0	108	82-121	53.23	1.24	20	
Trichloroethene	51.56	5.0	50	0	103	78-118	52.21	1.25	20	
Vinyl acetate	110.2	10	100	0	110	75-120	111.5	1.14	20	
Vinyl chloride	52.76	2.0	50	0	106	73-127	54.61	3.45	20	
Xylenes, Total	149.8	15	150	0	99.9	80-120	149.2	0.446	20	
Surr:1,2-Dichloroethane-d4	45.3	5.0	50	0	90.6	70-130	45.43	0.283	20	
Surr: 4-Bromofluorobenzene	48.34	5.0	50	0	96.7	70-130	47.91	0.88	20	
Surr: Dibromofluoromethane	48.55	5.0	50	0	97.1	70-130	48.17	0.781	20	
Surr: Toluene-d8	48.63	5.0	50	0	97.3	70-130	48.79	0.327	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MS Sample ID: **0310050-04AMS** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 16:00**
Client ID: Run ID: **VOA_I_031009A** SeqNo: **377890** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.04	5.0	50	0	98.1	75-125	0			
1,1,2,2-Tetrachloroethane	46.25	5.0	50	0	92.5	75-125	0			
1,1,2-Trichloroethane	47.83	5.0	50	0	95.7	75-125	0			
1,1-Dichloroethane	50.38	5.0	50	0	101	75-125	0			
1,1-Dichloroethene	50	5.0	50	0	100	65-130	0			
1,2-Dichloroethane	48.09	5.0	50	0	96.2	70-130	0			
2-Butanone	97.58	10	100	0	97.6	64-128	0			
2-Chloroethyl vinyl ether	13.27	10	100	0	13.3	75-125	0			S
2-Hexanone	66.62	10	100	0	66.6	72-124	0			S
4-Methyl-2-pentanone	86.05	10	100	0	86	75-125	0			
Acetone	88.73	10	100	0	88.7	60-130	0			
Benzene	49.37	5.0	50	0	98.7	76-127	0			
Bromodichloromethane	49.02	5.0	50	0	98	75-125	0			
Bromoform	48.67	5.0	50	0	97.3	75-125	0			
Bromomethane	41.07	5.0	50	0	82.1	75-125	0			
Carbon disulfide	103.3	10	100	0	103	75-125	0			
Carbontetrachloride	49.45	5.0	50	0	98.9	70-130	0			
Chlorobenzene	47.9	5.0	50	0	95.8	75-126	0			
Chloroethane	51.1	5.0	50	0	102	70-130	0			
Chloroform	49.33	5.0	50	0	98.7	75-125	0			
Chloromethane	49.6	5.0	50	0	99.2	75-125	0			
cis-1,3-Dichloropropene	49.67	5.0	50	0	99.3	75-125	0			
Dibromochloromethane	47.53	5.0	50	0	95.1	75-125	0			
Ethylbenzene	49.33	5.0	50	0	98.7	75-125	0			
m,p-Xylene	96.16	10	100	0	96.2	75-125	0			
Methylene chloride	49.69	10	50	0	99.4	75-125	0			
Styrene	49.34	5.0	50	0	98.7	75-125	0			
Tetrachloroethene	49.31	5.0	50	0	98.6	75-125	0			
Toluene	48.8	5.0	50	0	97.6	76-125	0			
trans-1,3-Dichloropropene	50.27	5.0	50	0	101	70-130	0			
Trichloroethene	62.63	5.0	50	8.123	109	71-120	0			
Vinyl acetate	103.8	10	100	0	104	75-125	0			
Vinyl chloride	50.53	2.0	50	0	101	60-135	0			
Xylenes, Total	144.9	15	150	0	96.6	75-125	0			
Surr:1,2-Dichloroethane-d4	45.4	5.0	50	0	90.8	70-130	0			
Surr:4-Bromofluorobenzene	46.79	5.0	50	0	93.6	70-130	0			
Surr:Dibromofluoromethane	46.91	5.0	50	0	93.8	70-130	0			
Surr: Toluene-d8	47.19	5.0	50	0	94.4	70-130	0			

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16596** InstrumentID: **VOA_I**

MSD Sample ID: **0310050-04AMSD** Test Code: **SW8260** Units: **µg/L** Analysis Date: **10/09/03 16:27**
Client ID: Run ID: **VOA_I_031009A** SeqNo: **377891** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	46.85	5.0	50	0	93.7	75-125	49.04	4.58	20	
1,1,2,2-Tetrachloroethane	48.67	5.0	50	0	97.3	75-125	46.25	5.11	20	
1,1,2-Trichloroethane	50.15	5.0	50	0	100	75-125	47.83	4.73	20	
1,1-Dichloroethane	47.5	5.0	50	0	95	75-125	50.38	5.87	20	
1,1-Dichloroethene	47.33	5.0	50	0	94.7	65-130	50	5.49	20	
1,2-Dichloroethane	46.47	5.0	50	0	92.9	70-130	48.09	3.42	20	
2-Butanone	95.8	10	100	0	95.8	64-128	97.58	1.84	20	
2-Chloroethyl vinyl ether	11.08	10	100	0	11.1	75-125	13.27	18	20	S
2-Hexanone	70.17	10	100	0	70.2	72-124	66.62	5.19	20	S
4-Methyl-2-pentanone	90.59	10	100	0	90.6	75-125	86.05	5.14	20	
Acetone	87.21	10	100	0	87.2	60-130	88.73	1.73	20	
Benzene	48.27	5.0	50	0	96.5	76-127	49.37	2.26	20	
Bromodichloromethane	47.25	5.0	50	0	94.5	75-125	49.02	3.68	20	
Bromoform	49.47	5.0	50	0	98.9	75-125	48.67	1.63	20	
Bromomethane	41.07	5.0	50	0	82.1	75-125	41.07	0.00115	20	
Carbon disulfide	97.55	10	100	0	97.5	75-125	103.3	5.7	20	
Carbon tetrachloride	47.72	5.0	50	0	95.4	70-130	49.45	3.57	20	
Chlorobenzene	47.78	5.0	50	0	95.6	75-126	47.9	0.251	20	
Chloroethane	50.23	5.0	50	0	100	70-130	51.1	1.72	20	
Chloroform	47.46	5.0	50	0	94.9	75-125	49.33	3.87	20	
Chloromethane	47.94	5.0	50	0	95.9	75-125	49.6	3.4	20	
cis-1,3-Dichloropropene	48.34	5.0	50	0	96.7	75-125	49.67	2.71	20	
Dibromochloromethane	48.11	5.0	50	0	96.2	75-125	47.53	1.21	20	
Ethylbenzene	49.5	5.0	50	0	99	75-125	49.33	0.333	20	
m,p-Xylene	96.99	10	100	0	97	75-125	96.16	0.858	20	
Methylene chloride	46.06	10	50	0	92.1	75-125	49.69	7.58	20	
Styrene	50.13	5.0	50	0	100	75-125	49.34	1.6	20	
Tetrachloroethene	49.71	5.0	50	0	99.4	75-125	49.31	0.806	20	
Toluene	49.77	5.0	50	0	99.5	76-125	48.8	1.97	20	
trans-1,3-Dichloropropene	49.93	5.0	50	0	99.9	70-130	50.27	0.666	20	
Trichloroethene	68.95	5.0	50	8.123	122	71-120	62.63	9.61	20	S
Vinyl acetate	100.4	10	100	0	100	75-125	103.8	3.4	20	
Vinyl chloride	48.45	2.0	50	0	96.9	60-135	50.53	4.2	20	
Xylenes, Total	146	15	150	0	97.3	75-125	144.9	0.797	20	
Surr: 1,2-Dichloroethane-d4	43.17	5.0	50	0	86.3	70-130	45.4	5.04	20	
Surr: 4-Bromofluorobenzene	48.9	5.0	50	0	97.8	70-130	46.79	4.41	20	
Surr: Dibromofluoromethane	45.98	5.0	50	0	92	70-130	46.91	1.99	20	
Surr: Toluene-d8	49.1	5.0	50	0	98.2	70-130	47.19	3.97	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01A

ND - Not Detected at the Reporting Limit
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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16466** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-100203** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 12:15**
Client ID: Run ID: **IC201_031002A** SeqNo: **374996** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-100203** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 12:48**
Client ID: Run ID: **IC201_031002A** SeqNo: **374997** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.9	0.50	10	0	99	80-120	0			
Fluoride	1.9	0.10	2	0	95	80-120	0			
Sulfate	10.42	1.0	10	0	104	80-120	0			
Surr: Dichloroacetic acid (surr)	2.03	0.10	2	0	101	80-120	0			

LCSD Sample ID: **WLCSDW1-10020** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 13:20**
Client ID: Run ID: **IC201_031002A** SeqNo: **374998** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.18	0.50	10	0	102	80-120	9.9	2.79	20	
Fluoride	2.04	0.10	2	0	102	80-120	1.9	7.11	20	
Sulfate	10.64	1.0	10	0	106	80-120	10.42	2.09	20	
Surr: Dichloroacetic acid (surr)	2.17	0.10	2	0	108	80-120	2.03	6.67	20	

MS Sample ID: **0310016-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 14:58**
Client ID: Run ID: **IC201_031002A** SeqNo: **375001** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	214	0.50	10	207.2	68.3	75-125	0			SEO
Fluoride	2.21	0.10	2	0.66	77.5	75-125	0			
Sulfate	12.11	1.0	10	3.78	83.3	75-125	0			
Nitrate/Nitrite (as N)	3.41	0.10	4	0	85.2	75-125	0			
Surr: Dichloroacetic acid (surr)	3.64	0.10	5	0	72.8	80-120	0			S

ND - Not Detected at the Reporting Limit
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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16466** InstrumentID: **IC201**

MSD Sample ID: **0310016-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 15:30**
Client ID: Run ID: **IC201_031002A** SeqNo: **375002** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	214	0.50	10	207.2	68.5	75-125	214	0.00934	20	SEO
Fluoride	2.24	0.10	2	0.66	79	75-125	2.21	1.35	20	
Sulfate	13.68	1.0	10	3.78	99	75-125	12.11	12.2	20	
Nitrate/Nitrite (as N)	3.36	0.10	4	0	84	75-125	3.41	1.48	20	
Surr: Dichloroacetic acid (surr)	3.6	0.10	5	0	72	80-120	3.64	1.1	20	S

DUP Sample ID: **0310016-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 14:25**
Client ID: Run ID: **IC201_031002A** SeqNo: **375000** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	206.8	0.50	0	0	0	0-0	207.2	0.174	20	E
Fluoride	0.66	0.10	0	0	0	0-0	0.66	0	20	
Sulfate	3.81	1.0	0	0	0	0-0	3.78	0.791	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.1	0.10	5	0	82	80-120	4.05	1.23	20	

DUP Sample ID: **0310016-09CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/02/03 21:28**
Client ID: Run ID: **IC201_031002A** SeqNo: **375013** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	17.53	0.50	0	0	0	0-0	17.59	0.342	20	
Fluoride	0.91	0.10	0	0	0	0-0	0.92	1.09	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.22	0.10	5	0	84.4	80-120	4.31	2.11	20	

DUP Sample ID: **0310018-03ADUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 1:48**
Client ID: Run ID: **IC201_031002A** SeqNo: **375019** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	334.7	0.50	0	0	0	0-0	334.7	0.00598	20	E
Fluoride	0.28	0.10	0	0	0	0-0	0.32	13.3	20	
Sulfate	154.3	1.0	0	0	0	0-0	154.5	0.136	20	E
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	4.8	13	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01B 0310031-02B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
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CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16507** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-100603** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376045** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020								

LCS Sample ID: **WLCSW1-100603** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376046** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2013	0.020	0.2	0	101	80-120	0			

MS Sample ID: **0309293-01CMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376061** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.202	0.020	0.2	0.002	100	75-125	0			

MSD Sample ID: **0309293-01CMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376062** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2069	0.020	0.2	0.002	102	75-125	0.202	2.4	25	

DUP Sample ID: **0309293-01C DUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **10/06/03 0:00**
Client ID: Run ID: **UV-2101PC_031006A** SeqNo: **376060** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	ND	0.020	0	0	0	0-0	0.002	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01D 0310031-02D 0310031-03D

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16517** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-100302** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 17:39**
Client ID: Run ID: **IC201_031003A** SeqNo: **376367** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50								
Fluoride	ND	0.10								
Sulfate	ND	1.0								
Nitrate/Nitrite (as N)	ND	0.10								
Surr: Dichloroacetic acid (surr)	ND	0.10								

LCS Sample ID: **WLCSW1-100302** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 18:12**
Client ID: Run ID: **IC201_031003A** SeqNo: **376368** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.89	0.50	10	0	98.9	80-120	0			
Fluoride	2	0.10	2	0	100	80-120	0			
Sulfate	10.52	1.0	10	0	105	80-120	0			
Surr: Dichloroacetic acid (surr)	2.15	0.10	2	0	108	80-120	0			

LCSD Sample ID: **WLCSDW1-10030** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 18:44**
Client ID: Run ID: **IC201_031003A** SeqNo: **376369** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.94	0.50	10	0	99.4	80-120	9.89	0.504	20	
Fluoride	1.99	0.10	2	0	99.5	80-120	2	0.501	20	
Sulfate	10.56	1.0	10	0	106	80-120	10.52	0.38	20	
Surr: Dichloroacetic acid (surr)	2.11	0.10	2	0	106	80-120	2.15	1.88	20	

MS Sample ID: **0309267-01CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 20:22**
Client ID: Run ID: **IC201_031003A** SeqNo: **376372** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	57.38	0.50	10	47.03	103	75-125	0			EO
Fluoride	2.47	0.10	2	0.54	96.5	75-125	0			
Sulfate	182	1.0	10	171.3	107	75-125	0			EO
Nitrate/Nitrite (as N)	7.91	0.10	4	4.11	95	75-125	0			
Surr: Dichloroacetic acid (surr)	4.88	0.10	5	0	97.6	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16517** InstrumentID: **IC201**

MSD Sample ID: **0309267-01CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 20:54**
Client ID: Run ID: **IC201_031003A** SeqNo: **376373** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	58.04	0.50	10	47.03	110	75-125	57.38	1.14	20	EO
Fluoride	2.47	0.10	2	0.54	96.5	75-125	2.47	0	20	
Sulfate	180.2	1.0	10	171.3	89.5	75-125	182	0.955	20	EO
Nitrate/Nitrite (as N)	7.96	0.10	4	4.11	96.2	75-125	7.91	0.63	20	
Surr: Dichloroacetic acid (surr)	5.14	0.10	5	0	103	80-120	4.88	5.19	20	

DUP Sample ID: **0309267-01CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/03/03 19:49**
Client ID: Run ID: **IC201_031003A** SeqNo: **376371** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	46.25	0.50	0	0	0	0-0	47.03	1.67	20	
Fluoride	0.65	0.10	0	0	0	0-0	0.54	18.5	20	
Sulfate	171.6	1.0	0	0	0	0-0	171.3	0.198	20	E
Nitrate/Nitrite (as N)	4.06	0.10	0	0	0	0-0	4.11	1.22	20	
Surr: Dichloroacetic acid (surr)	5.63	0.10	5	0	113	80-120	5.62	0.178	20	

DUP Sample ID: **0310016-07CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/04/03 6:07**
Client ID: Run ID: **IC201_031003A** SeqNo: **376394** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	88.6	5.0	0	0	0	0-0	88.7	0.113	20	
Fluoride	2.4	1.0	0	0	0	0-0	0	200	20	R
Sulfate	257.9	10	0	0	0	0-0	257.9	0	20	
Nitrate/Nitrite (as N)	3.4	1.0	0	0	0	0-0	3.3	2.99	20	
Surr: Dichloroacetic acid (surr)	50	1.0	50	0	100	80-120	53	5.83	20	

DUP Sample ID: **0310018-03ADUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/04/03 9:55**
Client ID: Run ID: **IC201_031003A** SeqNo: **376399** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	302.6	2.5	0	0	0	0-0	299.4	1.06	20	E
Fluoride	ND	0.50	0	0	0	0-0	0	0	20	
Sulfate	134.8	5.0	0	0	0	0-0	132.9	1.46	20	
Nitrate/Nitrite (as N)	ND	0.50	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	26.85	0.50	25	0	107	80-120	27	0.557	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01B 0310031-02B 0310031-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16533** InstrumentID: **WetChemistry**

MBLK Sample ID: **WMBW1-100703** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376751** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0								
Alkalinity, Carbonate (As CaCO3)	ND	5.0								
Alkalinity, Hydroxide (As CaCO3)	ND	5.0								
Alkalinity, Total (As CaCO3)	ND	5.0								

LCS Sample ID: **WLCSW1-100703** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376752** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0309293-03D DUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **10/07/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0310** SeqNo: **376766** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	175	5.0	0	0	0	0-0	180	2.82	20	
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	175	5.0	0	0	0	0-0	180	2.82	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-01B 0310031-02B 0310031-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

LCS Sample ID: **WLCSW-100703** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:05**
Client ID: Run ID: **IC201_031007A** SeqNo: **377111** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.88	0.50	10	0	98.8	80-120	0			
Fluoride	2.01	0.10	2	0	100	80-120	0			
Sulfate	10.63	1.0	10	0	106	80-120	0			
Surr: Dichloroacetic acid (surr)	2.14	0.10	2	0	107	80-120	0			

LCSD Sample ID: **WLCSDW1-10070** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 9:38**
Client ID: Run ID: **IC201_031007A** SeqNo: **377112** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10	0.50	10	0	100	80-120	9.88	1.21	20	
Fluoride	1.96	0.10	2	0	98	80-120	2.01	2.52	20	
Sulfate	10.67	1.0	10	0	107	80-120	10.63	0.376	20	
Surr: Dichloroacetic acid (surr)	2.17	0.10	2	0	108	80-120	2.14	1.39	20	

MS Sample ID: **0310040-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 18:27**
Client ID: Run ID: **IC201_031007A** SeqNo: **377085** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.46	0.50	10	0	94.6	75-125	0			
Fluoride	1.94	0.10	2	0	97	75-125	0			
Sulfate	10.31	1.0	10	0	103	75-125	0			
Nitrate/Nitrite (as N)	3.94	0.10	4	0	98.5	75-125	0			
Surr: Dichloroacetic acid (surr)	4.4	0.10	5	0	88	80-120	0			

MSD Sample ID: **0310040-02BMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 19:00**
Client ID: Run ID: **IC201_031007A** SeqNo: **377086** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.72	0.50	10	0	97.2	75-125	9.46	2.71	20	
Fluoride	1.95	0.10	2	0	97.5	75-125	1.94	0.514	20	
Sulfate	10.49	1.0	10	0	105	75-125	10.31	1.73	20	
Nitrate/Nitrite (as N)	4.03	0.10	4	0	101	75-125	3.94	2.26	20	
Surr: Dichloroacetic acid (surr)	4.97	0.10	5	0	99.4	80-120	4.4	12.2	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0310031
Project: Annual

QC BATCH REPORT

Batch ID: **R16550** InstrumentID: **IC201**

DUP Sample ID: **0310040-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/07/03 17:55**
Client ID: Run ID: **IC201_031007A** SeqNo: **377084** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.50	0	0	0	0-0	0	0	20	
Fluoride	ND	0.10	0	0	0	0-0	0	0	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Nitrate/Nitrite (as N)	ND	0.10	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	5.3	0.10	5	0	106	80-120	5.45	2.79	20	

DUP Sample ID: **0310072-01DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/08/03 4:12**
Client ID: Run ID: **IC201_031007A** SeqNo: **377107** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	729.8	0.50	0	0	0	0-0	737.1	0.998	20	E
Fluoride	0.63	0.10	0	0	0	0-0	0.62	1.6	20	
Sulfate	440.4	1.0	0	0	0	0-0	440.4	0.00908	20	E
Nitrate/Nitrite (as N)	0.39	0.10	0	0	0	0-0	0.39	0	20	
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	5.15	6.03	20	

Thefollowingsampleswereanalyzedinthisbatch: 0310031-03B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page 1 of 1

e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

B10031

e-Lab Project Manager: | e-Lab Work Order #: 10/2/03

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Annual	A	Annual
Work Order		Project Number		B	
Company Name	Navajo Refining Company	Bill To Company	Navajo Refining Company	C	
Send Report To	Jeff Byrd	Invoice Attn	Jeff Byrd	D	
Address	P.O. Box 159	Address	P.O. Box 159	E	
				F	
City/State/Zip	Artesia, NM 88211	City/State/Zip	Artesia, NM 88211	G	
Phone	505-748-3311	Phone	505-748-3311	H	
Fax	505-746-5421	Fax	505-746-5421	I	
e-Mail Address				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	KWB-2R	9/30/03	1315	L	Y	8	X										
2	KWB-3R	"	1400	"	"	"	X										
3	KWB-10	"	1430	"	"	"	X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: [signature]

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
[signature]	10/1/03	1615	[signature]	
Relinquished by:	Date:	Time:	Received by (Laboratory): 10/2/03 08:35	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

e-Lab Cooler ID	Cooler Temp.

QC Package: (Check Box Below)

- ☐ Level II: Standard QC
- ☐ Level III: Standard QC + Raw Data
- ☐ Level IV: SW846 Methods/CLP
- ☐ Other:

Preservative Key: 1- HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

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Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 10/2/2003 8:35:00 AM

Work Order Number 0310831

Received by: RNG

Checklist completed by [signature] 10/2/03 (Signature / Date)

Reviewed by JT 10/3/03 (Initials / Date)

Matrix: L

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4c	003	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

W.O.# 0B10031.

NAVAJO REFINING COMPANY
501 E MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 01CT2003
ACCOUNT # 1868186
ACTUAL WGT: 75.00 LBS

Part # 156148-434 NRI

TO:

E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77099

2815305656

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

THU
DELIVER BY
020CT200

System # 2223500 010CT2003
TRK# 7909 1872 4846 Form 0201

IAH

77099-TX-US A9 JGQA

OSUS v5.2.00 2223500 2844 04/02

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: May 6, 2003

Work Order: 3042812

Project Location: Artesia,NM
Project Number: Quarterly Offsite

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
6299	RA 3156	water	2003-04-25	13:00	2003-04-28
6300	MW-45	water	2003-04-24	10:00	2003-04-28
6301	MW-29	water	2003-04-25	10:30	2003-04-28
6302	KWB-13	water	2003-04-25	14:45	2003-04-28

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 6299 - RA 3156

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<1.00		µg/L	1	1.00
Dichlorodifluoromethane		<1.00		µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00		µg/L	1	1.00
Vinyl Chloride		<1.00		µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00		µg/L	1	5.00
Chloroethane		<1.00		µg/L	1	1.00
Trichlorofluoromethane		<1.00		µg/L	1	1.00
Acetone		<10.0		µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00		µg/L	1	5.00
Carbon Disulfide		<1.00		µg/L	1	1.00
Acrylonitrile		<1.00		µg/L	1	1.00
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00

continued ...

sample 6299 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.4	µg/L	1	50.0	103	70 - 130
Toluene-d8		50.1	µg/L	1	50.0	100	70 - 130
4-Bromofluorobenzene (4-BFB)		43.1	µg/L	1	50.0	86	70 - 130

Sample: 6300 - MW-45

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1371	Date Analyzed:	2003-05-01	Analyzed By:	JG
Prep Batch:	1226	Date Prepared:	2003-05-01	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		1.19	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00

continued ...

sample 6300 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
MTBE		6.20		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.8	µg/L	1	50.0	110	70 - 130
Toluene-d8		51.1	µg/L	1	50.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)		43.9	µg/L	1	50.0	88	70 - 130

Sample: 6301 - MW-29

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1371	Date Analyzed:	2003-05-01	Analyzed By:	JG
Prep Batch:	1226	Date Prepared:	2003-05-01	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Bromochloromethane		<5.00	µg/L	5	1.00
Dichlorodifluoromethane		<5.00	µg/L	5	1.00
Chloromethane (methyl chloride)		<5.00	µg/L	5	1.00
Vinyl Chloride		<5.00	µg/L	5	1.00
Bromomethane (methyl bromide)		<25.0	µg/L	5	5.00
Chloroethane		<5.00	µg/L	5	1.00
Trichlorofluoromethane		<5.00	µg/L	5	1.00
Acetone		<50.0	µg/L	5	10.0
Iodomethane (methyl iodide)		<25.0	µg/L	5	5.00
Carbon Disulfide		5.80	µg/L	5	1.00
Acrylonitrile		<5.00	µg/L	5	1.00
2-Butanone (MEK)		<25.0	µg/L	5	5.00
4-Methyl-2-pentanone (MIBK)		<25.0	µg/L	5	5.00
2-Hexanone		<25.0	µg/L	5	5.00
trans 1,4-Dichloro-2-butene		<50.0	µg/L	5	10.0
1,1-Dichloroethene		<5.00	µg/L	5	1.00
Methylene chloride		<25.0	µg/L	5	5.00
MTBE		<5.00	µg/L	5	1.00
trans-1,2-Dichloroethene		<5.00	µg/L	5	1.00
1,1-Dichloroethane		<5.00	µg/L	5	1.00
cis-1,2-Dichloroethene		<5.00	µg/L	5	1.00
2,2-Dichloropropane		<5.00	µg/L	5	1.00
1,2-Dichloroethane (EDC)		<5.00	µg/L	5	1.00
Chloroform		<5.00	µg/L	5	1.00
1,1,1-Trichloroethane		<5.00	µg/L	5	1.00
1,1-Dichloropropene		<5.00	µg/L	5	1.00
Benzene		<5.00	µg/L	5	1.00
Carbon Tetrachloride		<5.00	µg/L	5	1.00
1,2-Dichloropropane		<5.00	µg/L	5	1.00
Trichloroethene (TCE)		<5.00	µg/L	5	1.00
Dibromomethane (methylene bromide)		<5.00	µg/L	5	1.00
Bromodichloromethane		<5.00	µg/L	5	1.00
2-Chloroethyl vinyl ether		<25.0	µg/L	5	5.00
cis-1,3-Dichloropropene		<5.00	µg/L	5	1.00
trans-1,3-Dichloropropene		<5.00	µg/L	5	1.00
Toluene		<5.00	µg/L	5	1.00
1,1,2-Trichloroethane		<5.00	µg/L	5	1.00
1,3-Dichloropropane		<5.00	µg/L	5	1.00
Dibromochloromethane		<5.00	µg/L	5	1.00
1,2-Dibromoethane (EDB)		<5.00	µg/L	5	1.00
Tetrachloroethene (PCE)		<5.00	µg/L	5	1.00

continued ...

sample 6301 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Chlorobenzene		<5.00	µg/L	5	1.00
1,1,1,2-Tetrachloroethane		<5.00	µg/L	5	1.00
Ethylbenzene		<5.00	µg/L	5	1.00
m,p-Xylene		<5.00	µg/L	5	1.00
Bromoform		<5.00	µg/L	5	1.00
Styrene		<5.00	µg/L	5	1.00
o-Xylene		<5.00	µg/L	5	1.00
1,1,2,2-Tetrachloroethane		<5.00	µg/L	5	1.00
2-Chlorotoluene		<5.00	µg/L	5	1.00
1,2,3-Trichloropropane		<5.00	µg/L	5	1.00
Isopropylbenzene		8.45	µg/L	5	1.00
Bromobenzene		<5.00	µg/L	5	1.00
n-Propylbenzene		<5.00	µg/L	5	1.00
1,3,5-Trimethylbenzene		<5.00	µg/L	5	1.00
tert-Butylbenzene		<5.00	µg/L	5	1.00
1,2,4-Trimethylbenzene		<5.00	µg/L	5	1.00
1,4-Dichlorobenzene (para)		<5.00	µg/L	5	1.00
sec-Butylbenzene		<5.00	µg/L	5	1.00
1,3-Dichlorobenzene (meta)		<5.00	µg/L	5	1.00
p-Isopropyltoluene		<5.00	µg/L	5	1.00
4-Chlorotoluene		<5.00	µg/L	5	1.00
1,2-Dichlorobenzene (ortho)		<5.00	µg/L	5	1.00
n-Butylbenzene		<5.00	µg/L	5	1.00
1,2-Dibromo-3-chloropropane		<25.0	µg/L	5	5.00
1,2,3-Trichlorobenzene		<25.0	µg/L	5	5.00
1,2,4-Trichlorobenzene		<25.0	µg/L	5	5.00
Naphthalene		<25.0	µg/L	5	5.00
Hexachlorobutadiene		<25.0	µg/L	5	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.2	µg/L	1	50.0	108	70 - 130
Toluene-d8		51.1	µg/L	1	50.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)		42.9	µg/L	1	50.0	86	70 - 130

Sample: 6302 - KWB-13

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00

continued ...

sample 6302 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00

continued ...

sample 6302 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.7	µg/L	1	50.0	103	70 - 130
Toluene-d8		50	µg/L	1	50.0	100	70 - 130
4-Bromofluorobenzene (4-BFB)		43.2	µg/L	1	50.0	86	70 - 130

Method Blank (1) QC Batch: 1370

Parameter	Flag	Result	Units	MDL
Bromochloromethane		<0.177	µg/L	0.177
Dichlorodifluoromethane		<0.208	µg/L	0.208
Chloromethane (methyl chloride)		<0.134	µg/L	0.134
Vinyl Chloride		<0.135	µg/L	0.135
Bromomethane (methyl bromide)		<1.23	µg/L	1.227
Chloroethane		<0.182	µg/L	0.182
Trichlorofluoromethane		<0.0610	µg/L	0.061
Acetone		<5.50	µg/L	5.497
Iodomethane (methyl iodide)		<0.107	µg/L	0.107
Carbon Disulfide		<0.0360	µg/L	0.036
Acrylonitrile		<0.0970	µg/L	0.097
2-Butanone (MEK)		<0.531	µg/L	0.531
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	0.421
2-Hexanone		<0.168	µg/L	0.168
trans 1,4-Dichloro-2-butene		<0.517	µg/L	0.517
1,1-Dichloroethene		<0.136	µg/L	0.136
Methylene chloride		<0.649	µg/L	0.649
MTBE		<0.123	µg/L	0.123
trans-1,2-Dichloroethene		<0.126	µg/L	0.126
1,1-Dichloroethane		<0.0600	µg/L	0.06
cis-1,2-Dichloroethene		<0.151	µg/L	0.151
2,2-Dichloropropane		<0.180	µg/L	0.18
1,2-Dichloroethane (EDC)		<0.113	µg/L	0.113
Chloroform		<0.141	µg/L	0.141
1,1,1-Trichloroethane		<0.116	µg/L	0.116
1,1-Dichloropropene		<0.0540	µg/L	0.054
Benzene		<0.146	µg/L	0.146
Carbon Tetrachloride		<0.0790	µg/L	0.079
1,2-Dichloropropane		<0.111	µg/L	0.111
Trichloroethene (TCE)		0.120	µg/L	0.117
Dibromomethane (methylene bromide)		<0.140	µg/L	0.14
Bromodichloromethane		<0.161	µg/L	0.161
2-Chloroethyl vinyl ether		<0.388	µg/L	0.388

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
cis-1,3-Dichloropropene		<0.0890	µg/L	0.089
trans-1,3-Dichloropropene		<0.0760	µg/L	0.076
Toluene		0.150	µg/L	0.06
1,1,2-Trichloroethane		<0.135	µg/L	0.135
1,3-Dichloropropane		<0.0990	µg/L	0.099
Dibromochloromethane		<0.0900	µg/L	0.09
1,2-Dibromoethane (EDB)		<0.0700	µg/L	0.07
Tetrachloroethene (PCE)		<0.270	µg/L	0.27
Chlorobenzene		<0.0540	µg/L	0.054
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	0.099
Ethylbenzene		<0.0360	µg/L	0.036
m,p-Xylene		<0.0940	µg/L	0.094
Bromoform		<0.0570	µg/L	0.057
Styrene		<0.0910	µg/L	0.091
o-Xylene		<0.0960	µg/L	0.096
1,1,2,2-Tetrachloroethane		<0.125	µg/L	0.125
2-Chlorotoluene		<0.0570	µg/L	0.057
1,2,3-Trichloropropane		<0.458	µg/L	0.458
Isopropylbenzene		<0.0850	µg/L	0.085
Bromobenzene		<0.106	µg/L	0.106
n-Propylbenzene		<0.0590	µg/L	0.059
1,3,5-Trimethylbenzene		<0.0250	µg/L	0.025
tert-Butylbenzene		<0.107	µg/L	0.107
1,2,4-Trimethylbenzene		<0.0990	µg/L	0.099
1,4-Dichlorobenzene (para)		<0.217	µg/L	0.217
sec-Butylbenzene		<0.0430	µg/L	0.043
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	0.069
p-Isopropyltoluene		<0.106	µg/L	0.106
4-Chlorotoluene		<0.0940	µg/L	0.094
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	0.1
n-Butylbenzene		<0.0850	µg/L	0.085
1,2-Dibromo-3-chloropropane		<0.690	µg/L	0.69
1,2,3-Trichlorobenzene		<0.135	µg/L	0.135
1,2,4-Trichlorobenzene		<0.155	µg/L	0.155
Naphthalene		<0.594	µg/L	0.594
Hexachlorobutadiene		<0.248	µg/L	0.248

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.4	µg/L	1	50.0	103	70 - 130
Toluene-d8		51.3	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		43.9	µg/L	1	50.0	88	70 - 130

Method Blank (1) QC Batch: 1371

Parameter	Flag	Result	Units	MDL
Bromochloromethane		<0.177	µg/L	0.177
Dichlorodifluoromethane		<0.208	µg/L	0.208
Chloromethane (methyl chloride)		<0.134	µg/L	0.134
Vinyl Chloride		<0.135	µg/L	0.135

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
Bromomethane (methyl bromide)		<1.23	µg/L	1.227
Chloroethane		<0.182	µg/L	0.182
Trichlorofluoromethane		<0.0610	µg/L	0.061
Acetone		<5.50	µg/L	5.497
Iodomethane (methyl iodide)		<0.107	µg/L	0.107
Carbon Disulfide		<0.0360	µg/L	0.036
Acrylonitrile		<0.0970	µg/L	0.097
2-Butanone (MEK)		<0.531	µg/L	0.531
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	0.421
2-Hexanone		<0.168	µg/L	0.168
trans 1,4-Dichloro-2-butene		<0.517	µg/L	0.517
1,1-Dichloroethene		<0.136	µg/L	0.136
Methylene chloride		<0.649	µg/L	0.649
MTBE		<0.123	µg/L	0.123
trans-1,2-Dichloroethene		<0.126	µg/L	0.126
1,1-Dichloroethane		<0.0600	µg/L	0.06
cis-1,2-Dichloroethene		<0.151	µg/L	0.151
2,2-Dichloropropane		<0.180	µg/L	0.18
1,2-Dichloroethane (EDC)		<0.113	µg/L	0.113
Chloroform		<0.141	µg/L	0.141
1,1,1-Trichloroethane		<0.116	µg/L	0.116
1,1-Dichloropropene		<0.0540	µg/L	0.054
Benzene		<0.146	µg/L	0.146
Carbon Tetrachloride		<0.0790	µg/L	0.079
1,2-Dichloropropane		<0.111	µg/L	0.111
Trichloroethene (TCE)		0.120	µg/L	0.117
Dibromomethane (methylene bromide)		<0.140	µg/L	0.14
Bromodichloromethane		<0.161	µg/L	0.161
2-Chloroethyl vinyl ether		<0.388	µg/L	0.388
cis-1,3-Dichloropropene		<0.0890	µg/L	0.089
trans-1,3-Dichloropropene		<0.0760	µg/L	0.076
Toluene		0.160	µg/L	0.06
1,1,2-Trichloroethane		<0.135	µg/L	0.135
1,3-Dichloropropane		<0.0990	µg/L	0.099
Dibromochloromethane		<0.0900	µg/L	0.09
1,2-Dibromoethane (EDB)		<0.0700	µg/L	0.07
Tetrachloroethene (PCE)		<0.270	µg/L	0.27
Chlorobenzene		<0.0540	µg/L	0.054
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	0.099
Ethylbenzene		<0.0360	µg/L	0.036
m,p-Xylene		<0.0940	µg/L	0.094
Bromoform		<0.0570	µg/L	0.057
Styrene		<0.0910	µg/L	0.091
o-Xylene		<0.0960	µg/L	0.096
1,1,2,2-Tetrachloroethane		<0.125	µg/L	0.125
2-Chlorotoluene		<0.0570	µg/L	0.057
1,2,3-Trichloropropane		<0.458	µg/L	0.458
Isopropylbenzene		<0 0850	µg/L	0.085
Bromobenzene		<0.106	µg/L	0.106
n-Propylbenzene		<0.0590	µg/L	0.059
1,3,5-Trimethylbenzene		<0.0250	µg/L	0.025
tert-Butylbenzene		<0.107	µg/L	0.107
1,2,4-Trimethylbenzene		<0.0990	µg/L	0.099

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
1,4-Dichlorobenzene (para)		<0.217	µg/L	0.217
sec-Butylbenzene		<0.0430	µg/L	0.043
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	0.069
p-Isopropyltoluene		<0.106	µg/L	0.106
4-Chlorotoluene		<0.0940	µg/L	0.094
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	0.1
n-Butylbenzene		<0.0850	µg/L	0.085
1,2-Dibromo-3-chloropropane		<0.690	µg/L	0.69
1,2,3-Trichlorobenzene		<0.135	µg/L	0.135
1,2,4-Trichlorobenzene		<0.155	µg/L	0.155
Naphthalene		<0.594	µg/L	0.594
Hexachlorobutadiene		<0.248	µg/L	0.248

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.2	µg/L	1	50.0	106	70 - 130
Toluene-d8		51.7	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		43.2	µg/L	1	50.0	86	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1370

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	96.5	96.3	µg/L	1	100	<0.136	96	0	84 - 124	20
Benzene	100	99.4	µg/L	1	100	<0.146	100	1	87 - 112	20
Trichloroethene (TCE)	89.7	90.1	µg/L	1	100	<0.117	90	0	81 - 105	20
Toluene	99.5	98.9	µg/L	1	100	<0.0600	100	1	87 - 110	20
Chlorobenzene	97.8	98.1	µg/L	1	100	<0.0540	98	0	86 - 117	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	51.7	51.3	µg/L	1	50.0	103	103	70 - 130
Toluene-d8	50.9	51.2	µg/L	1	50.0	102	102	70 - 130
4-Bromofluorobenzene (4-BFB)	44.9	44.5	µg/L	1	50.0	90	89	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1371

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	94.0	93.9	µg/L	1	100	<0.136	94	0	84 - 124	20
Benzene	97.6	97.0	µg/L	1	100	<0.146	98	1	87 - 112	20
Trichloroethene (TCE)	89.3	88.7	µg/L	1	100	<0.117	89	1	81 - 105	20
Toluene	99.5	97.7	µg/L	1	100	<0.0600	100	2	87 - 110	20
Chlorobenzene	96.6	96.2	µg/L	1	100	<0.0540	97	0	86 - 117	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	53.3	53.0	µg/L	1	50.0	107	106	70 - 130
Toluene-d8	51.9	50.8	µg/L	1	50.0	104	102	70 - 130
4-Bromofluorobenzene (4-BFB)	43.0	42.6	µg/L	1	50.0	86	85	70 - 130

Standard (CCV-1) QC Batch: 1370

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	59.0	118	80 - 120	2003-04-30
1,1-Dichloroethene		µg/L	50.0	48.0	96	80 - 120	2003-04-30
Chloroform		µg/L	50.0	50.0	100	80 - 120	2003-04-30
1,2-Dichloropropane		µg/L	50.0	53.0	106	80 - 120	2003-04-30
Toluene		µg/L	50.0	49.0	98	80 - 120	2003-04-30
Chlorobenzene		µg/L	50.0	51.0	102	80 - 120	2003-04-30
Ethylbenzene		µg/L	50.0	52.0	104	80 - 120	2003-04-30

Standard (CCV-1) QC Batch: 1371

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	53.0	106	80 - 120	2003-05-01
1,1-Dichloroethene		µg/L	50.0	48.0	96	80 - 120	2003-05-01
Chloroform		µg/L	50.0	51.0	102	80 - 120	2003-05-01
1,2-Dichloropropane		µg/L	50.0	53.0	106	80 - 120	2003-05-01
Toluene		µg/L	50.0	49.0	98	80 - 120	2003-05-01
Chlorobenzene		µg/L	50.0	50.0	100	80 - 120	2003-05-01
Ethylbenzene		µg/L	50.0	52.0	104	80 - 120	2003-05-01

6299-302

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3042812

Company Name: Navajo Phone #:

Address: (Street, City, Zip) Fax #:

Contact Person: Jeff Byrd

Invoice to: (If different from above)

Project #: Project Name: ~~Monthly~~ Quarterly Offsite

Project Location: Artesia Sampler Signature:

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
	~~MW-46~~	~~2~~	~~VOA~~	~~X~~				~~X~~				~~X~~		~~4/24~~	
6299	RA 3156	2	VOA	X				X				X		4/25	1320
300	MW-45	1	1	1				1				1		4/24	1000
301	MW-29	1	1	1				1				1		4/25	1030
302	KWB-13	1	1	1				1				1		4/25	1445

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See List (Quarterly Offsite)	Turn Around Time if different from standard	Hold
															X		
															X		
															X		
															X		
															X		

Relinquished by: Date: 4/25/03 Time: 1615 Received by: Date: Time:

Relinquished by: Date: Time: Received by: Date: Time:

Relinquished by: Date: Time: Received at Laboratory by: Brenda Waud Date: 4/28/03 Time: 11:08

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 18 °

Log-in Review

Carrier # Fed X 790271637411

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Summary Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: May 6, 2003

Work Order: 3042812

Project Location: Artesia,NM
Project Number: Quarterly Offsite

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
6299	RA 3156	water	2003-04-25	13:00	2003-04-28
6300	MW-45	water	2003-04-24	10:00	2003-04-28
6301	MW-29	water	2003-04-25	10:30	2003-04-28
6302	KWB-13	water	2003-04-25	14:45	2003-04-28

Sample: 6299 - RA 3156

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00

continued ...

sample 6299 continued ...

Param	Flag	Result	Units	RL
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 6300 - MW-45

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		1.19	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00

continued ...

sample 6300 continued ...

Param	Flag	Result	Units	RL
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		6.20	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00

continued ...

sample 6300 continued ...

Param	Flag	Result	Units	RL
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 6301 - MW-29

Param	Flag	Result	Units	RL
Bromochloromethane		<5.00	µg/L	1.00
Dichlorodifluoromethane		<5.00	µg/L	1.00
Chloromethane (methyl chloride)		<5.00	µg/L	1.00
Vinyl Chloride		<5.00	µg/L	1.00
Bromomethane (methyl bromide)		<25.0	µg/L	5.00
Chloroethane		<5.00	µg/L	1.00
Trichlorofluoromethane		<5.00	µg/L	1.00
Acetone		<50.0	µg/L	10.0
Iodomethane (methyl iodide)		<25.0	µg/L	5.00
Carbon Disulfide		5.80	µg/L	1.00
Acrylonitrile		<5.00	µg/L	1.00
2-Butanone (MEK)		<25.0	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<25.0	µg/L	5.00
2-Hexanone		<25.0	µg/L	5.00
trans 1,4-Dichloro-2-butene		<50.0	µg/L	10.0
1,1-Dichloroethene		<5.00	µg/L	1.00
Methylene chloride		<25.0	µg/L	5.00
MTBE		<5.00	µg/L	1.00
trans-1,2-Dichloroethene		<5.00	µg/L	1.00
1,1-Dichloroethane		<5.00	µg/L	1.00
cis-1,2-Dichloroethene		<5.00	µg/L	1.00
2,2-Dichloropropane		<5.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<5.00	µg/L	1.00
Chloroform		<5.00	µg/L	1.00
1,1,1-Trichloroethane		<5.00	µg/L	1.00
1,1-Dichloropropene		<5.00	µg/L	1.00
Benzene		<5.00	µg/L	1.00
Carbon Tetrachloride		<5.00	µg/L	1.00
1,2-Dichloropropane		<5.00	µg/L	1.00
Trichloroethene (TCE)		<5.00	µg/L	1.00
Dibromomethane (methylene bromide)		<5.00	µg/L	1.00
Bromodichloromethane		<5.00	µg/L	1.00
2-Chloroethyl vinyl ether		<25.0	µg/L	5.00
cis-1,3-Dichloropropene		<5.00	µg/L	1.00
trans-1,3-Dichloropropene		<5.00	µg/L	1.00
Toluene		<5.00	µg/L	1.00
1,1,2-Trichloroethane		<5.00	µg/L	1.00
1,3-Dichloropropane		<5.00	µg/L	1.00
Dibromochloromethane		<5.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<5.00	µg/L	1.00
Tetrachloroethene (PCE)		<5.00	µg/L	1.00
Chlorobenzene		<5.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<5.00	µg/L	1.00
Ethylbenzene		<5.00	µg/L	1.00
m,p-Xylene		<5.00	µg/L	1.00
Bromoform		<5.00	µg/L	1.00
Styrene		<5.00	µg/L	1.00
o-Xylene		<5.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<5.00	µg/L	1.00

continued ...

sample 6301 continued ...

Param	Flag	Result	Units	RL
2-Chlorotoluene		<5.00	µg/L	1.00
1,2,3-Trichloropropane		<5.00	µg/L	1.00
Isopropylbenzene		8.45	µg/L	1.00
Bromobenzene		<5.00	µg/L	1.00
n-Propylbenzene		<5.00	µg/L	1.00
1,3,5-Trimethylbenzene		<5.00	µg/L	1.00
tert-Butylbenzene		<5.00	µg/L	1.00
1,2,4-Trimethylbenzene		<5.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<5.00	µg/L	1.00
sec-Butylbenzene		<5.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<5.00	µg/L	1.00
p-Isopropyltoluene		<5.00	µg/L	1.00
4-Chlorotoluene		<5.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<5.00	µg/L	1.00
n-Butylbenzene		<5.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<25.0	µg/L	5.00
1,2,3-Trichlorobenzene		<25.0	µg/L	5.00
1,2,4-Trichlorobenzene		<25.0	µg/L	5.00
Naphthalene		<25.0	µg/L	5.00
Hexachlorobutadiene		<25.0	µg/L	5.00

Sample: 6302 - KWB-13

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00

continued ...

sample 6302 continued ...

Param	Flag	Result	Units	RL
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Lubbock, Texas 79424
Tel (806) 794-1296
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TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
(915) 585-3443
(915) 585-4944
(888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 30428l2

Company Name: Navajo
Phone #:
Address: (Street, City, Zip)
Fax #:
Contact Person: Jeff Byrd
Invoice to: (If different from above)
Project #:
Project Name: ~~Monthly~~ Quarterly Offsite
Project Location: Artesia
Sampler Signature:

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
	~~MW-46~~	~~2~~	VOA	X				X				X		~~4/24~~	
6299	RA 3156	2	VOA	X				X				X		4/25	1320
300	MW-45	1	1	1				1				1		4/24	1000
301	MW-29	1	1	1				1				1		4/25	1030
302	KWB-13	1	1	1				1				1		4/25	1405

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See List (Quarterly offsite)	Turn Around Time if different from standard	Hold
															X		
															X		
															X		
															X		
															X		

Relinquished by: Byrd Date: 4/25/03 Time: 1615
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Brenda Ward Date: 4/28/03 Time: 11:08

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 18 °
Log-in Review

REMARKS:
PF 5/7/03

☐ Check If Special Reporting Limits Are Needed

Carrier # Fed X 790271637411

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

TRACEANALYSIS, INC.

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155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: April 29, 2003

Work Order: 3042304

Project Location: Artesia,NM
Project Number: Quarterly Offsite
Project #: Quarterly Offsite

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
5749	KWB-12a	water	2003-04-22	09:00	2003-04-23
5750	KWB-9	water	2003-04-22	09:10	2003-04-23
5751	KWB-11a	water	2003-04-22	09:45	2003-04-23
5752	KWB-7	water	2003-04-22	10:05	2003-04-23
5753	KWB-3a	water	2003-04-22	10:20	2003-04-23
5754	KWB-1a	water	2003-04-22	10:45	2003-04-23
5755	KWB-1c	water	2003-04-22	10:55	2003-04-23
5756	MW-18	water	2003-04-22	14:45	2003-04-23
5757	NP-2	water	2003-04-22	15:00	2003-04-23
5758	NP-1	water	2003-04-22	15:10	2003-04-23
5759	Trip Blank	water	2003-04-22	00:00	2003-04-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 5749 - KWB-12a

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00

sample 5749 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		56.7	µg/L	1	50.0	113	70 - 130
Toluene-d8		51.6	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		45.3	µg/L	1	50.0	91	70 - 130

Sample: 5750 - KWB-9

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00

sample 5750 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.4	µg/L	1	50.0	115	70 - 130
Toluene-d8		51.5	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		45.2	µg/L	1	50.0	90	70 - 130

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		14.8	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00

sample 5751 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.5	µg/L	1	50.0	115	70 - 130
Toluene-d8		51.6	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		45	µg/L	1	50.0	90	70 - 130

Sample: 5752 - KWB-7

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		56.7	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00

sample 5752 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.2	µg/L	1	50.0	114	70 - 130
Toluene-d8		52	µg/L	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		44.8	µg/L	1	50.0	90	70 - 130

Sample: 5753 - KWB-3a

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<1.00		µg/L	1	1.00
Dichlorodifluoromethane		<1.00		µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00		µg/L	1	1.00
Vinyl Chloride		<1.00		µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00		µg/L	1	5.00
Chloroethane		<1.00		µg/L	1	1.00
Trichlorofluoromethane		<1.00		µg/L	1	1.00
Acetone		<10.0		µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00		µg/L	1	5.00
Carbon Disulfide		<1.00		µg/L	1	1.00
Acrylonitrile		<1.00		µg/L	1	1.00
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00

sample 5753 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.9	µg/L	1	50.0	116	70 - 130
Toluene-d8		52.2	µg/L	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		44.4	µg/L	1	50.0	89	70 - 130

Sample: 5754 - KWB-1a

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<1.00		µg/L	1	1.00
Dichlorodifluoromethane		<1.00		µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00		µg/L	1	1.00
Vinyl Chloride		<1.00		µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00		µg/L	1	5.00
Chloroethane		<1.00		µg/L	1	1.00
Trichlorofluoromethane		<1.00		µg/L	1	1.00
Acetone		<10.0		µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00		µg/L	1	5.00
Carbon Disulfide		<1.00		µg/L	1	1.00
Acrylonitrile		<1.00		µg/L	1	1.00
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		16.9		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00

sample 5754 continued ...

Parameter	Flag	Result	RL Units	Dilution	RL
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.1	µg/L	1	50.0	114	70 - 130
Toluene-d8		52.1	µg/L	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		44.5	µg/L	1	50.0	89	70 - 130

Sample: 5755 - KWB-1c

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

continued ...

sample 5755 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		15.4	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00

sample 5755 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.5	µg/L	1	50.0	115	70 - 130
Toluene-d8		53.3	µg/L	1	50.0	107	70 - 130
4-Bromofluorobenzene (4-BFB)		43	µg/L	1	50.0	86	70 - 130

Sample: 5756 - MW-18

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<1.00		µg/L	1	1.00
Dichlorodifluoromethane		<1.00		µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00		µg/L	1	1.00
Vinyl Chloride		<1.00		µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00		µg/L	1	5.00
Chloroethane		<1.00		µg/L	1	1.00
Trichlorofluoromethane		<1.00		µg/L	1	1.00
Acetone		<10.0		µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00		µg/L	1	5.00
Carbon Disulfide		<1.00		µg/L	1	1.00
Acrylonitrile		<1.00		µg/L	1	1.00
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1.1.1-Trichloroethane		<1.00		µg/L	1	1.00

sample 5756 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.4	µg/L	1	50.0	115	70 - 130
Toluene-d8		52.8	µg/L	1	50.0	106	70 - 130
4-Bromofluorobenzene (4-BFB)		43.1	µg/L	1	50.0	86	70 - 130

Sample: 5757 - NP-2

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<1.00		µg/L	1	1.00
Dichlorodifluoromethane		<1.00		µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00		µg/L	1	1.00
Vinyl Chloride		<1.00		µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00		µg/L	1	5.00
Chloroethane		<1.00		µg/L	1	1.00
Trichlorofluoromethane		<1.00		µg/L	1	1.00
Acetone		<10.0		µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00		µg/L	1	5.00
Carbon Disulfide		<1.00		µg/L	1	1.00
Acrylonitrile		<1.00		µg/L	1	1.00
2-Butanone (MEK)		<5.00		µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00		µg/L	1	5.00
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00

sample 5757 continued ...

Parameter	Flag	Result	RL Units	Dilution	RL
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57	µg/L	1	50.0	114	70 - 130
Toluene-d8		52.4	µg/L	1	50.0	105	70 - 130
4-Bromofluorobenzene (4-BFB)		42.8	µg/L	1	50.0	86	70 - 130

Sample: 5758 - NP-1

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		35.4	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00

sample 5758 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		<1.00		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.1	µg/L	1	50.0	114	70 - 130
Toluene-d8		51.8	µg/L	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		42.9	µg/L	1	50.0	86	70 - 130

Sample: 5759 - Trip Blank

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1239	Date Analyzed:	2003-04-24	Analyzed By:	JG
Prep Batch:	1110	Date Prepared:	2003-04-24	Prepared By:	JG

continued ...

sample 5759 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		<1.00	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00

sample 5759 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.2	µg/L	1	50.0	114	70 - 130
Toluene-d8		51.7	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		42.9	µg/L	1	50.0	86	70 - 130

Method Blank (1) QC Batch: 1239

Parameter	Flag	Result	Units	MDL
Bromochloromethane		<0.177	µg/L	0.177
Dichlorodifluoromethane		0.250	µg/L	0.208
Chloromethane (methyl chloride)		<0.134	µg/L	0.134
Vinyl Chloride		<0.135	µg/L	0.135
Bromomethane (methyl bromide)		<1.23	µg/L	1.227
Chloroethane		<0.182	µg/L	0.182
Trichlorofluoromethane		<0.0610	µg/L	0.061
Acetone		<5.50	µg/L	5.497
Iodomethane (methyl iodide)		<0.107	µg/L	0.107
Carbon Disulfide		<0.0360	µg/L	0.036
Acrylonitrile		<0.0970	µg/L	0.097
2-Butanone (MEK)		<0.531	µg/L	0.531
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	0.421
2-Hexanone		<0.168	µg/L	0.168
trans 1,4-Dichloro-2-butene		<0.517	µg/L	0.517
1,1-Dichloroethene		<0.136	µg/L	0.136
Methylene chloride		2.15	µg/L	0.649
MTBE		<0.123	µg/L	0.123
trans-1,2-Dichloroethene		<0.126	µg/L	0.126
1,1-Dichloroethane		<0.0600	µg/L	0.06
cis-1,2-Dichloroethene		<0.151	µg/L	0.151
2,2-Dichloropropane		<0.180	µg/L	0.18
1,2-Dichloroethane (EDC)		<0.113	µg/L	0.113
Chloroform		0.200	µg/L	0.141
1,1,1-Trichloroethane		<0.116	µg/L	0.116
1,1-Dichloropropene		<0.0540	µg/L	0.054
Benzene		<0.146	µg/L	0.146
Carbon Tetrachloride		<0.0790	µg/L	0.079
1,2-Dichloropropane		<0.111	µg/L	0.111

method blank continued ...

Parameter	Flag	Result	Units	MDL
Trichloroethene (TCE)		0.130	µg/L	0.117
Dibromomethane (methylene bromide)		<0.140	µg/L	0.14
Bromodichloromethane		<0.161	µg/L	0.161
2-Chloroethyl vinyl ether		<0.388	µg/L	0.388
cis-1,3-Dichloropropene		<0.0890	µg/L	0.089
trans-1,3-Dichloropropene		<0.0760	µg/L	0.076
Toluene		0.230	µg/L	0.06
1,1,2-Trichloroethane		<0.135	µg/L	0.135
1,3-Dichloropropane		<0.0990	µg/L	0.099
Dibromochloromethane		<0.0900	µg/L	0.09
1,2-Dibromoethane (EDB)		<0.0700	µg/L	0.07
Tetrachloroethene (PCE)		<0.270	µg/L	0.27
Chlorobenzene		<0.0540	µg/L	0.054
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	0.099
Ethylbenzene		<0.0360	µg/L	0.036
m,p-Xylene		<0.0940	µg/L	0.094
Bromoform		<0.0570	µg/L	0.057
Styrene		<0.0910	µg/L	0.091
o-Xylene		<0.0960	µg/L	0.096
1,1,2,2-Tetrachloroethane		<0.125	µg/L	0.125
2-Chlorotoluene		<0.0570	µg/L	0.057
1,2,3-Trichloropropane		<0.458	µg/L	0.458
Isopropylbenzene		<0.0850	µg/L	0.085
Bromobenzene		<0.106	µg/L	0.106
n-Propylbenzene		<0.0590	µg/L	0.059
1,3,5-Trimethylbenzene		<0.0250	µg/L	0.025
tert-Butylbenzene		<0.107	µg/L	0.107
1,2,4-Trimethylbenzene		<0.0990	µg/L	0.099
1,4-Dichlorobenzene (para)		<0.217	µg/L	0.217
sec-Butylbenzene		<0.0430	µg/L	0.043
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	0.069
p-Isopropyltoluene		<0.106	µg/L	0.106
4-Chlorotoluene		<0.0940	µg/L	0.094
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	0.1
n-Butylbenzene		<0.0850	µg/L	0.085
1,2-Dibromo-3-chloropropane		<0.690	µg/L	0.69
1,2,3-Trichlorobenzene		<0.135	µg/L	0.135
1,2,4-Trichlorobenzene		<0.155	µg/L	0.155
Naphthalene		<0.594	µg/L	0.594
Hexachlorobutadiene		<0.248	µg/L	0.248

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		56.4	µg/L	1	50.0	113	70 - 130
Toluene-d8		51.7	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		46.2	µg/L	1	50.0	92	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1239

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	98.6	98.9	µg/L	1	100	<0.136	99	0	84 - 124	20
Benzene	98.8	98.7	µg/L	1	100	<0.146	99	0	87 - 112	20
Trichloroethene (TCE)	89.9	89.7	µg/L	1	100	<0.117	90	0	81 - 105	20
Toluene	97.7	97.9	µg/L	1	100	<0.0600	98	0	87 - 110	20

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chlorobenzene	95.5	95.8	µg/L	1	100	<0.0540	96	0	86 - 117	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	55.1	55.2	µg/L	1	50.0	110	110	70 - 130
Toluene-d8	51.3	51.7	µg/L	1	50.0	103	103	70 - 130
4-Bromofluorobenzene (4-BFB)	46.0	46.2	µg/L	1	50.0	92	92	70 - 130

Standard (CCV-1) QC Batch: 1239

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	49.0	98	80 - 120	2003-04-24
1,1-Dichloroethene		µg/L	50.0	52.0	104	80 - 120	2003-04-24
Chloroform		µg/L	50.0	54.0	108	80 - 120	2003-04-24
1,2-Dichloropropane		µg/L	50.0	54.0	108	80 - 120	2003-04-24
Toluene		µg/L	50.0	51.0	102	80 - 120	2003-04-24
Chlorobenzene		µg/L	50.0	51.0	102	80 - 120	2003-04-24
Ethylbenzene		µg/L	50.0	51.0	102	80 - 120	2003-04-24

Summary Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: April 29, 2003

Work Order: 3042304

Project Location: Artesia,NM
Project Number: Quarterly Offsite
Project #: Quarterly Offsite

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
5749	KWB-12a	water	2003-04-22	09:00	2003-04-23
5750	KWB-9	water	2003-04-22	09:10	2003-04-23
5751	KWB-11a	water	2003-04-22	09:45	2003-04-23
5752	KWB-7	water	2003-04-22	10:05	2003-04-23
5753	KWB-3a	water	2003-04-22	10:20	2003-04-23
5754	KWB-1a	water	2003-04-22	10:45	2003-04-23
5755	KWB-1c	water	2003-04-22	10:55	2003-04-23
5756	MW-18	water	2003-04-22	14:45	2003-04-23
5757	NP-2	water	2003-04-22	15:00	2003-04-23
5758	NP-1	water	2003-04-22	15:10	2003-04-23
5759	Trip Blank	water	2003-04-22	00:00	2003-04-23

Sample: 5749 - KWB-12a

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00

continued ...

sample 5749 continued ...

Param	Flag	Result	Units	RL
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5750 - KWB-9

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00

continued ...

sample 5750 continued ...

Param	Flag	Result	Units	RL
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00

continued ...

sample 5750 continued ...

Param	Flag	Result	Units	RL
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5751 - KWB-11a

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		14.8	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00

continued ...

sample 5751 continued ...

Param	Flag	Result	Units	RL
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5752 - KWB-7

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		56.7	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00

continued ...

sample 5752 continued ...

Param	Flag	Result	Units	RL
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5753 - KWB-3a

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00

continued ...

sample 5753 continued ...

Param	Flag	Result	Units	RL
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00

continued ...

sample 5753 continued ...

Param	Flag	Result	Units	RL
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5754 - KWB-1a

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		16.9	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00

continued ...

sample 5754 continued ...

Param	Flag	Result	Units	RL
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5755 - KWB-1c

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		15.4	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00

continued ...

sample 5755 continued ...

Param	Flag	Result	Units	RL
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5756 - MW-18

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00

continued ...

sample 5756 continued ...

Param	Flag	Result	Units	RL
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00

continued ...

sample 5756 continued ...

Param	Flag	Result	Units	RL
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5757 - NP-2

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00

continued ...

sample 5757 continued ...

Param	Flag	Result	Units	RL
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5758 - NP-1

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		35.4	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00

continued ...

sample 5758 continued ...

Param	Flag	Result	Units	RL
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

Sample: 5759 - Trip Blank

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00

continued ...

sample 5759 continued ...

Param	Flag	Result	Units	RL
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00

continued ...

sample 5759 continued ...

Param	Flag	Result	Units	RL
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

5749-59

Page 1 of 1

6701 Aberdeen Ave., Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
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1 (800) 378-1296

TraceAnalysis, Inc.

1[illegible]McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 304304

Company Name: Navajo
Address: (Street, City, Zip)
Phone #:
Fax #:
Contact Person: Jeff Byrd
Invoice to: (If different from above)
Project #:
Project Name: Quarterly offsite
Project Location: Artesia
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See list					Turn Around Time if different from standard	Hold
5749	KWB-12a	2	VOA	X				X				X		4/22	0900															X						
50	KWB-9														0910															X						
51	KWB-11a														0945															X						
52	KWB-7														1005															X						
53	KWB-3a														1020															X						
54	KWB-1a														1045															X						
55	KWB-1c														1055															X						
56	MW-18														1445															X						
57	NP-2														1500															X						
58	NP-1														1510															X						
59	Trip blank																													X						

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	4/22/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			[signature]	4-23-03	9:51

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 3° C
Log-in Review [signature]

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier # FedEx 7913 5974 5042

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

Summary Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: May 6, 2003

Work Order: 3043008

Project Location: Artesia,NM
Project Number: Quarterly Offsite

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
6421	MW-28	water	2003-04-29	09:30	2003-04-30
6422	Trip Blank	water	2003-04-29	00:00	2003-04-30

Sample: 6421 - MW-28

Param	Flag	Result	Units	RL
Bromochloromethane		<200	µg/L	1.00
Dichlorodifluoromethane		<200	µg/L	1.00
Chloromethane (methyl chloride)		<200	µg/L	1.00
Vinyl Chloride		<200	µg/L	1.00
Bromomethane (methyl bromide)		<1000	µg/L	5.00
Chloroethane		<200	µg/L	1.00
Trichlorofluoromethane		<200	µg/L	1.00
Acetone		<2000	µg/L	10.0
Iodomethane (methyl iodide)		<1000	µg/L	5.00
Carbon Disulfide		<200	µg/L	1.00
Acrylonitrile		<200	µg/L	1.00
2-Butanone (MEK)		<1000	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<1000	µg/L	5.00
2-Hexanone		<1000	µg/L	5.00
trans 1,4-Dichloro-2-butene		<2000	µg/L	10.0
1,1-Dichloroethene		<200	µg/L	1.00
Methylene chloride		<1000	µg/L	5.00
MTBE		3740	µg/L	1.00
trans-1,2-Dichloroethene		<200	µg/L	1.00
1,1-Dichloroethane		<200	µg/L	1.00
cis-1,2-Dichloroethene		<200	µg/L	1.00
2,2-Dichloropropane		<200	µg/L	1.00
1,2-Dichloroethane (EDC)		<200	µg/L	1.00
Chloroform		<200	µg/L	1.00
1,1,1-Trichloroethane		<200	µg/L	1.00
1,1-Dichloropropene		<200	µg/L	1.00
Benzene		362	µg/L	1.00
Carbon Tetrachloride		<200	µg/L	1.00
1,2-Dichloropropane		<200	µg/L	1.00
Trichloroethene (TCE)		<200	µg/L	1.00
Dibromomethane (methylene bromide)		<200	µg/L	1.00

continued ...

sample 6421 continued ...

Param	Flag	Result	Units	RL
Bromodichloromethane		<200	µg/L	1.00
2-Chloroethyl vinyl ether		<1000	µg/L	5.00
cis-1,3-Dichloropropene		<200	µg/L	1.00
trans-1,3-Dichloropropene		<200	µg/L	1.00
Toluene		<200	µg/L	1.00
1,1,2-Trichloroethane		<200	µg/L	1.00
1,3-Dichloropropane		<200	µg/L	1.00
Dibromochloromethane		<200	µg/L	1.00
1,2-Dibromoethane (EDB)		<200	µg/L	1.00
Tetrachloroethene (PCE)		<200	µg/L	1.00
Chlorobenzene		<200	µg/L	1.00
1,1,1,2-Tetrachloroethane		<200	µg/L	1.00
Ethylbenzene		<200	µg/L	1.00
m,p-Xylene		<200	µg/L	1.00
Bromoform		<200	µg/L	1.00
Styrene		<200	µg/L	1.00
o-Xylene		<200	µg/L	1.00
1,1,2,2-Tetrachloroethane		<200	µg/L	1.00
2-Chlorotoluene		<200	µg/L	1.00
1,2,3-Trichloropropane		<200	µg/L	1.00
Isopropylbenzene		<200	µg/L	1.00
Bromobenzene		<200	µg/L	1.00
n-Propylbenzene		<200	µg/L	1.00
1,3,5-Trimethylbenzene		<200	µg/L	1.00
tert-Butylbenzene		<200	µg/L	1.00
1,2,4-Trimethylbenzene		<200	µg/L	1.00
1,4-Dichlorobenzene (para)		<200	µg/L	1.00
sec-Butylbenzene		<200	µg/L	1.00
1,3-Dichlorobenzene (meta)		<200	µg/L	1.00
p-Isopropyltoluene		<200	µg/L	1.00
4-Chlorotoluene		<200	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<200	µg/L	1.00
n-Butylbenzene		<200	µg/L	1.00
1,2-Dibromo-3-chloropropane		<1000	µg/L	5.00
1,2,3-Trichlorobenzene		<1000	µg/L	5.00
1,2,4-Trichlorobenzene		<1000	µg/L	5.00
Naphthalene		<1000	µg/L	5.00
Hexachlorobutadiene		<1000	µg/L	5.00

Sample: 6422 - Trip Blank

Param	Flag	Result	Units	RL
Bromochloromethane		<1.00	µg/L	1.00
Dichlorodifluoromethane		<1.00	µg/L	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1.00
Vinyl Chloride		<1.00	µg/L	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	5.00
Chloroethane		<1.00	µg/L	1.00
Trichlorofluoromethane		<1.00	µg/L	1.00
Acetone		<10.0	µg/L	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	5.00
Carbon Disulfide		<1.00	µg/L	1.00
Acrylonitrile		<1.00	µg/L	1.00
2-Butanone (MEK)		<5.00	µg/L	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	5.00

continued ...

sample 6422 continued ...

Param	Flag	Result	Units	RL
2-Hexanone		<5.00	µg/L	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	10.0
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		<5.00	µg/L	5.00
MTBE		<1.00	µg/L	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1.00
1,1-Dichloroethane		<1.00	µg/L	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1.00
2,2-Dichloropropane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
1,1-Dichloropropene		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
1,2-Dichloropropane		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1.00
Bromodichloromethane		<1.00	µg/L	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1.00
Toluene		4.03	µg/L	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,3-Dichloropropane		<1.00	µg/L	1.00
Dibromochloromethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Chlorobenzene		<1.00	µg/L	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
Bromoform		<1.00	µg/L	1.00
Styrene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00
2-Chlorotoluene		<1.00	µg/L	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1.00
Isopropylbenzene		<1.00	µg/L	1.00
Bromobenzene		<1.00	µg/L	1.00
n-Propylbenzene		<1.00	µg/L	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1.00
tert-Butylbenzene		<1.00	µg/L	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1.00
sec-Butylbenzene		<1.00	µg/L	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1.00
p-Isopropyltoluene		<1.00	µg/L	1.00
4-Chlorotoluene		<1.00	µg/L	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1.00
n-Butylbenzene		<1.00	µg/L	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	5.00
Naphthalene		<5.00	µg/L	5.00
Hexachlorobutadiene		<5.00	µg/L	5.00

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Jeff Byrd
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: May 6, 2003

Work Order: 3043008

Project Location: Artesia,NM
Project Number: Quarterly Offsite

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
6421	MW-28	water	2003-04-29	09:30	2003-04-30
6422	Trip Blank	water	2003-04-29	00:00	2003-04-30

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 6421 - MW-28

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1376	Date Analyzed:	2003-05-03	Analyzed By:	JG
Prep Batch:	1232	Date Prepared:	2003-05-03	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<200	µg/L	200	1.00
Dichlorodifluoromethane		<200	µg/L	200	1.00
Chloromethane (methyl chloride)		<200	µg/L	200	1.00
Vinyl Chloride		<200	µg/L	200	1.00
Bromomethane (methyl bromide)		<1000	µg/L	200	5.00
Chloroethane		<200	µg/L	200	1.00
Trichlorofluoromethane		<200	µg/L	200	1.00
Acetone		<2000	µg/L	200	10.0
Iodomethane (methyl iodide)		<1000	µg/L	200	5.00
Carbon Disulfide		<200	µg/L	200	1.00
Acrylonitrile		<200	µg/L	200	1.00
2-Butanone (MEK)		<1000	µg/L	200	5.00
4-Methyl-2-pentanone (MIBK)		<1000	µg/L	200	5.00
2-Hexanone		<1000	µg/L	200	5.00
trans 1,4-Dichloro-2-butene		<2000	µg/L	200	10.0
1,1-Dichloroethene		<200	µg/L	200	1.00
Methylene chloride		<1000	µg/L	200	5.00
MTBE		3740	µg/L	200	1.00
trans-1,2-Dichloroethene		<200	µg/L	200	1.00
1,1-Dichloroethane		<200	µg/L	200	1.00
cis-1,2-Dichloroethene		<200	µg/L	200	1.00
2,2-Dichloropropane		<200	µg/L	200	1.00
1,2-Dichloroethane (EDC)		<200	µg/L	200	1.00
Chloroform		<200	µg/L	200	1.00
1,1,1-Trichloroethane		<200	µg/L	200	1.00
1,1-Dichloropropene		<200	µg/L	200	1.00
Benzene		362	µg/L	200	1.00
Carbon Tetrachloride		<200	µg/L	200	1.00
1,2-Dichloropropane		<200	µg/L	200	1.00
Trichloroethene (TCE)		<200	µg/L	200	1.00
Dibromomethane (methylene bromide)		<200	µg/L	200	1.00
Bromodichloromethane		<200	µg/L	200	1.00
2-Chloroethyl vinyl ether		<1000	µg/L	200	5.00
cis-1,3-Dichloropropene		<200	µg/L	200	1.00
trans-1,3-Dichloropropene		<200	µg/L	200	1.00
Toluene		<200	µg/L	200	1.00
1,1,2-Trichloroethane		<200	µg/L	200	1.00
1,3-Dichloropropane		<200	µg/L	200	1.00
Dibromochloromethane		<200	µg/L	200	1.00
1,2-Dibromoethane (EDB)		<200	µg/L	200	1.00
Tetrachloroethene (PCE)		<200	µg/L	200	1.00
Chlorobenzene		<200	µg/L	200	1.00
1,1,1,2-Tetrachloroethane		<200	µg/L	200	1.00
Ethylbenzene		<200	µg/L	200	1.00
m,p-Xylene		<200	µg/L	200	1.00
Bromoform		<200	µg/L	200	1.00

continued ...

sample 6421 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Styrene		<200	µg/L	200	1.00
o-Xylene		<200	µg/L	200	1.00
1,1,2,2-Tetrachloroethane		<200	µg/L	200	1.00
2-Chlorotoluene		<200	µg/L	200	1.00
1,2,3-Trichloropropane		<200	µg/L	200	1.00
Isopropylbenzene		<200	µg/L	200	1.00
Bromobenzene		<200	µg/L	200	1.00
n-Propylbenzene		<200	µg/L	200	1.00
1,3,5-Trimethylbenzene		<200	µg/L	200	1.00
tert-Butylbenzene		<200	µg/L	200	1.00
1,2,4-Trimethylbenzene		<200	µg/L	200	1.00
1,4-Dichlorobenzene (para)		<200	µg/L	200	1.00
sec-Butylbenzene		<200	µg/L	200	1.00
1,3-Dichlorobenzene (meta)		<200	µg/L	200	1.00
p-Isopropyltoluene		<200	µg/L	200	1.00
4-Chlorotoluene		<200	µg/L	200	1.00
1,2-Dichlorobenzene (ortho)		<200	µg/L	200	1.00
n-Butylbenzene		<200	µg/L	200	1.00
1,2-Dibromo-3-chloropropane		<1000	µg/L	200	5.00
1,2,3-Trichlorobenzene		<1000	µg/L	200	5.00
1,2,4-Trichlorobenzene		<1000	µg/L	200	5.00
Naphthalene		<1000	µg/L	200	5.00
Hexachlorobutadiene		<1000	µg/L	200	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.6	µg/L	1	50.0	107	70 - 130
Toluene-d8		52.9	µg/L	1	50.0	106	70 - 130
4-Bromofluorobenzene (4-BFB)		43.5	µg/L	1	50.0	87	70 - 130

Sample: 6422 - Trip Blank

Analysis:	Volatiles	Analytical Method:	E 624	Prep Method:	N/A
QC Batch:	1371	Date Analyzed:	2003-05-01	Analyzed By:	JG
Prep Batch:	1226	Date Prepared:	2003-05-01	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00

continued ...

sample 6422 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
2-Hexanone		<5.00		µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0		µg/L	1	10.0
1,1-Dichloroethene		<1.00		µg/L	1	1.00
Methylene chloride		<5.00		µg/L	1	5.00
MTBE		<1.00		µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00		µg/L	1	1.00
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<1.00		µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00		µg/L	1	1.00
Chloroform		<1.00		µg/L	1	1.00
1,1,1-Trichloroethane		<1.00		µg/L	1	1.00
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00		µg/L	1	1.00
Toluene		4.03		µg/L	1	1.00
1,1,2-Trichloroethane		<1.00		µg/L	1	1.00
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00		µg/L	1	1.00
Ethylbenzene		<1.00		µg/L	1	1.00
m,p-Xylene		<1.00		µg/L	1	1.00
Bromoform		<1.00		µg/L	1	1.00
Styrene		<1.00		µg/L	1	1.00
o-Xylene		<1.00		µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00		µg/L	1	1.00
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00		µg/L	1	1.00
n-Butylbenzene		<1.00		µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00		µg/L	1	5.00

continued ...

sample 6422 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
1,2,3-Trichlorobenzene		<5.00		µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00		µg/L	1	5.00
Naphthalene		<5.00		µg/L	1	5.00
Hexachlorobutadiene		<5.00		µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.9	µg/L	1	50.0	108	70 - 130
Toluene-d8		51.8	µg/L	1	50.0	104	70 - 130
4-Bromofluorobenzene (4-BFB)		41.7	µg/L	1	50.0	83	70 - 130

Method Blank (1) QC Batch: 1371

Parameter	Flag	Result	Units	MDL
Bromochloromethane		<0.177	µg/L	0.177
Dichlorodifluoromethane		<0.208	µg/L	0.208
Chloromethane (methyl chloride)		<0.134	µg/L	0.134
Vinyl Chloride		<0.135	µg/L	0.135
Bromomethane (methyl bromide)		<1.23	µg/L	1.227
Chloroethane		<0.182	µg/L	0.182
Trichlorofluoromethane		<0.0610	µg/L	0.061
Acetone		<5.50	µg/L	5.497
Iodomethane (methyl iodide)		<0.107	µg/L	0.107
Carbon Disulfide		<0.0360	µg/L	0.036
Acrylonitrile		<0.0970	µg/L	0.097
2-Butanone (MEK)		<0.531	µg/L	0.531
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	0.421
2-Hexanone		<0.168	µg/L	0.168
trans 1,4-Dichloro-2-butene		<0.517	µg/L	0.517
1,1-Dichloroethene		<0.136	µg/L	0.136
Methylene chloride		<0.649	µg/L	0.649
MTBE		<0.123	µg/L	0.123
trans-1,2-Dichloroethene		<0.126	µg/L	0.126
1,1-Dichloroethane		<0.0600	µg/L	0.06
cis-1,2-Dichloroethene		<0.151	µg/L	0.151
2,2-Dichloropropane		<0.180	µg/L	0.18
1,2-Dichloroethane (EDC)		<0.113	µg/L	0.113
Chloroform		<0.141	µg/L	0.141
1,1,1-Trichloroethane		<0.116	µg/L	0.116
1,1-Dichloropropene		<0.0540	µg/L	0.054
Benzene		<0.146	µg/L	0.146
Carbon Tetrachloride		<0.0790	µg/L	0.079
1,2-Dichloropropane		<0.111	µg/L	0.111
Trichloroethene (TCE)		0.120	µg/L	0.117
Dibromomethane (methylene bromide)		<0.140	µg/L	0.14
Bromodichloromethane		<0.161	µg/L	0.161
2-Chloroethyl vinyl ether		<0.388	µg/L	0.388
cis-1,3-Dichloropropene		<0.0890	µg/L	0.089
trans-1,3-Dichloropropene		<0.0760	µg/L	0.076

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
Toluene		0.160	µg/L	0.06
1,1,2-Trichloroethane		<0.135	µg/L	0.135
1,3-Dichloropropane		<0.0990	µg/L	0.099
Dibromochloromethane		<0.0900	µg/L	0.09
1,2-Dibromoethane (EDB)		<0.0700	µg/L	0.07
Tetrachloroethene (PCE)		<0.270	µg/L	0.27
Chlorobenzene		<0.0540	µg/L	0.054
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	0.099
Ethylbenzene		<0.0360	µg/L	0.036
m,p-Xylene		<0.0940	µg/L	0.094
Bromoform		<0.0570	µg/L	0.057
Styrene		<0.0910	µg/L	0.091
o-Xylene		<0.0960	µg/L	0.096
1,1,2,2-Tetrachloroethane		<0.125	µg/L	0.125
2-Chlorotoluene		<0.0570	µg/L	0.057
1,2,3-Trichloropropane		<0.458	µg/L	0.458
Isopropylbenzene		<0.0850	µg/L	0.085
Bromobenzene		<0.106	µg/L	0.106
n-Propylbenzene		<0.0590	µg/L	0.059
1,3,5-Trimethylbenzene		<0.0250	µg/L	0.025
tert-Butylbenzene		<0.107	µg/L	0.107
1,2,4-Trimethylbenzene		<0.0990	µg/L	0.099
1,4-Dichlorobenzene (para)		<0.217	µg/L	0.217
sec-Butylbenzene		<0.0430	µg/L	0.043
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	0.069
p-Isopropyltoluene		<0.106	µg/L	0.106
4-Chlorotoluene		<0.0940	µg/L	0.094
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	0.1
n-Butylbenzene		<0.0850	µg/L	0.085
1,2-Dibromo-3-chloropropane		<0.690	µg/L	0.69
1,2,3-Trichlorobenzene		<0.135	µg/L	0.135
1,2,4-Trichlorobenzene		<0.155	µg/L	0.155
Naphthalene		<0.594	µg/L	0.594
Hexachlorobutadiene		<0.248	µg/L	0.248

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.2	µg/L	1	50.0	106	70 - 130
Toluene-d8		51.7	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		43.2	µg/L	1	50.0	86	70 - 130

Method Blank (1) QC Batch: 1376

Parameter	Flag	Result	Units	MDL
Bromochloromethane		<0.177	µg/L	0.177
Dichlorodifluoromethane		<0.208	µg/L	0.208
Chloromethane (methyl chloride)		<0.134	µg/L	0.134
Vinyl Chloride		<0.135	µg/L	0.135
Bromomethane (methyl bromide)		<1.23	µg/L	1.227
Chloroethane		<0.182	µg/L	0.182

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
Trichlorofluoromethane		<0.0610	µg/L	0.061
Acetone		<5.50	µg/L	5.497
Iodomethane (methyl iodide)		<0.107	µg/L	0.107
Carbon Disulfide		<0.0360	µg/L	0.036
Acrylonitrile		<0.0970	µg/L	0.097
2-Butanone (MEK)		<0.531	µg/L	0.531
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	0.421
2-Hexanone		<0.168	µg/L	0.168
trans 1,4-Dichloro-2-butene		<0.517	µg/L	0.517
1,1-Dichloroethene		<0.136	µg/L	0.136
Methylene chloride		<0.649	µg/L	0.649
MTBE		<0.123	µg/L	0.123
trans-1,2-Dichloroethene		<0.126	µg/L	0.126
1,1-Dichloroethane		<0.0600	µg/L	0.06
cis-1,2-Dichloroethene		<0.151	µg/L	0.151
2,2-Dichloropropane		<0.180	µg/L	0.18
1,2-Dichloroethane (EDC)		<0.113	µg/L	0.113
Chloroform		<0.141	µg/L	0.141
1,1,1-Trichloroethane		<0.116	µg/L	0.116
1,1-Dichloropropene		<0.0540	µg/L	0.054
Benzene		<0.146	µg/L	0.146
Carbon Tetrachloride		<0.0790	µg/L	0.079
1,2-Dichloropropane		<0.111	µg/L	0.111
Trichloroethene (TCE)		0.120	µg/L	0.117
Dibromomethane (methylene bromide)		<0.140	µg/L	0.14
Bromodichloromethane		<0.161	µg/L	0.161
2-Chloroethyl vinyl ether		<0.388	µg/L	0.388
cis-1,3-Dichloropropene		<0.0890	µg/L	0.089
trans-1,3-Dichloropropene		<0.0760	µg/L	0.076
Toluene		0.190	µg/L	0.06
1,1,2-Trichloroethane		<0.135	µg/L	0.135
1,3-Dichloropropane		<0.0990	µg/L	0.099
Dibromochloromethane		<0.0900	µg/L	0.09
1,2-Dibromoethane (EDB)		<0.0700	µg/L	0.07
Tetrachloroethene (PCE)		<0.270	µg/L	0.27
Chlorobenzene		<0.0540	µg/L	0.054
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	0.099
Ethylbenzene		<0.0360	µg/L	0.036
m,p-Xylene		<0.0940	µg/L	0.094
Bromoform		<0.0570	µg/L	0.057
Styrene		<0.0910	µg/L	0.091
o-Xylene		<0.0960	µg/L	0.096
1,1,2,2-Tetrachloroethane		<0.125	µg/L	0.125
2-Chlorotoluene		<0.0570	µg/L	0.057
1,2,3-Trichloropropane		<0.458	µg/L	0.458
Isopropylbenzene		<0.0850	µg/L	0.085
Bromobenzene		<0.106	µg/L	0.106
n-Propylbenzene		<0.0590	µg/L	0.059
1,3,5-Trimethylbenzene		<0.0250	µg/L	0.025
tert-Butylbenzene		<0.107	µg/L	0.107
1,2,4-Trimethylbenzene		<0.0990	µg/L	0.099
1,4-Dichlorobenzene (para)		<0.217	µg/L	0.217
sec-Butylbenzene		<0.0430	µg/L	0.043

continued ...

method blank continued ...

Parameter	Flag	Result	Units	MDL
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	0.069
p-Isopropyltoluene		<0.106	µg/L	0.106
4-Chlorotoluene		<0.0940	µg/L	0.094
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	0.1
n-Butylbenzene		<0.0850	µg/L	0.085
1,2-Dibromo-3-chloropropane		<0.690	µg/L	0.69
1,2,3-Trichlorobenzene		<0.135	µg/L	0.135
1,2,4-Trichlorobenzene		<0.155	µg/L	0.155
Naphthalene		<0.594	µg/L	0.594
Hexachlorobutadiene		<0.248	µg/L	0.248

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.5	µg/L	1	50.0	105	70 - 130
Toluene-d8		52.9	µg/L	1	50.0	106	70 - 130
4-Bromofluorobenzene (4-BFB)		44.1	µg/L	1	50.0	88	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1371

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	94.0	93.9	µg/L	1	100	<0.136	94	0	84 - 124	20
Benzene	97.6	97.0	µg/L	1	100	<0.146	98	1	87 - 112	20
Trichloroethene (TCE)	89.3	88.7	µg/L	1	100	<0.117	89	1	81 - 105	20
Toluene	99.5	97.7	µg/L	1	100	<0.0600	100	2	87 - 110	20
Chlorobenzene	96.6	96.2	µg/L	1	100	<0.0540	97	0	86 - 117	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	53.3	53.0	µg/L	1	50.0	107	106	70 - 130
Toluene-d8	51.9	50.8	µg/L	1	50.0	104	102	70 - 130
4-Bromofluorobenzene (4-BFB)	43.0	42.6	µg/L	1	50.0	86	85	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 1376

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	92.1	92.8	µg/L	1	100	<0.136	92	1	84 - 124	20
Benzene	98.1	98.2	µg/L	1	100	<0.146	98	0	87 - 112	20
Trichloroethene (TCE)	89.4	90.1	µg/L	1	100	<0.117	89	1	81 - 105	20
Toluene	98.9	99.0	µg/L	1	100	<0.0600	99	0	87 - 110	20
Chlorobenzene	98.9	98.9	µg/L	1	100	<0.0540	99	0	86 - 117	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	52.6	52.4	µg/L	1	50.0	105	105	70 - 130
Toluene-d8	52.6	52.5	µg/L	1	50.0	105	105	70 - 130

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	44.2	43.4	µg/L	1	50.0	88	87	70 - 130

Standard (CCV-1) QC Batch: 1371

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	53.0	106	80 - 120	2003-05-01
1,1-Dichloroethene		µg/L	50.0	48.0	96	80 - 120	2003-05-01
Chloroform		µg/L	50.0	51.0	102	80 - 120	2003-05-01
1,2-Dichloropropane		µg/L	50.0	53.0	106	80 - 120	2003-05-01
Toluene		µg/L	50.0	49.0	98	80 - 120	2003-05-01
Chlorobenzene		µg/L	50.0	50.0	100	80 - 120	2003-05-01
Ethylbenzene		µg/L	50.0	52.0	104	80 - 120	2003-05-01

Standard (CCV-1) QC Batch: 1376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	51.0	102	80 - 120	2003-05-03
1,1-Dichloroethene		µg/L	50.0	47.0	94	80 - 120	2003-05-03
Chloroform		µg/L	50.0	50.0	100	80 - 120	2003-05-03
1,2-Dichloropropane		µg/L	50.0	53.0	106	80 - 120	2003-05-03
Toluene		µg/L	50.0	49.0	98	80 - 120	2003-05-03
Chlorobenzene		µg/L	50.0	51.0	102	80 - 120	2003-05-03
Ethylbenzene		µg/L	50.0	52.0	104	80 - 120	2003-05-03

6421-22

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6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

1590 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3043008

Company Name: Navajo — Phone #:

Address: (Street, City, Zip) — Fax #:

Contact Person: Jeff Byrd

Invoice to: (If different from above)

Project #: — Project Name: Quarterly Offsite

Project Location: Artesia — Sampler Signature:

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
6421	MW-28	2	VOA	X				X				X		4/29	0930
6422	Trip Blank	2	"	X				X				X			

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	X for 1st Quarterly Offsite	Turn Around Time if different from standard	Hold
															X				

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	4/30/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			[signature]	4-30-03	10:23

LAB USE ONLY

Intact (Y) N

Headspace Y (N)

Temp 15°C °

Log-in Review MA

REMARKS:

PYF 5/7/03

☐ Check If Special Reporting Limits Are Needed

Carrier # FedEx 7913 6653 1819

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

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