

GW - 028

**MONITORING
REPORT**

**2004 Annual GW
Report Vol. 2
(02/25/2005)**



e-Lab Analytical, Inc.

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

July 23, 2004

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

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

Re: Ponds

Work Order : **0407076**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 7 samples on 7/8/2004 8:40:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 46.

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

Sincerely,

Jeffrey L Croston

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Project: Ponds
Work Order: 0407076

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0407076-01	MW-2	Liquid		7/6/2004 10:15	7/8/2004 08:40	☐
0407076-02	OCD-6	Liquid		7/6/2004 10:45	7/8/2004 08:40	☐
0407076-03	MW-4	Liquid		7/6/2004 14:00	7/8/2004 08:40	☐
0407076-04	MW-6	Liquid		7/6/2004 14:30	7/8/2004 08:40	☐
0407076-05	OCD-2	Liquid		7/7/2004 08:30	7/8/2004 08:40	☐
0407076-06	OCD-4	Liquid		7/7/2004 09:00	7/8/2004 08:40	☐
0407076-07	OCD-8	Liquid		7/7/2004 09:30	7/8/2004 08:40	☐

e-Lab Analytical, Inc.**Date:** *July 26, 2004*

CLIENT: Navajo Refining Company
Project: Ponds
Work Order: 0407076

Case Narrative

Batch 9539 Metals MS/MSD was an unrelated sample.

Batch 9530 Semivolatile LCS/LCSD RPD recoveries were outside of control limits for Benzidine (34.1%). Benzidine recoveries were within QC control limits in the LCS/LCSD, therefore the data was accepted.

Metals (all samples) were reported no lower than a 2X dilution due to a matrix interference in the samples.

e-Lab Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-01

Client Sample ID: MW-2
Collection Date: 7/6/2004 10:15:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 7/17/2004 Analyst: JCJ 7/17/2004 6:09:56 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0200		mg/L	2	Prep Date: 7/9/2004 Analyst: ALR 7/23/2004 2:16:00 PM
Arsenic	0.0320	0.0100		mg/L	2	7/23/2004 12:28:00 AM
Barium	0.0171	0.0100		mg/L	2	7/23/2004 2:16:00 PM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 12:28:00 AM
Boron	0.495	0.200		mg/L	10	7/9/2004 10:29:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:16:00 PM
Calcium	393	25.0		mg/L	50	7/9/2004 9:43:00 PM
Chromium	0.00564	0.00400		mg/L	2	7/23/2004 12:28:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 12:28:00 AM
Copper	0.00514	0.00400		mg/L	2	7/23/2004 12:28:00 AM
Iron	3.42	0.400		mg/L	2	7/23/2004 12:28:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:16:00 PM
Magnesium	164	2.00		mg/L	10	7/9/2004 10:29:00 PM
Manganese	1.58	0.0500		mg/L	10	7/9/2004 10:29:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 12:28:00 AM
Nickel	0.0158	0.0100		mg/L	2	7/23/2004 12:28:00 AM
Potassium	5.19	0.400		mg/L	2	7/23/2004 12:28:00 AM
Selenium	ND	0.0100		mg/L	2	7/23/2004 12:28:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:16:00 PM
Sodium	2,050	10.0		mg/L	50	7/9/2004 9:43:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 12:28:00 AM
Zinc	0.0111	0.0100		mg/L	2	7/23/2004 12:28:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 7/8/2004 Analyst: HV 7/16/2004 9:19:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:19:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:19:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:19:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 9:19:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-01

Client Sample ID: MW-2
Collection Date: 7/6/2004 10:15:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 9:19:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 9:19:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 9:19:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 9:19:00 PM
Surr: 2,4,6-Tribromophenol	93.0	39-153		%REC	1	7/16/2004 9:19:00 PM
Surr: 2-Fluorobiphenyl	82.7	40-147		%REC	1	7/16/2004 9:19:00 PM
Surr: 2-Fluorophenol	36.2	21-110		%REC	1	7/16/2004 9:19:00 PM
Surr: 4-Terphenyl-d14	79.4	39-141		%REC	1	7/16/2004 9:19:00 PM
Surr: Nitrobenzene-d5	69.7	37-140		%REC	1	7/16/2004 9:19:00 PM
Surr: Phenol-d6	21.8	11-100		%REC	1	7/16/2004 9:19:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

Benzene	ND	5.0		µg/L	1	7/9/2004 12:22:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/9/2004 12:22:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 12:22:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 12:22:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 12:22:00 PM
Surr: 1,2-Dichloroethane-d4	85.9	71-126		%REC	1	7/9/2004 12:22:00 PM
Surr: 4-Bromofluorobenzene	89.9	74-125		%REC	1	7/9/2004 12:22:00 PM
Surr: Dibromofluoromethane	88.3	73-126		%REC	1	7/9/2004 12:22:00 PM
Surr: Toluene-d8	89.7	75-125		%REC	1	7/9/2004 12:22:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	2,180	50.0		mg/L	100	7/17/2004 5:28:00 AM
Fluoride	8.03	0.100		mg/L	1	7/13/2004 4:51:00 AM
Sulfate	2,140	100		mg/L	100	7/17/2004 5:28:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	100	7/17/2004 5:28:00 AM
Surr: Dichloroacetic acid (surr)	112	80-120		%REC	1	7/13/2004 4:51:00 AM

ALKALINITY**E310.1**Analyst: **HDO**

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-01

Client Sample ID: MW-2
Collection Date: 7/6/2004 10:15:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO ₃)	422	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	422	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-02

Client Sample ID: OCD-6
Collection Date: 7/6/2004 10:45:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 7/17/2004 Analyst: JCJ 7/17/2004 6:11:28 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	0.0242	0.0200		mg/L	2	Prep Date: 7/9/2004 Analyst: ALR 7/23/2004 2:21:00 PM
Arsenic	0.109	0.0100		mg/L	2	7/23/2004 12:33:00 AM
Barium	0.0174	0.0100		mg/L	2	7/23/2004 2:21:00 PM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 12:33:00 AM
Boron	0.759	0.200		mg/L	10	7/9/2004 10:34:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:21:00 PM
Calcium	654	25.0		mg/L	50	7/9/2004 9:48:00 PM
Chromium	ND	0.00400		mg/L	2	7/23/2004 12:33:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 12:33:00 AM
Copper	0.00678	0.00400		mg/L	2	7/23/2004 12:33:00 AM
Iron	11.9	0.400		mg/L	2	7/23/2004 12:33:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:21:00 PM
Magnesium	238	10.0		mg/L	50	7/9/2004 9:48:00 PM
Manganese	2.44	0.250		mg/L	50	7/9/2004 9:48:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 12:33:00 AM
Nickel	0.0219	0.0100		mg/L	2	7/23/2004 12:33:00 AM
Potassium	11.9	0.400		mg/L	2	7/23/2004 12:33:00 AM
Selenium	ND	0.0100		mg/L	2	7/23/2004 12:33:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:21:00 PM
Sodium	3,020	10.0		mg/L	50	7/9/2004 9:48:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 12:33:00 AM
Zinc	0.0155	0.0100		mg/L	2	7/23/2004 12:33:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 7/8/2004 Analyst: HV 7/16/2004 9:45:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:45:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:45:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 9:45:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 9:45:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-02

Client Sample ID: OCD-6
Collection Date: 7/6/2004 10:45:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 9:45:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 9:45:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 9:45:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 9:45:00 PM
Surr: 2,4,6-Tribromophenol	98.9	39-153		%REC	1	7/16/2004 9:45:00 PM
Surr: 2-Fluorobiphenyl	84.2	40-147		%REC	1	7/16/2004 9:45:00 PM
Surr: 2-Fluorophenol	39.8	21-110		%REC	1	7/16/2004 9:45:00 PM
Surr: 4-Terphenyl-d14	79.0	39-141		%REC	1	7/16/2004 9:45:00 PM
Surr: Nitrobenzene-d5	73.7	37-140		%REC	1	7/16/2004 9:45:00 PM
Surr: Phenol-d6	24.3	11-100		%REC	1	7/16/2004 9:45:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

Benzene	ND	5.0		µg/L	1	7/9/2004 12:47:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/9/2004 12:47:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 12:47:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 12:47:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 12:47:00 PM
Surr: 1,2-Dichloroethane-d4	84.8	71-126		%REC	1	7/9/2004 12:47:00 PM
Surr: 4-Bromofluorobenzene	90.3	74-125		%REC	1	7/9/2004 12:47:00 PM
Surr: Dibromofluoromethane	87.4	73-126		%REC	1	7/9/2004 12:47:00 PM
Surr: Toluene-d8	88.1	75-125		%REC	1	7/9/2004 12:47:00 PM

ANIONS BY ION CHROMATOGRAPHY

E300

Analyst: MG

Chloride	3,380	50.0		mg/L	100	7/13/2004 7:13:00 AM
Fluoride	5.00	0.100		mg/L	1	7/13/2004 6:16:00 AM
Sulfate	4,300	100		mg/L	100	7/13/2004 7:13:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	100	7/13/2004 7:13:00 AM
Surr: Dichloroacetic acid (surr)	114	80-120		%REC	1	7/13/2004 6:16:00 AM

ALKALINITY

E310.1

Analyst: HDO

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

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e-Lab Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-02

Client Sample ID: OCD-6
Collection Date: 7/6/2004 10:45:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO ₃)	686	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	686	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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 Analytical, Inc.
Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-03

Client Sample ID: MW-4
Collection Date: 7/6/2004 2:00:00 PM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 7/17/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/17/2004 6:13:00 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 7/9/2004	Analyst: ALR
Aluminum	ND	0.0200		mg/L	2	7/23/2004 2:26:00 PM
Arsenic	0.124	0.0100		mg/L	2	7/23/2004 12:38:00 AM
Barium	0.0159	0.0100		mg/L	2	7/23/2004 2:26:00 PM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 12:38:00 AM
Boron	0.505	0.200		mg/L	10	7/9/2004 10:38:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:26:00 PM
Calcium	376	25.0		mg/L	50	7/9/2004 9:52:00 PM
Chromium	ND	0.00400		mg/L	2	7/23/2004 12:38:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 12:38:00 AM
Copper	ND	0.00400		mg/L	2	7/23/2004 12:38:00 AM
Iron	4.71	0.400		mg/L	2	7/23/2004 12:38:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:26:00 PM
Magnesium	113	2.00		mg/L	10	7/9/2004 10:38:00 PM
Manganese	1.58	0.0500		mg/L	10	7/9/2004 10:38:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 12:38:00 AM
Nickel	0.0110	0.0100		mg/L	2	7/23/2004 12:38:00 AM
Potassium	2.90	0.400		mg/L	2	7/23/2004 12:38:00 AM
Selenium	0.0150	0.0100		mg/L	2	7/23/2004 12:38:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:26:00 PM
Sodium	757	10.0		mg/L	50	7/9/2004 9:52:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 12:38:00 AM
Zinc	ND	0.0100		mg/L	2	7/23/2004 12:38:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/8/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:12:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:12:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:12:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 10:12:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-03

Client Sample ID: MW-4
Collection Date: 7/6/2004 2:00:00 PM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 10:12:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 10:12:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 10:12:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 10:12:00 PM
Surr: 2,4,6-Tribromophenol	102	39-153		%REC	1	7/16/2004 10:12:00 PM
Surr: 2-Fluorobiphenyl	79.9	40-147		%REC	1	7/16/2004 10:12:00 PM
Surr: 2-Fluorophenol	37.9	21-110		%REC	1	7/16/2004 10:12:00 PM
Surr: 4-Terphenyl-d14	73.5	39-141		%REC	1	7/16/2004 10:12:00 PM
Surr: Nitrobenzene-d5	73.6	37-140		%REC	1	7/16/2004 10:12:00 PM
Surr: Phenol-d6	22.6	11-100		%REC	1	7/16/2004 10:12:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

Benzene	ND	5.0		µg/L	1	7/9/2004 1:13:00 PM
Ethylbenzene	6.6	5.0		µg/L	1	7/9/2004 1:13:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 1:13:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 1:13:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 1:13:00 PM
Surr: 1,2-Dichloroethane-d4	80.6	71-126		%REC	1	7/9/2004 1:13:00 PM
Surr: 4-Bromofluorobenzene	91.2	74-125		%REC	1	7/9/2004 1:13:00 PM
Surr: Dibromofluoromethane	85.3	73-126		%REC	1	7/9/2004 1:13:00 PM
Surr: Toluene-d8	87.6	75-125		%REC	1	7/9/2004 1:13:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	923	50.0		mg/L	100	7/17/2004 5:57:00 AM
Fluoride	2.13	0.100		mg/L	1	7/13/2004 7:42:00 AM
Sulfate	1,370	100		mg/L	100	7/17/2004 5:57:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	100	7/17/2004 5:57:00 AM
Surr: Dichloroacetic acid (surr)	115	80-120		%REC	1	7/13/2004 7:42:00 AM

ALKALINITY**E310.1**Analyst: **HDO**

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-03

Client Sample ID: MW-4
Collection Date: 7/6/2004 2:00:00 PM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO3)	216	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO3)	216	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-04

Client Sample ID: MW-6
Collection Date: 7/6/2004 2:30:00 PM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	7/17/2004 6:14:32 PM
ICP METALS, TOTAL						
Aluminum	0.792	0.100		mg/L	10	7/9/2004 10:43:00 PM
Arsenic	0.0352	0.0100		mg/L	2	7/23/2004 1:11:00 AM
Barium	0.0383	0.0100		mg/L	2	7/23/2004 2:31:00 PM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 1:11:00 AM
Boron	0.394	0.200		mg/L	10	7/9/2004 10:43:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:31:00 PM
Calcium	613	25.0		mg/L	50	7/9/2004 9:57:00 PM
Chromium	ND	0.00400		mg/L	2	7/23/2004 1:11:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 1:11:00 AM
Copper	0.00482	0.00400		mg/L	2	7/23/2004 1:11:00 AM
Iron	6.46	0.400		mg/L	2	7/23/2004 1:11:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:31:00 PM
Magnesium	92.2	2.00		mg/L	10	7/9/2004 10:43:00 PM
Manganese	0.671	0.0500		mg/L	10	7/9/2004 10:43:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 1:11:00 AM
Nickel	0.0199	0.0100		mg/L	2	7/23/2004 1:11:00 AM
Potassium	1.75	0.400		mg/L	2	7/23/2004 1:11:00 AM
Selenium	0.0196	0.0100		mg/L	2	7/23/2004 1:11:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:31:00 PM
Sodium	647	10.0		mg/L	50	7/9/2004 9:57:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 1:11:00 AM
Zinc	0.0149	0.0100		mg/L	2	7/23/2004 1:11:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:38:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:38:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:38:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 10:38:00 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

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e-Lab Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-04

Client Sample ID: MW-6
Collection Date: 7/6/2004 2:30:00 PM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 10:38:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 10:38:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 10:38:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 10:38:00 PM
Surr: 2,4,6-Tribromophenol	105	39-153		%REC	1	7/16/2004 10:38:00 PM
Surr: 2-Fluorobiphenyl	85.0	40-147		%REC	1	7/16/2004 10:38:00 PM
Surr: 2-Fluorophenol	40.4	21-110		%REC	1	7/16/2004 10:38:00 PM
Surr: 4-Terphenyl-d14	74.8	39-141		%REC	1	7/16/2004 10:38:00 PM
Surr: Nitrobenzene-d5	77.8	37-140		%REC	1	7/16/2004 10:38:00 PM
Surr: Phenol-d6	23.7	11-100		%REC	1	7/16/2004 10:38:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

Benzene	ND	5.0		µg/L	1	7/9/2004 1:38:00 PM
Ethylbenzene	7.9	5.0		µg/L	1	7/9/2004 1:38:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 1:38:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 1:38:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 1:38:00 PM
Surr: 1,2-Dichloroethane-d4	82.1	71-126		%REC	1	7/9/2004 1:38:00 PM
Surr: 4-Bromofluorobenzene	90.2	74-125		%REC	1	7/9/2004 1:38:00 PM
Surr: Dibromofluoromethane	86.2	73-126		%REC	1	7/9/2004 1:38:00 PM
Surr: Toluene-d8	87.6	75-125		%REC	1	7/9/2004 1:38:00 PM

ANIONS BY ION CHROMATOGRAPHY

E300

Analyst: MG

Chloride	846	25.0		mg/L	50	7/13/2004 10:33:00 AM
Fluoride	2.01	0.100		mg/L	1	7/13/2004 8:39:00 AM
Sulfate	2,170	50.0		mg/L	50	7/13/2004 10:33:00 AM
Surr: Dichloroacetic acid (surr)	113	80-120		%REC	1	7/13/2004 8:39:00 AM
Surr: Dichloroacetic acid (surr)	114	80-120		%REC	50	7/13/2004 10:33:00 AM

ALKALINITY

E310.1

Analyst: HDO

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company

Client Sample ID: MW-6

Work Order: 0407076

Collection Date: 7/6/2004 2:30:00 PM

Project: Ponds

Lab ID: 0407076-04

Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO ₃)	127	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	127	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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

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e-Lab Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-05

Client Sample ID: OCD-2
Collection Date: 7/7/2004 8:30:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 7/17/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/17/2004 6:16:05 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 7/9/2004	Analyst: ALR
Aluminum	0.649	0.100		mg/L	10	7/9/2004 10:48:00 PM
Arsenic	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Barium	0.0294	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 2:05:00 AM
Boron	0.455	0.200		mg/L	10	7/9/2004 10:48:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:05:00 AM
Calcium	637	25.0		mg/L	50	7/9/2004 10:02:00 PM
Chromium	ND	0.00400		mg/L	2	7/23/2004 2:05:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 2:05:00 AM
Copper	0.00710	0.00400		mg/L	2	7/23/2004 2:05:00 AM
Iron	8.89	0.400		mg/L	2	7/23/2004 2:05:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Magnesium	237	10.0		mg/L	50	7/9/2004 10:02:00 PM
Manganese	1.48	0.0500		mg/L	10	7/9/2004 10:48:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Nickel	0.0175	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Potassium	4.37	2.00		mg/L	10	7/9/2004 10:48:00 PM
Selenium	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Sodium	1,250	10.0		mg/L	50	7/9/2004 10:02:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 2:05:00 AM
Zinc	0.0281	0.0100		mg/L	2	7/23/2004 2:05:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/8/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:05:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:05:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:05:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 11:05:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-05

Client Sample ID: OCD-2
Collection Date: 7/7/2004 8:30:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 11:05:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 11:05:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 11:05:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 11:05:00 PM
Surr: 2,4,6-Tribromophenol	94.6	39-153		%REC	1	7/16/2004 11:05:00 PM
Surr: 2-Fluorobiphenyl	77.0	40-147		%REC	1	7/16/2004 11:05:00 PM
Surr: 2-Fluorophenol	36.1	21-110		%REC	1	7/16/2004 11:05:00 PM
Surr: 4-Terphenyl-d14	78.4	39-141		%REC	1	7/16/2004 11:05:00 PM
Surr: Nitrobenzene-d5	70.1	37-140		%REC	1	7/16/2004 11:05:00 PM
Surr: Phenol-d6	20.8	11-100		%REC	1	7/16/2004 11:05:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

Benzene	ND	5.0		µg/L	1	7/9/2004 2:29:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/9/2004 2:29:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 2:29:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 2:29:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 2:29:00 PM
Surr: 1,2-Dichloroethane-d4	81.8	71-126		%REC	1	7/9/2004 2:29:00 PM
Surr: 4-Bromofluorobenzene	92.7	74-125		%REC	1	7/9/2004 2:29:00 PM
Surr: Dibromofluoromethane	85.7	73-126		%REC	1	7/9/2004 2:29:00 PM
Surr: Toluene-d8	89.6	75-125		%REC	1	7/9/2004 2:29:00 PM

ANIONS BY ION CHROMATOGRAPHY

E300

Analyst: MG

Chloride	2,150	50.0		mg/L	100	7/13/2004 12:27:00 PM
Fluoride	1.22	0.100		mg/L	1	7/13/2004 11:30:00 AM
Sulfate	2,250	100		mg/L	100	7/13/2004 12:27:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	100	7/13/2004 12:27:00 PM
Surr: Dichloroacetic acid (surr)	114	80-120		%REC	1	7/13/2004 11:30:00 AM

ALKALINITY

E310.1

Analyst: HDO

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company

Client Sample ID: OCD-2

Work Order: 0407076

Collection Date: 7/7/2004 8:30:00 AM

Project: Ponds

Lab ID: 0407076-05

Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO ₃)	196	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	196	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
 Work Order: 0407076
 Project: Ponds
 Lab ID: 0407076-06

Client Sample ID: OCD-4
 Collection Date: 7/7/2004 9:00:00 AM
 Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 7/17/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/17/2004 6:17:38 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 7/9/2004	Analyst: ALR
Aluminum	ND	0.0200		mg/L	2	7/23/2004 2:10:00 AM
Arsenic	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Barium	0.0238	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 2:10:00 AM
Boron	1.43	0.200		mg/L	10	7/9/2004 10:52:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:10:00 AM
Calcium	817	25.0		mg/L	50	7/9/2004 10:15:00 PM
Chromium	ND	0.00400		mg/L	2	7/23/2004 2:10:00 AM
Cobalt	ND	0.00400		mg/L	2	7/23/2004 2:10:00 AM
Copper	0.00845	0.00400		mg/L	2	7/23/2004 2:10:00 AM
Iron	10.3	0.400		mg/L	2	7/23/2004 2:10:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Magnesium	291	10.0		mg/L	50	7/9/2004 10:15:00 PM
Manganese	0.249	0.0500		mg/L	10	7/9/2004 10:52:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Nickel	0.0219	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Potassium	40.3	2.00		mg/L	10	7/9/2004 10:52:00 PM
Selenium	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Sodium	2,730	10.0		mg/L	50	7/9/2004 10:15:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 2:10:00 AM
Zinc	0.0175	0.0100		mg/L	2	7/23/2004 2:10:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/8/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:31:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:31:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 11:31:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 11:31:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-06

Client Sample ID: OCD-4
Collection Date: 7/7/2004 9:00:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 11:31:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 11:31:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 11:31:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 11:31:00 PM
Surr: 2,4,6-Tribromophenol	90.2	39-153		%REC	1	7/16/2004 11:31:00 PM
Surr: 2-Fluorobiphenyl	84.6	40-147		%REC	1	7/16/2004 11:31:00 PM
Surr: 2-Fluorophenol	39.8	21-110		%REC	1	7/16/2004 11:31:00 PM
Surr: 4-Terphenyl-d14	79.5	39-141		%REC	1	7/16/2004 11:31:00 PM
Surr: Nitrobenzene-d5	73.8	37-140		%REC	1	7/16/2004 11:31:00 PM
Surr: Phenol-d6	22.9	11-100		%REC	1	7/16/2004 11:31:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

Benzene	ND	5.0		µg/L	1	7/9/2004 2:54:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/9/2004 2:54:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/9/2004 2:54:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 2:54:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 2:54:00 PM
Surr: 1,2-Dichloroethane-d4	82.4	71-126		%REC	1	7/9/2004 2:54:00 PM
Surr: 4-Bromofluorobenzene	91.1	74-125		%REC	1	7/9/2004 2:54:00 PM
Surr: Dibromofluoromethane	85.0	73-126		%REC	1	7/9/2004 2:54:00 PM
Surr: Toluene-d8	88.4	75-125		%REC	1	7/9/2004 2:54:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	4,660	100		mg/L	200	7/13/2004 11:23:00 PM
Fluoride	0.870	0.100		mg/L	1	7/13/2004 12:55:00 PM
Sulfate	2,950	100		mg/L	100	7/13/2004 1:52:00 PM
Surr: Dichloroacetic acid (surr)	114	80-120		%REC	200	7/13/2004 11:23:00 PM
Surr: Dichloroacetic acid (surr)	117	80-120		%REC	1	7/13/2004 12:55:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	100	7/13/2004 1:52:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-06

Client Sample ID: OCD-4
Collection Date: 7/7/2004 9:00:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
ALKALINITY				E310.1		Analyst: HDO
Alkalinity, Bicarbonate (As CaCO ₃)	206	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	206	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL				E335.3		Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-07

Client Sample ID: OCD-8
Collection Date: 7/7/2004 9:30:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	7/17/2004 6:25:15 PM
ICP METALS, TOTAL						
Aluminum	5.99	0.500		mg/L	50	7/9/2004 10:20:00 PM
Arsenic	0.0862	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Barium	0.0699	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Beryllium	ND	0.00400		mg/L	2	7/23/2004 2:15:00 AM
Boron	0.862	0.200		mg/L	10	7/9/2004 10:57:00 PM
Cadmium	ND	0.00200		mg/L	2	7/23/2004 2:15:00 AM
Calcium	619	25.0		mg/L	50	7/9/2004 10:20:00 PM
Chromium	0.00587	0.00400		mg/L	2	7/23/2004 2:15:00 AM
Cobalt	0.00647	0.00400		mg/L	2	7/23/2004 2:15:00 AM
Copper	0.0226	0.00400		mg/L	2	7/23/2004 2:15:00 AM
Iron	11.1	0.400		mg/L	2	7/23/2004 2:15:00 AM
Lead	ND	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Magnesium	263	10.0		mg/L	50	7/9/2004 10:20:00 PM
Manganese	3.45	0.250		mg/L	50	7/9/2004 10:20:00 PM
Molybdenum	ND	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Nickel	0.0384	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Potassium	9.33	2.00		mg/L	10	7/9/2004 10:57:00 PM
Selenium	ND	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Silver	ND	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Sodium	2,150	10.0		mg/L	50	7/9/2004 10:20:00 PM
Vanadium	ND	0.0100		mg/L	2	7/23/2004 2:15:00 AM
Zinc	0.0366	0.0100		mg/L	2	7/23/2004 2:15:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2-Methylphenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/17/2004 5:52:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/17/2004 5:52:00 PM
4-Methylphenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/17/2004 5:52:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Acenaphthene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Acenaphthylene	ND	10		µg/L	1	7/17/2004 5:52:00 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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company
Work Order: 0407076
Project: Ponds
Lab ID: 0407076-07

Client Sample ID: OCD-8
Collection Date: 7/7/2004 9:30:00 AM
Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Anthracene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Benzidine	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Hexachloroethane	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Isophorone	ND	10		µg/L	1	7/17/2004 5:52:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/17/2004 5:52:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/17/2004 5:52:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Naphthalene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Nitrobenzene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Phenanthrene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Phenol	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Pyrene	ND	10		µg/L	1	7/17/2004 5:52:00 PM
Surr: 2,4,6-Tribromophenol	107	39-153		%REC	1	7/17/2004 5:52:00 PM
Surr: 2-Fluorobiphenyl	90.3	40-147		%REC	1	7/17/2004 5:52:00 PM
Surr: 2-Fluorophenol	44.5	21-110		%REC	1	7/17/2004 5:52:00 PM
Surr: 4-Terphenyl-d14	86.1	39-141		%REC	1	7/17/2004 5:52:00 PM
Surr: Nitrobenzene-d5	92.4	37-140		%REC	1	7/17/2004 5:52:00 PM
Surr: Phenol-d6	27.9	11-100		%REC	1	7/17/2004 5:52:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

Benzene	ND	5.0		µg/L	1	7/9/2004 3:20:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/9/2004 3:20:00 PM
Methyl tert-butyl ether	9.2	5.0		µg/L	1	7/9/2004 3:20:00 PM
Toluene	ND	5.0		µg/L	1	7/9/2004 3:20:00 PM
Xylenes, Total	ND	15		µg/L	1	7/9/2004 3:20:00 PM
Surr: 1,2-Dichloroethane-d4	83.8	71-126		%REC	1	7/9/2004 3:20:00 PM
Surr: 4-Bromofluorobenzene	90.7	74-125		%REC	1	7/9/2004 3:20:00 PM
Surr: Dibromofluoromethane	87.8	73-126		%REC	1	7/9/2004 3:20:00 PM
Surr: Toluene-d8	89.3	75-125		%REC	1	7/9/2004 3:20:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	2,450	50.0		mg/L	100	7/13/2004 3:46:00 PM
Fluoride	2.56	0.100		mg/L	1	7/13/2004 2:21:00 PM
Sulfate	3,500	100		mg/L	100	7/13/2004 3:46:00 PM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	100	7/13/2004 3:46:00 PM
Surr: Dichloroacetic acid (surr)	112	80-120		%REC	1	7/13/2004 2:21:00 PM

ALKALINITY**E310.1**Analyst: **HDO**

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 Analytical, Inc.

Date: July 23, 2004

CLIENT: Navajo Refining Company

Client Sample ID: OCD-8

Work Order: 0407076

Collection Date: 7/7/2004 9:30:00 AM

Project: Ponds

Lab ID: 0407076-07

Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Alkalinity, Bicarbonate (As CaCO ₃)	481	5.00		mg/L	1	7/12/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	7/12/2004
Alkalinity, Total (As CaCO ₃)	481	5.00		mg/L	1	7/12/2004
CYANIDE, TOTAL			E335.3			Analyst: HDO
Cyanide	ND	0.0200		mg/L	1	7/9/2004

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

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e-Lab Analytical, Inc.

Date: Jul 23 2004

CLIENT: Navajo Refining Company

Work Order: 0407076

Project: Ponds

QC BATCH REPORT

Batch ID: 9539 InstrumentID: ICP4500

MBLK Sample ID: MBLKW3-070904 Test Code: SW6020 Units: mg/L Analysis Date: 07/09/04 21:25

Client ID: Run ID: ICP4500_040709A SeqNo: 505844 Prep Date: 7/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.003459	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: 9539 InstrumentID: ICP4500

LCS Sample ID: MLCW3-070904 Test Code: SW6020 Units: mg/L Analysis Date: 07/09/04 21:29

Client ID: Run ID: ICP4500_040709A SeqNo: 505845 Prep Date: 7/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04844	0.010	0.05	0	96.9	79-126	0			
Arsenic	0.04766	0.0050	0.05	0	95.3	80-121	0			
Barium	0.04274	0.0050	0.05	0	85.5	79.8-119	0			
Beryllium	0.04529	0.0020	0.05	0	90.6	78.9-120	0			
Boron	0.4936	0.020	0.5	0	98.7	80-120	0			
Cadmium	0.04849	0.0020	0.05	0	97	79.1-119	0			
Calcium	4.804	0.50	5	0	96.1	80-121	0			
Chromium	0.04798	0.0050	0.05	0	96	79.3-121	0			
Cobalt	0.04761	0.0050	0.05	0	95.2	82-121	0			
Copper	0.04535	0.0050	0.05	0	90.7	83-121	0			
Iron	4.902	0.20	5	0	98	80-120	0			
Lead	0.04454	0.0050	0.05	0	89.1	80-118	0			
Magnesium	5.139	0.20	5	0	103	80-120	0			
Manganese	0.04778	0.0050	0.05	0	95.6	82-119	0			
Molybdenum	0.04486	0.0050	0.05	0	89.7	84.6-115	0			
Nickel	0.04723	0.0050	0.05	0	94.5	85-120	0			
Potassium	4.953	0.20	5	0	99.1	80-120	0			
Selenium	0.0466	0.0050	0.05	0	93.2	79.2-118	0			
Silver	0.04787	0.0050	0.05	0	95.7	83-117	0			
Sodium	5.081	0.20	5	0	102	82.4-120	0			
Vanadium	0.04735	0.0050	0.05	0	94.7	82.1-119	0			
Zinc	0.04587	0.0050	0.05	0	91.7	83-118	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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: 9539 InstrumentID: ICP4500

MS Sample ID: 0407028-83CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/10/04 0:14

Client ID: Run ID: ICP4500_040709A SeqNo: 505874 Prep Date: 7/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05038	0.010	0.05	0.002733	95.3	79-126	0			
Arsenic	0.04968	0.0050	0.05	0.003932	91.5	80-121	0			
Barium	0.07232	0.0050	0.05	0.02595	92.7	79.8-119	0			
Beryllium	0.0509	0.0020	0.05	0.0005094	101	78.9-120	0			
Boron	0.623	0.020	0.5	0.09092	106	80-120	0			
Cadmium	0.04574	0.0020	0.05	0.0003332	90.8	79.1-119	0			
Calcium	90.82	0.50	5	84.69	123	80-121	0			SEO
Chromium	0.04515	0.0050	0.05	0	90.3	79.3-121	0			
Cobalt	0.04827	0.0050	0.05	0.004039	88.5	82-121	0			
Copper	0.04228	0.0050	0.05	0.0009502	82.7	83-121	0			S
Iron	5.002	0.20	5	0.2496	95	80-120	0			
Lead	0.04748	0.0050	0.05	0	95	80-118	0			
Magnesium	28.5	0.20	5	23.83	93.4	80-120	0			O
Manganese	0.1942	0.0050	0.05	0.1499	88.6	82-119	0			
Molybdenum	0.04699	0.0050	0.05	0	94	84.6-115	0			
Nickel	0.05298	0.0050	0.05	0.01094	84.1	85-120	0			S
Potassium	7.353	0.20	5	2.353	100	80-120	0			
Selenium	0.046	0.0050	0.05	0.003609	84.8	79.2-118	0			
Silver	0.04262	0.0050	0.05	0	85.2	83-117	0			
Sodium	164.1	0.20	5	161.8	46	82.4-120	0			SEO
Vanadium	0.0482	0.0050	0.05	0.0006576	95.1	82.1-119	0			
Zinc	0.04617	0.0050	0.05	0.004682	83	83-118	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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: 9530 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040708 Test Code: SW8270 Units: µg/L Analysis Date: 07/09/04 14:25

Client ID: Run ID: SV-3_040709A SeqNo: 506059 Prep Date: 7/8/2004 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	94.23	10	100	0	94.2	39-153		0		
Surr: 2-Fluorobiphenyl	70.33	10	100	0	70.3	40-147		0		
Surr: 2-Fluorophenol	41.11	10	100	0	41.1	21-110		0		
Surr: 4-Terphenyl-d14	79.91	10	100	0	79.9	39-141		0		
Surr: Nitrobenzene-d5	73.4	10	100	0	73.4	37-140		0		
Surr: Phenol-d6	26.55	10	100	0	26.5	11-100		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: 0407076
Project: Ponds

QC BATCH REPORT

Batch ID: R21623 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-070904 Test Code: E335.3 Units: mg/L Analysis Date: 07/09/04 0:00

Client ID: Run ID: UV-2101PC_040709A SeqNo: 505245 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: WLCSW1-070904 Test Code: E335.3 Units: mg/L Analysis Date: 07/09/04 0:00

Client ID: Run ID: UV-2101PC_040709A SeqNo: 505246 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1894	0.020	0.2	0	94.7	80-120	0			

MS Sample ID: 0407026-01BMS Test Code: E335.3 Units: mg/L Analysis Date: 07/09/04 0:00

Client ID: Run ID: UV-2101PC_040709A SeqNo: 505265 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1754	0.020	0.2	0.0048	85.3	75-125	0			

MSD Sample ID: 0407026-01BMSD Test Code: E335.3 Units: mg/L Analysis Date: 07/09/04 0:00

Client ID: Run ID: UV-2101PC_040709A SeqNo: 505268 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1751	0.020	0.2	0.0048	85.2	75-125	0.1754	0.171	25	

DUP Sample ID: 0407026-01BDUP Test Code: E335.3 Units: mg/L Analysis Date: 07/09/04 0:00

Client ID: Run ID: UV-2101PC_040709A SeqNo: 505262 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	0	20	

The following samples were analyzed in this batch:

0407076-01D	0407076-02D	0407076-03D
0407076-04D	0407076-05D	0407076-06D
0407076-07D		

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: 0407076
Project: Ponds

QC BATCH REPORT

Batch ID: R21657 InstrumentID: WetChem

MBLK Sample ID: WBLKW-071204 Test Code: E310.1 Units: mg/L Analysis Date: 07/12/04 0:00

Client ID: Run ID: WETCHEM_040712B SeqNo: 506101 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: WLCSW1-071204 Test Code: E310.1 Units: mg/L Analysis Date: 07/12/04 0:00

Client ID: Run ID: WETCHEM_040712B SeqNo: 506102 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)	980.7	5.0	0	0.9806	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	980.7	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: 0407076-01BDUP Test Code: E310.1 Units: mg/L Analysis Date: 07/12/04 0:00

Client ID: MW-2 Run ID: WETCHEM_040712B SeqNo: 506130 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)	421.7	5.0	0	0	0	0-0	421.7	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)	421.7	5.0	0	0	0	0-0	421.7	0	20	

The following samples were analyzed in this batch:

0407076-01B	0407076-02B	0407076-03B
0407076-04B	0407076-05B	0407076-06B
0407076-07B		

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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: R21698 InstrumentID: IC201

MBLK Sample ID: WBLKW1-071204 Test Code: E300 Units: mg/L Analysis Date: 07/12/04 23:08

Client ID: Run ID: IC201_040712B SeqNo: 506929 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								
Surr: Dichloroacetic acid (surr)	5.26	0.10	5	0	105	80-120		0		

LCS Sample ID: WLCSW1-071204 Test Code: E300 Units: mg/L Analysis Date: 07/12/04 23:37

Client ID: Run ID: IC201_040712B SeqNo: 506930 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	2.1	0.10	2	0	105	80-120		0		
Sulfate	10.41	1.0	10	0	104	80-120		0		
Surr: Dichloroacetic acid (surr)	5.58	0.10	5	0	112	80-120		0		

LCSD Sample ID: WLCSW1DUP-071 Test Code: E300 Units: mg/L Analysis Date: 07/13/04 0:05

Client ID: Run ID: IC201_040712B SeqNo: 506931 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	2.12	0.10	2	0	106	80-120		0		
Sulfate	10.43	1.0	10	0	104	80-120		0		
Surr: Dichloroacetic acid (surr)	5.6	0.10	5	0	112	80-120		0		

MS Sample ID: 0407016-02AMS Test Code: E300 Units: mg/L Analysis Date: 07/13/04 1:31

Client ID: Run ID: IC201_040712B SeqNo: 506934 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3695	50	1000	2719	97.6	75-125		0		
Fluoride	216	10	200	0	108	75-125		0		
Sulfate	1255	100	1000	273	98.2	75-125		0		
Surr: Dichloroacetic acid (surr)	528	10	500	0	106	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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: R21698 InstrumentID: IC201

MSD Sample ID: 0407016-02AMSD Test Code: E300 Units: mg/L Analysis Date: 07/13/04 1:59

Client ID: Run ID: IC201_040712B SeqNo: 506935 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3686	50	1000	2719	96.7	75-125	3695	0.244	20	
Fluoride	212	10	200	0	106	75-125	216	1.87	20	
Sulfate	1255	100	1000	273	98.2	75-125	1255	0	20	
Surr: Dichloroacetic acid (surr)	534	10	500	0	107	80-120	528	1.13	20	

DUP Sample ID: 0407016-02ADUP Test Code: E300 Units: mg/L Analysis Date: 07/13/04 1:02

Client ID: Run ID: IC201_040712B SeqNo: 506933 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2515	50	0	0	0	0-0	2719	7.8	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	259	100	0	0	0	0-0	273	5.26	20	
Surr: Dichloroacetic acid (surr)	538	10	500	0	108	80-120	571	5.95	20	

DUP Sample ID: 0407076-04BDUP Test Code: E300 Units: mg/L Analysis Date: 07/13/04 11:01

Client ID: MW-6 Run ID: IC201_040712B SeqNo: 506938 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	844	25	0	0	0	0-0	845.5	0.178	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	2172	50	0	0	0	0-0	2174	0.115	20	
Surr: Dichloroacetic acid (surr)	279	5.0	250	0	112	80-120	284.5	1.95	20	

DUP Sample ID: 0407076-07BDUP Test Code: E300 Units: mg/L Analysis Date: 07/13/04 14:49

Client ID: OCD-8 Run ID: IC201_040712B SeqNo: 506944 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	3191	0.50	0	0	0	0-0	3183	0.227	20	E
Fluoride	2.75	0.10	0	0	0	0-0	2.56	7.16	20	
Sulfate	4941	1.0	0	0	0	0-0	4912	0.6	20	E
Surr: Dichloroacetic acid (surr)	4.38	0.10	5	0	87.6	80-120	5.6	24.4	20	R

The following samples were analyzed in this batch:

0407076-01B	0407076-02B	0407076-03B
0407076-04B	0407076-05B	0407076-06B
0407076-07B		

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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: R21699 InstrumentID: IC201

MBLK Sample ID: WBLKW1-071304 Test Code: E300 Units: mg/L Analysis Date: 07/13/04 17:12

Client ID: Run ID: IC201_040713A SeqNo: 506964 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								
Surr: Dichloroacetic acid (surr)	5.21	0.10	5	0	104	80-120	0			

LCS Sample ID: WLCSW1-071304 Test Code: E300 Units: mg/L Analysis Date: 07/13/04 17:40

Client ID: Run ID: IC201_040713A SeqNo: 506965 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	2.12	0.10	2	0	106	80-120	0			
Sulfate	10.43	1.0	10	0	104	80-120	0			
Surr: Dichloroacetic acid (surr)	5.6	0.10	5	0	112	80-120	0			

LCSD Sample ID: WLCSDW1-07130 Test Code: E300 Units: mg/L Analysis Date: 07/13/04 18:09

Client ID: Run ID: IC201_040713A SeqNo: 506966 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	9.89	0.202	20	
Fluoride	2.1	0.10	2	0	105	80-120	2.12	0.948	20	
Sulfate	10.42	1.0	10	0	104	80-120	10.43	0.0959	20	
Surr: Dichloroacetic acid (surr)	5.43	0.10	5	0	109	80-120	5.6	3.08	20	

MS Sample ID: 0407119-02DMS Test Code: E300 Units: mg/L Analysis Date: 07/13/04 19:34

Client ID: Run ID: IC201_040713A SeqNo: 506969 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	70.59	0.50	10	59.31	113	75-125	0			EO
Fluoride	3.19	0.10	2	1.16	102	75-125	0			
Sulfate	31.69	1.0	10	21.25	104	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: 0407076
Project: Ponds

QC BATCH REPORT

Batch ID: R21699 InstrumentID: IC201

MSD	Sample ID: 0407119-02DMSD				Test Code: E300		Units: mg/L		Analysis Date: 07/13/04 20:03		
Client ID:	Run ID: IC201_040713A			SeqNo: 506970		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	70.67	0.50	10	59.31	114	75-125	70.59	0.113	20	EO	
Fluoride	3.21	0.10	2	1.16	102	75-125	3.19	0.625	20		
Sulfate	31.77	1.0	10	21.25	105	75-125	31.69	0.252	20		
Surr: Dichloroacetic acid (surr)	5	0.10	5	0	100	80-120	5.15	2.96	20		

DUP	Sample ID: 0407119-02DDUP			Test Code: E300		Units: mg/L		Analysis Date: 07/13/04 19:06		
Client ID:	Run ID: IC201_040713A			SeqNo: 506968		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	59.24	0.50	0	0	0	0-0	59.31	0.118	20	E
Fluoride	1.17	0.10	0	0	0	0-0	1.16	0.858	20	
Sulfate	21.23	1.0	0	0	0	0-0	21.25	0.0942	20	
Surr: Dichloroacetic acid (surr)	5.66	0.10	5	0	113	80-120	5.35	5.63	20	

DUP	Sample ID: 0407076-06BDUP			Test Code: E300		Units: mg/L		Analysis Date: 07/13/04 23:51		
Client ID: OCD-4	Run ID: IC201_040713A			SeqNo: 506975		Prep Date:		DF: 200		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4652	100	0	0	0	0-0	4656	0.0859	20	
Fluoride	ND	20	0	0	0	0-0	0	0	20	
Sulfate	2906	200	0	0	0	0-0	2910	0.138	20	
Surr: Dichloroacetic acid (surr)	1146	20	1000	0	115	80-120	1142	0.35	20	

The following samples were analyzed in this batch:

0407076-06B

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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: R21801 InstrumentID: IC201

MBLK Sample ID: WBLKW1-071604 Test Code: E300 Units: mg/L Analysis Date: 07/16/04 17:35

Client ID: Run ID: IC201_040716B SeqNo: 509960 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								
Surr: Dichloroacetic acid (surr)	4.97	0.10	5	0	99.4	80-120		0		

LCS Sample ID: WLC SW1-071604 Test Code: E300 Units: mg/L Analysis Date: 07/16/04 18:04

Client ID: Run ID: IC201_040716B SeqNo: 509961 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.49	0.50	10	0	94.9	80-120		0		
Fluoride	1.93	0.10	2	0	96.5	80-120		0		
Sulfate	9.41	1.0	10	0	94.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.15	0.10	5	0	103	80-120		0		

LCSD Sample ID: WLCSDW1-07160 Test Code: E300 Units: mg/L Analysis Date: 07/16/04 18:32

Client ID: Run ID: IC201_040716B SeqNo: 509962 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	80-120	9.49	0.317	20	
Fluoride	1.92	0.10	2	0	96	80-120	1.93	0.519	20	
Sulfate	9.41	1.0	10	0	94.1	80-120	9.41	0	20	
Surr: Dichloroacetic acid (surr)	5.37	0.10	5	0	107	80-120	5.15	4.18	20	

MS Sample ID: 0407138-02HMS Test Code: E300 Units: mg/L Analysis Date: 07/16/04 19:58

Client ID: Run ID: IC201_040716B SeqNo: 509965 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	333.2	5.0	100	234.3	98.9	75-125		0		
Fluoride	19.5	1.0	20	0	97.5	75-125		0		
Sulfate	521.2	10	100	424	97.2	75-125		0		EO
Surr: Dichloroacetic acid (surr)	52.5	1.0	50	0	105	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: 0407076
 Project: Ponds

QC BATCH REPORT

Batch ID: R21801 InstrumentID: IC201

MSD Sample ID: 0407138-02HMSD Test Code: E300 Units: mg/L Analysis Date: 07/16/04 20:26

Client ID: Run ID: IC201_040716B SeqNo: 509966 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	330.2	5.0	100	234.3	95.9	75-125	333.2	0.904	20	
Fluoride	19	1.0	20	0	95	75-125	19.5	2.6	20	
Sulfate	516.6	10	100	424	92.6	75-125	521.2	0.886	20	EO
Surr: Dichloroacetic acid (surr)	53.3	1.0	50	0	107	80-120	52.5	1.51	20	

DUP Sample ID: 0407138-02HDUP Test Code: E300 Units: mg/L Analysis Date: 07/16/04 19:29

Client ID: Run ID: IC201_040716B SeqNo: 509964 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	232	5.0	0	0	0	0-0	234.3	0.986	20	
Fluoride	ND	1.0	0	0	0	0-0	0	0	20	
Sulfate	419.2	10	0	0	0	0-0	424	1.14	20	
Surr: Dichloroacetic acid (surr)	53.1	1.0	50	0	106	80-120	53.1	0	20	

DUP Sample ID: 0407179-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/17/04 3:05

Client ID: Run ID: IC201_040716B SeqNo: 509975 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	248	50	0	0	0	0-0	248	0	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1072	100	0	0	0	0-0	1068	0.374	20	
Surr: Dichloroacetic acid (surr)	553	10	500	0	111	80-120	545	1.46	20	

DUP Sample ID: 0407076-03BDUP Test Code: E300 Units: mg/L Analysis Date: 07/17/04 6:25

Client ID: MW-4 Run ID: IC201_040716B SeqNo: 509982 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	924	50	0	0	0	0-0	923	0.108	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1375	100	0	0	0	0-0	1370	0.364	20	
Surr: Dichloroacetic acid (surr)	542	10	500	0	108	80-120	540	0.37	20	

The following samples were analyzed in this batch:

0407076-01B 0407076-03B

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

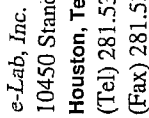
R - RPD outside accepted recovery limits

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



Chain of Custody Form

Page 1 of

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

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

Customer Information						Project Information						Parameter/Method Request for Analysis					
Purchase Order		Project Name	<i>Ponds</i>			A											
Work Order		Project Number				B											
Company Name	<i>Murphy's</i>	Bill To Company	<i>Sonne</i>			C											
Send Report To	<i>Jeff Byrd</i>	Invoice Attn.				D											
Address		Address				E											
City/State/Zip		City/State/Zip				F											
Phone		Phone				G											
Fax		Fax				H											
e-Mail Address						I											
						J											
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<i>MW-2</i>	<i>7/10/04</i>	<i>1015</i>	<i>L</i>	<i>1,2,4,8</i>	<i>8</i>	X										
2	<i>OCO-6</i>	<i>7/10/04</i>	<i>1045</i>	<i> </i>	<i> </i>	<i> </i>	X										
3	<i>MW-4</i>	<i>7/10/04</i>	<i>1400</i>	<i> </i>	<i> </i>	<i> </i>	X										
4	<i>MW-6</i>	<i>7/10/04</i>	<i>1430</i>	<i> </i>	<i> </i>	<i> </i>	X										
5	<i>OCO-2</i>	<i>7/10/04</i>	<i>0930</i>	<i> </i>	<i> </i>	<i> </i>	X										
6	<i>OCO-4</i>	<i>7/10/04</i>	<i>0900</i>	<i> </i>	<i> </i>	<i> </i>	X										
7	<i>OCO-3</i>	<i>7/10/04</i>	<i>0930</i>	<i> </i>	<i> </i>	<i> </i>	X										
8																	
9																	
10																	

Shipment Method: *Feo Ex*
 Required Turnaround Time: (Check Box) ☐ 10 WK Days ☐ 5 WK Days ☐ 3 WK Days ☐ 2 WK Days ☐ 24 Hour Other ☐

Results Due Date: _____

Relinquished by: *[Signature]*
 Received by: _____

Date: *7/14/04* *1615*
 Date: _____

Relinquished by: *[Signature]*
 Received by (Laboratory): _____

Date: *7/14/04* *0840*
 Date: _____

Logged by (Laboratory): _____

QC Package: (Check Box Below)
☐ Level II: Standard QC
 ☐ TRRP LRC
 ☐ Level III: Raw Data
☐ Level IV: SW846 Methods/CLP like
 ☐ Other: _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other *8-4°C*

Note: Any changes must be made in writing once samples are received.

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e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 7/8/2004 8:40:00 AM

Work Order Number 0407076

Received by: FSM

Checklist completed by

[Signature]
Signature

7/8/04
Date

Reviewed by

[Signature]
Initials

7/9/04
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):

2.8c, 3.4c, 2.5c

004

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 _____

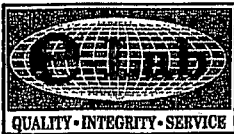
W.O.# 0407026

CUSTODY SEAL

08 Time: 3:10 pm
By: [Signature]
Refining Co

Seal Broken By:

Date: 7/8/04



e-Lab, Inc.

10450 Stancliff Rd. Suite 210
Houston, Texas 77099
Tel. 281.530.5656
Fax. 281.530.5887

Date: 7-7
Name: [Signature]
Company: [Signature]

CUSTODY SEAL

7-7-04 Time: 3:00 pm
By: [Signature]
Refining Co

Seal Broken By:

Date: 7/7/04



e-Lab, Inc.

10450 Stancliff Rd. Suite 210
Houston, Texas 77099
Tel. 281.530.5656
Fax. 281.530.5887

Date:
Name:
Company:

CUSTODY SEAL

7-7-04 Time: 3:15 pm
By: [Signature]
Refining Co

Seal Broken By:

Date: 7/7/04



e-Lab, Inc.

10450 Stancliff Rd. Suite 210
Houston, Texas 77099
Tel. 281.530.5656
Fax. 281.530.5887

Date:
Name: [Signature]
Company: [Signature]

ATTACHMENT E

2004 RO REJECT LABORATORY ANALYTICAL REPORTS



e-Lab, Inc.

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

March 22, 2004

Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5281
Fax: (505) 746-5421

Re: RO Reject

Work Order : **0403031**

Dear Darrell Moore,

e-Lab, Inc. received 1 sample on 3/3/2004 8:50:00 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 22.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab, Inc.

Date: March 22, 2004

CLIENT: Navajo Refining Company
Project: RO Reject
Work Order: 0403031

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0403031-01	RO Reject	Water		3/2/2004 13:45	3/3/2004 08:50	☐

e-Lab, Inc.

Date: *March 22, 2004*

CLIENT: Navajo Refining Company

Project: RO Reject

Work Order: 0403031

Case Narrative

Batch 8249 Metals MS/MSD recoveries were outside of control limits on an unrelated sample.

Batch 8329 Metals (sample RO Reject) MS/MSD recoveries were outside of control limits for Silver (76.5% and 79.2%). Both results confirm matrix interference.

e-Lab, Inc.

Date: March 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0403031
Project: RO Reject
Lab ID: 0403031-01

Client Sample ID: RO Reject
Collection Date: 3/2/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 3/4/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	3/5/2004 2:41:13 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 3/9/2004	Analyst: ALR
Aluminum	0.0269	0.0100		mg/L	1	3/12/2004 6:42:00 PM
Arsenic	ND	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Barium	0.0797	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Beryllium	ND	0.00200		mg/L	1	3/12/2004 6:42:00 PM
Boron	0.0871	0.0200		mg/L	1	3/13/2004 10:40:00 PM
Cadmium	ND	0.00100		mg/L	1	3/12/2004 6:42:00 PM
Calcium	662	25.0		mg/L	50	3/13/2004 9:00:00 PM
Chromium	ND	0.00200		mg/L	1	3/12/2004 6:42:00 PM
Cobalt	ND	0.00200		mg/L	1	3/12/2004 6:42:00 PM
Copper	0.00524	0.00200		mg/L	1	3/13/2004 10:40:00 PM
Iron	0.953	0.200		mg/L	1	3/12/2004 6:42:00 PM
Lead	ND	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Magnesium	176	2.00		mg/L	10	3/13/2004 9:05:00 PM
Manganese	ND	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Molybdenum	0.00870	0.00500		mg/L	1	3/13/2004 10:40:00 PM
Nickel	0.00844	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Potassium	3.76	0.200		mg/L	1	3/12/2004 6:42:00 PM
Selenium	0.0101	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Silver	ND	0.00500		mg/L	1	3/16/2004 2:44:00 PM
Sodium	158	2.00		mg/L	10	3/13/2004 9:05:00 PM
Vanadium	0.0101	0.00500		mg/L	1	3/12/2004 6:42:00 PM
Zinc	0.0172	0.00500		mg/L	1	3/12/2004 6:42:00 PM
ANIONS BY ION CHROMATOGRAPHY						
		E300				Analyst: MG
Chloride	301	5.00		mg/L	10	3/6/2004 5:23:00 AM
Fluoride	2.92	0.100		mg/L	1	3/6/2004 4:26:00 AM
Sulfate	1,530	50.0		mg/L	50	3/10/2004 7:33:00 PM
Surr: Dichloroacetic acid (surr)	98.0	80-120		%REC	50	3/10/2004 7:33:00 PM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	10	3/6/2004 5:23:00 AM
Surr: Dichloroacetic acid (surr)	98.2	80-120		%REC	1	3/6/2004 4:26:00 AM
ALKALINITY						
		E310.1				Analyst: LMD
Alkalinity, Bicarbonate (As CaCO3)	620	5.00		mg/L	1	3/4/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	3/4/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	3/4/2004
Alkalinity, Total (As CaCO3)	620	5.00		mg/L	1	3/4/2004

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: Mar 22 2004

CLIENT: Navajo Refining Company
 Work Order: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: 8213 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-030404 Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:22

Client ID: Run ID: MERCURY_040305B SeqNo: 437445 Prep Date: 3/4/2004 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: GLCSW1-030404 Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:24

Client ID: Run ID: MERCURY_040305B SeqNo: 437446 Prep Date: 3/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00547	0.00020	0.005	0	109	83-115	0			

LCSD Sample ID: GLCSDW1-030404 Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:30

Client ID: Run ID: MERCURY_040305B SeqNo: 437447 Prep Date: 3/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00538	0.00020	0.005	0	108	83-115	0.00547	1.66	20	

MS Sample ID: 0403019-02AMS Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:35

Client ID: Run ID: MERCURY_040305B SeqNo: 437450 Prep Date: 3/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00537	0.00020	0.005	0.000028	107	70-124	0			

MSD Sample ID: 0403019-02AMSD Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:36

Client ID: Run ID: MERCURY_040305B SeqNo: 437451 Prep Date: 3/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.00020	0.005	0.000028	111	70-124	0.00537	3.48	20	

DUP Sample ID: 0403019-02ADUP Test Code: SW7470 Units: mg/L Analysis Date: 03/05/04 14:33

Client ID: Run ID: MERCURY_040305B SeqNo: 437449 Prep Date: 3/4/2004 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	0.000028	0	20	

The following samples were analyzed in this batch:

0403031-01B

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: 0403031
Project: RO Reject

QC BATCH REPORT

Batch ID: 8249 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-030904 Test Code: SW6020 Units: mg/L Analysis Date: 03/12/04 18:33

Client ID: Run ID: ICP4500_040312A SeqNo: 440550 Prep Date: 3/9/2004 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								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
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								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: MBLKW2-030904 Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:22

Client ID: Run ID: ICP4500_040316A SeqNo: 441976 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	ND	0.020								
Copper	ND	0.0050								
Molybdenum	ND	0.0050								
Sodium	0.0807	0.20								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: 0403031
Project: RO Reject

QC BATCH REPORT

Batch ID: 8249 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-030904 Test Code: SW6020 Units: mg/L Analysis Date: 03/12/04 18:38

Client ID: Run ID: ICP4500_040312A SeqNo: 440551 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04349	0.010	0.05	0	87	79-126	0			
Arsenic	0.04261	0.0050	0.05	0	85.2	80-121	0			
Barium	0.04422	0.0050	0.05	0	88.4	79.8-119	0			
Beryllium	0.04243	0.0020	0.05	0	84.9	78.9-120	0			
Cadmium	0.04175	0.0020	0.05	0	83.5	79.1-119	0			
Calcium	4.664	0.50	5	0	93.3	80-121	0			
Chromium	0.04422	0.0050	0.05	0	88.4	79.3-121	0			
Cobalt	0.04395	0.0050	0.05	0	87.9	82-121	0			
Iron	4.625	0.20	5	0	92.5	80-120	0			
Lead	0.04273	0.0050	0.05	0	85.5	80-118	0			
Magnesium	4.566	0.20	5	0	91.3	80-120	0			
Manganese	0.04463	0.0050	0.05	0	89.3	82-119	0			
Nickel	0.04453	0.0050	0.05	0	89.1	85-120	0			
Potassium	4.543	0.20	5	0	90.9	80-120	0			
Selenium	0.04077	0.0050	0.05	0	81.5	79.2-118	0			
Vanadium	0.04416	0.0050	0.05	0	88.3	82.1-119	0			
Zinc	0.04351	0.0050	0.05	0	87	83-118	0			

LCS Sample ID: MLCSW2-030904 Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:35

Client ID: Run ID: ICP4500_040316A SeqNo: 441979 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	0.04661	0.0050	0.05	0	93.2	83-121	0			
Molybdenum	0.04676	0.0050	0.05	0	93.5	84.6-115	0			
Sodium	5.119	0.20	5	0	102	82.4-120	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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: 8249 InstrumentID: ICP4500

MS Sample ID: 0403067-02CMS Test Code: SW6020 Units: mg/L Analysis Date: 03/12/04 19:14

Client ID: Run ID: ICP4500_040312A SeqNo: 440559 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05298	0.010	0.05	0.006813	92.3	79-126	0			
Arsenic	0.07546	0.0050	0.05	0.0337	83.5	80-121	0			
Barium	2.094	0.0050	0.05	2.117	-46	79.8-119	0			SEO
Beryllium	0.04259	0.0020	0.05	0.00002649	85.1	78.9-120	0			
Cadmium	0.03865	0.0020	0.05	0.00005893	77.2	79.1-119	0			S
Calcium	190.4	0.50	5	194.6	-84	80-121	0			SEO
Chromium	0.04471	0.0050	0.05	0.001728	86	79.3-121	0			
Cobalt	0.05143	0.0050	0.05	0.008351	86.2	82-121	0			
Copper	0.04324	0.0050	0.05	0.003124	80.2	83-121	0			S
Iron	12.75	0.20	5	8.34	88.2	80-120	0			
Lead	0.04504	0.0050	0.05	0.00009912	89.9	80-118	0			
Magnesium	47.79	0.20	5	45.96	36.6	80-120	0			SO
Manganese	3.401	0.0050	0.05	3.534	-266	82-119	0			SEO
Nickel	0.05128	0.0050	0.05	0.01043	81.7	85-120	0			S
Potassium	5.804	0.20	5	1.187	92.3	80-120	0			
Selenium	0.04113	0.0050	0.05	0.002217	77.8	79.2-118	0			S
Sodium	ND	0.20	5	0	0	82.4-120	0			S
Vanadium	0.04651	0.0050	0.05	0.0005744	91.9	82.1-119	0			
Zinc	0.04416	0.0050	0.05	0.006602	75.1	83-118	0			S

MS Sample ID: 0403067-02CMS Test Code: SW6020 Units: mg/L Analysis Date: 03/13/04 22:54

Client ID: Run ID: ICP4500_040313A SeqNo: 440861 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Molybdenum	0.05292	0.0050	0.05	0.0079	90	84.6-115	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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: 8249 InstrumentID: ICP4500

MSD Sample ID: 0403067-02CMSD Test Code: SW6020 Units: mg/L Analysis Date: 03/12/04 19:27

Client ID: Run ID: ICP4500_040312A SeqNo: 440562 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05224	0.010	0.05	0.006813	90.9	79-126	0.05298	1.41	15	
Arsenic	0.07839	0.0050	0.05	0.0337	89.4	80-121	0.07546	3.81	15	
Barium	2.123	0.0050	0.05	2.117	12	79.8-119	2.094	1.38	15	SEO
Beryllium	0.04259	0.0020	0.05	0.00002649	85.1	78.9-120	0.04259	0	15	
Cadmium	0.03934	0.0020	0.05	0.00005893	78.6	79.1-119	0.03865	1.77	15	S
Calcium	195.8	0.50	5	194.6	24	80-121	190.4	2.8	15	SEO
Chromium	0.04646	0.0050	0.05	0.001728	89.5	79.3-121	0.04471	3.84	15	
Cobalt	0.05273	0.0050	0.05	0.008351	88.8	82-121	0.05143	2.5	15	
Copper	0.04377	0.0050	0.05	0.003124	81.3	83-121	0.04324	1.22	15	S
Iron	12.89	0.20	5	8.34	91	80-120	12.75	1.09	15	
Lead	0.04579	0.0050	0.05	0.00009912	91.4	80-118	0.04504	1.65	15	
Magnesium	48.55	0.20	5	45.96	51.8	80-120	47.79	1.58	15	SO
Manganese	3.457	0.0050	0.05	3.534	-154	82-119	3.401	1.63	15	SEO
Nickel	0.05257	0.0050	0.05	0.01043	84.3	85-120	0.05128	2.48	15	S
Potassium	5.843	0.20	5	1.187	93.1	80-120	5.804	0.67	15	
Selenium	0.04506	0.0050	0.05	0.002217	85.7	79.2-118	0.04113	9.12	15	
Sodium	ND	0.20	5	0	0	82.4-120	0	0	15	S
Vanadium	0.04718	0.0050	0.05	0.0005744	93.2	82.1-119	0.04651	1.43	15	
Zinc	0.0446	0.0050	0.05	0.006602	76	83-118	0.04416	0.991	15	S

MSD Sample ID: 0403067-02CMSD Test Code: SW6020 Units: mg/L Analysis Date: 03/13/04 22:59

Client ID: Run ID: ICP4500_040313A SeqNo: 440862 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Molybdenum	0.05389	0.0050	0.05	0.0079	92	84.6-115	0.05292	1.82	15	

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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: 8249 InstrumentID: ICP4500

DUP Sample ID: 0403067-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 03/12/04 19:09

Client ID: Run ID: ICP4500_040312A SeqNo: 440558 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.004604	0.010	0	0	0	0-0	0.006813	0	25	J
Arsenic	0.03495	0.0050	0	0	0	0-0	0.0337	3.64	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00002649	0	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00005893	0	25	
Chromium	0.000836	0.0050	0	0	0	0-0	0.001728	0	25	J
Cobalt	0.008267	0.0050	0	0	0	0-0	0.008351	1.01	25	
Copper	0.002749	0.0050	0	0	0	0-0	0.003124	0	25	J
Iron	8.158	0.20	0	0	0	0-0	8.34	2.21	25	
Lead	ND	0.0050	0	0	0	0-0	0.00009912	0	25	
Nickel	0.01009	0.0050	0	0	0	0-0	0.01043	3.31	25	
Potassium	1.185	0.20	0	0	0	0-0	1.187	0.169	25	
Selenium	0.003366	0.0050	0	0	0	0-0	0.002217	0	25	J
Vanadium	0.0005192	0.0050	0	0	0	0-0	0.0005744	0	25	J
Zinc	0.006166	0.0050	0	0	0	0-0	0.006602	6.83	25	

DUP Sample ID: 0403067-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 03/13/04 21:14

Client ID: Run ID: ICP4500_040313A SeqNo: 440846 Prep Date: 3/9/2004 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	1.841	0.10	0	0	0	0-0	1.755	4.78	25	
Calcium	175	10	0	0	0	0-0	162.1	7.65	25	
Manganese	3.557	0.10	0	0	0	0-0	3.391	4.78	25	
Sodium	152.1	4.0	0	0	0	0-0	144.5	5.12	25	

DUP Sample ID: 0403067-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 03/13/04 21:27

Client ID: Run ID: ICP4500_040313A SeqNo: 440849 Prep Date: 3/9/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	42.63	1.0	0	0	0	0-0	43.14	1.19	25	

DUP Sample ID: 0403067-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 03/13/04 22:50

Client ID: Run ID: ICP4500_040313A SeqNo: 440860 Prep Date: 3/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.303	0.020	0	0	0	0-0	0.3	0.995	25	
Molybdenum	0.007414	0.0050	0	0	0	0-0	0.0079	6.35	25	

The following samples were analyzed in this batch: 0403031-01B

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0403031
Project: RO Reject

QC BATCH REPORT

Batch ID: 8329 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-031504 Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:14

Client ID: Run ID: ICP4500_040316A SeqNo: 441974 Prep Date: 3/15/2004 DF: 1

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

LCS Sample ID: MLCSW2-031504 Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:18

Client ID: Run ID: ICP4500_040316A SeqNo: 441975 Prep Date: 3/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.04155	0.0050	0.05	0	83.1	83-117	0			

MS Sample ID: 0403031-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:54

Client ID: RO Reject Run ID: ICP4500_040316A SeqNo: 442005 Prep Date: 3/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.0383	0.0050	0.05	0.00002627	76.5	83-117	0			S

MSD Sample ID: 0403031-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:59

Client ID: RO Reject Run ID: ICP4500_040316A SeqNo: 442006 Prep Date: 3/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	0.03963	0.0050	0.05	0.00002627	79.2	83-117	0.0383	3.41	15	S

DUP Sample ID: 0403031-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 03/16/04 14:49

Client ID: RO Reject Run ID: ICP4500_040316A SeqNo: 442004 Prep Date: 3/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Silver	ND	0.0050	0	0	0	0-0	0.00002627	0	25	

The following samples were analyzed in this batch: 0403031-01B

ND - Not Detected at the Reporting Limit

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R - RPD outside accepted recovery limits

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: 0403031
Project: RO Reject

QC BATCH REPORT

Batch ID: R19126 InstrumentID: Wet Chemistry

MBLK Sample ID: WMBW1-030404 Test Code: E310.1 Units: mg/L Analysis Date: 03/04/04 0:00

Client ID: Run ID: WET CHEMISTRY_0403 SeqNo: 437047 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: WLCSW1-030404 Test Code: E310.1 Units: mg/L Analysis Date: 03/04/04 0:00

Client ID: Run ID: WET CHEMISTRY_0403 SeqNo: 437048 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: 0403031-01ADUP Test Code: E310.1 Units: mg/L Analysis Date: 03/04/04 0:00

Client ID: RO Reject Run ID: WET CHEMISTRY_0403 SeqNo: 437064 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)	620.2	5.0	0	0	0	0-0	620.2	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)	620.2	5.0	0	0	0	0-0	620.2	0	20	

The following samples were analyzed in this batch:

0403031-01A

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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: R19180 InstrumentID: IC201

MBLK Sample ID: WBLKW1-030504 Test Code: E300 Units: mg/L Analysis Date: 03/05/04 16:05

Client ID: Run ID: IC201_040305A SeqNo: 438354 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								
Surr: Dichloroacetic acid (surr)	4.66	0.10	5	0	93.2	80-120		0		

LCS Sample ID: WLCSW1-030504 Test Code: E300 Units: mg/L Analysis Date: 03/05/04 16:33

Client ID: Run ID: IC201_040305A SeqNo: 438355 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.84	0.50	10	0	88.4	80-120		0		
Fluoride	1.87	0.10	2	0	93.5	80-120		0		
Sulfate	9.25	1.0	10	0	92.5	80-120		0		
Surr: Dichloroacetic acid (surr)	4.63	0.10	5	0	92.6	80-120		0		

LCSD Sample ID: WLCSDW1-03050 Test Code: E300 Units: mg/L Analysis Date: 03/05/04 17:02

Client ID: Run ID: IC201_040305A SeqNo: 438356 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.84	0.50	10	0	88.4	80-120	8.84	0	20	
Fluoride	1.9	0.10	2	0	95	80-120	1.87	1.59	20	
Sulfate	9.32	1.0	10	0	93.2	80-120	9.25	0.754	20	
Surr: Dichloroacetic acid (surr)	4.61	0.10	5	0	92.2	80-120	4.63	0.433	20	

MS Sample ID: 0403010-05CMS Test Code: E300 Units: mg/L Analysis Date: 03/05/04 22:44

Client ID: Run ID: IC201_040305A SeqNo: 438368 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	272.7	5.0	100	174	98.7	75-125		0		
Fluoride	19	1.0	20	0	95	75-125		0		
Sulfate	561.5	10	100	469.4	92.1	75-125		0		EO
Surr: Dichloroacetic acid (surr)	49.6	1.0	50	0	99.2	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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: **R19180** InstrumentID: **IC201**

MSD Sample ID: **0403010-05CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **03/05/04 23:13**

Client ID: Run ID: **IC201_040305A** SeqNo: **438369** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	277	5.0	100	174	103	75-125	272.7	1.56	20	
Fluoride	18.3	1.0	20	0	91.5	75-125	19	3.75	20	
Sulfate	578.2	10	100	469.4	109	75-125	561.5	2.93	20	EO
Surr: Dichloroacetic acid (surr)	49.5	1.0	50	0	99	80-120	49.6	0.202	20	

DUP Sample ID: **0403010-03CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **03/05/04 19:53**

Client ID: Run ID: **IC201_040305A** SeqNo: **438362** Prep Date: DF: **200**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	6186	100	0	0	0	0-0	6178	0.129	20	
Fluoride	ND	20	0	0	0	0-0	0	0	20	
Sulfate	1656	200	0	0	0	0-0	1656	0	20	
Surr: Dichloroacetic acid (surr)	988	20	1000	0	98.8	80-120	1016	2.79	20	

DUP Sample ID: **0403010-05CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **03/05/04 22:16**

Client ID: Run ID: **IC201_040305A** SeqNo: **438367** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	178.9	5.0	0	0	0	0-0	174	2.78	20	
Fluoride	ND	1.0	0	0	0	0-0	0	0	20	
Sulfate	480.4	10	0	0	0	0-0	469.4	2.32	20	
Surr: Dichloroacetic acid (surr)	50	1.0	50	0	100	80-120	48.9	2.22	20	

The following samples were analyzed in this batch:

0403031-01A

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: 0403031
Project: RO Reject

QC BATCH REPORT

Batch ID: **R19251** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-031004** Test Code: **E300** Units: **mg/L** Analysis Date: **03/10/04 15:44**

Client ID: Run ID: **IC201_040310A** SeqNo: **439857** 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								
Surr: Dichloroacetic acid (surr)	4.83	0.10	5	0	96.6	80-120	0			

LCS Sample ID: **WLC SW1-031004** Test Code: **E300** Units: **mg/L** Analysis Date: **03/10/04 16:13**

Client ID: Run ID: **IC201_040310A** SeqNo: **439858** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.92	0.50	10	0	89.2	80-120	0			
Fluoride	1.84	0.10	2	0	92	80-120	0			
Sulfate	9.47	1.0	10	0	94.7	80-120	0			
Surr: Dichloroacetic acid (surr)	4.59	0.10	5	0	91.8	80-120	0			

LCS D Sample ID: **WLCSDW1-03100** Test Code: **E300** Units: **mg/L** Analysis Date: **03/10/04 16:41**

Client ID: Run ID: **IC201_040310A** SeqNo: **439859** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.93	0.50	10	0	89.3	80-120	8.92	0.112	20	
Fluoride	1.83	0.10	2	0	91.5	80-120	1.84	0.545	20	
Sulfate	9.49	1.0	10	0	94.9	80-120	9.47	0.211	20	
Surr: Dichloroacetic acid (surr)	4.6	0.10	5	0	92	80-120	4.59	0.218	20	

MS Sample ID: **0403078-01FMS** Test Code: **E300** Units: **mg/L** Analysis Date: **03/10/04 18:07**

Client ID: Run ID: **IC201_040310A** SeqNo: **439862** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	634.5	25	500	204.5	86	75-125	0			
Fluoride	104	5.0	100	0	104	75-125	0			
Sulfate	1469	50	500	977.5	98.3	75-125	0			
Surr: Dichloroacetic acid (surr)	241.5	5.0	250	0	96.6	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: 0403031
 Project: RO Reject

QC BATCH REPORT

Batch ID: R19251 InstrumentID: IC201

MSD Sample ID: 0403078-01FMDS Test Code: E300 Units: mg/L Analysis Date: 03/10/04 18:36

Client ID: Run ID: IC201_040310A SeqNo: 439863 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	627	25	500	204.5	84.5	75-125	634.5	1.19	20	
Fluoride	100	5.0	100	0	100	75-125	104	3.92	20	
Sulfate	1460	50	500	977.5	96.6	75-125	1469	0.58	20	
Surr: Dichloroacetic acid (surr)	250	5.0	250	0	100	80-120	241.5	3.46	20	

DUP Sample ID: 0403078-01FDUP Test Code: E300 Units: mg/L Analysis Date: 03/10/04 17:38

Client ID: Run ID: IC201_040310A SeqNo: 439861 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	202.5	25	0	0	0	0-0	204.5	0.983	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	967	50	0	0	0	0-0	977.5	1.08	20	
Surr: Dichloroacetic acid (surr)	243.5	5.0	250	0	97.4	80-120	260.5	6.75	20	

DUP Sample ID: 0403068-01FDUP Test Code: E300 Units: mg/L Analysis Date: 03/11/04 17:24

Client ID: Run ID: IC201_040310A SeqNo: 439890 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	294.2	10	0	0	0	0-0	293.8	0.136	20	
Fluoride	ND	2.0	0	0	0	0-0	0	0	20	
Sulfate	488.8	20	0	0	0	0-0	489.8	0.204	20	
Surr: Dichloroacetic acid (surr)	102.4	2.0	100	0	102	80-120	101	1.38	20	

The following samples were analyzed in this batch:

0403031-01A

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

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 3/3/2004 8:50:00 AM

Work Order Number 0403031

Received by: FSM

Checklist completed by [Signature]

3/3/04
Date

Reviewed by [Signature]

3/3/04
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):	<u>3.7c</u>	<u>003</u>	
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 _____

0403031

NAVAJO REFINING COMPANY

SHIP DATE: 02MAR2004

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77000

2815305656
BILL RECIPIENT

FedEx **PRIORITY OVERNIGHT**

System # 2223500 02MAR2004

TRK# 7900 7479 3532 Form 0201

WED

DELIVER BY:
03MAR2004

IAH

A2

77099-TX-US

A9 JGQA

Align bottom of Airbill Pouch here.
Part # 150454 Rev. 4/00

223500 2844 04/02



2609 N. River Rd. Port Allen, Louisiana 70767

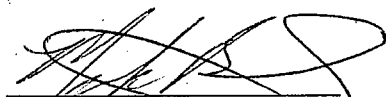
1(800) 401 - 4277 Fax: (225) 381-2996

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

**E-Lab
Jeffery L Croston
10450 Stancliff Rd, Suite 210
Houston, Texas 77099
Phone: 281-530-5656
Fax: 281-530-5887**


Quality Assurance Review


Technical Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

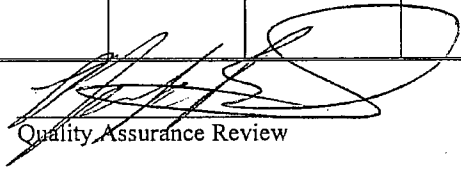


2609 N. River Rd. Port Allen, Louisiana 70767

1(800) 401 - 4277 Fax: (225) 381-2996

ARS Tracking Number:	ARS-040353	P.O. Number:	2105786
Client I.D.:	0403031-01C	ARS Sample I.D.:	ARS040353-0831
Date Sampled:	03/02/04	Date Received:	03/09/04
Time Sample:	1345	Time Received:	1043
Type of Sample:	Liquid	Date of Report:	03/16/04
NELAP Certification #:	E87558	L. A. Agency Interest #:	30658

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Unit	Analysis Test Method	Analysis Date & Time	Analysis Technician
Total Uranium	0.007	0.000	0.0003	mg/L	ASTM D 5174-97	03/11/04 18:03	KP


Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.



2609 N. River Rd. Port Allen, Louisiana 70767

1(800) 401 - 4277 Fax: (225) 381-2996

Notes:

Comments:

- 1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
- 2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
- 3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
- 4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B
- 5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit solely alpha or beta particles.
- 6.0) Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
- 7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only)
- 8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGe).

Method References:

- 1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
- 2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992
- 3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
- 4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
- 5.0) HASL 300

Definitions:

- | | | |
|-------|-----------------|--|
| 1.0) | BDL | Analyte not detected because the value was below the detection limit. |
| 2.0) | ND | Not detected above the detection limit. |
| 3.0) | Detection Limit | The minimum amount of the analyte that ARS can detect utilizing the specific analysis. |
| 4.0) | B | Method Blank |
| 5.0) | D | Method Duplicate |
| 6.0) | MS | Matrix Spike |
| 7.0) | S | Spike |
| 8.0) | RS | Reference Spike |
| 9.0) | *SC | Subcontracted out to another qualified laboratory |
| 10.0) | NR | Not Referenced |
| 11.0) | N/A | Not Applicable |

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.



e-Lab Analytical, Inc.

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

June 17, 2004

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

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

Re: RO-Reject

Work Order : **0406062**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 6/8/2004 8:55:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 17.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: June 17, 2004

CLIENT: Navajo Refining Company
Project: RO-Reject
Work Order: 0406062

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0406062-01	RO Reject	Water		6/7/2004 01:30	6/8/2004 08:55	☐
0406062-02	Trip Blank	Water		6/7/2004	6/8/2004 08:55	☐

e-Lab Analytical, Inc.**Date:** June 17, 2004**CLIENT:** Navajo Refining Company**Project:** RO-Reject**Work Order:** 0406062**Case Narrative**

Batch 9220 Metals MS/MSD was an unrelated sample.

Batch R21085 Anions (sample RO Reject) MS/MSD recoveries were outside of control limits for Sulfate. Recoveries should not be evaluated because the background concentratoin exceeds the working calibration range and is >4 times the spike amount.

e-Lab Analytical, Inc.

Date: June 17, 2004

CLIENT: Navajo Refining Company
Work Order: 0406062
Project: RO-Reject
Lab ID: 0406062-01

Client Sample ID: RO Reject
Collection Date: 6/7/2004 1:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 6/9/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	6/10/2004 5:38:57 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 6/9/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	6/14/2004 8:35:00 PM
Arsenic	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Barium	0.0663	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Beryllium	ND	0.00200		mg/L	1	6/14/2004 8:35:00 PM
Boron	0.0570	0.0200		mg/L	1	6/14/2004 8:35:00 PM
Cadmium	ND	0.00100		mg/L	1	6/9/2004 11:47:00 PM
Calcium	744	25.0		mg/L	50	6/10/2004 1:47:00 PM
Chromium	ND	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Cobalt	ND	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Copper	0.00640	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Iron	0.704	0.200		mg/L	1	6/9/2004 11:47:00 PM
Lead	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Magnesium	240	10.0		mg/L	50	6/10/2004 1:47:00 PM
Manganese	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Molybdenum	0.00847	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Nickel	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Potassium	4.25	0.200		mg/L	1	6/11/2004 5:47:00 PM
Selenium	0.0107	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Silver	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Sodium	70.8	10.0		mg/L	50	6/10/2004 1:47:00 PM
Vanadium	0.0100	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Zinc	0.0114	0.00500		mg/L	1	6/9/2004 11:47:00 PM
ANIONS BY ION CHROMATOGRAPHY						
		E300				Analyst: MG
Chloride	69.5	5.00		mg/L	10	6/15/2004 1:15:00 AM
Fluoride	3.82	0.100		mg/L	1	6/14/2004 10:24:00 PM
Sulfate	1,710	50.0		mg/L	50	6/15/2004 12:18:00 AM
Surr: Dichloroacetic acid (surr)	94.6	80-120		%REC	50	6/15/2004 12:18:00 AM
Surr: Dichloroacetic acid (surr)	92.8	80-120		%REC	10	6/15/2004 1:15:00 AM
Surr: Dichloroacetic acid (surr)	93.2	80-120		%REC	1	6/14/2004 10:24:00 PM
ALKALINITY						
		E310.1				Analyst: LMD
Alkalinity, Bicarbonate (As CaCO3)	728	5.00		mg/L	1	6/8/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/8/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/8/2004
Alkalinity, Total (As CaCO3)	728	5.00		mg/L	1	6/8/2004

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 Analytical, Inc.

Date: Jun 17 2004

CLIENT: Navajo Refining Company
 Work Order: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:05
 Client ID: Run ID: ICP4500_040609A SeqNo: 483634 Prep Date: 6/9/2004 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	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/10/04 13:24
 Client ID: Run ID: ICP4500_040610A SeqNo: 483976 Prep Date: 6/9/2004 DF: 1

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

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:24
 Client ID: Run ID: ICP4500_040611A SeqNo: 484484 Prep Date: 6/9/2004 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

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:10

Client ID: Run ID: ICP4500_040609A SeqNo: 483635 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0475	0.0050	0.05	0	95	80-121	0			
Barium	0.0444	0.0050	0.05	0	88.8	79.8-119	0			
Cadmium	0.04785	0.0020	0.05	0	95.7	79.1-119	0			
Calcium	5.081	0.50	5	0	102	80-121	0			
Chromium	0.04798	0.0050	0.05	0	96	79.3-121	0			
Cobalt	0.04792	0.0050	0.05	0	95.8	82-121	0			
Copper	0.04566	0.0050	0.05	0	91.3	83-121	0			
Iron	4.989	0.20	5	0	99.8	80-120	0			
Lead	0.045	0.0050	0.05	0	90	80-118	0			
Manganese	0.04803	0.0050	0.05	0	96.1	82-119	0			
Molybdenum	0.04422	0.0050	0.05	0	88.4	84.6-115	0			
Nickel	0.04809	0.0050	0.05	0	96.2	85-120	0			
Potassium	5.477	0.20	5	0	110	80-120	0			
Selenium	0.04263	0.0050	0.05	0	85.3	79.2-118	0			
Silver	0.04548	0.0050	0.05	0	91	83-117	0			
Vanadium	0.04792	0.0050	0.05	0	95.8	82.1-119	0			
Zinc	0.04426	0.0050	0.05	0	88.5	83-118	0			

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/10/04 13:29

Client ID: Run ID: ICP4500_040610A SeqNo: 483977 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04852	0.010	0.05	0	97	79-126	0			
Magnesium	5.156	0.20	5	0	103	80-120	0			
Sodium	5.059	0.20	5	0	101	82.4-120	0			

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:29

Client ID: Run ID: ICP4500_040611A SeqNo: 484485 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.0474	0.0020	0.05	0	94.8	78.9-120	0			
Boron	0.483	0.020	0.5	0	96.6	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: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MS Sample ID: 0406014-08BMS Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:24

Client ID: Run ID: ICP4500_040609A SeqNo: 483638 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04815	0.0050	0.05	0.001764	92.8	80-121	0			
Barium	0.1619	0.0050	0.05	0.1106	103	79.8-119	0			
Cadmium	0.05341	0.0020	0.05	0.005434	96	79.1-119	0			
Calcium	127.7	0.50	5	137.6	-198	80-121	0			SEO
Chromium	0.0459	0.0050	0.05	0.003184	85.4	79.3-121	0			
Cobalt	0.04528	0.0050	0.05	0.0004978	89.6	82-121	0			
Copper	0.04272	0.0050	0.05	0.001245	82.9	83-121	0			S
Iron	5.051	0.20	5	0.3093	94.8	80-120	0			
Lead	0.04654	0.0050	0.05	0.0005108	92.1	80-118	0			
Manganese	0.07621	0.0050	0.05	0.03209	88.2	82-119	0			
Molybdenum	0.04762	0.0050	0.05	0.002283	90.7	84.6-115	0			
Nickel	0.04734	0.0050	0.05	0.005479	83.7	85-120	0			S
Potassium	8.503	0.20	5	4.076	88.5	80-120	0			
Selenium	0.05167	0.0050	0.05	0.005079	93.2	79.2-118	0			
Silver	0.04279	0.0050	0.05	0.00001626	85.5	83-117	0			
Vanadium	0.04782	0.0050	0.05	0.002476	90.7	82.1-119	0			
Zinc	0.04523	0.0050	0.05	0.002057	86.3	83-118	0			

MS Sample ID: 0406014-08BMS Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:43

Client ID: Run ID: ICP4500_040611A SeqNo: 484488 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1591	0.010	0.05	0.1106	97	79-126	0			
Beryllium	0.04743	0.0020	0.05	0.00002947	94.8	78.9-120	0			
Boron	0.9096	0.020	0.5	0.4014	102	80-120	0			
Magnesium	35.81	0.20	5	30.08	115	80-120	0			O
Sodium	64.19	0.20	5	57.91	126	82.4-120	0			SEO

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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MSD Sample ID: 0406014-08BMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:29

Client ID: Run ID: ICP4500_040609A SeqNo: 483639 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04738	0.0050	0.05	0.001764	91.2	80-121	0.04815	1.61	15	
Barium	0.1539	0.0050	0.05	0.1106	86.6	79.8-119	0.1619	5.07	15	
Cadmium	0.05103	0.0020	0.05	0.005434	91.2	79.1-119	0.05341	4.56	15	
Calcium	126.1	0.50	5	137.6	-230	80-121	127.7	1.26	15	SEO
Chromium	0.04473	0.0050	0.05	0.003184	83.1	79.3-121	0.0459	2.58	15	
Cobalt	0.04427	0.0050	0.05	0.0004978	87.5	82-121	0.04528	2.26	15	
Copper	0.0429	0.0050	0.05	0.001245	83.3	83-121	0.04272	0.42	15	
Iron	4.949	0.20	5	0.3093	92.8	80-120	5.051	2.04	15	
Lead	0.04598	0.0050	0.05	0.0005108	90.9	80-118	0.04654	1.21	15	
Manganese	0.07519	0.0050	0.05	0.03209	86.2	82-119	0.07621	1.35	15	
Molybdenum	0.04525	0.0050	0.05	0.002283	85.9	84.6-115	0.04762	5.1	15	
Nickel	0.04711	0.0050	0.05	0.005479	83.3	85-120	0.04734	0.487	15	S
Potassium	8.247	0.20	5	4.076	83.4	80-120	8.503	3.06	15	
Selenium	0.04928	0.0050	0.05	0.005079	88.4	79.2-118	0.05167	4.74	15	
Silver	0.04131	0.0050	0.05	0.00001626	82.6	83-117	0.04279	3.52	15	S
Vanadium	0.0478	0.0050	0.05	0.002476	90.6	82.1-119	0.04782	0.0418	15	
Zinc	0.04463	0.0050	0.05	0.002057	85.1	83-118	0.04523	1.34	15	

MSD Sample ID: 0406014-08BMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:48

Client ID: Run ID: ICP4500_040611A SeqNo: 484489 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1614	0.010	0.05	0.1106	102	79-126	0.1591	1.44	15	
Beryllium	0.04779	0.0020	0.05	0.00002947	95.5	78.9-120	0.04743	0.756	15	
Boron	0.9297	0.020	0.5	0.4014	106	80-120	0.9096	2.19	15	
Magnesium	33.9	0.20	5	30.08	76.4	80-120	35.81	5.48	15	SO
Sodium	60.79	0.20	5	57.91	57.6	82.4-120	64.19	5.44	15	SEO

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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

DUP	Sample ID: 0406014-08BDUP			Test Code: SW6020		Units: mg/L		Analysis Date: 06/09/04 22:19		
Client ID:	Run ID: ICP4500_040609A			SeqNo: 483637		Prep Date: 6/9/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050	0	0	0	0-0	0.001764	0	25	
Barium	0.1118	0.0050	0	0	0	0-0	0.1106	1.08	25	
Cadmium	0.005467	0.0020	0	0	0	0-0	0.005434	0.605	25	
Chromium	0.0005326	0.0050	0	0	0	0-0	0.003184	0	25	J
Cobalt	0.0004484	0.0050	0	0	0	0-0	0.0004978	0	25	J
Copper	0.001067	0.0050	0	0	0	0-0	0.001245	0	25	J
Iron	0.2699	0.20	0	0	0	0-0	0.3093	13.6	25	
Lead	0.0004689	0.0050	0	0	0	0-0	0.0005108	0	25	J
Manganese	0.03156	0.0050	0	0	0	0-0	0.03209	1.67	25	
Molybdenum	0.001837	0.0050	0	0	0	0-0	0.002283	0	25	J
Nickel	0.003947	0.0050	0	0	0	0-0	0.005479	0	25	J
Potassium	3.992	0.20	0	0	0	0-0	4.076	2.08	25	
Selenium	0.005658	0.0050	0	0	0	0-0	0.005079	10.8	25	
Silver	ND	0.0050	0	0	0	0-0	0.00001626	0	25	
Vanadium	0.002556	0.0050	0	0	0	0-0	0.002476	0	25	J
Zinc	0.002179	0.0050	0	0	0	0-0	0.002057	0	25	J

DUP	Sample ID: 0406014-08BDUP				Test Code: SW6020		Units: mg/L		Analysis Date: 06/10/04 13:43		
Client ID:	Run ID: ICP4500_040610A			SeqNo: 483980		Prep Date: 6/9/2004			DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Aluminum	0.1056	0.10	0	0	0	0-0	0.1221	14.5	25		
Calcium	131.6	5.0	0	0	0	0-0	128.7	2.23	25		
Magnesium	30.42	2.0	0	0	0	0-0	30.48	0.197	25		
Sodium	57.05	2.0	0	0	0	0-0	56.92	0.228	25		

DUP	Sample ID: 0406014-08BDUP			Test Code: SW6020		Units: mg/L		Analysis Date: 06/11/04 15:38		
Client ID:	Run ID: ICP4500_040611A			SeqNo: 484487		Prep Date: 6/9/2004		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	0.00002947	0	25	
Boron	0.3911	0.020	0	0	0	0-0	0.4014	2.6	25	

The following samples were analyzed in this batch: 0406062-01B

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: 9230 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:29

Client ID: Run ID: MERCURY_040610B SeqNo: 484221 Prep Date: 6/9/2004 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: GLCSW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:31

Client ID: Run ID: MERCURY_040610B SeqNo: 484222 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00544	0.00020	0.005	0	109	83-115	0			

LCSD Sample ID: GLCSDW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:37

Client ID: Run ID: MERCURY_040610B SeqNo: 484223 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00549	0.00020	0.005	0	110	83-115	0.00544	0.915	20	

MS Sample ID: 0406062-01BMS Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:45

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484226 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00552	0.00020	0.005	0.000029	110	83-115	0			

MSD Sample ID: 0406062-01BMSD Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:49

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484227 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.00020	0.005	0.000029	111	83-115	0.00552	0.722	20	

DUP Sample ID: 0406062-01BDUP Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:40

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484225 Prep Date: 6/9/2004 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	0.000029	0	20	

The following samples were analyzed in this batch: 0406062-01B

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: **R20944** InstrumentID: **WetChem**

MBLK Sample ID: **WMBW1-060804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482751** 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: **WLCSW1-060804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482752** 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)	971.1	5.0	1000	0	97.1	80-120	0			

DUP Sample ID: **0406018-01EDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482763** 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)	344.8	5.0	0	0	0	0-0	349.6	1.4	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)	344.8	5.0	0	0	0	0-0	349.6	1.4	20	

The following samples were analyzed in this batch:

0406062-01A

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: **R21085** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-061404** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 18:07**

Client ID: Run ID: **IC201_040614A** SeqNo: **485940** 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								
Surr: Dichloroacetic acid (surr)	4.42	0.10	5	0	88.4	80-120	0			

LCS Sample ID: **WLCSW1-061404** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 18:36**

Client ID: Run ID: **IC201_040614A** SeqNo: **485941** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.82	0.50	10	0	88.2	80-120	0			
Fluoride	1.82	0.10	2	0	91	80-120	0			
Sulfate	9.7	1.0	10	0	97	80-120	0			
Surr: Dichloroacetic acid (surr)	4.78	0.10	5	0	95.6	80-120	0			

LCSD Sample ID: **WLCSDW1-06140** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 19:04**

Client ID: Run ID: **IC201_040614A** SeqNo: **485942** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.83	0.50	10	0	88.3	80-120	8.82	0.113	20	
Fluoride	1.84	0.10	2	0	92	80-120	1.82	1.09	20	
Sulfate	9.67	1.0	10	0	96.7	80-120	9.7	0.31	20	
Surr: Dichloroacetic acid (surr)	4.16	0.10	5	0	83.2	80-120	4.78	13.9	20	

MS Sample ID: **0406062-01AMS** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 23:21**

Client ID: **RO Reject** Run ID: **IC201_040614A** SeqNo: **485950** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	87.85	0.50	10	77.7	101	75-125	0			EO
Fluoride	5.9	0.10	2	3.82	104	75-125	0			
Sulfate	2335	1.0	10	2370	-345	75-125	0			SEO
Surr: Dichloroacetic acid (surr)	4.89	0.10	5	0	97.8	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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: R21085 InstrumentID: IC201

MSD Sample ID: 0406062-01AMSD Test Code: E300 Units: mg/L Analysis Date: 06/14/04 23:49

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485951 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	86.95	0.50	10	77.7	92.5	75-125	87.85	1.03	20	EO
Fluoride	5.83	0.10	2	3.82	100	75-125	5.9	1.19	20	
Sulfate	2333	1.0	10	2370	-374	75-125	2335	0.121	20	SEO
Surr: Dichloroacetic acid (surr)	4.69	0.10	5	0	93.8	80-120	4.89	4.18	20	

DUP Sample ID: 0406127-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/14/04 20:01

Client ID: Run ID: IC201_040614A SeqNo: 485944 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.19	0.10	0	0	0	0-0	3.51	9.55	20	
Sulfate	41.36	1.0	0	0	0	0-0	41.38	0.0483	20	
Surr: Dichloroacetic acid (surr)	5.21	0.10	5	0	104	80-120	5.22	0.192	20	

DUP Sample ID: 0406062-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/14/04 22:52

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485949 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	77.41	0.50	0	0	0	0-0	77.7	0.374	20	E
Fluoride	3.8	0.10	0	0	0	0-0	3.82	0.525	20	
Sulfate	2365	1.0	0	0	0	0-0	2370	0.218	20	E
Surr: Dichloroacetic acid (surr)	4.46	0.10	5	0	89.2	80-120	4.66	4.39	20	

DUP Sample ID: 0406062-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/15/04 0:46

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485953 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	111.5	25	0	0	0	0-0	111.5	0	20	
Fluoride	ND	5.0	0	0	0	0-0	15.5	0	20	
Sulfate	1698	50	0	0	0	0-0	1708	0.528	20	
Surr: Dichloroacetic acid (surr)	236	5.0	250	0	94.4	80-120	236.5	0.212	20	

The following samples were analyzed in this batch:

0406062-01A

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



e-Lab Analytical, Inc.

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

June 17, 2004

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

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

Re: RO-Reject

Work Order : **0406062**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 6/8/2004 8:55:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 17.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: June 17, 2004

CLIENT: Navajo Refining Company
Project: RO-Reject
Work Order: 0406062

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0406062-01	RO Reject	Water		6/7/2004 01:30	6/8/2004 08:55	☐
0406062-02	Trip Blank	Water		6/7/2004	6/8/2004 08:55	☐

e-Lab Analytical, Inc.**Date:** June 17, 2004

CLIENT: Navajo Refining Company
Project: RO-Reject
Work Order: 0406062

Case Narrative

Batch 9220 Metals MS/MSD was an unrelated sample.

Batch R21085 Anions (sample RO Reject) MS/MSD recoveries were outside of control limits for Sulfate. Recoveries should not be evaluated because the background concentratoion exceeds the working calibration range and is >4 times the spike amount.

e-Lab Analytical, Inc.

Date: June 17, 2004

CLIENT: Navajo Refining Company
Work Order: 0406062
Project: RO-Reject
Lab ID: 0406062-01

Client Sample ID: RO Reject
Collection Date: 6/7/2004 1:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 6/9/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	6/10/2004 5:38:57 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 6/9/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	6/14/2004 8:35:00 PM
Arsenic	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Barium	0.0663	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Beryllium	ND	0.00200		mg/L	1	6/14/2004 8:35:00 PM
Boron	0.0570	0.0200		mg/L	1	6/14/2004 8:35:00 PM
Cadmium	ND	0.00100		mg/L	1	6/9/2004 11:47:00 PM
Calcium	744	25.0		mg/L	50	6/10/2004 1:47:00 PM
Chromium	ND	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Cobalt	ND	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Copper	0.00640	0.00200		mg/L	1	6/9/2004 11:47:00 PM
Iron	0.704	0.200		mg/L	1	6/9/2004 11:47:00 PM
Lead	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Magnesium	240	10.0		mg/L	50	6/10/2004 1:47:00 PM
Manganese	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Molybdenum	0.00847	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Nickel	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Potassium	4.25	0.200		mg/L	1	6/11/2004 5:47:00 PM
Selenium	0.0107	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Silver	ND	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Sodium	70.8	10.0		mg/L	50	6/10/2004 1:47:00 PM
Vanadium	0.0100	0.00500		mg/L	1	6/9/2004 11:47:00 PM
Zinc	0.0114	0.00500		mg/L	1	6/9/2004 11:47:00 PM
ANIONS BY ION CHROMATOGRAPHY						
		E300				Analyst: MG
Chloride	69.5	5.00		mg/L	10	6/15/2004 1:15:00 AM
Fluoride	3.82	0.100		mg/L	1	6/14/2004 10:24:00 PM
Sulfate	1,710	50.0		mg/L	50	6/15/2004 12:18:00 AM
Surr: Dichloroacetic acid (surr)	94.6	80-120		%REC	50	6/15/2004 12:18:00 AM
Surr: Dichloroacetic acid (surr)	92.8	80-120		%REC	10	6/15/2004 1:15:00 AM
Surr: Dichloroacetic acid (surr)	93.2	80-120		%REC	1	6/14/2004 10:24:00 PM
ALKALINITY						
		E310.1				Analyst: LMD
Alkalinity, Bicarbonate (As CaCO3)	728	5.00		mg/L	1	6/8/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/8/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/8/2004
Alkalinity, Total (As CaCO3)	728	5.00		mg/L	1	6/8/2004

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 Analytical, Inc.

Date: Jun 17 2004

CLIENT: Navajo Refining Company
 Work Order: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:05
 Client ID: Run ID: ICP4500_040609A SeqNo: 483634 Prep Date: 6/9/2004 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	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/10/04 13:24
 Client ID: Run ID: ICP4500_040610A SeqNo: 483976 Prep Date: 6/9/2004 DF: 1

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

MBLK Sample ID: MBLKW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:24
 Client ID: Run ID: ICP4500_040611A SeqNo: 484484 Prep Date: 6/9/2004 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

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:10

Client ID: Run ID: ICP4500_040609A SeqNo: 483635 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0475	0.0050	0.05	0	95	80-121	0			
Barium	0.0444	0.0050	0.05	0	88.8	79.8-119	0			
Cadmium	0.04785	0.0020	0.05	0	95.7	79.1-119	0			
Calcium	5.081	0.50	5	0	102	80-121	0			
Chromium	0.04798	0.0050	0.05	0	96	79.3-121	0			
Cobalt	0.04792	0.0050	0.05	0	95.8	82-121	0			
Copper	0.04566	0.0050	0.05	0	91.3	83-121	0			
Iron	4.989	0.20	5	0	99.8	80-120	0			
Lead	0.045	0.0050	0.05	0	90	80-118	0			
Manganese	0.04803	0.0050	0.05	0	96.1	82-119	0			
Molybdenum	0.04422	0.0050	0.05	0	88.4	84.6-115	0			
Nickel	0.04809	0.0050	0.05	0	96.2	85-120	0			
Potassium	5.477	0.20	5	0	110	80-120	0			
Selenium	0.04263	0.0050	0.05	0	85.3	79.2-118	0			
Silver	0.04548	0.0050	0.05	0	91	83-117	0			
Vanadium	0.04792	0.0050	0.05	0	95.8	82.1-119	0			
Zinc	0.04426	0.0050	0.05	0	88.5	83-118	0			

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/10/04 13:29

Client ID: Run ID: ICP4500_040610A SeqNo: 483977 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04852	0.010	0.05	0	97	79-126	0			
Magnesium	5.156	0.20	5	0	103	80-120	0			
Sodium	5.059	0.20	5	0	101	82.4-120	0			

LCS Sample ID: MLCSW1-060904 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:29

Client ID: Run ID: ICP4500_040611A SeqNo: 484485 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.0474	0.0020	0.05	0	94.8	78.9-120	0			
Boron	0.483	0.020	0.5	0	96.6	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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MS Sample ID: 0406014-08BMS Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:24

Client ID: Run ID: ICP4500_040609A SeqNo: 483638 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04815	0.0050	0.05	0.001764	92.8	80-121	0			
Barium	0.1619	0.0050	0.05	0.1106	103	79.8-119	0			
Cadmium	0.05341	0.0020	0.05	0.005434	96	79.1-119	0			
Calcium	127.7	0.50	5	137.6	-198	80-121	0			SEO
Chromium	0.0459	0.0050	0.05	0.003184	85.4	79.3-121	0			
Cobalt	0.04528	0.0050	0.05	0.0004978	89.6	82-121	0			
Copper	0.04272	0.0050	0.05	0.001245	82.9	83-121	0			S
Iron	5.051	0.20	5	0.3093	94.8	80-120	0			
Lead	0.04654	0.0050	0.05	0.0005108	92.1	80-118	0			
Manganese	0.07621	0.0050	0.05	0.03209	88.2	82-119	0			
Molybdenum	0.04762	0.0050	0.05	0.002283	90.7	84.6-115	0			
Nickel	0.04734	0.0050	0.05	0.005479	83.7	85-120	0			S
Potassium	8.503	0.20	5	4.076	88.5	80-120	0			
Selenium	0.05167	0.0050	0.05	0.005079	93.2	79.2-118	0			
Silver	0.04279	0.0050	0.05	0.00001626	85.5	83-117	0			
Vanadium	0.04782	0.0050	0.05	0.002476	90.7	82.1-119	0			
Zinc	0.04523	0.0050	0.05	0.002057	86.3	83-118	0			

MS Sample ID: 0406014-08BMS Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:43

Client ID: Run ID: ICP4500_040611A SeqNo: 484488 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1591	0.010	0.05	0.1106	97	79-126	0			
Beryllium	0.04743	0.0020	0.05	0.00002947	94.8	78.9-120	0			
Boron	0.9096	0.020	0.5	0.4014	102	80-120	0			
Magnesium	35.81	0.20	5	30.08	115	80-120	0			O
Sodium	64.19	0.20	5	57.91	126	82.4-120	0			SEO

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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

MSD Sample ID: 0406014-08BMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:29

Client ID: Run ID: ICP4500_040609A SeqNo: 483639 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04738	0.0050	0.05	0.001764	91.2	80-121	0.04815	1.61	15	
Barium	0.1539	0.0050	0.05	0.1106	86.6	79.8-119	0.1619	5.07	15	
Cadmium	0.05103	0.0020	0.05	0.005434	91.2	79.1-119	0.05341	4.56	15	
Calcium	126.1	0.50	5	137.6	-230	80-121	127.7	1.26	15	SEO
Chromium	0.04473	0.0050	0.05	0.003184	83.1	79.3-121	0.0459	2.58	15	
Cobalt	0.04427	0.0050	0.05	0.0004978	87.5	82-121	0.04528	2.26	15	
Copper	0.0429	0.0050	0.05	0.001245	83.3	83-121	0.04272	0.42	15	
Iron	4.949	0.20	5	0.3093	92.8	80-120	5.051	2.04	15	
Lead	0.04598	0.0050	0.05	0.0005108	90.9	80-118	0.04654	1.21	15	
Manganese	0.07519	0.0050	0.05	0.03209	86.2	82-119	0.07621	1.35	15	
Molybdenum	0.04525	0.0050	0.05	0.002283	85.9	84.6-115	0.04762	5.1	15	
Nickel	0.04711	0.0050	0.05	0.005479	83.3	85-120	0.04734	0.487	15	S
Potassium	8.247	0.20	5	4.076	83.4	80-120	8.503	3.06	15	
Selenium	0.04928	0.0050	0.05	0.005079	88.4	79.2-118	0.05167	4.74	15	
Silver	0.04131	0.0050	0.05	0.00001626	82.6	83-117	0.04279	3.52	15	S
Vanadium	0.0478	0.0050	0.05	0.002476	90.6	82.1-119	0.04782	0.0418	15	
Zinc	0.04463	0.0050	0.05	0.002057	85.1	83-118	0.04523	1.34	15	

MSD Sample ID: 0406014-08BMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:48

Client ID: Run ID: ICP4500_040611A SeqNo: 484489 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1614	0.010	0.05	0.1106	102	79-126	0.1591	1.44	15	
Beryllium	0.04779	0.0020	0.05	0.00002947	95.5	78.9-120	0.04743	0.756	15	
Boron	0.9297	0.020	0.5	0.4014	106	80-120	0.9096	2.19	15	
Magnesium	33.9	0.20	5	30.08	76.4	80-120	35.81	5.48	15	SO
Sodium	60.79	0.20	5	57.91	57.6	82.4-120	64.19	5.44	15	SEO

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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: 9220 InstrumentID: ICP4500

DUP Sample ID: 0406014-08BDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/09/04 22:19

Client ID: Run ID: ICP4500_040609A SeqNo: 483637 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050	0	0	0	0-0	0.001764	0	25	
Barium	0.1118	0.0050	0	0	0	0-0	0.1106	1.08	25	
Cadmium	0.005467	0.0020	0	0	0	0-0	0.005434	0.605	25	
Chromium	0.0005326	0.0050	0	0	0	0-0	0.003184	0	25	J
Cobalt	0.0004484	0.0050	0	0	0	0-0	0.0004978	0	25	J
Copper	0.001067	0.0050	0	0	0	0-0	0.001245	0	25	J
Iron	0.2699	0.20	0	0	0	0-0	0.3093	13.6	25	
Lead	0.0004689	0.0050	0	0	0	0-0	0.0005108	0	25	J
Manganese	0.03156	0.0050	0	0	0	0-0	0.03209	1.67	25	
Molybdenum	0.001837	0.0050	0	0	0	0-0	0.002283	0	25	J
Nickel	0.003947	0.0050	0	0	0	0-0	0.005479	0	25	J
Potassium	3.992	0.20	0	0	0	0-0	4.076	2.08	25	
Selenium	0.005658	0.0050	0	0	0	0-0	0.005079	10.8	25	
Silver	ND	0.0050	0	0	0	0-0	0.00001626	0	25	
Vanadium	0.002556	0.0050	0	0	0	0-0	0.002476	0	25	J
Zinc	0.002179	0.0050	0	0	0	0-0	0.002057	0	25	J

DUP Sample ID: 0406014-08BDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/10/04 13:43

Client ID: Run ID: ICP4500_040610A SeqNo: 483980 Prep Date: 6/9/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1056	0.10	0	0	0	0-0	0.1221	14.5	25	
Calcium	131.6	5.0	0	0	0	0-0	128.7	2.23	25	
Magnesium	30.42	2.0	0	0	0	0-0	30.48	0.197	25	
Sodium	57.05	2.0	0	0	0	0-0	56.92	0.228	25	

DUP Sample ID: 0406014-08BDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 15:38

Client ID: Run ID: ICP4500_040611A SeqNo: 484487 Prep Date: 6/9/2004 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	0.00002947	0	25	
Boron	0.3911	0.020	0	0	0	0-0	0.4014	2.6	25	

The following samples were analyzed in this batch: 0406062-01B

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: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: 9230 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:29

Client ID: Run ID: MERCURY_040610B SeqNo: 484221 Prep Date: 6/9/2004 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: GLCSW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:31

Client ID: Run ID: MERCURY_040610B SeqNo: 484222 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00544	0.00020	0.005	0	109	83-115	0			

LCSD Sample ID: GLCSDW2-060904 Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:37

Client ID: Run ID: MERCURY_040610B SeqNo: 484223 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00549	0.00020	0.005	0	110	83-115	0.00544	0.915	20	

MS Sample ID: 0406062-01BMS Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:45

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484226 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00552	0.00020	0.005	0.000029	110	83-115	0			

MSD Sample ID: 0406062-01BMSD Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:49

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484227 Prep Date: 6/9/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.00020	0.005	0.000029	111	83-115	0.00552	0.722	20	

DUP Sample ID: 0406062-01BDUP Test Code: SW7470 Units: mg/L Analysis Date: 06/10/04 17:40

Client ID: RO Reject Run ID: MERCURY_040610B SeqNo: 484225 Prep Date: 6/9/2004 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	0.000029	0	20	

The following samples were analyzed in this batch: 0406062-01B

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: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: **R20944** InstrumentID: **WetChem**

MBLK Sample ID: **WMBW1-060804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482751** 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: **WLCSW1-060804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482752** 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)	971.1	5.0	1000	0	97.1	80-120	0			

DUP Sample ID: **0406018-01EDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/08/04 0:00**

Client ID: Run ID: **WETCHEM_040608C** SeqNo: **482763** 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)	344.8	5.0	0	0	0	0-0	349.6	1.4	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)	344.8	5.0	0	0	0	0-0	349.6	1.4	20	

The following samples were analyzed in this batch: 0406062-01A

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: 0406062
 Project: RO-Reject

QC BATCH REPORT

Batch ID: **R21085** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-061404** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 18:07**

Client ID: Run ID: **IC201_040614A** SeqNo: **485940** 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								
Surr: Dichloroacetic acid (surr)	4.42	0.10	5	0	88.4	80-120		0		

LCS Sample ID: **WLC SW1-061404** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 18:36**

Client ID: Run ID: **IC201_040614A** SeqNo: **485941** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.82	0.50	10	0	88.2	80-120		0		
Fluoride	1.82	0.10	2	0	91	80-120		0		
Sulfate	9.7	1.0	10	0	97	80-120		0		
Surr: Dichloroacetic acid (surr)	4.78	0.10	5	0	95.6	80-120		0		

LCSD Sample ID: **WLCSDW1-06140** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 19:04**

Client ID: Run ID: **IC201_040614A** SeqNo: **485942** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.83	0.50	10	0	88.3	80-120	8.82	0.113	20	
Fluoride	1.84	0.10	2	0	92	80-120	1.82	1.09	20	
Sulfate	9.67	1.0	10	0	96.7	80-120	9.7	0.31	20	
Surr: Dichloroacetic acid (surr)	4.16	0.10	5	0	83.2	80-120	4.78	13.9	20	

MS Sample ID: **0406062-01AMS** Test Code: **E300** Units: **mg/L** Analysis Date: **06/14/04 23:21**

Client ID: **RO Reject** Run ID: **IC201_040614A** SeqNo: **485950** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	87.85	0.50	10	77.7	101	75-125		0		EO
Fluoride	5.9	0.10	2	3.82	104	75-125		0		
Sulfate	2335	1.0	10	2370	-345	75-125		0		SEO
Surr: Dichloroacetic acid (surr)	4.89	0.10	5	0	97.8	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: 0406062
Project: RO-Reject

QC BATCH REPORT

Batch ID: R21085 InstrumentID: IC201

MSD Sample ID: 0406062-01AMSD Test Code: E300 Units: mg/L Analysis Date: 06/14/04 23:49

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485951 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	86.95	0.50	10	77.7	92.5	75-125	87.85	1.03	20	EO
Fluoride	5.83	0.10	2	3.82	100	75-125	5.9	1.19	20	
Sulfate	2333	1.0	10	2370	-374	75-125	2335	0.121	20	SEO
Surr: Dichloroacetic acid (surr)	4.69	0.10	5	0	93.8	80-120	4.89	4.18	20	

DUP Sample ID: 0406127-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/14/04 20:01

Client ID: Run ID: IC201_040614A SeqNo: 485944 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.19	0.10	0	0	0	0-0	3.51	9.55	20	
Sulfate	41.36	1.0	0	0	0	0-0	41.38	0.0483	20	
Surr: Dichloroacetic acid (surr)	5.21	0.10	5	0	104	80-120	5.22	0.192	20	

DUP Sample ID: 0406062-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/14/04 22:52

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485949 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	77.41	0.50	0	0	0	0-0	77.7	0.374	20	E
Fluoride	3.8	0.10	0	0	0	0-0	3.82	0.525	20	
Sulfate	2365	1.0	0	0	0	0-0	2370	0.218	20	E
Surr: Dichloroacetic acid (surr)	4.46	0.10	5	0	89.2	80-120	4.66	4.39	20	

DUP Sample ID: 0406062-01ADUP Test Code: E300 Units: mg/L Analysis Date: 06/15/04 0:46

Client ID: RO Reject Run ID: IC201_040614A SeqNo: 485953 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	111.5	25	0	0	0	0-0	111.5	0	20	
Fluoride	ND	5.0	0	0	0	0-0	15.5	0	20	
Sulfate	1698	50	0	0	0	0-0	1708	0.528	20	
Surr: Dichloroacetic acid (surr)	236	5.0	250	0	94.4	80-120	236.5	0.212	20	

The following samples were analyzed in this batch: 0406062-01A

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

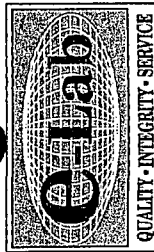
R - RPD outside accepted recovery limits

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



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

Chain of Custody Form

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

Page 1 of 1

Customer Information				Project Information				e-Lab Project Manager:				e-Lab Work Order #:					
Purchase Order	Project Name	Re-Reject	Parameter/Method Request for Analysis														
Work Order	Project Number	Project Name	Project Name														
Company Name	Bill To Company	Navajo Refining Company	Navajo Refining Company														
Send Report To	Invoice Attn	Jeff Byrd	Jeff Byrd														
Address	Address	P.O. Box 159	P.O. Box 159														
City/State/Zip	City/State/Zip	Artesia, New Mexico 86211	Artesia, New Mexico 86211														
Phone	Phone	(505) 748-3311	(505) 748-3311														
Fax	Fax	(505) 748-5421	(505) 748-5421														
e-Mail Address	e-Mail Address																
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RO REJECT	6/7/04	1330			4	X	X	X								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date	
Date	Signature	Time	Signature	STD 10 WK Days	5 WK Days	2 WK Days	24 Hour
6/7/04	Charles Byrd	1615	Fed Ex	☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐
6/7/04				☐	☐	☐	☐

Relinquished by: Charles Byrd Date: 6/7/04 Time: 1615

Relinquished by: Charles Byrd Date: 6/7/04 Time: 1615

Logged by (Laboratory): Charles Byrd Date: 6/7/04 Time: 1615

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C

Notes: 6.804/085

QC Package: (Check One Box Below) ☒ Level III Std QC ☐ Level IV SWR46/CLP ☐ Other

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e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 6/8/2004 8:55:00 AM

Work Order Number 0406062

Received by: RSZ

Checklist completed by

RICHARD SANCHEZ 6804
Signature Date

Reviewed by

[Signature] 6/18/04
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):

3.9c

002

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: Trip blank not on COC; logged in without analysis.

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

Client contacted NAVAJO

Date contacted: 6/9/04

Person contacted Jeff Byrd

Contacted by: Jeff Creston

Regarding: Uranium

Comments: Jeff requested not to analyze for uranium on this sampling event.

Corrective Action _____

FedEx

emp: 293167 08JUN04

PRIORITY OVERNIGHT

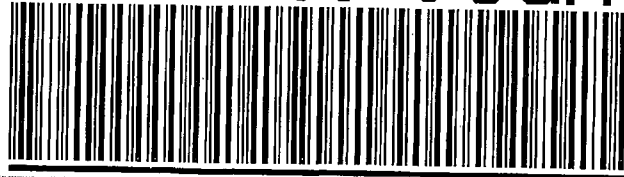
TRK# 8431 9069 2562 FORM 0215

A2

FEDEX
2001 Worldwide Dr
Ft. Worth, TX 76177

77099 -TX-US

IAH
43 JGQA



DEAR CUSTOMER:

REFERENCE #:

WE ARE FORWARDING THIS PACKAGE FROM OUR FEDERAL EXPRESS LOST AND FOUND/OVERGOODS DEPARTMENT. WE WERE UNABLE TO COMPLETE DELIVERY OF THIS PACKAGE FOR THE FOLLOWING REASON(S).

☒ THE AIRBILL/ADDRESS LABEL BECAME DETACHED DURING TRANSIT.

☐ THE PACKAGE WAS DAMAGED

☐ THE PACKAGE CAME OPEN DUE TO IMPROPER PACKAGING

☐ THE CONVEYOR EQUIPMENT APPARENTLY DAMAGED THE PACKAGE IN OUR SORTING FACILITY

☐ THE RECIPIENT HAS MOVED / GONE OUT OF BUSINESS

☐ THE RECIPIENT HAS REFUSED TO ACCEPT DELIVERY

☐ COULD NOT DELIVER AS ADDRESSED / P.O. BOX ADDRESS / INVALID DESTINATION ADDRESS

☐ RECIPIENT NOT IN (☐ DELIVERY ATTEMPTS MADE)

☐ CONTENTS BECAME SEPARATED FROM ORIGINAL CONTAINER DURING TRANSIT

☒ OTHER: Cooler lost Airbill with shipping info

Relabeled Based on Customer's
IF IT IS DETERMINED THAT THE CONTENTS DO NOT BELONG TO YOU OR YOU HAVE ANY QUESTIONS REGARDING THIS MATTER, FEEL FREE TO CONTACT OUR CUSTOMER SERVICE HOTLINE AT 1-800-GO-FEDEX (463-3339).

WE APOLOGIZE FOR ANY INCONVENIENCE THIS SITUATION MAY HAVE CAUSED. WE APPRECIATE YOUR BUSINESS AND HOPE THAT YOU WILL CONTINUE TO ALLOW FEDEX TO SERVICE YOUR AIR EXPRESS NEEDS.

SINCERELY,
CUSTOMER SUPPORT
OVERGOODS DEPARTMENT

ATTACHMENT F
IRRIGATION WELL MONTHLY
LABORATORY ANALYTICAL REPORTS



e-Lab Analytical, Inc.

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

October 06, 2004

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

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

Re: Monthly

Work Order : **0409252**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 9/23/2004 8:50:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, 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,

Electronically approved by: John Robert Paddison

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: *October 06, 2004*

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0409252

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0409252-01	RA 4196	Water		9/22/2004 10:00	9/23/2004 08:50	☐
0409252-02	RA 4798	Water		9/22/2004 10:15	9/23/2004 08:50	☐

e-Lab Analytical, Inc.**Date:** *October 06, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0409252

Case Narrative

Batch 10446 Metals MS/MSD and Duplicate was an unrelated sample.

Batch 10437 Semivolatiles LCS/LCSD RPD recovery was outside of control limits for Benzidine (43.3%). Recoveries for the LCS/LCSD met method criteria, therefore the data was accepted.

Batch R23281 Volatiles MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-01

Client Sample ID: RA 4196
Collection Date: 9/22/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/27/2004 5:42:00 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	9/27/2004 5:42:00 PM
Arsenic	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Barium	0.0114	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Beryllium	ND	0.00200		mg/L	1	9/28/2004 1:38:00 PM
Boron	0.148	0.0200		mg/L	1	9/28/2004 1:38:00 PM
Cadmium	ND	0.00100		mg/L	1	9/27/2004 5:42:00 PM
Calcium	364	50.0		mg/L	100	9/28/2004 2:07:00 PM
Chromium	ND	0.00200		mg/L	1	9/27/2004 5:42:00 PM
Cobalt	ND	0.00200		mg/L	1	9/27/2004 5:42:00 PM
Copper	0.0157	0.00200		mg/L	1	9/27/2004 5:42:00 PM
Iron	4.93	0.200		mg/L	1	9/27/2004 5:42:00 PM
Lead	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Magnesium	141	20.0		mg/L	100	9/28/2004 2:07:00 PM
Manganese	0.0888	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Nickel	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Potassium	2.28	0.200		mg/L	1	9/27/2004 5:42:00 PM
Selenium	0.00799	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Silver	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Sodium	95.2	0.200		mg/L	1	9/27/2004 5:42:00 PM
Vanadium	ND	0.00500		mg/L	1	9/27/2004 5:42:00 PM
Zinc	0.0620	0.00500		mg/L	1	9/27/2004 5:42:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2,4,5-Trichlorophenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2,4,6-Trichlorophenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2-Methylnaphthalene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2-Methylphenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2-Nitroaniline	ND	11		µg/L	1	9/29/2004 12:09:00 AM
2-Nitrophenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
3-Nitroaniline	ND	11		µg/L	1	9/29/2004 12:09:00 AM
4-Methylphenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
4-Nitroaniline	ND	11		µg/L	1	9/29/2004 12:09:00 AM
4-Nitrophenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Acenaphthene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Acenaphthylene	ND	11		µg/L	1	9/29/2004 12:09:00 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 Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-01

Client Sample ID: RA 4196
Collection Date: 9/22/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Anthracene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Benz(a)anthracene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Benzidine	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Hexachloroethane	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Isophorone	ND	11		µg/L	1	9/29/2004 12:09:00 AM
N-Nitrosodi-n-propylamine	ND	11		µg/L	1	9/29/2004 12:09:00 AM
N-Nitrosodimethylamine	ND	11		µg/L	1	9/29/2004 12:09:00 AM
N-Nitrosodiphenylamine	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Naphthalene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Nitrobenzene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Pentachlorophenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Phenanthrene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Phenol	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Pyrene	ND	11		µg/L	1	9/29/2004 12:09:00 AM
Surr: 2,4,6-Tribromophenol	94.5	39-153		%REC	1	9/29/2004 12:09:00 AM
Surr: 2-Fluorobiphenyl	81.9	40-147		%REC	1	9/29/2004 12:09:00 AM
Surr: 2-Fluorophenol	38.3	21-110		%REC	1	9/29/2004 12:09:00 AM
Surr: 4-Terphenyl-d14	91.3	39-141		%REC	1	9/29/2004 12:09:00 AM
Surr: Nitrobenzene-d5	79.1	37-140		%REC	1	9/29/2004 12:09:00 AM
Surr: Phenol-d6	23.9	11-100		%REC	1	9/29/2004 12:09:00 AM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
2-Butanone	ND	10		µg/L	1	9/23/2004 9:00:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/23/2004 9:00:00 PM
2-Hexanone	ND	10		µg/L	1	9/23/2004 9:00:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Acetone	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Benzene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Bromoform	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Bromomethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Carbon disulfide	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Carbontetrachloride	ND	5.0		µg/L	1	9/23/2004 9:00:00 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 Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-01

Client Sample ID: RA 4196
Collection Date: 9/22/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Chloroethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Chloroform	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Chloromethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Ethylbenzene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
m,p-Xylene	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Methylene chloride	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Styrene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Toluene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Trichloroethene	ND	5.0		µg/L	1	9/23/2004 9:00:00 PM
Vinylacetate	ND	10		µg/L	1	9/23/2004 9:00:00 PM
Vinyl chloride	ND	2.0		µg/L	1	9/23/2004 9:00:00 PM
Xylenes, Total	ND	15		µg/L	1	9/23/2004 9:00:00 PM
Surr: 1,2-Dichloroethane-d4	82.0	71-126		%REC	1	9/23/2004 9:00:00 PM
Surr: 4-Bromofluorobenzene	78.8	74-125		%REC	1	9/23/2004 9:00:00 PM
Surr: Dibromofluoromethane	83.0	73-126		%REC	1	9/23/2004 9:00:00 PM
Surr: Toluene-d8	85.0	75-125		%REC	1	9/23/2004 9:00:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	144	5.00		mg/L	10	10/1/2004 2:13:00 AM
Fluoride	0.420	0.100		mg/L	1	10/1/2004 1:45:00 AM
Sulfate	1,300	50.0		mg/L	50	10/1/2004 2:42:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	1	10/1/2004 1:45:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	10/1/2004 2:13:00 AM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	50	10/1/2004 2:42:00 AM
ALKALINITY		E310.1		Analyst: MG		
Alkalinity, Bicarbonate (As CaCO3)	220	5.00		mg/L	1	9/28/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Total (As CaCO3)	220	5.00		mg/L	1	9/28/2004
CYANIDE, TOTAL		E335.3		Analyst: HDO		
Cyanide	ND	0.0200		mg/L	1	9/27/2004

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 Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-02

Client Sample ID: RA 4798
Collection Date: 9/22/2004 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/30/2004 3:42:24 PM
ICP METALS, TOTAL						
Aluminum	0.0112	0.0100		mg/L	1	9/27/2004 5:48:00 PM
Arsenic	ND	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Barium	0.00958	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Beryllium	ND	0.00200		mg/L	1	9/28/2004 2:13:00 PM
Boron	0.171	0.0200		mg/L	1	9/28/2004 2:13:00 PM
Cadmium	ND	0.00100		mg/L	1	9/27/2004 5:48:00 PM
Calcium	458	50.0		mg/L	100	9/28/2004 2:19:00 PM
Chromium	ND	0.00200		mg/L	1	9/27/2004 5:48:00 PM
Cobalt	ND	0.00200		mg/L	1	9/27/2004 5:48:00 PM
Copper	0.0158	0.00200		mg/L	1	9/27/2004 5:48:00 PM
Iron	2.06	0.200		mg/L	1	9/27/2004 5:48:00 PM
Lead	ND	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Magnesium	138	20.0		mg/L	100	9/28/2004 2:19:00 PM
Manganese	0.0133	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Nickel	ND	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Potassium	2.27	0.200		mg/L	1	9/27/2004 5:48:00 PM
Selenium	0.0175	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Silver	ND	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Sodium	95.2	0.200		mg/L	1	9/27/2004 5:48:00 PM
Vanadium	0.00669	0.00500		mg/L	1	9/27/2004 5:48:00 PM
Zinc	0.535	0.00500		mg/L	1	9/27/2004 5:48:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2,4,5-Trichlorophenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2,4,6-Trichlorophenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2-Methylphenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2-Nitroaniline	ND	11		µg/L	1	9/27/2004 8:34:00 PM
2-Nitrophenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
3-Nitroaniline	ND	11		µg/L	1	9/27/2004 8:34:00 PM
4-Methylphenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
4-Nitroaniline	ND	11		µg/L	1	9/27/2004 8:34:00 PM
4-Nitrophenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Acenaphthene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Acenaphthylene	ND	11		µg/L	1	9/27/2004 8:34:00 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 Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-02

Client Sample ID: RA 4798
Collection Date: 9/22/2004 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Anthracene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Benz(a)anthracene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Benzidine	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Hexachloroethane	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Isophorone	ND	11		µg/L	1	9/27/2004 8:34:00 PM
N-Nitrosodi-n-propylamine	ND	11		µg/L	1	9/27/2004 8:34:00 PM
N-Nitrosodimethylamine	ND	11		µg/L	1	9/27/2004 8:34:00 PM
N-Nitrosodiphenylamine	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Naphthalene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Nitrobenzene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Pentachlorophenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Phenanthrene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Phenol	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Pyrene	ND	11		µg/L	1	9/27/2004 8:34:00 PM
Surr: 2,4,6-Tribromophenol	98.7	39-153		%REC	1	9/27/2004 8:34:00 PM
Surr: 2-Fluorobiphenyl	83.6	40-147		%REC	1	9/27/2004 8:34:00 PM
Surr: 2-Fluorophenol	38.6	21-110		%REC	1	9/27/2004 8:34:00 PM
Surr: 4-Terphenyl-d14	90.7	39-141		%REC	1	9/27/2004 8:34:00 PM
Surr: Nitrobenzene-d5	81.1	37-140		%REC	1	9/27/2004 8:34:00 PM
Surr: Phenol-d6	22.1	11-100		%REC	1	9/27/2004 8:34:00 PM
VOLATILES BY GC/MS				SW8260	Analyst: PC	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
2-Butanone	ND	10		µg/L	1	9/23/2004 9:25:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/23/2004 9:25:00 PM
2-Hexanone	ND	10		µg/L	1	9/23/2004 9:25:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Acetone	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Benzene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Bromoform	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Bromomethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Carbon disulfide	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Carbontetrachloride	ND	5.0		µg/L	1	9/23/2004 9:25:00 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 Analytical, Inc.

Date: October 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0409252
Project: Monthly
Lab ID: 0409252-02

Client Sample ID: RA 4798
Collection Date: 9/22/2004 10:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Chloroethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Chloroform	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Chloromethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Ethylbenzene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
m,p-Xylene	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Methylene chloride	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Styrene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Toluene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Trichloroethene	ND	5.0		µg/L	1	9/23/2004 9:25:00 PM
Vinyl acetate	ND	10		µg/L	1	9/23/2004 9:25:00 PM
Vinyl chloride	ND	2.0		µg/L	1	9/23/2004 9:25:00 PM
Xylenes, Total	ND	15		µg/L	1	9/23/2004 9:25:00 PM
Surr: 1,2-Dichloroethane-d4	83.8	71-126		%REC	1	9/23/2004 9:25:00 PM
Surr: 4-Bromofluorobenzene	79.2	74-125		%REC	1	9/23/2004 9:25:00 PM
Surr: Dibromofluoromethane	84.3	73-126		%REC	1	9/23/2004 9:25:00 PM
Surr: Toluene-d8	85.1	75-125		%REC	1	9/23/2004 9:25:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300			Analyst: LMD	
Chloride	129	2.50		mg/L	5	10/1/2004 3:39:00 AM
Fluoride	0.760	0.100		mg/L	1	10/1/2004 3:10:00 AM
Sulfate	1,380	50.0		mg/L	50	10/1/2004 4:08:00 AM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	1	10/1/2004 3:10:00 AM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	5	10/1/2004 3:39:00 AM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	50	10/1/2004 4:08:00 AM
ALKALINITY		E310.1			Analyst: MG	
Alkalinity, Bicarbonate (As CaCO3)	240	5.00		mg/L	1	9/28/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Total (As CaCO3)	240	5.00		mg/L	1	9/28/2004
CYANIDE, TOTAL		E335.3			Analyst: HDO	
Cyanide	ND	0.0200		mg/L	1	9/27/2004

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 Analytical, Inc.

Date: Oct 06 2004

CLIENT: Navajo Refining Company

Work Order: 0409252

Project: Monthly

QC BATCH REPORT

Batch ID: 10446

InstrumentID: ICP7500

MBLK Sample ID: MBLKW1-092404 Test Code: SW6020 Units: mg/L Analysis Date: 09/27/04 12:59

Client ID: Run ID: ICP7500_040927A SeqNo: 544573 Prep Date: 9/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.007363	0.010								J
Arsenic	ND	0.0050								
Barium	0.0006882	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	0.0343	0.20								J
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	0.001983	0.0050								J
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	0.001775	0.0050								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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10446 InstrumentID: ICP7500

LCS Sample ID: MLCSW1-092404 Test Code: SW6020 Units: mg/L Analysis Date: 09/27/04 13:05

Client ID: Run ID: ICP7500_040927A SeqNo: 544575 Prep Date: 9/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05334	0.010	0.05	0	107	79-126	0			
Arsenic	0.05063	0.0050	0.05	0	101	80-121	0			
Barium	0.0497	0.0050	0.05	0	99.4	79.8-119	0			
Beryllium	0.04616	0.0020	0.05	0	92.3	78.9-120	0			
Boron	0.4783	0.020	0	-0.005826	0	80-120	0			
Cadmium	0.05306	0.0020	0.05	0	106	79.1-119	0			
Calcium	5.085	0.50	5	0	102	80-121	0			
Chromium	0.04536	0.0050	0.05	0	90.7	79.3-121	0			
Cobalt	0.04684	0.0050	0.05	0	93.7	82-121	0			
Copper	0.04762	0.0050	0.05	0	95.2	83-121	0			
Iron	5.115	0.20	-5	0	102	80-120	0			
Lead	0.0473	0.0050	0.05	0	94.6	80-118	0			
Magnesium	5.165	0.20	5	0	103	80-120	0			
Manganese	0.04849	0.0050	0.05	0	97	82-119	0			
Molybdenum	0.04729	0.0050	0.05	0	94.6	84.6-115	0			
Nickel	0.04929	0.0050	0.05	0	98.6	85-120	0			
Potassium	5.236	0.20	5	0	105	80-120	0			
Selenium	0.05319	0.0050	0.05	0	106	79.2-118	0			
Silver	0.04739	0.0050	0.05	0	94.8	83-117	0			
Sodium	5.08	0.20	5	0	102	82.4-120	0			
Vanadium	0.04667	0.0050	0.05	0	93.3	82.1-119	0			
Zinc	0.0517	0.0050	0.05	0	103	83-118	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10446 InstrumentID: ICP7500

MS Sample ID: 0409248-21BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/27/04 14:37

Client ID: Run ID: ICP7500_040927A SeqNo: 544589 Prep Date: 9/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.07747	0.010	0.05	0.06428	26.4	79-126	0			S
Arsenic	0.05168	0.0050	0.05	-0.0000154	103	80-121	0			
Barium	0.05286	0.0050	0.05	0.003058	99.6	79.8-119	0			
Beryllium	0.05476	0.0020	0.05	0.0003741	109	78.9-120	0			
Boron	0.8065	0.020	0	0.2264	0	80-120	0			
Cadmium	0.05454	0.0020	0.05	0.0003321	108	79.1-119	0			
Calcium	6.332	0.50	5	1.23	102	80-121	0			
Chromium	0.04517	0.0050	0.05	-0.005254	101	79.3-121	0			
Cobalt	0.04537	0.0050	0.05	0.0001304	90.5	82-121	0			
Copper	0.05045	0.0050	0.05	0.004229	92.4	83-121	0			
Iron	5.126	0.20	5	0.1417	99.7	80-120	0			
Lead	0.04852	0.0050	0.05	0.00175	93.5	80-118	0			
Magnesium	5.154	0.20	5	0.1553	100	80-120	0			
Manganese	0.04952	0.0050	0.05	0.003476	92.1	82-119	0			
Molybdenum	0.04603	0.0050	0.05	0.0009712	90.1	84.6-115	0			
Nickel	0.04856	0.0050	0.05	0.0006887	95.7	85-120	0			
Potassium	5.553	0.20	5	0.3874	103	80-120	0			
Selenium	0.058	0.0050	0.05	0.002931	110	79.2-118	0			
Silver	0.04675	0.0050	0.05	0.0001576	93.2	83-117	0			
Sodium	13.15	0.20	5	8.502	93	82.4-120	0			
Vanadium	0.04566	0.0050	0.05	-0.00006996	91.5	82.1-119	0			
Zinc	0.08995	0.0050	0.05	0.02589	128	83-118	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10446 InstrumentID: ICP7500

MSD Sample ID: 0409248-21BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/27/04 14:42

Client ID: Run ID: ICP7500_040927A SeqNo: 544591 Prep Date: 9/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.07784	0.010	0.05	0.06428	27.1	79-126	0.07747	0.476	15	S
Arsenic	0.05245	0.0050	0.05	-0.0000154	105	80-121	0.05168	1.48	15	
Barium	0.05124	0.0050	0.05	0.003058	96.4	79.8-119	0.05286	3.11	15	
Beryllium	0.05634	0.0020	0.05	0.0003741	112	78.9-120	0.05476	2.84	15	
Boron	0.8336	0.020	0	0.2264	0	80-120	0.8065	3.3	15	
Cadmium	0.05282	0.0020	0.05	0.0003321	105	79.1-119	0.05454	3.2	15	
Calcium	6.387	0.50	5	1.23	103	80-121	6.332	0.865	15	
Chromium	0.04566	0.0050	0.05	-0.005254	102	79.3-121	0.04517	1.08	15	
Cobalt	0.04653	0.0050	0.05	0.0001304	92.8	82-121	0.04537	2.52	15	
Copper	0.05118	0.0050	0.05	0.004229	93.9	83-121	0.05045	1.44	15	
Iron	5.209	0.20	5	0.1417	101	80-120	5.126	1.61	15	
Lead	0.0486	0.0050	0.05	0.00175	93.7	80-118	0.04852	0.165	15	
Magnesium	5.278	0.20	5	0.1553	102	80-120	5.154	2.38	15	
Manganese	0.05115	0.0050	0.05	0.003476	95.3	82-119	0.04952	3.24	15	
Molybdenum	0.0476	0.0050	0.05	0.0009712	93.3	84.6-115	0.04603	3.35	15	
Nickel	0.04965	0.0050	0.05	0.0006887	97.9	85-120	0.04856	2.22	15	
Potassium	5.594	0.20	5	0.3874	104	80-120	5.553	0.736	15	
Selenium	0.05919	0.0050	0.05	0.002931	113	79.2-118	0.058	2.03	15	
Silver	0.0481	0.0050	0.05	0.0001576	95.9	83-117	0.04675	2.85	15	
Sodium	13.42	0.20	5	8.502	98.4	82.4-120	13.15	2.03	15	
Vanadium	0.04703	0.0050	0.05	-0.00006996	94.2	82.1-119	0.04566	2.96	15	
Zinc	0.07851	0.0050	0.05	0.02589	105	83-118	0.08995	13.6	15	

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10446 InstrumentID: ICP7500

DUP Sample ID: 0409248-21BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/27/04 14:31

Client ID: Run ID: ICP7500_040927A SeqNo: 544587 Prep Date: 9/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04001	0.010	0	0	0	0-0	0.06428	46.5	25	R
Arsenic	ND	0.0050	0	0	0	0-0	-0.0000154	0	25	
Barium	0.002377	0.0050	0	0	0	0-0	0.003058	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.0003741	0	25	
Boron	0.2182	0.020	0	0	0	0-0	0.2264	3.69	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0003321	0	25	
Calcium	0.9636	0.50	0	0	0	0-0	1.23	24.3	25	
Chromium	ND	0.0050	0	0	0	0-0	-0.005254	0	25	
Cobalt	ND	0.0050	0	0	0	0-0	0.0001304	0	25	
Copper	0.003685	0.0050	0	0	0	0-0	0.004229	0	25	J
Iron	0.1059	0.20	0	0	0	0-0	0.1417	0	25	J
Lead	0.0008775	0.0050	0	0	0	0-0	0.00175	0	25	J
Magnesium	0.1185	0.20	0	0	0	0-0	0.1553	0	25	J
Manganese	0.002215	0.0050	0	0	0	0-0	0.003476	0	25	J
Molybdenum	ND	0.0050	0	0	0	0-0	0.0009712	0	25	
Nickel	ND	0.0050	0	0	0	0-0	0.0006887	0	25	
Potassium	0.3479	0.20	0	0	0	0-0	0.3874	10.7	25	
Selenium	0.003158	0.0050	0	0	0	0-0	0.002931	0	25	J
Silver	ND	0.0050	0	0	0	0-0	0.0001576	0	25	
Sodium	8.421	0.20	0	0	0	0-0	8.502	0.957	25	
Vanadium	0.000479	0.0050	0	0	0	0-0	-0.00006996	0	25	J
Zinc	0.02238	0.0050	0	0	0	0-0	0.02589	14.5	25	

The following samples were analyzed in this batch:

0409252-01C 0409252-02C

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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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10513 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-093004 Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 14:41

Client ID: Run ID: MERCURY_040930A SeqNo: 547107 Prep Date: 9/29/2004 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: GLCSW1-093004 Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 14:42

Client ID: Run ID: MERCURY_040930A SeqNo: 547108 Prep Date: 9/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00475	0.00020	0.005	0	95	83-115	0			

LCSD Sample ID: GLCSDW1-093004 Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 14:50

Client ID: Run ID: MERCURY_040930A SeqNo: 547109 Prep Date: 9/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00488	0.00020	0.005	0	97.6	83-115	0.00475	2.7	20	

MS Sample ID: 0409292-18CMS Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 14:58

Client ID: Run ID: MERCURY_040930A SeqNo: 547112 Prep Date: 9/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00517	0.00020	0.005	0.000019	103	83-115	0			

MSD Sample ID: 0409292-18CMSD Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 15:00

Client ID: Run ID: MERCURY_040930A SeqNo: 547113 Prep Date: 9/29/2004 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	0.000019	101	83-115	0.00517	1.95	20	

DUP Sample ID: 0409292-18CDUP Test Code: SW7470 Units: mg/L Analysis Date: 09/30/04 14:57

Client ID: Run ID: MERCURY_040930A SeqNo: 547111 Prep Date: 9/29/2004 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	0.000019	0	20	

The following samples were analyzed in this batch:

0409252-01C 0409252-02C

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

CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10437 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040923 Test Code: SW8270 Units: µg/L Analysis Date: 09/25/04 14:42
 Client ID: Run ID: SV-3_040925A SeqNo: 544809 Prep Date: 9/23/2004 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	87.91	10	100	0	87.9	39-153	0			
Surr: 2-Fluorobiphenyl	84.58	10	100	0	84.6	40-147	0			
Surr: 2-Fluorophenol	37.16	10	100	0	37.2	21-110	0			
Surr: 4-Terphenyl-d14	84.13	10	100	0	84.1	39-141	0			
Surr: Nitrobenzene-d5	86.6	10	100	0	86.6	37-140	0			
Surr: Phenol-d6	23.93	10	100	0	23.9	11-100	0			

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CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10437 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040923 Test Code: SW8270 Units: µg/L Analysis Date: 09/25/04 15:08

Client ID: Run ID: SV-3_040925A SeqNo: 544810 Prep Date: 9/23/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	42.15	10	50	0	84.3	50-115	0			
2,4,5-Trichlorophenol	90	10	100	0	90	68-128	0			
2,4,6-Trichlorophenol	85.98	10	100	0	86	66-125	0			
2-Methylnaphthalene	42.44	10	50	0	84.9	47-122	0			
2-Methylphenol	73.46	10	100	0	73.5	51-115	0			
2-Nitroaniline	43.23	10	50	0	86.5	64-128	0			
2-Nitrophenol	87.54	10	100	0	87.5	60-119	0			
3-Nitroaniline	43.58	10	50	0	87.2	61-118	0			
4-Methylphenol	95.26	10	150	0	63.5	44-115	0			
4-Nitroaniline	41.6	10	50	0	83.2	61-123	0			
4-Nitrophenol	39.97	10	100	0	40	17-100	0			
Acenaphthene	43.47	10	50	0	86.9	68-115	0			
Acenaphthylene	42.85	10	50	0	85.7	67-116	0			
Aniline	35.71	10	50	0	71.4	40-130	0			
Anthracene	44.41	10	50	0	88.8	70-129	0			
Benz(a)anthracene	43.9	10	50	0	87.8	55-131	0			
Benzidine	11.06	10	50	0	22.1	10-115	0			
Hexachloroethane	42.4	10	50	0	84.8	46-115	0			
Indeno(1,2,3-cd)pyrene	48	10	50	0	96	42-123	0			
Isophorone	47.43	10	50	0	94.9	63-117	0			
N-Nitrosodi-n-propylamine	47.35	10	50	0	94.7	67-115	0			
N-Nitrosodimethylamine	19.12	10	50	0	38.2	28-115	0			
N-Nitrosodiphenylamine	47.52	10	50	0	95	72-144	0			
Naphthalene	43.4	10	50	0	86.8	52-115	0			
Nitrobenzene	43.84	10	50	0	87.7	65-115	0			
Pentachlorophenol	82.44	10	100	0	82.4	65-123	0			
Phenanthrene	44.8	10	50	0	89.6	69-119	0			
Phenol	31.29	10	100	0	31.3	16-115	0			
Pyrene	40.47	10	50	0	80.9	51-130	0			
Surr: 2,4,6-Tribromophenol	89.83	10	100	0	89.8	39-153	0			
Surr: 2-Fluorobiphenyl	82.62	10	100	0	82.6	40-147	0			
Surr: 2-Fluorophenol	44.3	10	100	0	44.3	21-110	0			
Surr: 4-Terphenyl-d14	87.4	10	100	0	87.4	39-141	0			
Surr: Nitrobenzene-d5	88.19	10	100	0	88.2	37-140	0			
Surr: Phenol-d6	30.58	10	100	0	30.6	11-100	0			

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CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: 10437 InstrumentID: SV-3

LCSD Sample ID: SLCS DW1-040923 Test Code: SW8270 Units: µg/L Analysis Date: 09/25/04 15:33

Client ID: Run ID: SV-3_040925A SeqNo: 544811 Prep Date: 9/23/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.12	10	50	0	82.2	50-115	42.15	2.48	30	
2,4,5-Trichlorophenol	92.57	10	100	0	92.6	68-128	90	2.82	30	
2,4,6-Trichlorophenol	81.34	10	100	0	81.3	66-125	85.98	5.55	30	
2-Methylnaphthalene	40.85	10	50	0	81.7	47-122	42.44	3.82	30	
2-Methylphenol	73.66	10	100	0	73.7	51-115	73.46	0.267	30	
2-Nitroaniline	43.46	10	50	0	86.9	64-128	43.23	0.523	30	
2-Nitrophenol	89.19	10	100	0	89.2	60-119	87.54	1.87	30	
3-Nitroaniline	45.18	10	50	0	90.4	61-118	43.58	3.6	30	
4-Methylphenol	96.64	10	150	0	64.4	44-115	95.26	1.44	30	
4-Nitroaniline	43.01	10	50	0	86	61-123	41.6	3.33	30	
4-Nitrophenol	39.71	10	100	0	39.7	17-100	39.97	0.669	30	
Acenaphthene	42.93	10	50	0	85.9	68-115	43.47	1.24	30	
Acenaphthylene	42.76	10	50	0	85.5	67-116	42.85	0.202	30	
Aniline	38.1	10	50	0	76.2	40-130	35.71	6.49	30	
Anthracene	44.12	10	50	0	88.2	70-129	44.41	0.656	30	
Benz(a)anthracene	44.16	10	50	0	88.3	55-131	43.9	0.604	30	
Benzidine	17.17	10	50	0	34.3	10-115	11.06	43.3	30	R
Hexachloroethane	41.67	10	50	0	83.3	46-115	42.4	1.74	30	
Indeno(1,2,3-cd)pyrene	49.73	10	50	0	99.5	42-123	48	3.52	30	
Isophorone	47.32	10	50	0	94.6	63-117	47.43	0.235	30	
N-Nitrosodi-n-propylamine	47.94	10	50	0	95.9	67-115	47.35	1.23	30	
N-Nitrosodimethylamine	20.06	10	50	0	40.1	28-115	19.12	4.77	30	
N-Nitrosodiphenylamine	48.31	10	50	0	96.6	72-144	47.52	1.64	30	
Naphthalene	43.04	10	50	0	86.1	52-115	43.4	0.832	30	
Nitrobenzene	43.72	10	50	0	87.4	65-115	43.84	0.29	30	
Pentachlorophenol	78.69	10	100	0	78.7	65-123	82.44	4.65	30	
Phenanthrene	44.11	10	50	0	88.2	69-119	44.8	1.57	30	
Phenol	32.53	10	100	0	32.5	16-115	31.29	3.86	30	
Pyrene	39.93	10	50	0	79.9	51-130	40.47	1.35	30	
Surr: 2,4,6-Tribromophenol	86.23	10	100	0	86.2	39-153	89.83	4.1	30	
Surr: 2-Fluorobiphenyl	80.55	10	100	0	80.6	40-147	82.62	2.53	30	
Surr: 2-Fluorophenol	46.73	10	100	0	46.7	21-110	44.3	5.34	30	
Surr: 4-Terphenyl-d14	83.42	10	100	0	83.4	39-141	87.4	4.66	30	
Surr: Nitrobenzene-d5	86.04	10	100	0	86	37-140	88.19	2.46	30	
Surr: Phenol-d6	30.72	10	100	0	30.7	11-100	30.58	0.456	30	

The following samples were analyzed in this batch:

0409252-01E 0409252-02E

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%

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U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23281 InstrumentID: VOA2

MBLK Sample ID: VBLKW-0923 Test Code: SW8260 Units: µg/L Analysis Date: 09/23/04 16:21

Client ID: Run ID: VOA2_040923A SeqNo: 543190 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								
Methyl tert-butyl ether	ND	5.0								
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	42.71	5.0	50	0	85.4	71-126	0			
Surr:4-Bromofluorobenzene	40.54	5.0	50	0	81.1	74-125	0			
Surr:Dibromofluoromethane	42.67	5.0	50	0	85.3	73-126	0			
Surr:Toluene-d8	43.55	5.0	50	0	87.1	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23281 Instrument ID: VOA2

LCS Sample ID: VLCSW-0923 Test Code: SW8260 Units: µg/L Analysis Date: 09/23/04 15:30

Client ID: Run ID: VOA2_040923A SeqNo: 543189 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	47.53	5.0	50	0	95.1	75.2-120	0			
1,1,2,2-Tetrachloroethane	44.94	5.0	50	0	89.9	72.4-121	0			
1,1,2-Trichloroethane	44.49	5.0	50	0	89	80-120	0			
1,1-Dichloroethane	46.51	5.0	50	0	93	76.9-120	0			
1,1-Dichloroethene	47.37	5.0	50	0	94.7	72.6-123	0			
1,2-Dichloroethane	44.34	5.0	50	0	88.7	80-120	0			
2-Butanone	94.59	10	100	0	94.6	69-131	0			
2-Chloroethyl vinyl ether	91.91	10	100	0	91.9	60-135	0			
2-Hexanone	92.38	10	100	0	92.4	55.6-126	0			
4-Methyl-2-pentanone	89.98	10	100	0	90	67.4-121	0			
Acetone	94.54	10	100	0	94.5	64.4-140	0			
Benzene	46.8	5.0	50	0	93.6	80-120	0			
Bromodichloromethane	45.85	5.0	50	0	91.7	80-120	0			
Bromoform	43.84	5.0	50	0	87.7	77.9-121	0			
Bromomethane	48.4	5.0	50	0	96.8	63.3-137	0			
Carbon disulfide	93.74	10	100	0	93.7	74.1-123	0			
Carbon tetrachloride	47.01	5.0	50	0	94	74.7-120	0			
Chlorobenzene	45.61	5.0	50	0	91.2	80-120	0			
Chloroethane	47.11	5.0	50	0	94.2	74.7-126	0			
Chloroform	45.69	5.0	50	0	91.4	80-120	0			
Chloromethane	44.58	5.0	50	0	89.2	64.5-132	0			
cis-1,3-Dichloropropene	47.16	5.0	50	0	94.3	80-120	0			
Dibromochloromethane	44.42	5.0	50	0	88.8	80-120	0			
Ethylbenzene	48.43	5.0	50	0	96.9	80-120	0			
m,p-Xylene	95.34	10	100	0	95.3	80-120	0			
Methyl tert-butyl ether	46.97	5.0	50	0	93.9	73.7-122	0			
Methylene chloride	43.82	10	50	0	87.6	76.2-120	0			
Styrene	48.22	5.0	50	0	96.4	80-120	0			
Tetrachloroethene	47.76	5.0	50	0	95.5	68.5-130	0			
Toluene	47.89	5.0	50	0	95.8	80-120	0			
trans-1,3-Dichloropropene	46.18	5.0	50	0	92.4	80-120	0			
Trichloroethene	47.35	5.0	50	0	94.7	78.9-120	0			
Vinylacetate	92.36	10	100	0	92.4	62.4-133	0			
Vinyl chloride	47.29	2.0	50	0	94.6	72.7-128	0			
Xylenes, Total	144.3	15	150	0	96.2	80-120	0			
Surr: 1,2-Dichloroethane-d4	40.22	5.0	50	0	80.4	71-126	0			
Surr: 4-Bromofluorobenzene	40.87	5.0	50	0	81.7	74-125	0			
Surr: Dibromofluoromethane	40.05	5.0	50	0	80.1	73-126	0			
Surr: Toluene-d8	42.55	5.0	50	0	85.1	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23281 InstrumentID: VOA2

MS Sample ID: 0409218-01ZMS Test Code: SW8260 Units: µg/L Analysis Date: 09/23/04 19:19

Client ID: Run ID: VOA2_040923A SeqNo: 543192 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1009	100	1000	0	101	75.2-120	0			
1,1,2,2-Tetrachloroethane	1147	100	1000	0	115	72.4-121	0			
1,1,2-Trichloroethane	1000	100	1000	0	100	80-120	0			
1,1-Dichloroethane	980.7	100	1000	0	98.1	76.9-120	0			
1,1-Dichloroethene	1004	100	1000	0	100	72.6-123	0			
1,2-Dichloroethane	1009	100	1000	0	101	80-120	0			
2-Butanone	1827	200	2000	0	91.4	69-131	0			
2-Chloroethyl vinyl ether	2022	200	2000	0	101	60-135	0			
2-Hexanone	1742	200	2000	0	87.1	55.6-126	0			
4-Methyl-2-pentanone	1791	200	2000	0	89.5	67.4-121	0			
Acetone	1698	200	2000	0	84.9	64.4-140	0			
Benzene	1009	100	1000	0	101	80-120	0			
Bromodichloromethane	978	100	1000	0	97.8	80-120	0			
Bromoform	981.7	100	1000	0	98.2	77.9-121	0			
Bromomethane	761.6	100	1000	0	76.2	63.3-137	0			
Carbon disulfide	1974	200	2000	0	98.7	74.1-123	0			
Carbontetrachloride	997	100	1000	0	99.7	74.7-120	0			
Chlorobenzene	971.1	100	1000	0	97.1	80-120	0			
Chloroethane	996.4	100	1000	0	99.6	74.7-126	0			
Chloroform	968.9	100	1000	0	96.9	80-120	0			
Chloromethane	867.9	100	1000	0	86.8	64.5-132	0			
cis-1,3-Dichloropropene	1023	100	1000	0	102	80-120	0			
Dibromochloromethane	989.4	100	1000	0	98.9	80-120	0			
Ethylbenzene	1033	100	1000	0	103	80-120	0			
m,p-Xylene	2036	200	2000	0	102	80-120	0			
Methyl tert-butyl ether	1002	100	1000	0	100	73.7-122	0			
Methylene chloride	925.5	200	1000	0	92.5	76.2-120	0			
Styrene	1021	100	1000	0	102	80-120	0			
Tetrachloroethene	1015	100	1000	0	101	68.5-130	0			
Toluene	1003	100	1000	0	100	80-120	0			
trans-1,3-Dichloropropene	1049	100	1000	0	105	80-120	0			
Trichloroethene	992.5	100	1000	0	99.3	78.9-120	0			
Vinylacetate	2055	200	2000	0	103	62.4-133	0			
Vinyl chloride	969	40	1000	0	96.9	72.7-128	0			
Xylenes, Total	3063	300	3000	0	102	80-120	0			
Surr:1,2-Dichloroethane-d4	878.4	100	1000	0	87.8	71-126	0			
Surr:4-Bromofluorobenzene	860.6	100	1000	0	86.1	74-125	0			
Surr:Dibromofluoromethane	840.5	100	1000	0	84.1	73-126	0			
Surr:Toluene-d8	873.3	100	1000	0	87.3	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23281 InstrumentID: VOA2

MSD Sample ID: 0409218-01ZMSD Test Code: SW8260 Units: µg/L Analysis Date: 09/23/04 19:44

Client ID: Run ID: VOA2_040923A SeqNo: 543193 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1001	100	1000	0	100	75.2-120	1009	0.886	20	
1,1,2,2-Tetrachloroethane	1132	100	1000	0	113	72.4-121	1147	1.36	20	
1,1,2-Trichloroethane	1013	100	1000	0	101	80-120	1000	1.2	20	
1,1-Dichloroethane	973.8	100	1000	0	97.4	76.9-120	980.7	0.708	20	
1,1-Dichloroethene	1028	100	1000	0	103	72.6-123	1004	2.36	20	
1,2-Dichloroethane	1018	100	1000	0	102	80-120	1009	0.87	20	
2-Butanone	1694	200	2000	0	84.7	69-131	1827	7.54	20	
2-Chloroethyl vinyl ether	1963	200	2000	0	98.2	60-135	2022	2.95	20	
2-Hexanone	1715	200	2000	0	85.8	55.6-126	1742	1.54	20	
4-Methyl-2-pentanone	1773	200	2000	0	88.6	67.4-121	1791	1.01	20	
Acetone	1649	200	2000	0	82.4	64.4-140	1698	2.96	20	
Benzene	1628	100	1000	0	163	80-120	1009	46.9	20	SR
Bromodichloromethane	966.6	100	1000	0	96.7	80-120	978	1.18	20	
Bromoform	915.6	100	1000	0	91.6	77.9-121	981.7	6.96	20	
Bromomethane	899.9	100	1000	0	90	63.3-137	761.6	16.6	20	
Carbon disulfide	1989	200	2000	0	99.4	74.1-123	1974	0.75	20	
Carbon tetrachloride	1014	100	1000	0	101	74.7-120	997	1.66	20	
Chlorobenzene	955.2	100	1000	0	95.5	80-120	971.1	1.66	20	
Chloroethane	999.5	100	1000	0	100	74.7-126	996.4	0.312	20	
Chloroform	949.3	100	1000	0	94.9	80-120	968.9	2.04	20	
Chloromethane	923.8	100	1000	0	92.4	64.5-132	867.9	6.24	20	
cis-1,3-Dichloropropene	1002	100	1000	0	100	80-120	1023	2.06	20	
Dibromochloromethane	965.4	100	1000	0	96.5	80-120	989.4	2.46	20	
Ethylbenzene	1029	100	1000	0	103	80-120	1033	0.398	20	
m,p-Xylene	2027	200	2000	0	101	80-120	2036	0.443	20	
Methyl tert-butyl ether	1009	100	1000	0	101	73.7-122	1002	0.691	20	
Methylene chloride	905.9	200	1000	0	90.6	76.2-120	925.5	2.14	20	
Styrene	1001	100	1000	0	100	80-120	1021	2.05	20	
Tetrachloroethene	1004	100	1000	0	100	68.5-130	1015	1.08	20	
Toluene	1003	100	1000	0	100	80-120	1003	0.00805	20	
trans-1,3-Dichloropropene	1024	100	1000	0	102	80-120	1049	2.34	20	
Trichloroethene	975.9	100	1000	0	97.6	78.9-120	992.5	1.69	20	
Vinylacetate	2009	200	2000	0	100	62.4-133	2055	2.25	20	
Vinyl chloride	993.2	40	1000	0	99.3	72.7-128	969	2.46	20	
Xylenes, Total	3046	300	3000	0	102	80-120	3063	0.546	20	
Surr: 1,2-Dichloroethane-d4	857.2	100	1000	0	85.7	71-126	878.4	2.44	20	
Surr: 4-Bromofluorobenzene	835.5	100	1000	0	83.6	74-125	860.6	2.96	20	
Surr: Dibromofluoromethane	812.3	100	1000	0	81.2	73-126	840.5	3.41	20	
Surr: Toluene-d8	854.7	100	1000	0	85.5	75-125	873.3	2.15	20	

The following samples were analyzed in this batch:

0409252-01A 0409252-02A

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23370 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-092404 Test Code: E335.3 Units: mg/L Analysis Date: 09/27/04 0:00

Client ID: Run ID: UV-2101PC_040927B SeqNo: 544697 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: WLCW1-092404 Test Code: E335.3 Units: mg/L Analysis Date: 09/27/04 0:00

Client ID: Run ID: UV-2101PC_040927B SeqNo: 544698 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2062	0.020	0.2	0	103	80-120	0			

MS Sample ID: 0409252-01DMS Test Code: E335.3 Units: mg/L Analysis Date: 09/27/04 0:00

Client ID: RA 4196 Run ID: UV-2101PC_040927B SeqNo: 544707 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2047	0.020	0.2	0.0022	101	75-125	0			

MSD Sample ID: 0409252-01DMSD Test Code: E335.3 Units: mg/L Analysis Date: 09/27/04 0:00

Client ID: RA 4196 Run ID: UV-2101PC_040927B SeqNo: 544708 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2088	0.020	0.2	0.0022	103	75-125	0.2047	1.98	25	

DUP Sample ID: 0409252-01DDUP Test Code: E335.3 Units: mg/L Analysis Date: 09/27/04 0:00

Client ID: RA 4196 Run ID: UV-2101PC_040927B SeqNo: 544706 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	0.0022	0	20	

The following samples were analyzed in this batch:

0409252-01D	0409252-02D
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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

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CLIENT: Navajo Refining Company
 Work Order: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23400 InstrumentID: WetChem

MBLK Sample ID: WBLKW1-092804 Test Code: E310.1 Units: mg/L Analysis Date: 09/28/04 0:00

Client ID: Run ID: WETCHEM_040928C SeqNo: 545296 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 CaCO ₃)	ND	5.0								
Alkalinity, Carbonate (As CaCO ₃)	ND	5.0								
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.0								
Alkalinity, Total (As CaCO ₃)	ND	5.0								

LCS Sample ID: WLCSW1-092804 Test Code: E310.1 Units: mg/L Analysis Date: 09/28/04 0:00

Client ID: Run ID: WETCHEM_040928C SeqNo: 545297 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 CaCO ₃)	1000	5.0	0	0	0	0-0	0	0		
Alkalinity, Carbonate (As CaCO ₃)	ND	5.0	0	0	0	0-0	0	0		
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.0	0	0	0	0-0	0	0		
Alkalinity, Total (As CaCO ₃)	1000	5.0	1000	0	100	80-120	0	0		

DUP Sample ID: 0409234-01BDUP Test Code: E310.1 Units: mg/L Analysis Date: 09/28/04 0:00

Client ID: Run ID: WETCHEM_040928C SeqNo: 545305 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 CaCO ₃)	220.1	5.0	0	0	0	0-0	220.1	0	20	
Alkalinity, Carbonate (As CaCO ₃)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO ₃)	220.1	5.0	0	0	0	0-0	220.1	0	20	

The following samples were analyzed in this batch:

0409252-01B 0409252-02B

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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: R23488 InstrumentID: IC201

MBLK Sample ID: WBLKW1-093004 Test Code: E300 Units: mg/L Analysis Date: 09/30/04 16:43

Client ID: Run ID: IC201_040930A SeqNo: 547645 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								
Surr: Dichloroacetic acid (surr)	4	0.10	5	0	80	80-120		0		

LCS Sample ID: WLCSW1-093004 Test Code: E300 Units: mg/L Analysis Date: 09/30/04 17:12

Client ID: Run ID: IC201_040930A SeqNo: 547646 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.86	0.50	10	0	88.6	80-120		0		
Fluoride	1.89	0.10	2	0	94.5	80-120		0		
Sulfate	9.07	1.0	10	0	90.7	80-120		0		
Surr: Dichloroacetic acid (surr)	4.83	0.10	5	0	96.6	80-120		0		

LCSD Sample ID: WLCSDW1-09300 Test Code: E300 Units: mg/L Analysis Date: 09/30/04 17:40

Client ID: Run ID: IC201_040930A SeqNo: 547647 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.91	0.50	10	0	89.1	80-120	8.86	0.563	20	
Fluoride	1.93	0.10	2	0	96.5	80-120	1.89	2.09	20	
Sulfate	9.07	1.0	10	0	90.7	80-120	9.07	0	20	
Surr: Dichloroacetic acid (surr)	4.94	0.10	5	0	98.8	80-120	4.83	2.25	20	

MS Sample ID: 0409344-04DMS Test Code: E300 Units: mg/L Analysis Date: 09/30/04 22:54

Client ID: Run ID: IC201_040930A SeqNo: 547656 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	114.2	0.50	10	102.1	121	75-125		0		EO
Fluoride	2.26	0.10	2	0.4	93	75-125		0		
Sulfate	8.94	1.0	10	0.04	89	75-125		0		
Surr: Dichloroacetic acid (surr)	4.95	0.10	5	0	99	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: 0409252
 Project: Monthly

QC BATCH REPORT

Batch ID: **R23488** Instrument ID: **IC201**

MSD Sample ID: **0409344-04DMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **09/30/04 23:22**

Client ID: Run ID: **IC201_040930A** SeqNo: **547657** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	114.5	0.50	10	102.1	124	75-125	114.2	0.245	20	EO
Fluoride	2.19	0.10	2	0.4	89.5	75-125	2.26	3.15	20	
Sulfate	8.97	1.0	10	0.04	89.3	75-125	8.94	0.335	20	
Surr: Dichloroacetic acid (surr)	5.04	0.10	5	0	101	80-120	4.95	1.8	20	

DUP Sample ID: **0409252-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **10/01/04 4:36**

Client ID: **RA 4798** Run ID: **IC201_040930A** SeqNo: **547640** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	101.5	25	0	0	0	0-0	101	0.494	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1378	50	0	0	0	0-0	1381	0.217	20	
Surr: Dichloroacetic acid (surr)	258	5.0	250	0	103	80-120	258	0	20	

DUP Sample ID: **0409344-04DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **09/30/04 22:25**

Client ID: Run ID: **IC201_040930A** SeqNo: **547655** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	102.3	0.50	0	0	0	0-0	102.1	0.205	20	E
Fluoride	0.38	0.10	0	0	0	0-0	0.4	5.13	20	
Sulfate	ND	1.0	0	0	0	0-0	0.04	0	20	
Surr: Dichloroacetic acid (surr)	5.03	0.10	5	0	101	80-120	5.11	1.58	20	

The following samples were analyzed in this batch:

0409252-01B 0409252-02B

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

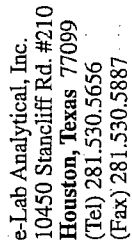
R - RPD outside accepted recovery limits

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



Chain of Custody Form

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

Page _____ of _____

Customer Information										Project Information										Parameter/Method Request for Analysis									
Purchase Order					Project Name					Monthly					A					Volatiles Select									
Work Order					Project Number										B					Tot. Metals 6020/7000 Select: Cations									
Company Name					Navajo Refining Company					Bill To Company					C					Semi-volatiles 8270 Select:									
Send Report To					Jeff Byrd					Invoice Attn					D					Anions: Cl, F, SO4									
Address					P.O. Box 159					Address					E					Cyanide 335									
City/State/Zip					509 East Main					City/State/Zip					F														
Phone					Artesia, New Mexico 88211					Phone					G														
Fax					(505) 748-3311					Fax					H														
e-Mail/Address					(505) 748-5421					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	RA 4196	9/22/03	1000	L	4	8	X	X	X	X	X																		
2	RA 4798	9/22/03	1015	L	4	8	X	X	X	X	X																		
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													

Relinquished by: *[Signature]*

Relinquished by:

Logged by (Laboratory):

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O8 6-NaHSO4 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below)

☒ Level II Std QC ☐ TRRP Checklist

☐ Level III Std QC/Raw Data ☐ TRRP Level IV

☐ Level IV SW846/CLP ☐ Other

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to e-Lab Analytical, Inc.

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 9/23/2004 8:50:00 AM

Work Order Number 0409252

Received by: FSM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name

E-Lab

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 FS

Login Notes:

No Trip Blank was received in cooler.

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

SHIP DATE: 22SEP2004
ACCOUNT # 113684186

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77000

2815305656
BILL RECIPIENT



Deliv

FedEx PRIORITY OVERNIGHT

System # 2223500 22SEP2004

TRK# 7902 8116 8543 Form 0201

0856
THU

DELIVER BY:
23SEP2004
A2

IAH

77099-TX-US

A9 JGQA



OSUS v5.2.00 2223500 2844 04/02



e-Lab Analytical, Inc.

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

October 01, 2004

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

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

Re: Monthly

Work Order : **0409189**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 9/17/2004 8:40:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 30.

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

Sincerely,

Jeffrey L Croston

Electronically approved by: John Robert Paddison

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: *October 01, 2004*

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0409189

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0409189-01	LaRue	Water		9/16/2004 08:30	9/17/2004 08:40	☐
0409189-02	RA 3156	Water		9/16/2004 08:45	9/17/2004 08:40	☐

e-Lab Analytical, Inc.

Date: *October 01, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0409189

Case Narrative

Batch 10378 Metals MSD was an unrelated sample.

Batch 10373 Semivolatiles MS/MSD was an unrelated sample.

Batch R23255 Volatiles MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-01

Client Sample ID: LaRue
Collection Date: 9/16/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	9/27/2004 8:12:46 PM
PrepDate: 9/27/2004 Analyst: JCJ						
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0100		mg/L	1	9/28/2004 8:10:00 PM
Arsenic	ND	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Barium	0.0136	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Beryllium	ND	0.00200		mg/L	1	9/28/2004 8:10:00 PM
Boron	0.248	0.200		mg/L	10	9/28/2004 7:48:00 PM
Cadmium	ND	0.00100		mg/L	1	9/28/2004 8:10:00 PM
Calcium	458	25.0		mg/L	50	9/28/2004 7:39:00 PM
Chromium	ND	0.00200		mg/L	1	9/28/2004 8:10:00 PM
Cobalt	ND	0.00200		mg/L	1	9/29/2004 2:03:00 PM
Copper	0.0349	0.00200		mg/L	1	9/28/2004 8:10:00 PM
Iron	1.73	0.200		mg/L	1	9/28/2004 8:10:00 PM
Lead	ND	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Magnesium	158	2.00		mg/L	10	9/29/2004 1:54:00 PM
Manganese	0.00919	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Nickel	0.00762	0.00500		mg/L	1	9/29/2004 2:03:00 PM
Potassium	1.56	0.200		mg/L	1	9/29/2004 2:03:00 PM
Selenium	0.0122	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Silver	ND	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Sodium	109	2.00		mg/L	10	9/29/2004 1:54:00 PM
Vanadium	0.00895	0.00500		mg/L	1	9/28/2004 8:10:00 PM
Zinc	0.0436	0.00500		mg/L	1	9/28/2004 8:10:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2-Methylphenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2-Nitroaniline	ND	10		µg/L	1	9/24/2004 10:12:00 PM
2-Nitrophenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
3-Nitroaniline	ND	10		µg/L	1	9/24/2004 10:12:00 PM
4-Methylphenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
4-Nitroaniline	ND	10		µg/L	1	9/24/2004 10:12:00 PM
4-Nitrophenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Acenaphthene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Acenaphthylene	ND	10		µg/L	1	9/24/2004 10:12:00 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 Analytical, Inc.

Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-01

Client Sample ID: LaRue
Collection Date: 9/16/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Anthracene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Benz(a)anthracene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Benzidine	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Hexachloroethane	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Isophorone	ND	10		µg/L	1	9/24/2004 10:12:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/24/2004 10:12:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	9/24/2004 10:12:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Naphthalene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Nitrobenzene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Phenanthrene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Phenol	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Pyrene	ND	10		µg/L	1	9/24/2004 10:12:00 PM
Surr: 2,4,6-Tribromophenol	82.1	39-153		%REC	1	9/24/2004 10:12:00 PM
Surr: 2-Fluorobiphenyl	80.6	40-147		%REC	1	9/24/2004 10:12:00 PM
Surr: 2-Fluorophenol	35.6	21-110		%REC	1	9/24/2004 10:12:00 PM
Surr: 4-Terphenyl-d14	80.8	39-141		%REC	1	9/24/2004 10:12:00 PM
Surr: Nitrobenzene-d5	78.8	37-140		%REC	1	9/24/2004 10:12:00 PM
Surr: Phenol-d6	19.8	11-100		%REC	1	9/24/2004 10:12:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
2-Butanone	ND	10		µg/L	1	9/22/2004 5:28:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/22/2004 5:28:00 PM
2-Hexanone	ND	10		µg/L	1	9/22/2004 5:28:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Acetone	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Benzene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Bromoform	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Bromomethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Carbon disulfide	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	9/22/2004 5:28:00 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 Analytical, Inc.

Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-01

Client Sample ID: LaRue
Collection Date: 9/16/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Chloroethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Chloroform	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Chloromethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Ethylbenzene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
m,p-Xylene	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Methylene chloride	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Styrene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Toluene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Trichloroethene	ND	5.0		µg/L	1	9/22/2004 5:28:00 PM
Vinylacetate	ND	10		µg/L	1	9/22/2004 5:28:00 PM
Vinyl chloride	ND	2.0		µg/L	1	9/22/2004 5:28:00 PM
Xylenes, Total	ND	15		µg/L	1	9/22/2004 5:28:00 PM
Surr: 1,2-Dichloroethane-d4	88.4	71-126		%REC	1	9/22/2004 5:28:00 PM
Surr: 4-Bromofluorobenzene	79.8	74-125		%REC	1	9/22/2004 5:28:00 PM
Surr: Dibromofluoromethane	87.3	73-126		%REC	1	9/22/2004 5:28:00 PM
Surr: Toluene-d8	85.9	75-125		%REC	1	9/22/2004 5:28:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	112	2.50		mg/L	5	9/24/2004 1:38:00 AM
Fluoride	0.650	0.100		mg/L	1	9/24/2004 1:09:00 AM
Sulfate	1,540	50.0		mg/L	50	9/24/2004 2:07:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	1	9/24/2004 1:09:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	5	9/24/2004 1:38:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	50	9/24/2004 2:07:00 AM
ALKALINITY		E310.1		Analyst: MG		
Alkalinity, Bicarbonate (As CaCO3)	260	5.00		mg/L	1	9/28/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Total (As CaCO3)	260	5.00		mg/L	1	9/28/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	9/20/2004

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 Analytical, Inc.
Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-02

Client Sample ID: RA 3156
Collection Date: 9/16/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/27/2004 4:14:18 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	9/28/2004 8:15:00 PM
Arsenic	ND	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Barium	0.00896	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Beryllium	ND	0.00200		mg/L	1	9/28/2004 8:15:00 PM
Boron	0.226	0.200		mg/L	10	9/28/2004 7:52:00 PM
Cadmium	ND	0.00100		mg/L	1	9/28/2004 8:15:00 PM
Calcium	476	25.0		mg/L	50	9/28/2004 7:43:00 PM
Chromium	ND	0.00200		mg/L	1	9/28/2004 8:15:00 PM
Cobalt	ND	0.00200		mg/L	1	9/29/2004 2:08:00 PM
Copper	0.00830	0.00200		mg/L	1	9/28/2004 8:15:00 PM
Iron	1.42	0.200		mg/L	1	9/28/2004 8:15:00 PM
Lead	ND	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Magnesium	157	2.00		mg/L	10	9/29/2004 1:58:00 PM
Manganese	ND	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Nickel	0.00684	0.00500		mg/L	1	9/29/2004 2:08:00 PM
Potassium	2.56	0.200		mg/L	1	9/29/2004 2:08:00 PM
Selenium	0.0151	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Silver	ND	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Sodium	176	2.00		mg/L	10	9/29/2004 1:58:00 PM
Vanadium	0.00637	0.00500		mg/L	1	9/28/2004 8:15:00 PM
Zinc	0.0464	0.00500		mg/L	1	9/28/2004 8:15:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2,4,5-Trichlorophenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2,4,6-Trichlorophenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2-Methylphenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2-Nitroaniline	ND	11		µg/L	1	9/25/2004 4:50:00 PM
2-Nitrophenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
3-Nitroaniline	ND	11		µg/L	1	9/25/2004 4:50:00 PM
4-Methylphenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
4-Nitroaniline	ND	11		µg/L	1	9/25/2004 4:50:00 PM
4-Nitrophenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Acenaphthene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Acenaphthylene	ND	11		µg/L	1	9/25/2004 4:50:00 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 Analytical, Inc.

Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-02

Client Sample ID: RA 3156
Collection Date: 9/16/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Anthracene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Benz(a)anthracene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Benzidine	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Hexachloroethane	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Isophorone	ND	11		µg/L	1	9/25/2004 4:50:00 PM
N-Nitrosodi-n-propylamine	ND	11		µg/L	1	9/25/2004 4:50:00 PM
N-Nitrosodimethylamine	ND	11		µg/L	1	9/25/2004 4:50:00 PM
N-Nitrosodiphenylamine	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Naphthalene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Nitrobenzene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Pentachlorophenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Phenanthrene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Phenol	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Pyrene	ND	11		µg/L	1	9/25/2004 4:50:00 PM
Surr: 2,4,6-Tribromophenol	85.6	39-153		%REC	1	9/25/2004 4:50:00 PM
Surr: 2-Fluorobiphenyl	80.2	40-147		%REC	1	9/25/2004 4:50:00 PM
Surr: 2-Fluorophenol	32.2	21-110		%REC	1	9/25/2004 4:50:00 PM
Surr: 4-Terphenyl-d14	85.9	39-141		%REC	1	9/25/2004 4:50:00 PM
Surr: Nitrobenzene-d5	81.9	37-140		%REC	1	9/25/2004 4:50:00 PM
Surr: Phenol-d6	22.4	11-100		%REC	1	9/25/2004 4:50:00 PM
VOLATILES BY GC/MS		SW8260			Analyst: PC	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
2-Butanone	ND	10		µg/L	1	9/22/2004 5:53:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/22/2004 5:53:00 PM
2-Hexanone	ND	10		µg/L	1	9/22/2004 5:53:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Acetone	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Benzene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Bromoform	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Bromomethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Carbon disulfide	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Carbontetrachloride	ND	5.0		µg/L	1	9/22/2004 5:53:00 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 Analytical, Inc.

Date: October 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly
Lab ID: 0409189-02

Client Sample ID: RA 3156
Collection Date: 9/16/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Chloroethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Chloroform	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Chloromethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Ethylbenzene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
m,p-Xylene	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Methylene chloride	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Styrene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Toluene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Trichloroethene	ND	5.0		µg/L	1	9/22/2004 5:53:00 PM
Vinylacetate	ND	10		µg/L	1	9/22/2004 5:53:00 PM
Vinyl chloride	ND	2.0		µg/L	1	9/22/2004 5:53:00 PM
Xylenes, Total	ND	15		µg/L	1	9/22/2004 5:53:00 PM
Surr:1,2-Dichloroethane-d4	87.8	71-126		%REC	1	9/22/2004 5:53:00 PM
Surr:4-Bromofluorobenzene	81.2	74-125		%REC	1	9/22/2004 5:53:00 PM
Surr: Dibromofluoromethane	87.1	73-126		%REC	1	9/22/2004 5:53:00 PM
Surr: Toluene-d8	86.5	75-125		%REC	1	9/22/2004 5:53:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	250	5.00		mg/L	10	9/24/2004 4:01:00 AM
Fluoride	0.450	0.100		mg/L	1	9/24/2004 3:32:00 AM
Sulfate	1,850	100		mg/L	100	9/24/2004 4:29:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	1	9/24/2004 3:32:00 AM
Surr: Dichloroacetic acid (surr)	118	80-120		%REC	10	9/24/2004 4:01:00 AM
Surr: Dichloroacetic acid (surr)	119	80-120		%REC	100	9/24/2004 4:29:00 AM
ALKALINITY		E310.1		Analyst: MG		
Alkalinity, Bicarbonate (As CaCO3)	240	5.00		mg/L	1	9/28/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/28/2004
Alkalinity, Total (As CaCO3)	240	5.00		mg/L	1	9/28/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	9/20/2004

Qualifiers: ND - Not Detected at the Reporting Limit
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P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: Oct 01 2004

CLIENT: Navajo Refining Company

Work Order: 0409189

Project: Monthly

QC BATCH REPORT

Batch ID: 10378

InstrumentID: ICP7500

MBLK Sample ID: MBLKW2-092004 Test Code: SW6020 Units: mg/L Analysis Date: 09/21/04 13:21

Client ID: Run ID: ICP7500_040921A SeqNo: 541615 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0050								
Copper	0.0008622	0.0050								J
Lead	ND	0.0050								
Nickel	ND	0.0050								
Selenium	0.001705	0.0050								J
Silver	ND	0.0050								

MBLK Sample ID: MBLKW2-092004 Test Code: SW6020 Units: mg/L Analysis Date: 09/21/04 18:09

Client ID: Run ID: ICP7500_040921A SeqNo: 541824 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.00323	0.0050								J

MBLK Sample ID: MBLKW2-092004 Test Code: SW6020 Units: mg/L Analysis Date: 09/28/04 13:51

Client ID: Run ID: ICP4500_040928A SeqNo: 545345 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Barium	ND	0.0050								
Boron	ND	0.020								
Calcium	ND	0.50								
Cobalt	0.0001061	0.0050								J
Iron	ND	0.20								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Potassium	ND	0.20								
Sodium	ND	0.20								
Vanadium	ND	0.0050								

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

QC Page: 1 of 18

CLIENT: Navajo Refining Company
 Work Order: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10378 InstrumentID: ICP7500

LCS Sample ID: MLCSW2-092002 Test Code: SW6020 Units: mg/L Analysis Date: 09/21/04 18:21

Client ID: Run ID: ICP7500_040921A SeqNo: 541825 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04813	0.0050	0.05	0	96.3	80-121	0			
Beryllium	0.04557	0.0020	0.05	0	91.1	78.9-120	0			
Cadmium	0.05088	0.0020	0.05	0	102	79.1-119	0			
Chromium	0.04957	0.0050	0.05	0	99.1	79.3-121	0			
Copper	0.04878	0.0050	0.05	0	97.6	83-121	0			
Lead	0.04547	0.0050	0.05	0	90.9	80-118	0			
Nickel	0.04837	0.0050	0.05	0	96.7	85-120	0			
Selenium	0.04666	0.0050	0.05	0	93.3	79.2-118	0			
Silver	0.04888	0.0050	0.05	0	97.8	83-117	0			
Zinc	0.04816	0.0050	0.05	0	96.3	83-118	0			

LCS Sample ID: MLCSW2-092002 Test Code: SW6020 Units: mg/L Analysis Date: 09/28/04 13:57

Client ID: Run ID: ICP4500_040928A SeqNo: 545346 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04649	0.010	0.05	0	93	79-126	0			
Barium	0.04721	0.0050	0.05	0	94.4	79.8-119	0			
Boron	0.4753	0.020	0	0	0	80-120	0			
Calcium	4.84	0.50	5	0	96.8	80-121	0			
Cobalt	0.04621	0.0050	0.05	0	92.4	82-121	0			
Iron	4.768	0.20	5	0	95.4	80-120	0			
Magnesium	5.063	0.20	5	0	101	80-120	0			
Manganese	0.0454	0.0050	0.05	0	90.8	82-119	0			
Molybdenum	0.0445	0.0050	0.05	0	89	84.6-115	0			
Potassium	5.008	0.20	5	0	100	80-120	0			
Sodium	4.892	0.20	5	0	97.8	82.4-120	0			
Vanadium	0.04511	0.0050	0.05	0	90.2	82.1-119	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10378 InstrumentID: ICP7500

MS Sample ID: 0409200-17BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/21/04 12:58

Client ID: Run ID: ICP7500_040921A SeqNo: 541611 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05066	0.010	0.05	0.006417	88.5	79-126	0			
Arsenic	0.04833	0.0050	0.05	0.0006041	95.5	80-121	0			
Barium	0.04478	0.0050	0.05	0.001525	86.5	79.8-119	0			
Beryllium	0.04786	0.0020	0.05	0.00001836	95.7	78.9-120	0			
Boron	0.4757	0.020	0	0.01644	0	80-120	0			
Cadmium	0.04695	0.0020	0.05	0.00003797	93.8	79.1-119	0			
Calcium	4.374	0.50	5	0.06432	86.2	80-121	0			
Chromium	0.04723	0.0050	0.05	0.0002818	93.9	79.3-121	0			
Cobalt	0.04743	0.0050	0.05	0.00005693	94.7	82-121	0			
Copper	0.04746	0.0050	0.05	0.001044	92.8	83-121	0			
Iron	4.99	0.20	5	0.004006	99.7	80-120	0			
Lead	0.04504	0.0050	0.05	0.0001692	89.7	80-118	0			
Magnesium	5.014	0.20	5	0.007053	100	80-120	0			
Manganese	0.04898	0.0050	0.05	0.000195	97.6	82-119	0			
Nickel	0.04792	0.0050	0.05	0.0003442	95.2	85-120	0			
Potassium	4.934	0.20	5	0.00888	98.5	80-120	0			
Selenium	0.04983	0.0050	0.05	0.0005599	98.5	79.2-118	0			
Silver	0.0508	0.0050	0.05	0.000386	101	83-117	0			
Sodium	5.3	0.20	5	0.399	98	82.4-120	0			
Vanadium	0.04894	0.0050	0.05	0.0004841	96.9	82.1-119	0			
Zinc	0.06389	0.0050	0.05	0.005331	117	83-118	0			

MS Sample ID: 0409200-17BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/28/04 19:20

Client ID: Run ID: ICP4500_040928A SeqNo: 545710 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Molybdenum	0.04572	0.0050	0.05	0.0001421	91.2	84.6-115	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10378 InstrumentID: ICP7500

MSD		Sample ID: 0409200-17BMSD		Test Code: SW6020		Units: mg/L		Analysis Date: 09/21/04 13:03		
Client ID:		Run ID: ICP7500_040921A		SeqNo: 541612		Prep Date: 9/20/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04996	0.010	0.05	0.006417	87.1	79-126	0.05066	1.39	15	
Arsenic	0.04826	0.0050	0.05	0.0006041	95.3	80-121	0.04833	0.145	15	
Barium	0.04546	0.0050	0.05	0.001525	87.9	79.8-119	0.04478	1.51	15	
Beryllium	0.0472	0.0020	0.05	0.00001836	94.4	78.9-120	0.04786	1.39	15	
Boron	0.4731	0.020	0	0.01644	0	80-120	0.4757	0.548	15	
Cadmium	0.04637	0.0020	0.05	0.00003797	92.7	79.1-119	0.04695	1.24	15	
Calcium	4.44	0.50	5	0.06432	87.5	80-121	4.374	1.5	15	
Chromium	0.04715	0.0050	0.05	0.0002818	93.7	79.3-121	0.04723	0.17	15	
Cobalt	0.04709	0.0050	0.05	0.00005693	94.1	82-121	0.04743	0.719	15	
Copper	0.06109	0.0050	0.05	0.001044	120	83-121	0.04746	25.1	15	R
Iron	4.918	0.20	5	0.004006	98.3	80-120	4.99	1.45	15	
Lead	0.04493	0.0050	0.05	0.0001692	89.5	80-118	0.04504	0.245	15	
Magnesium	4.942	0.20	5	0.007053	98.7	80-120	5.014	1.45	15	
Manganese	0.04835	0.0050	0.05	0.000195	96.3	82-119	0.04898	1.29	15	
Nickel	0.04705	0.0050	0.05	0.0003442	93.4	85-120	0.04792	1.83	15	
Potassium	4.927	0.20	5	0.00888	98.4	80-120	4.934	0.142	15	
Selenium	0.05164	0.0050	0.05	0.0005599	102	79.2-118	0.04983	3.57	15	
Silver	0.0502	0.0050	0.05	0.000386	99.6	83-117	0.0508	1.19	15	
Sodium	5.215	0.20	5	0.399	96.3	82.4-120	5.3	1.62	15	
Vanadium	0.04925	0.0050	0.05	0.0004841	97.5	82.1-119	0.04894	0.631	15	
Zinc	0.07261	0.0050	0.05	0.005331	135	83-118	0.06389	12.8	15	S

MSD		Sample ID: 0409200-17BMSD		Test Code: SW6020		Units: mg/L		Analysis Date: 09/28/04 19:25		
Client ID:		Run ID: ICP4500_040928A		SeqNo: 545711		Prep Date: 9/20/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Molybdenum	0.04513	0.0050	0.05	0.0001421	90	84.6-115	0.04572	1.3	15	

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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10378 InstrumentID: ICP7500

DUP Sample ID: 0409200-17BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/21/04 12:52

Client ID: Run ID: ICP7500_040921A SeqNo: 541610 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.005086	0.010	0	0	0	0-0	0.006417	0	25	J
Arsenic	ND	0.0050	0	0	0	0-0	0.0006041	0	25	
Barium	0.001626	0.0050	0	0	0	0-0	0.001525	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.00001836	0	25	
Boron	0.01738	0.020	0	0	0	0-0	0.01644	0	25	J
Cadmium	ND	0.0020	0	0	0	0-0	0.00003797	0	25	
Calcium	ND	0.50	0	0	0	0-0	0.06432	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0002818	0	25	
Cobalt	0.0001446	0.0050	0	0	0	0-0	0.00005693	0	25	J
Copper	0.00115	0.0050	0	0	0	0-0	0.001044	0	25	J
Iron	0.02595	0.20	0	0	0	0-0	0.004006	0	25	J
Lead	0.0002526	0.0050	0	0	0	0-0	0.0001692	0	25	J
Magnesium	ND	0.20	0	0	0	0-0	0.007053	0	25	
Manganese	ND	0.0050	0	0	0	0-0	0.000195	0	25	
Nickel	0.001188	0.0050	0	0	0	0-0	0.0003442	0	25	J
Potassium	ND	0.20	0	0	0	0-0	0.00888	0	25	
Selenium	ND	0.0050	0	0	0	0-0	0.0005599	0	25	
Silver	0.0002011	0.0050	0	0	0	0-0	0.000386	0	25	J
Sodium	0.4146	0.20	0	0	0	0-0	0.399	3.83	25	
Vanadium	0.0006346	0.0050	0	0	0	0-0	0.0004841	0	25	J
Zinc	0.009581	0.0050	0	0	0	0-0	0.005331	57	25	R

DUP Sample ID: 0409200-17BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/28/04 19:16

Client ID: Run ID: ICP4500_040928A SeqNo: 545709 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Molybdenum	ND	0.0050	0	0	0	0-0	0.0001421	0	25	

The following samples were analyzed in this batch:

0409189-01C 0409189-02C

ND - Not Detected at the Reporting Limit

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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: 0409189
Project: Monthly

QC BATCH REPORT

Batch ID: **10468** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-092704** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:28**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544873** Prep Date: **9/27/2004** 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: **GLCSW1-092704** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:28**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544874** Prep Date: **9/27/2004** 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	100	83-115	0			

LCSD Sample ID: **GLCSDW1-092704** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:40**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544875** Prep Date: **9/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00514	0.00020	0.005	0	103	83-115	0.005	2.76	20	

MS Sample ID: **0409191-04DMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:57**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544878** Prep Date: **9/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0048	0.00020	0.005	0.000011	95.8	83-115	0			

MSD Sample ID: **0409191-04DMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:59**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544879** Prep Date: **9/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00478	0.00020	0.005	0.000011	95.4	83-115	0.0048	0.418	20	

DUP Sample ID: **0409191-04DDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/27/04 15:55**

Client ID: Run ID: **MERCURY_040927A** SeqNo: **544877** Prep Date: **9/27/2004** 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	0.000011	0	20	

The following samples were analyzed in this batch:

0409189-01C 0409189-02C

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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10373 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040920 Test Code: SW8270 Units: µg/L Analysis Date: 09/21/04 17:41

Client ID: Run ID: SV-3_040920A SeqNo: 542409 Prep Date: 9/20/2004 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	89.39	10	100	0	89.4	39-153		0		
Surr: 2-Fluorobiphenyl	85.5	10	100	0	85.5	40-147		0		
Surr: 2-Fluorophenol	40.7	10	100	0	40.7	21-110		0		
Surr: 4-Terphenyl-d14	91.45	10	100	0	91.5	39-141		0		
Surr: Nitrobenzene-d5	86.23	10	100	0	86.2	37-140		0		
Surr: Phenol-d6	24.19	10	100	0	24.2	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10373 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040920 Test Code: SW8270 Units: µg/L Analysis Date: 09/21/04 18:07

Client ID: Run ID: SV-3_040920A SeqNo: 542410 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.22	10	50	0	86.4	50-115	0			
2,4,5-Trichlorophenol	92.63	10	100	0	92.6	68-128	0			
2,4,6-Trichlorophenol	83.59	10	100	0	83.6	66-125	0			
2-Methylnaphthalene	41.44	10	50	0	82.9	47-122	0			
2-Methylphenol	70.66	10	100	0	70.7	51-115	0			
2-Nitroaniline	47.93	10	50	0	95.9	64-128	0			
2-Nitrophenol	88.23	10	100	0	88.2	60-119	0			
3-Nitroaniline	40.14	10	50	0	80.3	61-118	0			
4-Methylphenol	94.24	10	150	0	62.8	44-115	0			
4-Nitroaniline	38.3	10	50	0	76.6	61-123	0			
4-Nitrophenol	45.39	10	100	0	45.4	17-100	0			
Acenaphthene	43.89	10	50	0	87.8	68-115	0			
Acenaphthylene	43.74	10	50	0	87.5	67-116	0			
Aniline	30.55	10	50	0	61.1	40-130	0			
Anthracene	44.88	10	50	0	89.8	70-129	0			
Benz(a)anthracene	42.97	10	50	0	85.9	55-131	0			
Benzidine	14.43	10	50	0	28.9	10-115	0			
Hexachloroethane	42.85	10	50	0	85.7	46-115	0			
Indeno(1,2,3-cd)pyrene	42.88	10	50	0	85.8	42-123	0			
Isophorone	46.73	10	50	0	93.5	63-117	0			
N-Nitrosodi-n-propylamine	45.24	10	50	0	90.5	67-115	0			
N-Nitrosodimethylamine	19.34	10	50	0	38.7	28-115	0			
N-Nitrosodiphenylamine	47.62	10	50	0	95.2	72-144	0			
Naphthalene	44.37	10	50	0	88.7	52-115	0			
Nitrobenzene	46.14	10	50	0	92.3	65-115	0			
Pentachlorophenol	90.11	10	100	0	90.1	65-123	0			
Phenanthrene	42.85	10	50	0	85.7	69-119	0			
Phenol	31.7	10	100	0	31.7	16-115	0			
Pyrene	42.04	10	50	0	84.1	51-130	0			
Surr: 2,4,6-Tribromophenol	89.11	10	100	0	89.1	39-153	0			
Surr: 2-Fluorobiphenyl	84.97	10	100	0	85	40-147	0			
Surr: 2-Fluorophenol	46.79	10	100	0	46.8	21-110	0			
Surr: 4-Terphenyl-d14	90.44	10	100	0	90.4	39-141	0			
Surr: Nitrobenzene-d5	88.98	10	100	0	89	37-140	0			
Surr: Phenol-d6	29.42	10	100	0	29.4	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10373 InstrumentID: SV-3

MS Sample ID: 0409191-04BMS Test Code: SW8270 Units: µg/L Analysis Date: 09/21/04 22:24

Client ID: Run ID: SV-3_040920A SeqNo: 543783 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.81	10	50	0	81.6	50-115	0			
2,4,5-Trichlorophenol	86.16	10	100	0	86.2	68-128	0			
2,4,6-Trichlorophenol	79.89	10	100	0	79.9	66-125	0			
2-Methylnaphthalene	39.91	10	50	0	79.8	47-122	0			
2-Methylphenol	61.99	10	100	0	62	51-115	0			
2-Nitroaniline	2.252	10	50	0	4.5	64-128	0			JS
2-Nitrophenol	81.36	10	100	0	81.4	60-119	0			
3-Nitroaniline	1.531	10	50	0	3.06	61-118	0			JS
4-Methylphenol	84.68	10	150	0	56.5	44-115	0			
4-Nitroaniline	5.162	10	50	0	10.3	61-123	0			JS
4-Nitrophenol	44.82	10	100	0	44.8	17-100	0			
Acenaphthene	43.24	10	50	0	86.5	68-115	0			
Acenaphthylene	41.74	10	50	0	83.5	67-116	0			
Aniline	9.236	10	50	0	18.5	40-130	0			JS
Anthracene	44.49	10	50	0	89	70-129	0			
Benz(a)anthracene	42.17	10	50	0	84.3	55-131	0			
Benzidine	7.321	10	50	0	14.6	10-115	0			J
Hexachloroethane	41.63	10	50	0	83.3	46-115	0			
Indeno(1,2,3-cd)pyrene	43.51	10	50	0	87	42-123	0			
Isophorone	44.42	10	50	0	88.8	63-117	0			
N-Nitrosodi-n-propylamine	42.84	10	50	0	85.7	67-115	0			
N-Nitrosodimethylamine	19.21	10	50	0	38.4	28-115	0			
N-Nitrosodiphenylamine	49.04	10	50	0	98.1	72-144	0			
Naphthalene	52.27	10	50	0	105	52-115	0			
Nitrobenzene	48.26	10	50	0	96.5	65-115	0			
Pentachlorophenol	88.15	10	100	0	88.2	65-123	0			
Phenanthrene	43.63	10	50	0	87.3	69-119	0			
Phenol	28.92	10	100	0	28.9	16-115	0			
Pyrene	42.08	10	50	0	84.2	51-130	0			
Surr: 2,4,6-Tribromophenol	89.56	10	100	0	89.6	39-153	0			
Surr: 2-Fluorobiphenyl	81.93	10	100	0	81.9	40-147	0			
Surr: 2-Fluorophenol	40.66	10	100	0	40.7	21-110	0			
Surr: 4-Terphenyl-d14	87.22	10	100	0	87.2	39-141	0			
Surr: Nitrobenzene-d5	83.61	10	100	0	83.6	37-140	0			
Surr: Phenol-d6	26.83	10	100	0	26.8	11-100	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: 10373 InstrumentID: SV-3

MSD Sample ID: 0409191-04BMSD Test Code: SW8270 Units: µg/L Analysis Date: 09/21/04 22:49

Client ID: Run ID: SV-3_040920A SeqNo: 543784 Prep Date: 9/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.04	10	50	0	82.1	50-115	40.81	0.552	30	
2,4,5-Trichlorophenol	86.27	10	100	0	86.3	68-128	86.16	0.131	30	
2,4,6-Trichlorophenol	81.84	10	100	0	81.8	66-125	79.89	2.41	30	
2-Methylnaphthalene	41.22	10	50	0	82.4	47-122	39.91	3.22	30	
2-Methylphenol	64.83	10	100	0	64.8	51-115	61.99	4.48	30	
2-Nitroaniline	2.131	10	50	0	4.26	64-128	2.252	0	30	JS
2-Nitrophenol	83.62	10	100	0	83.6	60-119	81.36	2.74	30	
3-Nitroaniline	1.426	10	50	0	2.85	61-118	1.531	0	30	JS
4-Methylphenol	87.21	10	150	0	58.1	44-115	84.68	2.94	30	
4-Nitroaniline	4.991	10	50	0	9.98	61-123	5.162	0	30	JS
4-Nitrophenol	46.18	10	100	0	46.2	17-100	44.82	2.99	30	
Acenaphthene	43.43	10	50	0	86.9	68-115	43.24	0.448	30	
Acenaphthylene	42.07	10	50	0	84.1	67-116	41.74	0.782	30	
Aniline	8.75	10	50	0	17.5	40-130	9.236	0	30	JS
Anthracene	44.19	10	50	0	88.4	70-129	44.49	0.672	30	
Benz(a)anthracene	42.44	10	50	0	84.9	55-131	42.17	0.652	30	
Benzidine	7.317	10	50	0	14.6	10-115	7.321	0	30	J
Hexachloroethane	40.78	10	50	0	81.6	46-115	41.63	2.06	30	
Indeno(1,2,3-cd)pyrene	43.67	10	50	0	87.3	42-123	43.51	0.366	30	
Isophorone	45.9	10	50	0	91.8	63-117	44.42	3.27	30	
N-Nitrosodi-n-propylamine	43.25	10	50	0	86.5	67-115	42.84	0.951	30	
N-Nitrosodimethylamine	18.02	10	50	0	36	28-115	19.21	6.38	30	
N-Nitrosodiphenylamine	48.71	10	50	0	97.4	72-144	49.04	0.675	30	
Naphthalene	52.25	10	50	0	105	52-115	52.27	0.0296	30	
Nitrobenzene	48.41	10	50	0	96.8	65-115	48.26	0.316	30	
Pentachlorophenol	88.19	10	100	0	88.2	65-123	88.15	0.0435	30	
Phenanthrene	43.21	10	50	0	86.4	69-119	43.63	0.97	30	
Phenol	30.14	10	100	0	30.1	16-115	28.92	4.13	30	
Pyrene	41.27	10	50	0	82.5	51-130	42.08	1.94	30	
Surr: 2,4,6-Tribromophenol	91.75	10	100	0	91.8	39-153	89.56	2.42	30	
Surr: 2-Fluorobiphenyl	83.66	10	100	0	83.7	40-147	81.93	2.09	30	
Surr: 2-Fluorophenol	42.43	10	100	0	42.4	21-110	40.66	4.27	30	
Surr: 4-Terphenyl-d14	89.84	10	100	0	89.8	39-141	87.22	2.95	30	
Surr: Nitrobenzene-d5	85.52	10	100	0	85.5	37-140	83.61	2.26	30	
Surr: Phenol-d6	28.55	10	100	0	28.6	11-100	26.83	6.22	30	

The following samples were analyzed in this batch:

0409189-01E 0409189-02E

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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: R23255 InstrumentID: VOA2

MBLK Sample ID: VBLKW-0922 Test Code: SW8260 Units: µg/L Analysis Date: 09/22/04 11:08

Client ID: Run ID: VOA2_040922A SeqNo: 542615 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								
Methyl tert-butyl ether	ND	5.0								
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	43.89	5.0	50	0	87.8	71-126		0		
Surr: 4-Bromofluorobenzene	39.68	5.0	50	0	79.4	74-125		0		
Surr: Dibromofluoromethane	43.37	5.0	50	0	86.7	73-126		0		
Surr: Toluene-d8	43.1	5.0	50	0	86.2	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: R23255 InstrumentID: VOA2

LCS Sample ID: VLCSW-0922 Test Code: SW8260 Units: µg/L Analysis Date: 09/22/04 10:17

Client ID: Run ID: VOA2_040922A SeqNo: 542614 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	47.17	5.0	50	0	94.3	75.2-120	0			
1,1,2,2-Tetrachloroethane	46.3	5.0	50	0	92.6	72.4-121	0			
1,1,2-Trichloroethane	46.35	5.0	50	0	92.7	80-120	0			
1,1-Dichloroethane	46.95	5.0	50	0	93.9	76.9-120	0			
1,1-Dichloroethene	47.51	5.0	50	0	95	72.6-123	0			
1,2-Dichloroethane	45.92	5.0	50	0	91.8	80-120	0			
2-Butanone	100.1	10	100	0	100	69-131	0			
2-Chloroethyl vinyl ether	95.15	10	100	0	95.1	60-135	0			
2-Hexanone	99.19	10	100	0	99.2	55.6-126	0			
4-Methyl-2-pentanone	94.65	10	100	0	94.7	67.4-121	0			
Acetone	98.34	10	100	0	98.3	64.4-140	0			
Benzene	47.22	5.0	50	0	94.4	80-120	0			
Bromodichloromethane	45.93	5.0	50	0	91.9	80-120	0			
Bromoform	44.64	5.0	50	0	89.3	77.9-121	0			
Bromomethane	45.06	5.0	50	0	90.1	63.3-137	0			
Carbon disulfide	93.93	10	100	0	93.9	74.1-123	0			
Carbon tetrachloride	47.81	5.0	50	0	95.6	74.7-120	0			
Chlorobenzene	46.71	5.0	50	0	93.4	80-120	0			
Chloroethane	47.49	5.0	50	0	95	74.7-126	0			
Chloroform	46.1	5.0	50	0	92.2	80-120	0			
Chloromethane	46.91	5.0	50	0	93.8	64.5-132	0			
cis-1,3-Dichloropropene	48.26	5.0	50	0	96.5	80-120	0			
Dibromochloromethane	45.72	5.0	50	0	91.4	80-120	0			
Ethylbenzene	49.37	5.0	50	0	98.7	80-120	0			
m,p-Xylene	97.04	10	100	0	97	80-120	0			
Methyl tert-butyl ether	46.03	5.0	50	0	92.1	73.7-122	0			
Methylene chloride	43.62	10	50	0	87.2	76.2-120	0			
Styrene	48.97	5.0	50	0	97.9	80-120	0			
Tetrachloroethene	49.42	5.0	50	0	98.8	68.5-130	0			
Toluene	48.55	5.0	50	0	97.1	80-120	0			
trans-1,3-Dichloropropene	47.47	5.0	50	0	94.9	80-120	0			
Trichloroethene	47.44	5.0	50	0	94.9	78.9-120	0			
Vinyl acetate	92.18	10	100	0	92.2	62.4-133	0			
Vinyl chloride	50.44	2.0	50	0	101	72.7-128	0			
Xylenes, Total	146.5	15	150	0	97.7	80-120	0			
Surr: 1,2-Dichloroethane-d4	40.61	5.0	50	0	81.2	71-126	0			
Surr: 4-Bromofluorobenzene	41.67	5.0	50	0	83.3	74-125	0			
Surr: Dibromofluoromethane	40.61	5.0	50	0	81.2	73-126	0			
Surr: Toluene-d8	43.27	5.0	50	0	86.5	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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: R23255 InstrumentID: VOA2

MS Sample ID: 0409183-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 09/22/04 14:05

Client ID: Run ID: VOA2_040922A SeqNo: 542617 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	483.9	50	500	0	96.8	75.2-120	0			
1,1,2,2-Tetrachloroethane	452.5	50	500	0	90.5	72.4-121	0			
1,1,2-Trichloroethane	462.2	50	500	0	92.4	80-120	0			
1,1-Dichloroethane	485.4	50	500	0	97.1	76.9-120	0			
1,1-Dichloroethene	497.4	50	500	0	99.5	72.6-123	0			
1,2-Dichloroethane	475.4	50	500	0	95.1	80-120	0			
2-Butanone	905.7	100	1000	0	90.6	69-131	0			
2-Chloroethyl vinyl ether	510	100	1000	0	51	60-135	0			S
2-Hexanone	900.7	100	1000	0	90.1	55.6-126	0			
4-Methyl-2-pentanone	920.8	100	1000	0	92.1	67.4-121	0			
Acetone	803.3	100	1000	0	80.3	64.4-140	0			
Benzene	497	50	500	0	99.4	80-120	0			
Bromodichloromethane	478.8	50	500	0	95.8	80-120	0			
Bromoform	447	50	500	0	89.4	77.9-121	0			
Bromomethane	450.9	50	500	0	90.2	63.3-137	0			
Carbon disulfide	975.3	100	1000	0	97.5	74.1-123	0			
Carbon tetrachloride	496.8	50	500	0	99.4	74.7-120	0			
Chlorobenzene	477.6	50	500	0	95.5	80-120	0			
Chloroethane	478.2	50	500	0	95.6	74.7-126	0			
Chloroform	476.5	50	500	0	95.3	80-120	0			
Chloromethane	475.7	50	500	0	95.1	64.5-132	0			
cis-1,3-Dichloropropene	497.7	50	500	0	99.5	80-120	0			
Dibromochloromethane	466.7	50	500	0	93.3	80-120	0			
Ethylbenzene	506.3	50	500	0	101	80-120	0			
m,p-Xylene	995.8	100	1000	0	99.6	80-120	0			
Methyl tert-butyl ether	453.6	50	500	0	90.7	73.7-122	0			
Methylene chloride	453.9	100	500	0	90.8	76.2-120	0			
Styrene	502.2	50	500	0	100	80-120	0			
Tetrachloroethene	500.6	50	500	0	100	68.5-130	0			
Toluene	493	50	500	0	98.6	80-120	0			
trans-1,3-Dichloropropene	489.9	50	500	0	98	80-120	0			
Trichloroethene	548.4	50	500	45.21	101	78.9-120	0			
Vinyl acetate	947.1	100	1000	0	94.7	62.4-133	0			
Vinyl chloride	487.8	20	500	0	97.6	72.7-128	0			
Xylenes, Total	1498	150	1500	0	99.9	80-120	0			
Surr: 1,2-Dichloroethane-d4	407.8	50	500	0	81.6	71-126	0			
Surr: 4-Bromofluorobenzene	412.7	50	500	0	82.5	74-125	0			
Surr: Dibromofluoromethane	403.7	50	500	0	80.7	73-126	0			
Surr: Toluene-d8	427.4	50	500	0	85.5	75-125	0			

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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: R23255 InstrumentID: VOA2

MSD Sample ID: 0409183-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 09/22/04 14:30

Client ID: Run ID: VOA2_040922A SeqNo: 542618 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	483.5	50	500	0	96.7	75.2-120	483.9	0.0732	20	
1,1,2,2-Tetrachloroethane	461.5	50	500	0	92.3	72.4-121	452.5	1.97	20	
1,1,2-Trichloroethane	471.4	50	500	0	94.3	80-120	462.2	1.97	20	
1,1-Dichloroethane	494.3	50	500	0	98.9	76.9-120	485.4	1.82	20	
1,1-Dichloroethene	508.5	50	500	0	102	72.6-123	497.4	2.22	20	
1,2-Dichloroethane	471.2	50	500	0	94.2	80-120	475.4	0.895	20	
2-Butanone	935.5	100	1000	0	93.5	69-131	905.7	3.24	20	
2-Chloroethyl vinyl ether	240	100	1000	0	24	60-135	510	72	20	SR
2-Hexanone	928	100	1000	0	92.8	55.6-126	900.7	2.98	20	
4-Methyl-2-pentanone	928.8	100	1000	0	92.9	67.4-121	920.8	0.867	20	
Acetone	832.5	100	1000	0	83.2	64.4-140	803.3	3.57	20	
Benzene	492.6	50	500	0	98.5	80-120	497	0.884	20	
Bromodichloromethane	475.8	50	500	0	95.2	80-120	478.8	0.634	20	
Bromoform	455	50	500	0	91	77.9-121	447	1.77	20	
Bromomethane	472.6	50	500	0	94.5	63.3-137	450.9	4.71	20	
Carbon disulfide	985.9	100	1000	0	98.6	74.1-123	975.3	1.08	20	
Carbon tetrachloride	478.4	50	500	0	95.7	74.7-120	496.8	3.78	20	
Chlorobenzene	481.9	50	500	0	96.4	80-120	477.6	0.914	20	
Chloroethane	493	50	500	0	98.6	74.7-126	478.2	3.06	20	
Chloroform	475.2	50	500	0	95	80-120	476.5	0.287	20	
Chloromethane	491.5	50	500	0	98.3	64.5-132	475.7	3.27	20	
cis-1,3-Dichloropropene	487.4	50	500	0	97.5	80-120	497.7	2.09	20	
Dibromochloromethane	469.5	50	500	0	93.9	80-120	466.7	0.595	20	
Ethylbenzene	504.2	50	500	0	101	80-120	506.3	0.42	20	
m,p-Xylene	1005	100	1000	0	101	80-120	995.8	0.929	20	
Methyl tert-butyl ether	461.3	50	500	0	92.3	73.7-122	453.6	1.67	20	
Methylene chloride	456.3	100	500	0	91.3	76.2-120	453.9	0.52	20	
Styrene	499.6	50	500	0	99.9	80-120	502.2	0.516	20	
Tetrachloroethene	495.1	50	500	0	99	68.5-130	500.6	1.11	20	
Toluene	496.9	50	500	0	99.4	80-120	493	0.775	20	
trans-1,3-Dichloropropene	481.4	50	500	0	96.3	80-120	489.9	1.75	20	
Trichloroethene	532.6	50	500	45.21	97.5	78.9-120	548.4	2.93	20	
Vinyl acetate	973.2	100	1000	0	97.3	62.4-133	947.1	2.72	20	
Vinyl chloride	495.2	20	500	0	99	72.7-128	487.8	1.5	20	
Xylenes, Total	1514	150	1500	0	101	80-120	1498	1.08	20	
Surr: 1,2-Dichloroethane-d4	412.9	50	500	0	82.6	71-126	407.8	1.26	20	
Surr: 4-Bromofluorobenzene	423.2	50	500	0	84.6	74-125	412.7	2.53	20	
Surr: Dibromofluoromethane	412.2	50	500	0	82.4	73-126	403.7	2.08	20	
Surr: Toluene-d8	436.4	50	500	0	87.3	75-125	427.4	2.09	20	

The following samples were analyzed in this batch:

0409189-01A 0409189-02A

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

CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly

QC BATCH REPORT

Batch ID: **R23180** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WBLKW2-091704** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/20/04 0:00**

Client ID: Run ID: **UV-2101PC_040920B** SeqNo: **541144** 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: **WLCW2-091704** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/20/04 0:00**

Client ID: Run ID: **UV-2101PC_040920B** SeqNo: **541145** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1959	0.020	0.2	0	97.9	80-120	0			

MS Sample ID: **0409189-02DMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/20/04 0:00**

Client ID: **RA 3156** Run ID: **UV-2101PC_040920B** SeqNo: **541151** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2102	0.020	0.2	0.0034	103	75-125	0			

MSD Sample ID: **0409189-02DMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/20/04 0:00**

Client ID: **RA 3156** Run ID: **UV-2101PC_040920B** SeqNo: **541152** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2006	0.020	0.2	0.0034	98.6	75-125	0.2102	4.67	25	

DUP Sample ID: **0409189-02DDUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/20/04 0:00**

Client ID: **RA 3156** Run ID: **UV-2101PC_040920B** SeqNo: **541150** Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0038	0.020	0	0	0	0-0	0.0034	0	20	J

The following samples were analyzed in this batch:

0409189-01D 0409189-02D

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: 0409189
 Project: Monthly

QC BATCH REPORT

Batch ID: R23280 InstrumentID: IC201

MBLK Sample ID: WBLKW1-092304 Test Code: E300 Units: mg/L Analysis Date: 09/23/04 17:05

Client ID: Run ID: IC201_040923A SeqNo: 543162 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								
Surr: Dichloroacetic acid (surr)	5.54	0.10	5	0	111	80-120		0		

LCS Sample ID: WLC SW1-092304 Test Code: E300 Units: mg/L Analysis Date: 09/23/04 17:33

Client ID: Run ID: IC201_040923A SeqNo: 543163 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.27	0.50	10	0	92.7	80-120		0		
Fluoride	1.93	0.10	2	0	96.5	80-120		0		
Sulfate	9.91	1.0	10	0	99.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.6	0.10	5	0	112	80-120		0		

LCSD Sample ID: WLCSDW1-09230 Test Code: E300 Units: mg/L Analysis Date: 09/23/04 18:02

Client ID: Run ID: IC201_040923A SeqNo: 543164 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.43	0.50	10	0	94.3	80-120	9.27	1.71	20	
Fluoride	1.96	0.10	2	0	98	80-120	1.93	1.54	20	
Sulfate	9.91	1.0	10	0	99.1	80-120	9.91	0	20	
Surr: Dichloroacetic acid (surr)	5.69	0.10	5	0	114	80-120	5.6	1.59	20	

MS Sample ID: 0409227-05CMS Test Code: E300 Units: mg/L Analysis Date: 09/24/04 0:12

Client ID: Run ID: IC201_040923A SeqNo: 543177 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1353	25	500	837	103	75-125		0		
Fluoride	98	5.0	100	10	88	75-125		0		
Sulfate	1776	50	500	1267	102	75-125		0		
Surr: Dichloroacetic acid (surr)	257	5.0	250	0	103	80-120		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: 0409189
Project: Monthly

QC BATCH REPORT

Batch ID: **R23280** InstrumentID: **IC201**

MSD Sample ID: **0409227-05CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **09/24/04 0:41**

Client ID: Run ID: **IC201_040923A** SeqNo: **543178** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1355	25	500	837	104	75-125	1353	0.148	20	
Fluoride	97	5.0	100	10	87	75-125	98	1.03	20	
Sulfate	1789	50	500	1267	104	75-125	1776	0.701	20	
Surr: Dichloroacetic acid (surr)	262.5	5.0	250	0	105	80-120	257	2.12	20	

DUP Sample ID: **0409138-01BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **09/23/04 18:59**

Client ID: Run ID: **IC201_040923A** SeqNo: **543166** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	741	25	0	0	0	0-0	743.5	0.337	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	92	50	0	0	0	0-0	92.5	0.542	20	
Surr: Dichloroacetic acid (surr)	286	5.0	250	0	114	80-120	274.5	4.1	20	

DUP Sample ID: **0409227-05CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **09/23/04 23:44**

Client ID: Run ID: **IC201_040923A** SeqNo: **543176** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	840	25	0	0	0	0-0	837	0.358	20	
Fluoride	10.5	5.0	0	0	0	0-0	10	4.88	20	
Sulfate	1260	50	0	0	0	0-0	1267	0.594	20	
Surr: Dichloroacetic acid (surr)	265	5.0	250	0	106	80-120	267.5	0.939	20	

The following samples were analyzed in this batch:

0409189-01B 0409189-02B

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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R - RPD outside accepted recovery limits

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CLIENT: Navajo Refining Company
Work Order: 0409189
Project: Monthly

QC BATCH REPORT

Batch ID: **R23400** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-092804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **09/28/04 0:00**

Client ID: Run ID: **WETCHEM_040928C** SeqNo: **545296** 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: **WLCSW1-092804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **09/28/04 0:00**

Client ID: Run ID: **WETCHEM_040928C** SeqNo: **545297** 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)	1000	5.0	0	1	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0409234-01BDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **09/28/04 0:00**

Client ID: Run ID: **WETCHEM_040928C** SeqNo: **545305** 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)	220.1	5.0	0	0	0	0-0	220.1	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)	220.1	5.0	0	0	0	0-0	220.1	0	20	

The following samples were analyzed in this batch:

0409189-01B 0409189-02B

ND - Not Detected at the Reporting Limit

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R - RPD outside accepted recovery limits

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E - Value above quantitation range



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Chain of Custody Form

Page _____ of _____

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Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Customer Information				Project Information				e-Lab Project Manager:				e-Lab Work Order #:					
Customer Information				Project Information				Parameter/Method Request for Analysis									
Purchase Order				Project Name				A				Monthly					
Work Order				Project Number				B									
Company Name				Bill To Company				C									
Send Report To				Invoice Attn.				D									
Address				Address				E									
City/State/Zip				City/State/Zip				F									
Phone				Phone				G									
Fax				Fax				H									
e-Mail Address								I									
								J									
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	La Ruc	9/16/04	0830	L		8	X										
2	RA 3156	9/16/04	0845	L		8	X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
B		FedEx		☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by:		Received by:		Time:		Notes:	
Date: 9/16/04		Date: 9/16/04		Time: 1615			
Relinquished by:		Received by (Laboratory):		Time:			
Date: 9/17/04		Date: 9/17/04		Time: 0840			
Logged by (Laboratory):		Checked by (Laboratory):		Time:			
Date: 9/17/04		Date: 9/17/04		Time: 0840			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C							

QC Package: (Check Box Below)	
☐ Level II: Standard QC	☐ Level III: Raw Data
☐ TRRP LRC	☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like	☐ Other:

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

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 9/17/2004 8:40:00 AM

Work Order Number 0409189

Received by: FSM

Checklist completed by

Signature

Date

Reviewed by

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):

2.5c

002

Water - VOA vials have zero headspace?

Yes ☒

No ☐

No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Adjusted? _____

Checked by R/L

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 _____

P109189

NAVAJO REFINING COMPANY

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 16SEP2004
ACCOUNT #

Pat

:RE

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77099

2815305656
BILL RECIPIENT

FedEx STANDARD OVERNIGHT

System # 2223500 16SEP2004
TRK# 7902 7503 8760 Form 0201

FRI

DELIVER BY:
17SEP2004
A2

IAH

77099-TX-US

A9 JGQA

ALIGN OPEN END OF FEDEX AIRBILL F

844 04/02



e-Lab Analytical, Inc.

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

September 21, 2004

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

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

Re: Monthly

Work Order : **0409078**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 3 samples on 9/8/2004 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 Analytical, 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 Analytical, Inc. The total number of pages in this report is 31.

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

Sincerely,

Jeffrey L Croston

Electronically approved by: John Robert Paddison

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0409078

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0409078-01	RA 314	Water		9/7/2004 08:15	9/8/2004 09:00	☐
0409078-02	RA 4196	Water		9/7/2004 14:00	9/8/2004 09:00	☐
0409078-03	Trip Blank	Water		9/7/2004	9/8/2004 09:00	☐

e-Lab Analytical, Inc.

Date: *September 21, 2004*

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0409078

Case Narrative

Batch 10268 Metals MS/MSD/Duplicate was an unrelated sample.

Batch 10278 Semivolatiles LCS/LCSD RPD recoveries were outside of control limits for Benzidine (106%). Recoveries met method criteria in the LCS/LCSD.

Batch R22906 Volatiles MS/MSD was an unrelated sample.

Batch R22950 Anions MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-01

Client Sample ID: RA 314
Collection Date: 9/7/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 9/15/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	9/15/2004 7:34:59 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 9/10/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	9/20/2004 5:16:00 PM
Arsenic	ND	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Barium	0.0205	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Beryllium	ND	0.00200		mg/L	1	9/16/2004 11:23:00 PM
Boron	0.0502	0.0200		mg/L	1	9/16/2004 11:23:00 PM
Cadmium	ND	0.00100		mg/L	1	9/14/2004 11:57:00 PM
Calcium	232	5.00		mg/L	10	9/20/2004 3:16:00 PM
Chromium	ND	0.00200		mg/L	1	9/20/2004 5:16:00 PM
Cobalt	ND	0.00200		mg/L	1	9/16/2004 11:23:00 PM
Copper	0.00225	0.00200		mg/L	1	9/14/2004 11:57:00 PM
Iron	1.08	0.200		mg/L	1	9/16/2004 11:23:00 PM
Lead	ND	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Magnesium	72.6	2.00		mg/L	10	9/20/2004 3:16:00 PM
Manganese	ND	0.00500		mg/L	1	9/20/2004 5:16:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Nickel	0.00621	0.00500		mg/L	1	9/16/2004 11:23:00 PM
Potassium	1.46	0.200		mg/L	1	9/16/2004 11:23:00 PM
Selenium	ND	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Silver	ND	0.00500		mg/L	1	9/14/2004 11:57:00 PM
Sodium	111	2.00		mg/L	10	9/20/2004 3:16:00 PM
Vanadium	ND	0.00500		mg/L	1	9/20/2004 5:16:00 PM
Zinc	0.00564	0.00500		mg/L	1	9/14/2004 11:57:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 9/10/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2-Methylphenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2-Nitroaniline	ND	10		µg/L	1	9/14/2004 6:51:00 PM
2-Nitrophenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
3-Nitroaniline	ND	10		µg/L	1	9/14/2004 6:51:00 PM
4-Methylphenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
4-Nitroaniline	ND	10		µg/L	1	9/14/2004 6:51:00 PM
4-Nitrophenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Acenaphthene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Acenaphthylene	ND	10		µg/L	1	9/14/2004 6:51:00 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 Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-01

Client Sample ID: RA 314
Collection Date: 9/7/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Anthracene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Benz(a)anthracene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Benzidine	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Hexachloroethane	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Isophorone	ND	10		µg/L	1	9/14/2004 6:51:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/14/2004 6:51:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	9/14/2004 6:51:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Naphthalene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Nitrobenzene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Phenanthrene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Phenol	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Pyrene	ND	10		µg/L	1	9/14/2004 6:51:00 PM
Surr: 2,4,6-Tribromophenol	97.9	39-153		%REC	1	9/14/2004 6:51:00 PM
Surr: 2-Fluorobiphenyl	77.4	40-147		%REC	1	9/14/2004 6:51:00 PM
Surr: 2-Fluorophenol	45.4	21-110		%REC	1	9/14/2004 6:51:00 PM
Surr: 4-Terphenyl-d14	84.2	39-141		%REC	1	9/14/2004 6:51:00 PM
Surr: Nitrobenzene-d5	77.0	37-140		%REC	1	9/14/2004 6:51:00 PM
Surr: Phenol-d6	27.4	11-100		%REC	1	9/14/2004 6:51:00 PM
VOLATILES BY GC/MS		SW8260		Analyst: PC		
1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
2-Butanone	ND	10		µg/L	1	9/9/2004 8:07:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/9/2004 8:07:00 AM
2-Hexanone	ND	10		µg/L	1	9/9/2004 8:07:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Acetone	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Benzene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Bromoform	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Bromomethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Carbon disulfide	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Carbontetrachloride	ND	5.0		µg/L	1	9/9/2004 8:07:00 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 Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-01

Client Sample ID: RA 314
Collection Date: 9/7/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Chloroethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Chloroform	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Chloromethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Ethylbenzene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
m,p-Xylene	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Methyl tert-butyl ether	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Methylene chloride	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Styrene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Toluene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Trichloroethene	ND	5.0		µg/L	1	9/9/2004 8:07:00 AM
Vinylacetate	ND	10		µg/L	1	9/9/2004 8:07:00 AM
Vinyl chloride	ND	2.0		µg/L	1	9/9/2004 8:07:00 AM
Xylenes, Total	ND	15		µg/L	1	9/9/2004 8:07:00 AM
Surr: 1,2-Dichloroethane-d4	99.4	71-126		%REC	1	9/9/2004 8:07:00 AM
Surr: 4-Bromofluorobenzene	96.2	74-125		%REC	1	9/9/2004 8:07:00 AM
Surr: Dibromofluoromethane	106	73-126		%REC	1	9/9/2004 8:07:00 AM
Surr: Toluene-d8	97.0	75-125		%REC	1	9/9/2004 8:07:00 AM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	202	5.00		mg/L	10	9/9/2004 7:41:00 AM
Fluoride	1.00	0.100		mg/L	1	9/9/2004 7:13:00 AM
Sulfate	584	50.0		mg/L	50	9/9/2004 8:10:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	1	9/9/2004 7:13:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	10	9/9/2004 7:41:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	50	9/9/2004 8:10:00 AM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	186	5.00		mg/L	1	9/14/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/14/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/14/2004
Alkalinity, Total (As CaCO3)	186	5.00		mg/L	1	9/14/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	9/13/2004

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 Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-02

Client Sample ID: RA 4196
Collection Date: 9/7/2004 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/15/2004 7:49:11 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	9/20/2004 5:21:00 PM
Arsenic	ND	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Barium	0.0126	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Beryllium	ND	0.00200		mg/L	1	9/16/2004 11:28:00 PM
Boron	0.0675	0.0200		mg/L	1	9/16/2004 11:28:00 PM
Cadmium	ND	0.00100		mg/L	1	9/15/2004 12:02:00 AM
Calcium	454	5.00		mg/L	10	9/20/2004 3:20:00 PM
Chromium	ND	0.00200		mg/L	1	9/20/2004 5:21:00 PM
Cobalt	ND	0.00200		mg/L	1	9/16/2004 11:28:00 PM
Copper	0.0162	0.00200		mg/L	1	9/15/2004 12:02:00 AM
Iron	22.8	0.200		mg/L	1	9/16/2004 11:28:00 PM
Lead	ND	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Magnesium	134	2.00		mg/L	10	9/20/2004 3:20:00 PM
Manganese	0.336	0.00500		mg/L	1	9/20/2004 5:21:00 PM
Molybdenum	ND	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Nickel	0.0114	0.00500		mg/L	1	9/16/2004 11:28:00 PM
Potassium	2.03	0.200		mg/L	1	9/16/2004 11:28:00 PM
Selenium	0.00659	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Silver	ND	0.00500		mg/L	1	9/15/2004 12:02:00 AM
Sodium	67.9	2.00		mg/L	10	9/20/2004 3:20:00 PM
Vanadium	ND	0.00500		mg/L	1	9/20/2004 5:21:00 PM
Zinc	0.0908	0.00500		mg/L	1	9/15/2004 12:02:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2-Methylphenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2-Nitroaniline	ND	10		µg/L	1	9/14/2004 7:16:00 PM
2-Nitrophenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
3-Nitroaniline	ND	10		µg/L	1	9/14/2004 7:16:00 PM
4-Methylphenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
4-Nitroaniline	ND	10		µg/L	1	9/14/2004 7:16:00 PM
4-Nitrophenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Acenaphthene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Acenaphthylene	ND	10		µg/L	1	9/14/2004 7:16:00 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 Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-02

Client Sample ID: RA 4196
Collection Date: 9/7/2004 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Anthracene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Benz(a)anthracene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Benzidine	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Hexachloroethane	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Isophorone	ND	10		µg/L	1	9/14/2004 7:16:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/14/2004 7:16:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	9/14/2004 7:16:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Naphthalene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Nitrobenzene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Phenanthrene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Phenol	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Pyrene	ND	10		µg/L	1	9/14/2004 7:16:00 PM
Surr: 2,4,6-Tribromophenol	95.7	39-153		%REC	1	9/14/2004 7:16:00 PM
Surr: 2-Fluorobiphenyl	77.2	40-147		%REC	1	9/14/2004 7:16:00 PM
Surr: 2-Fluorophenol	41.3	21-110		%REC	1	9/14/2004 7:16:00 PM
Surr: 4-Terphenyl-d14	86.0	39-141		%REC	1	9/14/2004 7:16:00 PM
Surr: Nitrobenzene-d5	72.4	37-140		%REC	1	9/14/2004 7:16:00 PM
Surr: Phenol-d6	24.1	11-100		%REC	1	9/14/2004 7:16:00 PM
VOLATILES BY GC/MS				SW8260	Analyst: PC	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
2-Butanone	ND	10		µg/L	1	9/9/2004 8:34:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	9/9/2004 8:34:00 AM
2-Hexanone	ND	10		µg/L	1	9/9/2004 8:34:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Acetone	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Benzene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Bromoform	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Bromomethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Carbon disulfide	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Carbontetrachloride	ND	5.0		µg/L	1	9/9/2004 8:34:00 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 Analytical, Inc.

Date: September 21, 2004

CLIENT: Navajo Refining Company
Work Order: 0409078
Project: Monthly
Lab ID: 0409078-02

Client Sample ID: RA 4196
Collection Date: 9/7/2004 2:00:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Chloroethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Chloroform	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Chloromethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Ethylbenzene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
m,p-Xylene	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Methyl tert-butyl ether	5.3	5.0		µg/L	1	9/9/2004 8:34:00 AM
Methylene chloride	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Styrene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Toluene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Trichloroethene	ND	5.0		µg/L	1	9/9/2004 8:34:00 AM
Vinylacetate	ND	10		µg/L	1	9/9/2004 8:34:00 AM
Vinyl chloride	ND	2.0		µg/L	1	9/9/2004 8:34:00 AM
Xylenes, Total	ND	15		µg/L	1	9/9/2004 8:34:00 AM
Surr:1,2-Dichloroethane-d4	103	71-126		%REC	1	9/9/2004 8:34:00 AM
Surr:4-Bromofluorobenzene	91.7	74-125		%REC	1	9/9/2004 8:34:00 AM
Surr: Dibromofluoromethane	108	73-126		%REC	1	9/9/2004 8:34:00 AM
Surr: Toluene-d8	90.4	75-125		%REC	1	9/9/2004 8:34:00 AM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	272	5.00		mg/L	10	9/9/2004 9:07:00 AM
Fluoride	0.550	0.100		mg/L	1	9/9/2004 8:38:00 AM
Sulfate	1,240	50.0		mg/L	50	9/9/2004 9:35:00 AM
Surr: Dichloroacetic acid (surr)	107	80-120		%REC	1	9/9/2004 8:38:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	10	9/9/2004 9:07:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	50	9/9/2004 9:35:00 AM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	98.1	5.00		mg/L	1	9/14/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/14/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/14/2004
Alkalinity, Total (As CaCO3)	98.1	5.00		mg/L	1	9/14/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	9/13/2004

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

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly

QC BATCH REPORT

Batch ID: R22239 InstrumentID: IC201

MSD Sample ID: 0408033-01BMSD Test Code: E300 Units: mg/L Analysis Date: 08/05/04 21:59

Client ID: RA 313 Run ID: IC201_040805A SeqNo: 520225 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	195.6	10	200	33.8	80.9	75-125	199.4	1.92	20	
Fluoride	39.8	2.0	40	3.8	90	75-125	39.6	0.504	20	
Sulfate	645.6	20	200	446.6	99.5	75-125	650.6	0.771	20	
Surr: Dichloroacetic acid (surr)	108.4	2.0	100	0	108	80-120	108.2	0.185	20	

DUP Sample ID: 0408033-01BDUP Test Code: E300 Units: mg/L Analysis Date: 08/05/04 21:02

Client ID: RA 313 Run ID: IC201_040805A SeqNo: 520222 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	34	10	0	0	0	0-0	33.8	0.59	20	
Fluoride	3.4	2.0	0	0	0	0-0	3.8	11.1	20	
Sulfate	450	20	0	0	0	0-0	446.6	0.758	20	
Surr: Dichloroacetic acid (surr)	101.4	2.0	100	0	101	80-120	107.8	6.12	20	

The following samples were analyzed in this batch:

0408033-01B 0408033-02B

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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: R22263 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-080704 Test Code: E335.3 Units: mg/L Analysis Date: 08/09/04 0:00

Client ID: Run ID: UV-2101PC_040809A SeqNo: 520697 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: WLC SW1-080704 Test Code: E335.3 Units: mg/L Analysis Date: 08/09/04 0:00

Client ID: Run ID: UV-2101PC_040809A SeqNo: 520698 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2003	0.020	0.2	0	100	80-120	0			

MS Sample ID: 0408018-01DMS Test Code: E335.3 Units: mg/L Analysis Date: 08/09/04 0:00

Client ID: Run ID: UV-2101PC_040809A SeqNo: 520711 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1996	0.020	0.2	-0.00033	100	75-125	0			

MSD Sample ID: 0408018-01DMSD Test Code: E335.3 Units: mg/L Analysis Date: 08/09/04 0:00

Client ID: Run ID: UV-2101PC_040809A SeqNo: 520712 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2048	0.020	0.2	-0.00033	103	75-125	0.1996	2.57	25	

DUP Sample ID: 0408018-01DDUP Test Code: E335.3 Units: mg/L Analysis Date: 08/09/04 0:00

Client ID: Run ID: UV-2101PC_040809A SeqNo: 520710 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	-0.00033	0	20	

The following samples were analyzed in this batch:

0408033-01D 0408033-02D

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: 0408033
Project: Monthly

QC BATCH REPORT

Batch ID: **R22375** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-081304** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/13/04 0:00**

Client ID: Run ID: **WETCHEM_040813B** SeqNo: **523247** 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: **WLCSW1-081304** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/13/04 0:00**

Client ID: Run ID: **WETCHEM_040813B** SeqNo: **523248** 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)	1000	5.0	0	1	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0408033-01BDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/13/04 0:00**

Client ID: **RA 313** Run ID: **WETCHEM_040813B** SeqNo: **523254** 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)	180	5.0	0	0	0	0-0	180	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)	180	5.0	0	0	0	0-0	180	0	20	

The following samples were analyzed in this batch:

0408033-01B 0408033-02B

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, Inc.
10450 Stancil 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

Customer Information				Project Information				e-Lab Project Manager				e-Lab Work Order #					
Purchase Order				Project Name				Parameter/Method Request for Analysis									
Work Order				Project Number				Monthly									
Company Name				Bill To Company				Monthly									
Send Report To				Invoice Attn.													
Address				Address													
City/State/Zip				City/State/Zip													
Phone				Phone													
Fax				Fax													
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RA 313	8/3/04	1330	L		8	X										
2	RA 1227	"	1345	L		8	X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
Bundled		Fed Ex		☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by: <i>[Signature]</i>		Received by:		Date: 8/3/04		Time: 10/15	
Relinquished by: <i>[Signature]</i>		Received by (Laboratory): <i>[Signature]</i>		Date: 8/4/04		Time: 0940	
Logged by (Laboratory):		Checked by (Laboratory):		Date:		Time:	

QC Package: (Check Box Below)	
☐ Level II: Standard QC	☐ Level III: Raw Data
☐ TRRP LRC	☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like	☐ Other:

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 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.

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 8/4/2004 8:40:00 AM

Work Order Number 0408033

Received by: RSZ

Checklist completed by

Rahm
Signature

8/4/04
Date

Reviewed by

JS
Initials

8/4/04
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):	<u>4.8c</u>	<u>002</u>	
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:

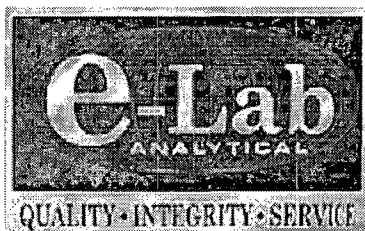
Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



e-Lab Analytical, Inc.

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

August 11, 2004

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

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

Re: Monthly (Artesia)

Work Order : **0407318**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 7/28/2004 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 Analytical, 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 Analytical, Inc. The total number of pages in this report is 33.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Project: Monthly (Artesia)
Work Order: 0407318

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0407318-01	RA 4798	Water		7/27/2004 08:30	7/28/2004 09:00	☐
0407318-02	RA 4196	Water		7/27/2004 08:45	7/28/2004 09:00	☐

e-Lab Analytical, Inc.**Date:** *August 11, 2004***CLIENT:** Navajo Refining Company**Project:** Monthly (Artesia)**Work Order:** 0407318**Case Narrative**

Batch 9813 Metals MS/MSD was an unrelated sample.

Batch 9790 Semivolatile LCS recoveries were marginally outside of control limits for Benzidine (124%). Recovery was biased high and acceptable in the LCSD. The samples were ND for Benzidine, therefore the data was accepted.

Batch R22126 Volatiles MS/MSD was an unrelated sample

Batch R22074 Anions (sample RA 4798) MS/MSD recoveries were outside of control limits for Sulfate (recoveries were E and O flagged).

e-Lab Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-01

Client Sample ID: RA 4798
Collection Date: 7/27/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	8/5/2004 12:52:47 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	8/4/2004 8:47:00 PM
Arsenic	0.00546	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Barium	0.00966	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Beryllium	ND	0.00200		mg/L	1	8/5/2004 11:22:00 PM
Boron	0.183	0.0200		mg/L	1	8/9/2004 2:30:00 PM
Cadmium	ND	0.00100		mg/L	1	8/4/2004 8:47:00 PM
Calcium	414	25.0		mg/L	50	8/5/2004 10:15:00 PM
Chromium	0.00307	0.00200		mg/L	1	8/4/2004 8:47:00 PM
Cobalt	ND	0.00200		mg/L	1	8/4/2004 8:47:00 PM
Copper	0.00530	0.00200		mg/L	1	8/4/2004 8:47:00 PM
Iron	14.8	0.200		mg/L	1	8/4/2004 8:47:00 PM
Lead	ND	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Magnesium	136	2.00		mg/L	10	8/5/2004 10:24:00 PM
Manganese	0.0267	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Molybdenum	ND	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Nickel	0.00646	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Potassium	2.11	0.200		mg/L	1	8/5/2004 11:22:00 PM
Selenium	0.0160	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Silver	ND	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Sodium	99.2	2.00		mg/L	10	8/5/2004 10:24:00 PM
Vanadium	0.0264	0.00500		mg/L	1	8/4/2004 8:47:00 PM
Zinc	1.80	0.250		mg/L	50	8/5/2004 10:15:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2-Methylphenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:23:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:23:00 PM
4-Methylphenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:23:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Acenaphthene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Acenaphthylene	ND	10		µg/L	1	8/4/2004 6:23:00 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 Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-01

Client Sample ID: RA 4798
Collection Date: 7/27/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Anthracene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Benzidine	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Hexachloroethane	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Isophorone	ND	10		µg/L	1	8/4/2004 6:23:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/4/2004 6:23:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/4/2004 6:23:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Naphthalene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Nitrobenzene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Phenanthrene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Phenol	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Pyrene	ND	10		µg/L	1	8/4/2004 6:23:00 PM
Surr: 2,4,6-Tribromophenol	92.5	39-153		%REC	1	8/4/2004 6:23:00 PM
Surr: 2-Fluorobiphenyl	93.4	40-147		%REC	1	8/4/2004 6:23:00 PM
Surr: 2-Fluorophenol	38.8	21-110		%REC	1	8/4/2004 6:23:00 PM
Surr: 4-Terphenyl-d14	99.8	39-141		%REC	1	8/4/2004 6:23:00 PM
Surr: Nitrobenzene-d5	92.5	37-140		%REC	1	8/4/2004 6:23:00 PM
Surr: Phenol-d6	23.3	11-100		%REC	1	8/4/2004 6:23:00 PM
VOLATILES BY GC/MS		SW8260			Analyst: HLBW	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2004 8:17:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/28/2004 8:17:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2004 8:17:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Acetone	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Carbon disulfide	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2004 8:17:00 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 Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-01

Client Sample ID: RA 4798
Collection Date: 7/27/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Chloromethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
m,p-Xylene	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Methyl tert-butyl ether	5.8	5.0		µg/L	1	7/28/2004 8:17:00 PM
Methylene chloride	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2004 8:17:00 PM
Vinyl acetate	ND	10		µg/L	1	7/28/2004 8:17:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/28/2004 8:17:00 PM
Xylenes, Total	ND	15		µg/L	1	7/28/2004 8:17:00 PM
Surr: 1,2-Dichloroethane-d4	89.7	71-126		%REC	1	7/28/2004 8:17:00 PM
Surr: 4-Bromofluorobenzene	109	74-125		%REC	1	7/28/2004 8:17:00 PM
Surr: Dibromofluoromethane	99.8	73-126		%REC	1	7/28/2004 8:17:00 PM
Surr: Toluene-d8	110	75-125		%REC	1	7/28/2004 8:17:00 PM
ANIONS BY ION CHROMATOGRAPHY				E300	Analyst: LMD	
Chloride	132	2.50		mg/L	5	7/28/2004 8:21:00 PM
Fluoride	0.480	0.100		mg/L	1	7/28/2004 5:30:00 PM
Sulfate	1,390	50.0		mg/L	50	7/28/2004 9:18:00 PM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	1	7/28/2004 5:30:00 PM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	5	7/28/2004 8:21:00 PM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	50	7/28/2004 9:18:00 PM
ALKALINITY				E310.1	Analyst: HDO	
Alkalinity, Bicarbonate (As CaCO3)	250	5.00		mg/L	1	7/29/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Total (As CaCO3)	250	5.00		mg/L	1	7/29/2004
CYANIDE, TOTAL				E335.3	Analyst: LMD	
Cyanide	ND	0.0200		mg/L	1	7/31/2004

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 Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-02

Client Sample ID: RA 4196
Collection Date: 7/27/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 8/4/2004	Analyst: MG
Mercury	ND	0.000200		mg/L	1	8/5/2004 12:54:19 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 8/3/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	8/4/2004 8:51:00 PM
Arsenic	ND	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Barium	0.0119	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Beryllium	ND	0.00200		mg/L	1	8/5/2004 11:27:00 PM
Boron	0.152	0.0200		mg/L	1	8/9/2004 2:35:00 PM
Cadmium	ND	0.00100		mg/L	1	8/4/2004 8:51:00 PM
Calcium	431	25.0		mg/L	50	8/5/2004 10:20:00 PM
Chromium	ND	0.00200		mg/L	1	8/4/2004 8:51:00 PM
Cobalt	ND	0.00200		mg/L	1	8/4/2004 8:51:00 PM
Copper	0.00847	0.00200		mg/L	1	8/4/2004 8:51:00 PM
Iron	4.91	0.200		mg/L	1	8/4/2004 8:51:00 PM
Lead	ND	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Magnesium	142	2.00		mg/L	10	8/5/2004 10:29:00 PM
Manganese	0.0688	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Molybdenum	ND	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Nickel	0.00682	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Potassium	2.19	0.200		mg/L	1	8/5/2004 11:27:00 PM
Selenium	0.00548	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Silver	ND	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Sodium	117	2.00		mg/L	10	8/5/2004 10:29:00 PM
Vanadium	ND	0.00500		mg/L	1	8/4/2004 8:51:00 PM
Zinc	0.143	0.00500		mg/L	1	8/4/2004 8:51:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/29/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2-Methylphenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:49:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:49:00 PM
4-Methylphenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/4/2004 6:49:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Acenaphthene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Acenaphthylene	ND	10		µg/L	1	8/4/2004 6:49:00 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 Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-02

Client Sample ID: RA 4196
Collection Date: 7/27/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Anthracene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Benzidine	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Hexachloroethane	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Isophorone	ND	10		µg/L	1	8/4/2004 6:49:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/4/2004 6:49:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/4/2004 6:49:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Naphthalene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Nitrobenzene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Phenanthrene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Phenol	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Pyrene	ND	10		µg/L	1	8/4/2004 6:49:00 PM
Surr: 2,4,6-Tribromophenol	96.1	39-153		%REC	1	8/4/2004 6:49:00 PM
Surr: 2-Fluorobiphenyl	97.8	40-147		%REC	1	8/4/2004 6:49:00 PM
Surr: 2-Fluorophenol	42.0	21-110		%REC	1	8/4/2004 6:49:00 PM
Surr: 4-Terphenyl-d14	104	39-141		%REC	1	8/4/2004 6:49:00 PM
Surr: Nitrobenzene-d5	97.1	37-140		%REC	1	8/4/2004 6:49:00 PM
Surr: Phenol-d6	25.5	11-100		%REC	1	8/4/2004 6:49:00 PM

VOLATILES BY GC/MS**SW8260****Analyst: PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
2-Butanone	ND	10		µg/L	1	7/31/2004 9:21:00 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/31/2004 9:21:00 AM
2-Hexanone	ND	10		µg/L	1	7/31/2004 9:21:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Acetone	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Benzene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Bromoform	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Bromomethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Carbon disulfide	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	7/31/2004 9:21:00 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

AR Page 5 of 6

e-Lab Analytical, Inc.

Date: August 11, 2004

CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)
Lab ID: 0407318-02

Client Sample ID: RA 4196
Collection Date: 7/27/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Chloroethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Chloroform	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Chloromethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Ethylbenzene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
m,p-Xylene	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Methylene chloride	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Styrene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Toluene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Trichloroethene	ND	5.0		µg/L	1	7/31/2004 9:21:00 AM
Vinyl acetate	ND	10		µg/L	1	7/31/2004 9:21:00 AM
Vinyl chloride	ND	2.0		µg/L	1	7/31/2004 9:21:00 AM
Xylenes, Total	ND	15		µg/L	1	7/31/2004 9:21:00 AM
Surr: 1,2-Dichloroethane-d4	101	71-126		%REC	1	7/31/2004 9:21:00 AM
Surr: 4-Bromofluorobenzene	91.3	74-125		%REC	1	7/31/2004 9:21:00 AM
Surr: Dibromofluoromethane	101	73-126		%REC	1	7/31/2004 9:21:00 AM
Surr: Toluene-d8	93.6	75-125		%REC	1	7/31/2004 9:21:00 AM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	198	5.00		mg/L	10	7/28/2004 10:44:00 PM
Fluoride	0.470	0.100		mg/L	1	7/28/2004 10:15:00 PM
Sulfate	1,260	50.0		mg/L	50	7/28/2004 11:12:00 PM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	1	7/28/2004 10:15:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	10	7/28/2004 10:44:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	50	7/28/2004 11:12:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	220	5.00		mg/L	1	7/29/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Total (As CaCO3)	220	5.00		mg/L	1	7/29/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	7/31/2004

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 Analytical, Inc.

Date: Aug 11 2004

CLIENT: Navajo Refining Company
 Work Order: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9813 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-080204 Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 13:25
 Client ID: Run ID: ICP4500_040804A SeqNo: 518984 Prep Date: 8/3/2004 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								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: MBLKW2-080204 Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 23:13
 Client ID: Run ID: ICP4500_040804A SeqNo: 519272 Prep Date: 8/3/2004 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

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9813 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-080204 Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 13:29

Client ID: Run ID: ICP4500_040804A SeqNo: 518985 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04429	0.010	0.05	0	88.6	79-126	0			
Arsenic	0.05117	0.0050	0.05	0	102	80-121	0			
Barium	0.04473	0.0050	0.05	0	89.5	79.8-119	0			
Beryllium	0.05064	0.0020	0.05	0	101	78.9-120	0			
Cadmium	0.04829	0.0020	0.05	0	96.6	79.1-119	0			
Calcium	4.655	0.50	5	0	93.1	80-121	0			
Chromium	0.04501	0.0050	0.05	0	90	79.3-121	0			
Cobalt	0.04534	0.0050	0.05	0	90.7	82-121	0			
Copper	0.04566	0.0050	0.05	0	91.3	83-121	0			
Iron	4.684	0.20	5	0	93.7	80-120	0			
Magnesium	4.79	0.20	5	0	95.8	80-120	0			
Manganese	0.04506	0.0050	0.05	0	90.1	82-119	0			
Molybdenum	0.04319	0.0050	0.05	0	86.4	84.6-115	0			
Nickel	0.04578	0.0050	0.05	0	91.6	85-120	0			
Potassium	4.738	0.20	5	0	94.8	80-120	0			
Selenium	0.05358	0.0050	0.05	0	107	79.2-118	0			
Silver	0.0427	0.0050	0.05	0	85.4	83-117	0			
Sodium	4.582	0.20	5	0	91.6	82.4-120	0			
Vanadium	0.04455	0.0050	0.05	0	89.1	82.1-119	0			
Zinc	0.05647	0.0050	0.05	0	113	83-118	0			

LCS Sample ID: MLCSW2-080204 Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 23:31

Client ID: Run ID: ICP4500_040804A SeqNo: 519275 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.04361	0.0050	0.05	0	87.2	80-118	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9813 InstrumentID: ICP4500

MS Sample ID: 0407320-12BMS Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 19:16

Client ID: Run ID: ICP4500_040804A SeqNo: 519211 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.06182	0.0050	0.05	0.01354	96.6	80-121	0			
Barium	0.2046	0.0050	0.05	0.1635	82.2	79.8-119	0			
Cadmium	0.04372	0.0020	0.05	-0.00003105	87.5	79.1-119	0			
Calcium	110.8	0.50	5	105.9	98	80-121	0			EO
Chromium	0.04575	0.0050	0.05	0.0005429	90.4	79.3-121	0			
Cobalt	0.0449	0.0050	0.05	0.001578	86.6	82-121	0			
Copper	0.0413	0.0050	0.05	0.0009184	80.8	83-121	0			S
Iron	5.537	0.20	5	0.9398	91.9	80-120	0			
Lead	0.04616	0.0050	0.05	-0.00005947	92.4	80-118	0			
Manganese	0.7537	0.0050	0.05	0.7355	36.4	82-119	0			SEO
Molybdenum	0.04457	0.0050	0.05	0.001025	87.1	84.6-115	0			
Nickel	0.04457	0.0050	0.05	0.0027	83.7	85-120	0			S
Potassium	7.57	0.20	5	2.815	95.1	80-120	0			
Selenium	0.05099	0.0050	0.05	0.002123	97.7	79.2-118	0			
Silver	0.03606	0.0050	0.05	-0.0001225	72.4	83-117	0			S
Vanadium	0.0487	0.0050	0.05	0.00156	94.3	82.1-119	0			
Zinc	0.05012	0.0050	0.05	0.002501	95.2	83-118	0			

MS Sample ID: 0407320-12BMS Test Code: SW6020 Units: mg/L Analysis Date: 08/05/04 15:36

Client ID: Run ID: ICP4500_040805A SeqNo: 519614 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05093	0.010	0.05	0.005966	89.9	79-126	0			
Beryllium	0.04579	0.0020	0.05	0	91.6	78.9-120	0			
Magnesium	31.5	0.20	5	26.61	97.8	80-120	0			O
Sodium	2000	0.20	5	0	40000	82.4-120	0			SE

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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9813 InstrumentID: ICP4500

MSD	Sample ID: 0407320-12BMSD			Test Code: SW6020		Units: mg/L		Analysis Date: 08/04/04 19:20		
Client ID:	Run ID: ICP4500_040804A			SeqNo: 519212		Prep Date: 8/3/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.0629	0.0050	0.05	0.01354	98.7	80-121	0.06182	1.73	15	
Barium	0.2049	0.0050	0.05	0.1635	82.8	79.8-119	0.2046	0.147	15	
Cadmium	0.04335	0.0020	0.05	-0.00003105	86.8	79.1-119	0.04372	0.85	15	
Calcium	110.6	0.50	5	105.9	94	80-121	110.8	0.181	15	EO
Chromium	0.04584	0.0050	0.05	0.0005429	90.6	79.3-121	0.04575	0.197	15	
Cobalt	0.04499	0.0050	0.05	0.001578	86.8	82-121	0.0449	0.2	15	
Copper	0.04165	0.0050	0.05	0.0009184	81.5	83-121	0.0413	0.844	15	S
Iron	5.511	0.20	5	0.9398	91.4	80-120	5.537	0.471	15	
Lead	0.04628	0.0050	0.05	-0.00005947	92.7	80-118	0.04616	0.26	15	
Manganese	0.7565	0.0050	0.05	0.7355	42	82-119	0.7537	0.371	15	SEO
Molybdenum	0.04481	0.0050	0.05	0.001025	87.6	84.6-115	0.04457	0.537	15	
Nickel	0.04466	0.0050	0.05	0.0027	83.9	85-120	0.04457	0.202	15	S
Potassium	7.626	0.20	5	2.815	96.2	80-120	7.57	0.737	15	
Selenium	0.05183	0.0050	0.05	0.002123	99.4	79.2-118	0.05099	1.63	15	
Silver	0.03568	0.0050	0.05	-0.0001225	71.6	83-117	0.03606	1.06	15	S
Vanadium	0.04882	0.0050	0.05	0.00156	94.5	82.1-119	0.0487	0.246	15	
Zinc	0.05015	0.0050	0.05	0.002501	95.3	83-118	0.05012	0.0598	15	

MSD	Sample ID: 0407320-12BMSD				Test Code: SW6020		Units: mg/L	Analysis Date: 08/05/04 15:41		
Client ID:	Run ID: ICP4500_040805A			SeqNo: 519615		Prep Date: 8/3/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.0502	0.010	0.05	0.005966	88.5	79-126	0.05093	1.44	15	
Beryllium	0.04402	0.0020	0.05	0	88	78.9-120	0.04579	3.94	15	
Magnesium	30.97	0.20	5	26.61	87.2	80-120	31.5	1.7	15	O
Sodium	2000	0.20	5	0	40000	82.4-120	2000	0	15	SE

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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9813 InstrumentID: ICP4500

DUP Sample ID: 0407320-12BDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/04/04 19:11

Client ID: Run ID: ICP4500_040804A SeqNo: 519210 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.01233	0.0050	0	0	0	0-0	0.01354	9.35	25	
Barium	0.1659	0.0050	0	0	0	0-0	0.1635	1.46	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.00003105	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0005429	0	25	
Cobalt	0.00152	0.0050	0	0	0	0-0	0.001578	0	25	J
Copper	0.001014	0.0050	0	0	0	0-0	0.0009184	0	25	J
Iron	0.9399	0.20	0	0	0	0-0	0.9398	0.0106	25	
Lead	ND	0.0050	0	0	0	0-0	-0.00005947	0	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001025	0	25	
Nickel	0.002619	0.0050	0	0	0	0-0	0.0027	0	25	J
Potassium	2.786	0.20	0	0	0	0-0	2.815	1.04	25	
Selenium	0.003137	0.0050	0	0	0	0-0	0.002123	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.0001225	0	25	
Vanadium	0.0009276	0.0050	0	0	0	0-0	0.00156	0	25	J
Zinc	0.002428	0.0050	0	0	0	0-0	0.002501	0	25	J

DUP Sample ID: 0407320-12BDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/05/04 15:32

Client ID: Run ID: ICP4500_040805A SeqNo: 519613 Prep Date: 8/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.005589	0.010	0	0	0	0-0	0.005966	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.00008131	0	25	

DUP Sample ID: 0407320-12BDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/05/04 22:02

Client ID: Run ID: ICP4500_040805A SeqNo: 519705 Prep Date: 8/3/2004 DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	214.6	10	0	0	0	0-0	208.5	2.88	25	

DUP Sample ID: 0407320-12BDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/05/04 22:11

Client ID: Run ID: ICP4500_040805A SeqNo: 519707 Prep Date: 8/3/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	106.4	5.0	0	0	0	0-0	106.4	0	25	
Magnesium	29.54	2.0	0	0	0	0-0	29.54	0	25	
Manganese	0.7546	0.050	0	0	0	0-0	0.7546	0	25	

The following samples were analyzed in this batch:

0407318-01C 0407318-02C

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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CLIENT: Navajo Refining Company
Work Order: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9853 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-080404 Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 12:35

Client ID: Run ID: MERCURY_040805B SeqNo: 519491 Prep Date: 8/4/2004 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: GLCSW2-080404 Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 12:37

Client ID: Run ID: MERCURY_040805B SeqNo: 519492 Prep Date: 8/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00527	0.00020	0.005	0	105	83-115	0			

LCSD Sample ID: GLCSDW2-080404 Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 12:38

Client ID: Run ID: MERCURY_040805B SeqNo: 519493 Prep Date: 8/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00532	0.00020	0.005	0	106	83-115	0.00527	0.944	20	

MS Sample ID: 0408024-02AMS Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 13:02

Client ID: Run ID: MERCURY_040805B SeqNo: 519503 Prep Date: 8/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00518	0.00020	0.005	-0.000005	104	83-115	0			

MSD Sample ID: 0408024-02AMSD Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 12:48

Client ID: Run ID: MERCURY_040805B SeqNo: 519496 Prep Date: 8/4/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00506	0.00020	0.005	-0.000005	101	83-115	0.00518	2.34	20	

DUP Sample ID: 0408024-02ADUP Test Code: SW7470 Units: mg/L Analysis Date: 08/05/04 12:42

Client ID: Run ID: MERCURY_040805B SeqNo: 519495 Prep Date: 8/4/2004 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	-0.000005	0	20	

The following samples were analyzed in this batch:

0407318-01C 0407318-02C

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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9866 InstrumentID: ICP4500

MBLK Sample ID: **MBLKW2-080604** Test Code: **SW6020** Units: **mg/L** Analysis Date: **08/09/04 13:34**

Client ID: Run ID: **ICP4500_040809A** SeqNo: **520740** Prep Date: **8/6/2004** DF: 1

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

LCS Sample ID: **MLCSW2-080604** Test Code: **SW6020** Units: **mg/L** Analysis Date: **08/09/04 13:39**

Client ID: Run ID: **ICP4500_040809A** SeqNo: **520741** Prep Date: **8/6/2004** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5301	0.020	0.5	0	106	80-120	0			

MS Sample ID: **0407320-12BMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **08/09/04 13:53**

Client ID: Run ID: **ICP4500_040809A** SeqNo: **520745** Prep Date: **8/6/2004** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6543	0.020	0.5	0.1274	105	80-120	0			

MSD Sample ID: **0407320-12BMSD** Test Code: **SW6020** Units: **mg/L** Analysis Date: **08/09/04 13:58**

Client ID: Run ID: **ICP4500_040809A** SeqNo: **520747** Prep Date: **8/6/2004** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6953	0.020	0.5	0.1274	114	80-120	0.6543	6.08	15	

DUP Sample ID: **0407320-12BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **08/09/04 13:48**

Client ID: Run ID: **ICP4500_040809A** SeqNo: **520744** Prep Date: **8/6/2004** DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.1272	0.020	0	0	0	0-0	0.1274	0.157	25	

The following samples were analyzed in this batch:

0407318-01C 0407318-02C

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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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9790 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040729 Test Code: SW8270 Units: µg/L Analysis Date: 07/29/04 14:49

Client ID: Run ID: SV-3_040729A SeqNo: 518407 Prep Date: 7/29/2004 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	109.1	10	100	0	109	39-153	0			
Surr: 2-Fluorobiphenyl	99.28	10	100	0	99.3	40-147	0			
Surr: 2-Fluorophenol	43.01	10	100	0	43	21-110	0			
Surr: 4-Terphenyl-d14	132.9	10	100	0	133	39-141	0			
Surr: Nitrobenzene-d5	99.38	10	100	0	99.4	37-140	0			
Surr: Phenol-d6	23.72	10	100	0	23.7	11-100	0			

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9790 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040729 Test Code: SW8270 Units: µg/L Analysis Date: 07/29/04 15:14

Client ID: Run ID: SV-3_040729A SeqNo: 518408 Prep Date: 7/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	49.02	10	50	0	98	50-115	0			
2,4,5-Trichlorophenol	105.6	10	100	0	106	68-128	0			
2,4,6-Trichlorophenol	100.4	10	100	0	100	66-125	0			
2-Methylnaphthalene	45.81	10	50	0	91.6	47-122	0			
2-Methylphenol	73.31	10	100	0	73.3	51-115	0			
2-Nitroaniline	53.99	10	50	0	108	64-128	0			
2-Nitrophenol	100.3	10	100	0	100	60-119	0			
3-Nitroaniline	52.18	10	50	0	104	61-118	0			
4-Methylphenol	93.94	10	150	0	62.6	44-115	0			
4-Nitroaniline	53.74	10	50	0	107	61-123	0			
4-Nitrophenol	34.28	10	100	0	34.3	17-100	0			
Acenaphthene	48.52	10	50	0	97	68-115	0			
Acenaphthylene	49.56	10	50	0	99.1	67-116	0			
Aniline	50.16	10	50	0	100	40-130	0			
Anthracene	55.1	10	50	0	110	70-129	0			
Benz(a)anthracene	53.05	10	50	0	106	55-131	0			
Benzidine	62.2	10	50	0	124	10-115	0			S
Hexachloroethane	44.26	10	50	0	88.5	46-115	0			
Indeno(1,2,3-cd)pyrene	52.16	10	50	0	104	42-123	0			
Isophorone	52.42	10	50	0	105	63-117	0			
N-Nitrosodi-n-propylamine	49.61	10	50	0	99.2	67-115	0			
N-Nitrosodimethylamine	25.01	10	50	0	50	28-115	0			
N-Nitrosodiphenylamine	55.6	10	50	0	111	72-144	0			
Naphthalene	47.15	10	50	0	94.3	52-115	0			
Nitrobenzene	52.62	10	50	0	105	65-115	0			
Pentachlorophenol	100.6	10	100	0	101	65-123	0			
Phenanthrene	52.05	10	50	0	104	69-119	0			
Phenol	29.16	10	100	0	29.2	16-115	0			
Pyrene	52.74	10	50	0	105	51-130	0			
Surr: 2,4,6-Tribromophenol	109.9	10	100	0	110	39-153	0			
Surr: 2-Fluorobiphenyl	103.4	10	100	0	103	40-147	0			
Surr: 2-Fluorophenol	48.77	10	100	0	48.8	21-110	0			
Surr: 4-Terphenyl-d14	124.7	10	100	0	125	39-141	0			
Surr: Nitrobenzene-d5	104.2	10	100	0	104	37-140	0			
Surr: Phenol-d6	32.84	10	100	0	32.8	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: 9790 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040729 Test Code: SW8270 Units: µg/L Analysis Date: 07/29/04 15:38

Client ID: Run ID: SV-3_040729A SeqNo: 518409 Prep Date: 7/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	47.66	10	50	0	95.3	50-115	49.02	2.8	30	
2,4,5-Trichlorophenol	100.9	10	100	0	101	68-128	105.6	4.54	30	
2,4,6-Trichlorophenol	98.32	10	100	0	98.3	66-125	100.4	2.09	30	
2-Methylnaphthalene	44.81	10	50	0	89.6	47-122	45.81	2.19	30	
2-Methylphenol	75.59	10	100	0	75.6	51-115	73.31	3.06	30	
2-Nitroaniline	51.94	10	50	0	104	64-128	53.99	3.87	30	
2-Nitrophenol	95.46	10	100	0	95.5	60-119	100.3	4.94	30	
3-Nitroaniline	51	10	50	0	102	61-118	52.18	2.29	30	
4-Methylphenol	98.87	10	150	0	65.9	44-115	93.94	5.12	30	
4-Nitroaniline	51.76	10	50	0	104	61-123	53.74	3.76	30	
4-Nitrophenol	35.37	10	100	0	35.4	17-100	34.28	3.13	30	
Acenaphthene	48.23	10	50	0	96.5	68-115	48.52	0.6	30	
Acenaphthylene	48.15	10	50	0	96.3	67-116	49.56	2.9	30	
Aniline	47.25	10	50	0	94.5	40-130	50.16	5.98	30	
Anthracene	53.68	10	50	0	107	70-129	55.1	2.62	30	
Benz(a)anthracene	49.69	10	50	0	99.4	55-131	53.05	6.54	30	
Benzidine	45.29	10	50	0	90.6	10-115	62.2	31.5	30	R
Hexachloroethane	43.7	10	50	0	87.4	46-115	44.26	1.27	30	
Indeno(1,2,3-cd)pyrene	47.33	10	50	0	94.7	42-123	52.16	9.7	30	
Isophorone	51.33	10	50	0	103	63-117	52.42	2.11	30	
N-Nitrosodi-n-propylamine	48.69	10	50	0	97.4	67-115	49.61	1.87	30	
N-Nitrosodimethylamine	24.93	10	50	0	49.9	28-115	25.01	0.323	30	
N-Nitrosodiphenylamine	52.49	10	50	0	105	72-144	55.6	5.74	30	
Naphthalene	46.81	10	50	0	93.6	52-115	47.15	0.738	30	
Nitrobenzene	52.23	10	50	0	104	65-115	52.62	0.752	30	
Pentachlorophenol	92.87	10	100	0	92.9	65-123	100.6	8.04	30	
Phenanthrene	50.73	10	50	0	101	69-119	52.05	2.56	30	
Phenol	31.34	10	100	0	31.3	16-115	29.16	7.22	30	
Pyrene	48.12	10	50	0	96.2	51-130	52.74	9.15	30	
Surr: 2,4,6-Tribromophenol	103.8	10	100	0	104	39-153	109.9	5.63	30	
Surr: 2-Fluorobiphenyl	98.57	10	100	0	98.6	40-147	103.4	4.83	30	
Surr: 2-Fluorophenol	52.16	10	100	0	52.2	21-110	48.77	6.72	30	
Surr: 4-Terphenyl-d14	111.4	10	100	0	111	39-141	124.7	11.3	30	
Surr: Nitrobenzene-d5	99.11	10	100	0	99.1	37-140	104.2	5.02	30	
Surr: Phenol-d6	35.84	10	100	0	35.8	11-100	32.84	8.72	30	

The following samples were analyzed in this batch:

0407318-01E 0407318-02E

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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MBLK Sample ID: VBLKW-0728 Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 10:24

Client ID: Run ID: VOA3_040728A SeqNo: 515976 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								
Methyl tert-butyl ether	ND	5.0								
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	53.68	5.0	50	0	107	71-126	0			
Surr: 4-Bromofluorobenzene	51.07	5.0	50	0	102	74-125	0			
Surr: Dibromofluoromethane	55.16	5.0	50	0	110	73-126	0			
Surr: Toluene-d8	55.07	5.0	50	0	110	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

LCS Sample ID: VLCSW-0728 Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 9:24

Client ID: Run ID: VOA3_040728A SeqNo: 515975 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	50.94	5.0	50	0	102	75.2-120	0			
1,1,2,2-Tetrachloroethane	49.25	5.0	50	0	98.5	72.4-121	0			
1,1,2-Trichloroethane	49.47	5.0	50	0	98.9	80-120	0			
1,1-Dichloroethane	49.92	5.0	50	0	99.8	76.9-120	0			
1,1-Dichloroethene	49.99	5.0	50	0	100	72.6-123	0			
1,2-Dichloroethane	48.83	5.0	50	0	97.7	80-120	0			
2-Butanone	101.3	10	100	0	101	69-131	0			
2-Chloroethyl vinyl ether	97.24	10	100	0	97.2	60-135	0			
2-Hexanone	98.42	10	100	0	98.4	55.6-126	0			
4-Methyl-2-pentanone	102	10	100	0	102	67.4-121	0			
Acetone	108.4	10	100	0	108	64.4-140	0			
Benzene	49	5.0	50	0	98	80-120	0			
Bromodichloromethane	51.04	5.0	50	0	102	80-120	0			
Bromoform	49.33	5.0	50	0	98.7	77.9-121	0			
Bromomethane	47.55	5.0	50	0	95.1	63.3-137	0			
Carbon disulfide	103.9	10	100	0	104	74.1-123	0			
Carbon tetrachloride	52.05	5.0	50	0	104	74.7-120	0			
Chlorobenzene	49.75	5.0	50	0	99.5	80-120	0			
Chloroethane	49.38	5.0	50	0	98.8	74.7-126	0			
Chloroform	50.79	5.0	50	0	102	80-120	0			
Chloromethane	49.97	5.0	50	0	99.9	64.5-132	0			
cis-1,3-Dichloropropene	52.64	5.0	50	0	105	80-120	0			
Dibromochloromethane	49.12	5.0	50	0	98.2	80-120	0			
Ethylbenzene	51.2	5.0	50	0	102	80-120	0			
m,p-Xylene	103.2	10	100	0	103	80-120	0			
Methyl tert-butyl ether	49.03	5.0	50	0	98.1	73.7-122	0			
Methylene chloride	47.85	10	50	0	95.7	76.2-120	0			
Styrene	50.42	5.0	50	0	101	80-120	0			
Tetrachloroethene	48.36	5.0	50	0	96.7	68.5-130	0			
Toluene	50.82	5.0	50	0	102	80-120	0			
trans-1,3-Dichloropropene	51.93	5.0	50	0	104	80-120	0			
Trichloroethene	50.75	5.0	50	0	102	78.9-120	0			
Vinyl acetate	108.6	10	100	0	109	62.4-133	0			
Vinyl chloride	50.63	2.0	50	0	101	72.7-128	0			
Xylenes, Total	156	15	150	0	104	80-120	0			
Surr: 1,2-Dichloroethane-d4	53.36	5.0	50	0	107	71-126	0			
Surr: 4-Bromofluorobenzene	55.29	5.0	50	0	111	74-125	0			
Surr: Dibromofluoromethane	54.7	5.0	50	0	109	73-126	0			
Surr: Toluene-d8	53.19	5.0	50	0	106	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MS Sample ID: 0407280-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 13:51

Client ID: Run ID: VOA3_040728A SeqNo: 515981 Prep Date: DF: 25

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1356	120	1250	0	108	75.2-120	0			
1,1,2,2-Tetrachloroethane	1298	120	1250	0	104	72.4-121	0			
1,1,2-Trichloroethane	1281	120	1250	0	102	80-120	0			
1,1-Dichloroethane	1321	120	1250	0	106	76.9-120	0			
1,1-Dichloroethene	1357	120	1250	0	109	72.6-123	0			
1,2-Dichloroethane	1319	120	1250	0	105	80-120	0			
2-Butanone	2574	250	2500	0	103	69-131	0			
2-Chloroethyl vinyl ether	2407	250	2500	0	96.3	60-135	0			
2-Hexanone	2447	250	2500	0	97.9	55.6-126	0			
4-Methyl-2-pentanone	2521	250	2500	0	101	67.4-121	0			
Acetone	2671	250	2500	0	107	64.4-140	0			
Benzene	1299	120	1250	0	104	80-120	0			
Bromodichloromethane	1339	120	1250	0	107	80-120	0			
Bromoform	1248	120	1250	0	99.8	77.9-121	0			
Bromomethane	1454	120	1250	0	116	63.3-137	0			
Carbon disulfide	2754	250	2500	0	110	74.1-123	0			
Carbon tetrachloride	1379	120	1250	0	110	74.7-120	0			
Chlorobenzene	1306	120	1250	0	104	80-120	0			
Chloroethane	1337	120	1250	0	107	74.7-126	0			
Chloroform	1365	120	1250	0	109	80-120	0			
Chloromethane	1231	120	1250	0	98.5	64.5-132	0			
cis-1,3-Dichloropropene	1357	120	1250	0	109	80-120	0			
Dibromochloromethane	1236	120	1250	0	98.9	80-120	0			
Ethylbenzene	1335	120	1250	0	107	80-120	0			
m,p-Xylene	2702	250	2500	0	108	80-120	0			
Methyl tert-butyl ether	1251	120	1250	0	100	73.7-122	0			
Methylene chloride	1290	250	1250	0	103	76.2-120	0			
Styrene	1282	120	1250	0	103	80-120	0			
Tetrachloroethene	1266	120	1250	0	101	68.5-130	0			
Toluene	1332	120	1250	0	107	80-120	0			
trans-1,3-Dichloropropene	1308	120	1250	0	105	80-120	0			
Trichloroethene	1312	120	1250	0	105	78.9-120	0			
Vinyl acetate	2885	250	2500	0	115	62.4-133	0			
Vinyl chloride	1290	50	1250	0	103	72.7-128	0			
Xylenes, Total	4073	380	3750	0	109	80-120	0			
Surr: 1,2-Dichloroethane-d4	1326	120	1250	0	106	71-126	0			
Surr: 4-Bromofluorobenzene	1386	120	1250	0	111	74-125	0			
Surr: Dibromofluoromethane	1369	120	1250	0	110	73-126	0			
Surr: Toluene-d8	1389	120	1250	0	111	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MSD	Sample ID: 0407280-01AMSD			Test Code: SW8260		Units: µg/L		Analysis Date: 07/28/04 14:21		
Client ID:	Run ID: VOA3_040728A			SeqNo: 516045		Prep Date:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1340	120	1250	0	107	75.2-120	1356	1.18	20	
1,1,2,2-Tetrachloroethane	1324	120	1250	0	106	72.4-121	1298	1.97	20	
1,1,2-Trichloroethane	1261	120	1250	0	101	80-120	1281	1.62	20	
1,1-Dichloroethane	1299	120	1250	0	104	76.9-120	1321	1.67	20	
1,1-Dichloroethene	1319	120	1250	0	106	72.6-123	1357	2.83	20	
1,2-Dichloroethane	1267	120	1250	0	101	80-120	1319	3.95	20	
2-Butanone	2620	250	2500	0	105	69-131	2574	1.75	20	
2-Chloroethyl vinyl ether	2387	250	2500	0	95.5	60-135	2407	0.831	20	
2-Hexanone	2447	250	2500	0	97.9	55.6-126	2447	0.00678	20	
4-Methyl-2-pentanone	2595	250	2500	0	104	67.4-121	2521	2.88	20	
Acetone	2663	250	2500	0	107	64.4-140	2671	0.306	20	
Benzene	1292	120	1250	0	103	80-120	1299	0.589	20	
Bromodichloromethane	1312	120	1250	0	105	80-120	1339	2.05	20	
Bromoform	1263	120	1250	0	101	77.9-121	1248	1.24	20	
Bromomethane	1341	120	1250	0	107	63.3-137	1454	8.07	20	
Carbon disulfide	2745	250	2500	0	110	74.1-123	2754	0.302	20	
Carbon tetrachloride	1333	120	1250	0	107	74.7-120	1379	3.38	20	
Chlorobenzene	1268	120	1250	0	101	80-120	1306	2.96	20	
Chloroethane	1329	120	1250	0	106	74.7-126	1337	0.608	20	
Chloroform	1345	120	1250	0	108	80-120	1365	1.5	20	
Chloromethane	1261	120	1250	0	101	64.5-132	1231	2.45	20	
cis-1,3-Dichloropropene	1362	120	1250	0	109	80-120	1357	0.42	20	
Dibromochloromethane	1265	120	1250	0	101	80-120	1236	2.32	20	
Ethylbenzene	1378	120	1250	0	110	80-120	1335	3.15	20	
m,p-Xylene	2689	250	2500	0	108	80-120	2702	0.47	20	
Methyl tert-butyl ether	1226	120	1250	0	98.1	73.7-122	1251	2	20	
Methylene chloride	1273	250	1250	0	102	76.2-120	1290	1.29	20	
Styrene	1311	120	1250	0	105	80-120	1282	2.26	20	
Tetrachloroethene	1286	120	1250	0	103	68.5-130	1266	1.57	20	
Toluene	1332	120	1250	0	107	80-120	1332	0.0102	20	
trans-1,3-Dichloropropene	1351	120	1250	0	108	80-120	1308	3.22	20	
Trichloroethene	1304	120	1250	0	104	78.9-120	1312	0.609	20	
Vinyl acetate	2907	250	2500	0	116	62.4-133	2885	0.761	20	
Vinyl chloride	1335	50	1250	0	107	72.7-128	1290	3.43	20	
Xylenes, Total	4080	380	3750	0	109	80-120	4073	0.187	20	
Surr: 1,2-Dichloroethane-d4	1300	120	1250	0	104	71-126	1326	2.03	20	
Surr: 4-Bromofluorobenzene	1323	120	1250	0	106	74-125	1386	4.64	20	
Surr: Dibromofluoromethane	1334	120	1250	0	107	73-126	1369	2.58	20	
Surr: Toluene-d8	1374	120	1250	0	110	75-125	1389	1.11	20	

The following samples were analyzed in this batch:

0407318-01A

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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22126 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0730 Test Code: SW8260 Units: µg/L Analysis Date: 07/31/04 0:17

Client ID: Run ID: VOA1_040730B SeqNo: 517741 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								
Methyl tert-butyl ether	ND	5.0								
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	47.62	5.0	50	0	95.2	71-126	0			
Surr: 4-Bromofluorobenzene	47	5.0	50	0	94	74-125	0			
Surr: Dibromofluoromethane	48.71	5.0	50	0	97.4	73-126	0			
Surr: Toluene-d8	47.31	5.0	50	0	94.6	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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: **R22126** InstrumentID: **VOA1**

LCS		Sample ID: VLCSW-0730		Test Code: SW8260		Units: µg/L		Analysis Date: 07/30/04 23:49		
Client ID:		Run ID: VOA1_040730B		SeqNo: 517740		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	52.76	5.0	50	0	106	75.2-120	0			
1,1,2,2-Tetrachloroethane	45.55	5.0	50	0	91.1	72.4-121	0			
1,1,2-Trichloroethane	53.11	5.0	50	0	106	80-120	0			
1,1-Dichloroethane	47.79	5.0	50	0	95.6	76.9-120	0			
1,1-Dichloroethene	48.79	5.0	50	0	97.6	72.6-123	0			
1,2-Dichloroethane	48.96	5.0	50	0	97.9	80-120	0			
2-Butanone	99.22	10	100	0	99.2	69-131	0			
2-Chloroethyl vinyl ether	94.56	10	100	0	94.6	60-135	0			
2-Hexanone	100.3	10	100	0	100	55.6-126	0			
4-Methyl-2-pentanone	96.5	10	100	0	96.5	67.4-121	0			
Acetone	94.78	10	100	0	94.8	64.4-140	0			
Benzene	50.35	5.0	50	0	101	80-120	0			
Bromodichloromethane	48.68	5.0	50	0	97.4	80-120	0			
Bromoform	53.73	5.0	50	0	107	77.9-121	0			
Bromomethane	44.15	5.0	50	0	88.3	63.3-137	0			
Carbon disulfide	97.37	10	100	0	97.4	74.1-123	0			
Carbon tetrachloride	52.98	5.0	50	0	106	74.7-120	0			
Chlorobenzene	51.88	5.0	50	0	104	80-120	0			
Chloroethane	48.05	5.0	50	0	96.1	74.7-126	0			
Chloroform	50.04	5.0	50	0	100	80-120	0			
Chloromethane	42.66	5.0	50	0	85.3	64.5-132	0			
cis-1,3-Dichloropropene	50.93	5.0	50	0	102	80-120	0			
Dibromochloromethane	53.36	5.0	50	0	107	80-120	0			
Ethylbenzene	54.84	5.0	50	0	110	80-120	0			
m,p-Xylene	109.6	10	100	0	110	80-120	0			
Methyl tert-butyl ether	53.69	5.0	50	0	107	73.7-122	0			
Methylene chloride	45.21	10	50	0	90.4	76.2-120	0			
Styrene	50.28	5.0	50	0	101	80-120	0			
Tetrachloroethene	52.73	5.0	50	0	105	68.5-130	0			
Toluene	55.03	5.0	50	0	110	80-120	0			
trans-1,3-Dichloropropene	52.05	5.0	50	0	104	80-120	0			
Trichloroethene	54.75	5.0	50	0	110	78.9-120	0			
Vinyl acetate	87.16	10	100	0	87.2	62.4-133	0			
Vinyl chloride	46.98	2.0	50	0	94	72.7-128	0			
Xylenes, Total	164.5	15	150	0	110	80-120	0			
Surr: 1,2-Dichloroethane-d4	45.22	5.0	50	0	90.4	71-126	0			
Surr: 4-Bromofluorobenzene	52.68	5.0	50	0	105	74-125	0			
Surr: Dibromofluoromethane	44.91	5.0	50	0	89.8	73-126	0			
Surr: Toluene-d8	49.61	5.0	50	0	99.2	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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: **R22126** InstrumentID: **VOA1**

MS		Sample ID: 0407282-06AMS		Test Code: SW8260		Units: µg/L		Analysis Date: 07/31/04 1:11		
Client ID:		Run ID: VOA1_040730B		SeqNo: 517742		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	248.4	25	250	0	99.4	75.2-120	0			
1,1,2,2-Tetrachloroethane	225.9	25	250	0	90.4	72.4-121	0			
1,1,2-Trichloroethane	248.6	25	250	0	99.4	80-120	0			
1,1-Dichloroethane	256.7	25	250	0	103	76.9-120	0			
1,1-Dichloroethene	234.7	25	250	0	93.9	72.6-123	0			
1,2-Dichloroethane	257.5	25	250	0	103	80-120	0			
2-Butanone	500.4	50	500	0	100	69-131	0			
2-Chloroethyl vinyl ether	ND	50	500	0	0	60-135	0			S
2-Hexanone	435.4	50	500	0	87.1	55.6-126	0			
4-Methyl-2-pentanone	439.9	50	500	0	88	67.4-121	0			
Acetone	384.6	50	500	0	76.9	64.4-140	0			
Benzene	248.3	25	250	0	99.3	80-120	0			
Bromodichloromethane	247.8	25	250	0	99.1	80-120	0			
Bromoform	242.7	25	250	0	97.1	77.9-121	0			
Bromomethane	230.4	25	250	0	92.2	63.3-137	0			
Carbon disulfide	453.6	50	500	0	90.7	74.1-123	0			
Carbon tetrachloride	232.4	25	250	0	93	74.7-120	0			
Chlorobenzene	251.1	25	250	0	100	80-120	0			
Chloroethane	229	25	250	0	91.6	74.7-126	0			
Chloroform	254.3	25	250	0	102	80-120	0			
Chloromethane	203.3	25	250	0	81.3	64.5-132	0			
cis-1,3-Dichloropropene	234.5	25	250	0	93.8	80-120	0			
Dibromochloromethane	254.4	25	250	0	102	80-120	0			
Ethylbenzene	255.9	25	250	0	102	80-120	0			
m,p-Xylene	508.3	50	500	0	102	80-120	0			
Methyl tert-butyl ether	263.6	25	250	0	105	73.7-122	0			
Methylene chloride	232.7	50	250	0	93.1	76.2-120	0			
Styrene	228.6	25	250	0	91.4	80-120	0			
Tetrachloroethene	548.1	25	250	306.2	96.8	68.5-130	0			
Toluene	237.8	25	250	0	95.1	80-120	0			
trans-1,3-Dichloropropene	236	25	250	0	94.4	80-120	0			
Trichloroethene	246.5	25	250	0	98.6	78.9-120	0			
Vinyl acetate	621.8	50	500	0	124	62.4-133	0			
Vinyl chloride	204.6	10	250	0	81.8	72.7-128	0			
Xylenes, Total	758.2	75	750	0	101	80-120	0			
Surr: 1,2-Dichloroethane-d4	251.2	25	250	0	100	71-126	0			
Surr: 4-Bromofluorobenzene	243.1	25	250	0	97.2	74-125	0			
Surr: Dibromofluoromethane	243.4	25	250	0	97.4	73-126	0			
Surr: Toluene-d8	242.6	25	250	0	97	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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22126 InstrumentID: VOA1

MSD	Sample ID: 0407282-06AMSD			Test Code: SW8260		Units: µg/L		Analysis Date: 07/31/04 1:39		
Client ID:	Run ID: VOA1_040730B			SeqNo: 517743		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	261.3	25	250	0	105	75.2-120	248.4	5.04	20	
1,1,2,2-Tetrachloroethane	231	25	250	0	92.4	72.4-121	225.9	2.22	20	
1,1,2-Trichloroethane	254.2	25	250	0	102	80-120	248.6	2.23	20	
1,1-Dichloroethane	244.4	25	250	0	97.8	76.9-120	256.7	4.92	20	
1,1-Dichloroethene	233.5	25	250	0	93.4	72.6-123	234.7	0.536	20	
1,2-Dichloroethane	253.8	25	250	0	102	80-120	257.5	1.42	20	
2-Butanone	456.9	50	500	0	91.4	69-131	500.4	9.1	20	
2-Chloroethyl vinyl ether	ND	50	500	0	0	60-135	0	0	20	S
2-Hexanone	447.9	50	500	0	89.6	55.6-126	435.4	2.83	20	
4-Methyl-2-pentanone	456.9	50	500	0	91.4	67.4-121	439.9	3.78	20	
Acetone	395.6	50	500	0	79.1	64.4-140	384.6	2.81	20	
Benzene	242.7	25	250	0	97.1	80-120	248.3	2.28	20	
Bromodichloromethane	249.8	25	250	0	99.9	80-120	247.8	0.81	20	
Bromoform	253.7	25	250	0	101	77.9-121	242.7	4.44	20	
Bromomethane	231	25	250	0	92.4	63.3-137	230.4	0.27	20	
Carbon disulfide	460.2	50	500	0	92	74.1-123	453.6	1.43	20	
Carbon tetrachloride	240.5	25	250	0	96.2	74.7-120	232.4	3.41	20	
Chlorobenzene	250.4	25	250	0	100	80-120	251.1	0.286	20	
Chloroethane	225.4	25	250	0	90.2	74.7-126	229	1.55	20	
Chloroform	258.5	25	250	0	103	80-120	254.3	1.66	20	
Chloromethane	207.7	25	250	0	83.1	64.5-132	203.3	2.16	20	
cis-1,3-Dichloropropene	243.9	25	250	0	97.6	80-120	234.5	3.93	20	
Dibromochloromethane	261.8	25	250	0	105	80-120	254.4	2.89	20	
Ethylbenzene	267.2	25	250	0	107	80-120	255.9	4.33	20	
m,p-Xylene	496.8	50	500	0	99.4	80-120	508.3	2.29	20	
Methyl tert-butyl ether	282.6	25	250	0	113	73.7-122	263.6	6.97	20	
Methylene chloride	227.7	50	250	0	91.1	76.2-120	232.7	2.17	20	
Styrene	232	25	250	0	92.8	80-120	228.6	1.48	20	
Tetrachloroethene	553.7	25	250	306.2	99	68.5-130	548.1	1.01	20	
Toluene	252.5	25	250	0	101	80-120	237.8	5.98	20	
trans-1,3-Dichloropropene	250.5	25	250	0	100	80-120	236	5.97	20	
Trichloroethene	237.8	25	250	0	95.1	78.9-120	246.5	3.62	20	
Vinyl acetate	630	50	500	0	126	62.4-133	621.8	1.3	20	
Vinyl chloride	210.4	10	250	0	84.2	72.7-128	204.6	2.79	20	
Xylenes, Total	747.6	75	750	0	99.7	80-120	758.2	1.41	20	
Surr: 1,2-Dichloroethane-d4	237.8	25	250	0	95.1	71-126	251.2	5.51	20	
Surr: 4-Bromofluorobenzene	250.1	25	250	0	100	74-125	243.1	2.83	20	
Surr: Dibromofluoromethane	243.3	25	250	0	97.3	73-126	243.4	0.0596	20	
Surr: Toluene-d8	256.2	25	250	0	102	75-125	242.6	5.45	20	

The following samples were analyzed in this batch:

0407318-02A

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: 0407318
 Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22074 InstrumentID: IC201

MBLK Sample ID: WBLKW1-072804 Test Code: E300 Units: mg/L Analysis Date: 07/28/04 16:05

Client ID: Run ID: IC201_040728A SeqNo: 516459 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								
Surr: Dichloroacetic acid (surr)	5.04	0.10	5	0	101	80-120	0			

LCS Sample ID: WLC SW1-072804 Test Code: E300 Units: mg/L Analysis Date: 07/28/04 16:33

Client ID: Run ID: IC201_040728A SeqNo: 516460 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.15	0.50	10	0	91.5	80-120	0			
Fluoride	1.91	0.10	2	0	95.5	80-120	0			
Sulfate	9.68	1.0	10	0	96.8	80-120	0			
Surr: Dichloroacetic acid (surr)	5.37	0.10	5	0	107	80-120	0			

LCSD Sample ID: WLCSDW1-07280 Test Code: E300 Units: mg/L Analysis Date: 07/28/04 17:02

Client ID: Run ID: IC201_040728A SeqNo: 516461 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.13	0.50	10	0	91.3	80-120	9.15	0.219	20	
Fluoride	1.93	0.10	2	0	96.5	80-120	1.91	1.04	20	
Sulfate	9.67	1.0	10	0	96.7	80-120	9.68	0.103	20	
Surr: Dichloroacetic acid (surr)	5.45	0.10	5	0	109	80-120	5.37	1.48	20	

MS Sample ID: 0407318-01BMS Test Code: E300 Units: mg/L Analysis Date: 07/28/04 18:27

Client ID: RA 4798 Run ID: IC201_040728A SeqNo: 516464 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	160.2	0.50	10	151.9	82.3	75-125	0			EO
Fluoride	2.36	0.10	2	0.48	94	75-125	0			
Sulfate	1851	1.0	10	1870	-192	75-125	0			SEO
Surr: Dichloroacetic acid (surr)	5.42	0.10	5	0	108	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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22074 InstrumentID: IC201

MSD Sample ID: 0407318-01BMSD Test Code: E300 Units: mg/L Analysis Date: 07/28/04 18:56

Client ID: RA 4798 Run ID: IC201_040728A SeqNo: 516465 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	160.2	0.50	10	151.9	82.8	75-125	160.2	0.0312	20	EO
Fluoride	2.45	0.10	2	0.48	98.5	75-125	2.36	3.74	20	
Sulfate	1855	1.0	10	1870	-154	75-125	1851	0.205	20	SEO
Surr: Dichloroacetic acid (surr)	5.52	0.10	5	0	110	80-120	5.42	1.83	20	

DUP Sample ID: 0407318-01BDUP Test Code: E300 Units: mg/L Analysis Date: 07/28/04 17:59

Client ID: RA 4798 Run ID: IC201_040728A SeqNo: 516463 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	0.48	0.10	0	0	0	0-0	0.48	0	20	
Surr: Dichloroacetic acid (surr)	5.62	0.10	5	0	112	80-120	5.5	2.16	20	

DUP Sample ID: 0407318-01BDUP Test Code: E300 Units: mg/L Analysis Date: 07/28/04 20:50

Client ID: RA 4798 Run ID: IC201_040728A SeqNo: 516469 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	131.8	2.5	0	0	0	0-0	131.7	0.038	20	

DUP Sample ID: 0407318-01BDUP Test Code: E300 Units: mg/L Analysis Date: 07/28/04 21:47

Client ID: RA 4798 Run ID: IC201_040728A SeqNo: 516471 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfate	1388	50	0	0	0	0-0	1392	0.252	20	

The following samples were analyzed in this batch:

0407318-01B 0407318-02B

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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22094 InstrumentID: WetChem

MBLK Sample ID: WBLKW1-072904 Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: Run ID: WETCHEM_040729D SeqNo: 516921 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: WLCSW1-072904 Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: Run ID: WETCHEM_040729D SeqNo: 516922 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)	1000	5.0	0	0.01	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: 0407271-01BDUP Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: Run ID: WETCHEM_040729D SeqNo: 516933 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)	200.1	5.0	0	0	0	0-0	200.1	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)	200.1	5.0	0	0	0	0-0	200.1	0	20	

The following samples were analyzed in this batch:

0407318-01B 0407318-02B

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: 0407318
Project: Monthly (Artesia)

QC BATCH REPORT

Batch ID: R22117 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-073104 Test Code: E335.3 Units: mg/L Analysis Date: 07/31/04 0:00

Client ID: Run ID: UV-2101PC_040731A SeqNo: 517498 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: WLCSW1-073104 Test Code: E335.3 Units: mg/L Analysis Date: 07/31/04 0:00

Client ID: Run ID: UV-2101PC_040731A SeqNo: 517499 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2058	0.020	0.2	0	103	80-120	0			

MS Sample ID: 0407318-01DMS Test Code: E335.3 Units: mg/L Analysis Date: 07/31/04 0:00

Client ID: RA 4798 Run ID: UV-2101PC_040731A SeqNo: 517506 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1985	0.020	0.2	-0.002	100	75-125	0			

MSD Sample ID: 0407318-01DMSD Test Code: E335.3 Units: mg/L Analysis Date: 07/31/04 0:00

Client ID: RA 4798 Run ID: UV-2101PC_040731A SeqNo: 517507 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	-0.002	104	75-125	0.1985	4.1	25	

DUP Sample ID: 0407318-01DDUP Test Code: E335.3 Units: mg/L Analysis Date: 07/31/04 0:00

Client ID: RA 4798 Run ID: UV-2101PC_040731A SeqNo: 517505 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	

The following samples were analyzed in this batch:

0407318-01D 0407318-02D

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

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

LAB Order ID #:

Signature: _____

# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
		WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
2		X				X	X		X	X		5/24/86	0830
2		X				X	X		X	X		7/27/88	0830

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	
Handwritten signature	
Turn Around Time if different from standard	
Hold	

(Circle or Specify Method No.):

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 Analytical, Inc.

Date: Sep 21 2004

CLIENT: Navajo Refining Company

Work Order: 0409078

Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/13/04 18:07
 Client ID: Run ID: ICP4500_040913A SeqNo: 536869 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Calcium	0.08798	0.50								J
Lead	ND	0.0050								
Molybdenum	ND	0.0050								
Selenium	ND	0.0050								
Zinc	0.009495	0.0050								

MBLK Sample ID: MBLKW1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/14/04 20:28
 Client ID: Run ID: ICP4500_040914A SeqNo: 537886 Prep Date: 9/10/2004 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	0.0020								
Copper	ND	0.0050								
Silver	ND	0.0050								

MBLK Sample ID: MBLKW1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 15:29
 Client ID: Run ID: ICP4500_040915A SeqNo: 538547 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.006519	0.010								J
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Sodium	ND	0.20								
Vanadium	ND	0.0050								

MBLK Sample ID: MBLKW1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/16/04 21:55
 Client ID: Run ID: ICP4500_040916A SeqNo: 539525 Prep Date: 9/10/2004 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								
Iron	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

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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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

LCS Sample ID: MLC5W1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/13/04 18:11

Client ID: Run ID: ICP4500_040913A SeqNo: 536870 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04978	0.0050	0.05	0	99.6	80-121	0			
Calcium	4.764	0.50	5	0	95.3	80-121	0			
Lead	0.04574	0.0050	0.05	0	91.5	80-118	0			
Molybdenum	0.04452	0.0050	0.05	0	89	84.6-115	0			
Selenium	0.04693	0.0050	0.05	0	93.9	79.2-118	0			
Zinc	0.04725	0.0050	0.05	0	94.5	83-118	0			

LCS Sample ID: MLC5W1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/14/04 20:32

Client ID: Run ID: ICP4500_040914A SeqNo: 537887 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.04427	0.0050	0.05	0	88.5	79.8-119	0			
Cadmium	0.04809	0.0020	0.05	0	96.2	79.1-119	0			
Copper	0.04438	0.0050	0.05	0	88.8	83-121	0			
Silver	0.04611	0.0050	0.05	0	92.2	83-117	0			

LCS Sample ID: MLC5W1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 15:34

Client ID: Run ID: ICP4500_040915A SeqNo: 538548 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04764	0.010	0.05	0	95.3	79-126	0			
Chromium	0.04609	0.0050	0.05	0	92.2	79.3-121	0			
Cobalt	0.04436	0.0050	0.05	0	88.7	82-121	0			
Magnesium	4.847	0.20	5	0	96.9	80-120	0			
Manganese	0.046	0.0050	0.05	0	92	82-119	0			
Nickel	0.04526	0.0050	0.05	0	90.5	85-120	0			
Potassium	4.597	0.20	5	0	91.9	80-120	0			
Sodium	4.708	0.20	5	0	94.2	82.4-120	0			
Vanadium	0.04533	0.0050	0.05	0	90.7	82.1-119	0			

LCS Sample ID: MLC5W1-091004 Test Code: SW6020 Units: mg/L Analysis Date: 09/16/04 22:00

Client ID: Run ID: ICP4500_040916A SeqNo: 539526 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.0486	0.0020	0.05	0	97.2	78.9-120	0			
Boron	0.5138	0.020	0.5	0	103	80-120	0			
Iron	4.886	0.20	5	0	97.7	80-120	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

MS Sample ID: 0409053-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/13/04 18:35

Client ID: Run ID: ICP4500_040913A SeqNo: 536875 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05649	0.0050	0.05	0.005439	102	80-121	0			
Calcium	236.2	0.50	5	229.9	126	80-121	0			SEO
Lead	0.04995	0.0050	0.05	0.0002488	99.4	80-118	0			
Molybdenum	0.05292	0.0050	0.05	0.003759	98.3	84.6-115	0			
Selenium	0.05399	0.0050	0.05	0.00146	105	79.2-118	0			
Zinc	0.05335	0.0050	0.05	0.01199	82.7	83-118	0			S

MS Sample ID: 0409053-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/14/04 20:52

Client ID: Run ID: ICP4500_040914A SeqNo: 537891 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2926	0.0050	0.05	0.2295	126	79.8-119	0			SO
Cadmium	0.04918	0.0020	0.05	-0.00003007	98.4	79.1-119	0			
Copper	0.04404	0.0050	0.05	0.001496	85.1	83-121	0			
Silver	0.04461	0.0050	0.05	-0.008471	106	83-117	0			

MS Sample ID: 0409053-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 16:11

Client ID: Run ID: ICP4500_040915A SeqNo: 538554 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.04365	0.0050	0.05	0.0008961	85.5	79.3-121	0			
Manganese	2.99	0.0050	0.05	2.97	40	82-119	0			SEO

MS Sample ID: 0409053-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/16/04 22:32

Client ID: Run ID: ICP4500_040916A SeqNo: 539533 Prep Date: 9/10/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05594	0.010	0.05	0.00001427	112	78.9-120	0			
Boron	1.813	0.10	0.5	1.197	123	80-120	0			S
Cobalt	0.06097	0.025	0.05	0.0136	94.7	82-121	0			
Iron	12.85	1.0	5	7.965	97.7	80-120	0			
Nickel	0.0566	0.025	0.05	0.01028	92.6	85-120	0			
Potassium	8.945	1.0	5	4.152	95.9	80-120	0			

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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

MS Sample ID: 0409053-01BMS Test Code: SW6020 Units: mg/L Analysis Date: 09/17/04 14:21

Client ID: Run ID: ICP4500_040917A SeqNo: 540115 Prep Date: 9/10/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.2481	0.050	0.05	0.1942	108	79-126	0			
Magnesium	84.45	1.0	5	78.06	128	80-120	0			SO
Sodium	63.14	1.0	5	55.94	144	82.4-120	0			SO
Vanadium	0.05162	0.025	0.05	0.000583	102	82.1-119	0			

MSD Sample ID: 0409053-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/13/04 18:40

Client ID: Run ID: ICP4500_040913A SeqNo: 536876 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05653	0.0050	0.05	0.005439	102	80-121	0.05649	0.0708	15	
Calcium	228.7	0.50	5	229.9	-24	80-121	236.2	3.23	15	SEO
Lead	0.04954	0.0050	0.05	0.0002488	98.6	80-118	0.04995	0.824	15	
Molybdenum	0.05237	0.0050	0.05	0.003759	97.2	84.6-115	0.05292	1.04	15	
Selenium	0.05199	0.0050	0.05	0.00146	101	79.2-118	0.05399	3.77	15	
Zinc	0.05378	0.0050	0.05	0.01199	83.6	83-118	0.05335	0.803	15	

MSD Sample ID: 0409053-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/14/04 20:57

Client ID: Run ID: ICP4500_040914A SeqNo: 537892 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2858	0.0050	0.05	0.2295	113	79.8-119	0.2926	2.35	15	O
Cadmium	0.04936	0.0020	0.05	-0.00003007	98.8	79.1-119	0.04918	0.365	15	
Copper	0.04389	0.0050	0.05	0.001496	84.8	83-121	0.04404	0.341	15	
Silver	0.04433	0.0050	0.05	-0.008471	106	83-117	0.04461	0.63	15	

MSD Sample ID: 0409053-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 16:16

Client ID: Run ID: ICP4500_040915A SeqNo: 538555 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.0429	0.0050	0.05	0.0008961	84	79.3-121	0.04365	1.73	15	
Manganese	2.817	0.0050	0.05	2.97	-306	82-119	2.99	5.96	15	SEO

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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

MSD Sample ID: 0409053-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/16/04 22:37

Client ID: Run ID: ICP4500_040916A SeqNo: 539534 Prep Date: 9/10/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05523	0.010	0.05	0.00001427	110	78.9-120	0.05594	1.28	15	
Boron	1.794	0.10	0.5	1.197	119	80-120	1.813	1.05	15	
Cobalt	0.06084	0.025	0.05	0.0136	94.5	82-121	0.06097	0.213	15	
Iron	12.59	1.0	5	7.965	92.5	80-120	12.85	2.04	15	
Nickel	0.05648	0.025	0.05	0.01028	92.4	85-120	0.0566	0.212	15	
Potassium	8.922	1.0	5	4.152	95.4	80-120	8.945	0.257	15	

MSD Sample ID: 0409053-01BMSD Test Code: SW6020 Units: mg/L Analysis Date: 09/17/04 14:26

Client ID: Run ID: ICP4500_040917A SeqNo: 540116 Prep Date: 9/10/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.228	0.050	0.05	0.1942	67.6	79-126	0.2481	8.44	15	S
Magnesium	81.04	1.0	5	78.06	59.6	80-120	84.45	4.12	15	SO
Sodium	59.15	1.0	5	55.94	64.2	82.4-120	63.14	6.53	15	SO
Vanadium	0.04947	0.025	0.05	0.000583	97.8	82.1-119	0.05162	4.25	15	

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/13/04 18:30

Client ID: Run ID: ICP4500_040913A SeqNo: 536874 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.005463	0.0050	0	0	0	0-0	0.005439	0.44	25	
Lead	0.0002389	0.0050	0	0	0	0-0	0.0002488	0	25	J
Molybdenum	0.003571	0.0050	0	0	0	0-0	0.003759	0	25	J
Selenium	ND	0.0050	0	0	0	0-0	0.00146	0	25	
Zinc	0.009284	0.0050	0	0	0	0-0	0.01199	25.4	25	R

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/14/04 20:47

Client ID: Run ID: ICP4500_040914A SeqNo: 537890 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.2373	0.0050	0	0	0	0-0	0.2295	3.34	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.00003007	0	25	
Copper	0.001467	0.0050	0	0	0	0-0	0.001496	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.008471	0	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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: 10268 InstrumentID: ICP4500

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 15:48

Client ID: Run ID: ICP4500_040915A SeqNo: 538551 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.0005073	0.0050	0	0	0	0-0	0.0008961	0	25	J

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 16:40

Client ID: Run ID: ICP4500_040915A SeqNo: 538595 Prep Date: 9/10/2004 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	2.297	0.10	0	0	0	0-0	2.07	10.4	25	

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/15/04 17:52

Client ID: Run ID: ICP4500_040915A SeqNo: 538674 Prep Date: 9/10/2004 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	238.5	10	0	0	0	0-0	213.4	11.1	25	

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/16/04 22:28

Client ID: Run ID: ICP4500_040916A SeqNo: 539532 Prep Date: 9/10/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.010	0	0	0	0-0	0.00001427	0	25	
Boron	1.273	0.10	0	0	0	0-0	1.197	6.15	25	
Cobalt	0.0131	0.025	0	0	0	0-0	0.0136	0	25	J
Iron	7.844	1.0	0	0	0	0-0	7.965	1.53	25	
Nickel	0.009697	0.025	0	0	0	0-0	0.01028	0	25	J
Potassium	4.052	1.0	0	0	0	0-0	4.152	2.44	25	

DUP Sample ID: 0409053-01BDUP Test Code: SW6020 Units: mg/L Analysis Date: 09/17/04 13:54

Client ID: Run ID: ICP4500_040917A SeqNo: 540110 Prep Date: 9/10/2004 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	86.85	4.0	0	0	0	0-0	90.67	4.3	25	
Sodium	61.36	4.0	0	0	0	0-0	63.34	3.18	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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: **10268** InstrumentID: **ICP4500**

DUP Sample ID: **0409053-01BDUP** Test Code: **SW6020** Units: **mg/L** Analysis Date: **09/17/04 14:03**

Client ID: Run ID: **ICP4500_040917A** SeqNo: **540112** Prep Date: **9/10/2004** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.2445	0.050	0	0	0	0-0	0.1942	22.9	25	
Vanadium	ND	0.025	0	0	0	0-0	0.000583	0	25	

The following samples were analyzed in this batch:

0409078-01C 0409078-02C

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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: 10339 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-091504 Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:28

Client ID: Run ID: MERCURY_040915C SeqNo: 538710 Prep Date: 9/15/2004 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: GLCSW1-091504 Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:29

Client ID: Run ID: MERCURY_040915C SeqNo: 538711 Prep Date: 9/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00481	0.00020	0.005	0	96.2	83-115	0			

LCSD Sample ID: GLCSDW1-091504 Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:31

Client ID: Run ID: MERCURY_040915C SeqNo: 538712 Prep Date: 9/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00483	0.00020	0.005	0	96.6	83-115	0.00481	0.415	20	

MS Sample ID: 0409078-01CMS Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:38

Client ID: RA 314 Run ID: MERCURY_040915C SeqNo: 538715 Prep Date: 9/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00476	0.00020	0.005	-0.000001	95.2	83-115	0			

MSD Sample ID: 0409078-01CMSD Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:42

Client ID: RA 314 Run ID: MERCURY_040915C SeqNo: 538716 Prep Date: 9/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00464	0.00020	0.005	-0.000001	92.8	83-115	0.00476	2.55	20	

DUP Sample ID: 0409078-01CDUP Test Code: SW7470 Units: mg/L Analysis Date: 09/15/04 19:36

Client ID: RA 314 Run ID: MERCURY_040915C SeqNo: 538714 Prep Date: 9/15/2004 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	-0.000001	0	20	

The following samples were analyzed in this batch:

0409078-01C 0409078-02C

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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10278 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040910 Test Code: SW8270 Units: µg/L Analysis Date: 09/15/04 12:33

Client ID: Run ID: SV-3_040910A SeqNo: 538589 Prep Date: 9/10/2004 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	94.22	10	100	0	94.2	39-153	0			
Surr: 2-Fluorobiphenyl	85.12	10	100	0	85.1	40-147	0			
Surr: 2-Fluorophenol	40.71	10	100	0	40.7	21-110	0			
Surr: 4-Terphenyl-d14	86.11	10	100	0	86.1	39-141	0			
Surr: Nitrobenzene-d5	81.13	10	100	0	81.1	37-140	0			
Surr: Phenol-d6	26.54	10	100	0	26.5	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10278 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040910 Test Code: SW8270 Units: µg/L Analysis Date: 09/15/04 12:58
 Client ID: Run ID: SV-3_040910A SeqNo: 538590 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.5	10	50	0	87	50-115	0			
2,4,5-Trichlorophenol	87.31	10	100	0	87.3	68-128	0			
2,4,6-Trichlorophenol	83.04	10	100	0	83	66-125	0			
2-Methylnaphthalene	50.01	10	50	0	100	47-122	0			
2-Methylphenol	61.56	10	100	0	61.6	51-115	0			
2-Nitroaniline	39.97	10	50	0	79.9	64-128	0			
2-Nitrophenol	78.55	10	100	0	78.6	60-119	0			
3-Nitroaniline	33.54	10	50	0	67.1	61-118	0			
4-Methylphenol	81.86	10	150	0	54.6	44-115	0			
4-Nitroaniline	35.55	10	50	0	71.1	61-123	0			
4-Nitrophenol	31.99	10	100	0	32	17-100	0			
Acenaphthene	40.46	10	50	0	80.9	68-115	0			
Acenaphthylene	40.05	10	50	0	80.1	67-116	0			
Aniline	25.24	10	50	0	50.5	40-130	0			
Anthracene	42.52	10	50	0	85	70-129	0			
Benz(a)anthracene	40.82	10	50	0	81.6	55-131	0			
Benzidine	10.66	10	100	0	10.7	10-115	0			
Hexachloroethane	41.17	10	50	0	82.3	46-115	0			
Indeno(1,2,3-cd)pyrene	38.57	10	50	0	77.1	42-123	0			
Isophorone	41.18	10	50	0	82.4	63-117	0			
N-Nitrosodi-n-propylamine	40.14	10	50	0	80.3	67-115	0			
N-Nitrosodimethylamine	21.95	10	50	0	43.9	28-115	0			
N-Nitrosodiphenylamine	44.93	10	50	0	89.9	72-144	0			
Naphthalene	39.05	10	50	0	78.1	52-115	0			
Nitrobenzene	39.5	10	50	0	79	65-115	0			
Pentachlorophenol	83.11	10	100	0	83.1	65-123	0			
Phenanthrene	42.63	10	50	0	85.3	69-119	0			
Phenol	27.55	10	100	0	27.6	16-115	0			
Pyrene	40.34	10	50	0	80.7	51-130	0			
Surr: 2,4,6-Tribromophenol	95.61	10	100	0	95.6	39-153	0			
Surr: 2-Fluorobiphenyl	83.13	10	100	0	83.1	40-147	0			
Surr: 2-Fluorophenol	42.7	10	100	0	42.7	21-110	0			
Surr: 4-Terphenyl-d14	85.48	10	100	0	85.5	39-141	0			
Surr: Nitrobenzene-d5	79.88	10	100	0	79.9	37-140	0			
Surr: Phenol-d6	26.9	10	100	0	26.9	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: 10278 InstrumentID: SV-3

LCSD Sample ID: SLCS DW1-040910 Test Code: SW8270 Units: µg/L Analysis Date: 09/15/04 13:23

Client ID: Run ID: SV-3_040910A SeqNo: 538591 Prep Date: 9/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.89	10	50	0	87.8	50-115	43.5	0.894	30	
2,4,5-Trichlorophenol	88.23	10	100	0	88.2	68-128	87.31	1.05	30	
2,4,6-Trichlorophenol	83.58	10	100	0	83.6	66-125	83.04	0.659	30	
2-Methylnaphthalene	49.94	10	50	0	99.9	47-122	50.01	0.137	30	
2-Methylphenol	61.97	10	100	0	62	51-115	61.56	0.661	30	
2-Nitroaniline	39.35	10	50	0	78.7	64-128	39.97	1.56	30	
2-Nitrophenol	79.12	10	100	0	79.1	60-119	78.55	0.716	30	
3-Nitroaniline	34.61	10	50	0	69.2	61-118	33.54	3.15	30	
4-Methylphenol	83.12	10	150	0	55.4	44-115	81.86	1.53	30	
4-Nitroaniline	37.08	10	50	0	74.2	61-123	35.55	4.21	30	
4-Nitrophenol	32.74	10	100	0	32.7	17-100	31.99	2.33	30	
Acenaphthene	40.09	10	50	0	80.2	68-115	40.46	0.898	30	
Acenaphthylene	39.63	10	50	0	79.3	67-116	40.05	1.05	30	
Aniline	27.35	10	50	0	54.7	40-130	25.24	8.01	30	
Anthracene	42.17	10	50	0	84.3	70-129	42.52	0.846	30	
Benz(a)anthracene	40.23	10	50	0	80.5	55-131	40.82	1.47	30	
Benzidine	34.56	10	100	0	34.6	10-115	10.66	106	30	R
Hexachloroethane	41.36	10	50	0	82.7	46-115	41.17	0.471	30	
Indeno(1,2,3-cd)pyrene	38.42	10	50	0	76.8	42-123	38.57	0.395	30	
Isophorone	40.42	10	50	0	80.8	63-117	41.18	1.88	30	
N-Nitrosodi-n-propylamine	39.88	10	50	0	79.8	67-115	40.14	0.643	30	
N-Nitrosodimethylamine	20.76	10	50	0	41.5	28-115	21.95	5.57	30	
N-Nitrosodiphenylamine	44.4	10	50	0	88.8	72-144	44.93	1.18	30	
Naphthalene	38.86	10	50	0	77.7	52-115	39.05	0.494	30	
Nitrobenzene	39.51	10	50	0	79	65-115	39.5	0.0265	30	
Pentachlorophenol	83.28	10	100	0	83.3	65-123	83.11	0.207	30	
Phenanthrene	42.67	10	50	0	85.3	69-119	42.63	0.0916	30	
Phenol	26.7	10	100	0	26.7	16-115	27.55	3.15	30	
Pyrene	39.45	10	50	0	78.9	51-130	40.34	2.22	30	
Surr: 2,4,6-Tribromophenol	94.36	10	100	0	94.4	39-153	95.61	1.31	30	
Surr: 2-Fluorobiphenyl	83.25	10	100	0	83.2	40-147	83.13	0.146	30	
Surr: 2-Fluorophenol	41.3	10	100	0	41.3	21-110	42.7	3.32	30	
Surr: 4-Terphenyl-d14	82.47	10	100	0	82.5	39-141	85.48	3.59	30	
Surr: Nitrobenzene-d5	79.32	10	100	0	79.3	37-140	79.88	0.695	30	
Surr: Phenol-d6	26.95	10	100	0	27	11-100	26.9	0.191	30	

The following samples were analyzed in this batch:

0409078-01E 0409078-02E

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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: R22906 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0908 Test Code: SW8260 Units: µg/L Analysis Date: 09/08/04 23:27

Client ID: Run ID: VOA1_040908B SeqNo: 534624 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								
Methyl tert-butyl ether	ND	5.0								
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	47.88	5.0	50	0	95.8	71-126		0		
Surr: 4-Bromofluorobenzene	46.3	5.0	50	0	92.6	74-125		0		
Surr: Dibromofluoromethane	50.14	5.0	50	0	100	73-126		0		
Surr: Toluene-d8	45.2	5.0	50	0	90.4	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: R22906 InstrumentID: VOA1

LCS Sample ID: VLCSW-0908 Test Code: SW8260 Units: µg/L Analysis Date: 09/09/04 9:01
 Client ID: Run ID: VOA1_040908B SeqNo: 534625 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	52.79	5.0	50	0	106	75.2-120	0			
1,1,2,2-Tetrachloroethane	53.88	5.0	50	0	108	72.4-121	0			
1,1,2-Trichloroethane	51	5.0	50	0	102	80-120	0			
1,1-Dichloroethane	52.86	5.0	50	0	106	76.9-120	0			
1,1-Dichloroethene	56.21	5.0	50	0	112	72.6-123	0			
1,2-Dichloroethane	47.45	5.0	50	0	94.9	80-120	0			
2-Butanone	113	10	100	0	113	69-131	0			
2-Chloroethyl vinyl ether	89.93	10	100	0	89.9	60-135	0			
2-Hexanone	95.75	10	100	0	95.8	55.6-126	0			
4-Methyl-2-pentanone	98.21	10	100	0	98.2	67.4-121	0			
Acetone	89.14	10	100	0	89.1	64.4-140	0			
Benzene	49.27	5.0	50	0	98.5	80-120	0			
Bromodichloromethane	49.8	5.0	50	0	99.6	80-120	0			
Bromoform	47.13	5.0	50	0	94.3	77.9-121	0			
Bromomethane	60.39	5.0	50	0	121	63.3-137	0			
Carbon disulfide	113	10	100	0	113	74.1-123	0			
Carbon tetrachloride	50.59	5.0	50	0	101	74.7-120	0			
Chlorobenzene	49.41	5.0	50	0	98.8	80-120	0			
Chloroethane	53.68	5.0	50	0	107	74.7-126	0			
Chloroform	52.38	5.0	50	0	105	80-120	0			
Chloromethane	53.8	5.0	50	0	108	64.5-132	0			
cis-1,3-Dichloropropene	47.86	5.0	50	0	95.7	80-120	0			
Dibromochloromethane	48.97	5.0	50	0	97.9	80-120	0			
Ethylbenzene	50.18	5.0	50	0	100	80-120	0			
m,p-Xylene	99.97	10	100	0	100	80-120	0			
Methyl tert-butyl ether	51.27	5.0	50	0	103	73.7-122	0			
Methylene chloride	50.53	10	50	0	101	76.2-120	0			
Styrene	49.71	5.0	50	0	99.4	80-120	0			
Tetrachloroethene	47.04	5.0	50	0	94.1	68.5-130	0			
Toluene	49.12	5.0	50	0	98.2	80-120	0			
trans-1,3-Dichloropropene	48.58	5.0	50	0	97.2	80-120	0			
Trichloroethene	47.09	5.0	50	0	94.2	78.9-120	0			
Vinylacetate	133	10	100	0	133	62.4-133	0			
Vinyl chloride	54.98	2.0	50	0	110	72.7-128	0			
Xylenes, Total	149.6	15	150	0	99.8	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.42	5.0	50	0	94.8	71-126	0			
Surr: 4-Bromofluorobenzene	46.17	5.0	50	0	92.3	74-125	0			
Surr: Dibromofluoromethane	51.87	5.0	50	0	104	73-126	0			
Surr: Toluene-d8	45	5.0	50	0	90	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: R22906 InstrumentID: VOA1

MS Sample ID: 0409043-07AMS Test Code: SW8260 Units: µg/L Analysis Date: 09/09/04 0:22

Client ID: Run ID: VOA1_040908B SeqNo: 534627 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	4774	500	5000	0	95.5	75.2-120	0			
1,1,2,2-Tetrachloroethane	1843	500	5000	0	36.9	72.4-121	0			S
1,1,2-Trichloroethane	5372	500	5000	0	107	80-120	0			
1,1-Dichloroethane	4985	500	5000	0	99.7	76.9-120	0			
1,1-Dichloroethene	4819	500	5000	0	96.4	72.6-123	0			
1,2-Dichloroethane	4617	500	5000	0	92.3	80-120	0			
2-Butanone	11380	1,000	10000	0	114	69-131	0			
2-Chloroethyl vinyl ether	10390	1,000	10000	0	104	60-135	0			
2-Hexanone	10960	1,000	10000	0	110	55.6-126	0			
4-Methyl-2-pentanone	10440	1,000	10000	0	104	67.4-121	0			
Acetone	17580	1,000	10000	6913	107	64.4-140	0			
Benzene	5031	500	5000	0	101	80-120	0			
Bromodichloromethane	4935	500	5000	0	98.7	80-120	0			
Bromoform	5061	500	5000	0	101	77.9-121	0			
Bromomethane	5365	500	5000	0	107	63.3-137	0			
Carbon disulfide	10060	1,000	10000	0	101	74.1-123	0			
Carbontetrachloride	4488	500	5000	0	89.8	74.7-120	0			
Chlorobenzene	5035	500	5000	0	101	80-120	0			
Chloroethane	5212	500	5000	0	104	74.7-126	0			
Chloroform	5026	500	5000	0	101	80-120	0			
Chloromethane	5698	500	5000	0	114	64.5-132	0			
cis-1,3-Dichloropropene	5059	500	5000	0	101	80-120	0			
Dibromochloromethane	5193	500	5000	0	104	80-120	0			
Ethylbenzene	5116	500	5000	0	102	80-120	0			
m,p-Xylene	10440	1,000	10000	0	104	80-120	0			
Methyl tert-butyl ether	4997	500	5000	0	99.9	73.7-122	0			
Methylene chloride	10870	1,000	5000	5481	108	76.2-120	0			
Styrene	5207	500	5000	0	104	80-120	0			
Tetrachloroethene	4748	500	5000	0	95	68.5-130	0			
Toluene	5013	500	5000	0	100	80-120	0			
trans-1,3-Dichloropropene	5158	500	5000	0	103	80-120	0			
Trichloroethene	7208	500	5000	0	144	78.9-120	0			S
Vinylacetate	186.6	1,000	10000	0	1.87	62.4-133	0			JS
Vinyl chloride	5237	200	5000	0	105	72.7-128	0			
Xylenes, Total	15670	1,500	15000	0	104	80-120	0			
Surr: 1,2-Dichloroethane-d4	4512	500	5000	0	90.2	71-126	0			
Surr: 4-Bromofluorobenzene	4741	500	5000	0	94.8	74-125	0			
Surr: Dibromofluoromethane	4856	500	5000	0	97.1	73-126	0			
Surr: Toluene-d8	4770	500	5000	0	95.4	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: R22906 InstrumentID: VOA1

MSD Sample ID: 0409043-07AMSD Test Code: SW8260 Units: µg/L Analysis Date: 09/09/04 0:49

Client ID: Run ID: VOA1_040908B SeqNo: 534628 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	5255	500	5000	0	105	75.2-120	4774	9.6	20	
1,1,2,2-Tetrachloroethane	2188	500	5000	0	43.8	72.4-121	1843	17.1	20	S
1,1,2-Trichloroethane	5244	500	5000	0	105	80-120	5372	2.42	20	
1,1-Dichloroethane	5510	500	5000	0	110	76.9-120	4985	10	20	
1,1-Dichloroethene	5623	500	5000	0	112	72.6-123	4819	15.4	20	
1,2-Dichloroethane	4789	500	5000	0	95.8	80-120	4617	3.68	20	
2-Butanone	12030	1,000	10000	0	120	69-131	11380	5.48	20	
2-Chloroethyl vinyl ether	9965	1,000	10000	0	99.6	60-135	10390	4.15	20	
2-Hexanone	10460	1,000	10000	0	105	55.6-126	10960	4.64	20	
4-Methyl-2-pentanone	10190	1,000	10000	0	102	67.4-121	10440	2.41	20	
Acetone	18630	1,000	10000	6913	117	64.4-140	17580	5.81	20	
Benzene	5111	500	5000	0	102	80-120	5031	1.58	20	
Bromodichloromethane	5096	500	5000	0	102	80-120	4935	3.21	20	
Bromoform	4793	500	5000	0	95.9	77.9-121	5061	5.43	20	
Bromomethane	5797	500	5000	0	116	63.3-137	5365	7.75	20	
Carbon disulfide	11180	1,000	10000	0	112	74.1-123	10060	10.6	20	
Carbon tetrachloride	5005	500	5000	0	100	74.7-120	4488	10.9	20	
Chlorobenzene	5103	500	5000	0	102	80-120	5035	1.35	20	
Chloroethane	5536	500	5000	0	111	74.7-126	5212	6.04	20	
Chloroform	5488	500	5000	0	110	80-120	5026	8.78	20	
Chloromethane	5575	500	5000	0	111	64.5-132	5698	2.18	20	
cis-1,3-Dichloropropene	5040	500	5000	0	101	80-120	5059	0.388	20	
Dibromochloromethane	5083	500	5000	0	102	80-120	5193	2.13	20	
Ethylbenzene	5181	500	5000	0	104	80-120	5116	1.25	20	
m,p-Xylene	10270	1,000	10000	0	103	80-120	10440	1.64	20	
Methyl tert-butyl ether	5244	500	5000	0	105	73.7-122	4997	4.83	20	
Methylene chloride	10430	1,000	5000	5481	98.9	76.2-120	10870	4.2	20	
Styrene	5185	500	5000	0	104	80-120	5207	0.435	20	
Tetrachloroethene	4910	500	5000	0	98.2	68.5-130	4748	3.35	20	
Toluene	5174	500	5000	0	103	80-120	5013	3.17	20	
trans-1,3-Dichloropropene	4938	500	5000	0	98.8	80-120	5158	4.35	20	
Trichloroethene	7332	500	5000	0	147	78.9-120	7208	1.7	20	S
Vinylacetate	198.9	1,000	10000	0	1.99	62.4-133	186.6	0	20	JS
Vinyl chloride	5583	200	5000	0	112	72.7-128	5237	6.4	20	
Xylenes, Total	15540	1,500	15000	0	104	80-120	15670	0.859	20	
Surr: 1,2-Dichloroethane-d4	4822	500	5000	0	96.4	71-126	4512	6.65	20	
Surr: 4-Bromofluorobenzene	4616	500	5000	0	92.3	74-125	4741	2.67	20	
Surr: Dibromofluoromethane	5126	500	5000	0	103	73-126	4856	5.42	20	
Surr: Toluene-d8	4645	500	5000	0	92.9	75-125	4770	2.63	20	

The following samples were analyzed in this batch:

0409078-01A 0409078-02A

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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: **R22950** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-090804** Test Code: **E300** Units: **mg/L** Analysis Date: **09/08/04 17:26**

Client ID: Run ID: **IC201_040908A** SeqNo: **535597** 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								
Surr: Dichloroacetic acid (surr)	5.2	0.10	5	0	104	80-120	0			

LCS Sample ID: **WLCBW1-090804** Test Code: **E300** Units: **mg/L** Analysis Date: **09/08/04 17:54**

Client ID: Run ID: **IC201_040908A** SeqNo: **535598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.02	0.50	10	-0	90.2	80-120	0			
Fluoride	1.85	0.10	2	0	92.5	80-120	0			
Sulfate	9.61	1.0	10	0	96.1	80-120	0			
Surr: Dichloroacetic acid (surr)	5.3	0.10	5	0	106	80-120	0			

LCSD Sample ID: **WLCSDW1-09080** Test Code: **E300** Units: **mg/L** Analysis Date: **09/08/04 18:23**

Client ID: Run ID: **IC201_040908A** SeqNo: **535599** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.98	0.50	10	0	89.8	80-120	9.02	0.444	20	
Fluoride	1.82	0.10	2	0	91	80-120	1.85	1.63	20	
Sulfate	9.58	1.0	10	0	95.8	80-120	9.61	0.313	20	
Surr: Dichloroacetic acid (surr)	5.31	0.10	5	0	106	80-120	5.3	0.189	20	

MS Sample ID: **0409076-05DMS** Test Code: **E300** Units: **mg/L** Analysis Date: **09/08/04 23:08**

Client ID: Run ID: **IC201_040908A** SeqNo: **535608** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1007	0.50	10	1013	-65.2	75-125	0			SEO
Fluoride	2.34	0.10	2	0.57	88.5	75-125	0			
Sulfate	11.08	1.0	10	2.08	90	75-125	0			
Surr: Dichloroacetic acid (surr)	5.26	0.10	5	0	105	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: 0409078
 Project: Monthly

QC BATCH REPORT

Batch ID: R22950 InstrumentID: IC201

MSD Sample ID: 0409076-05DMSD Test Code: E300 Units: mg/L Analysis Date: 09/08/04 23:36

Client ID: Run ID: IC201_040908A SeqNo: 535609 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1008	0.50	10	1013	-51.5	75-125	1007	0.136	20	SEO
Fluoride	2.08	0.10	2	0.57	75.5	75-125	2.34	11.8	20	
Sulfate	11.11	1.0	10	2.08	90.3	75-125	11.08	0.27	20	
Surr: Dichloroacetic acid (surr)	5.11	0.10	5	0	102	80-120	5.26	2.89	20	

DUP Sample ID: 0409076-05DDUP Test Code: E300 Units: mg/L Analysis Date: 09/08/04 21:14

Client ID: Run ID: IC201_040908A SeqNo: 535603 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1014	0.50	0	0	0	0-0	1013	0.0424	20	E
Fluoride	0.57	0.10	0	0	0	0-0	0.57	0	20	
Sulfate	2.09	1.0	0	0	0	0-0	2.08	0.48	20	
Surr: Dichloroacetic acid (surr)	5.37	0.10	5	0	107	80-120	5.35	0.373	20	

DUP Sample ID: 0409078-02BDUP Test Code: E300 Units: mg/L Analysis Date: 09/09/04 10:04

Client ID: RA 4196 Run ID: IC201_040908A SeqNo: 535613 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	262	25	0	0	0	0-0	263	0.381	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1236	50	0	0	0	0-0	1238	0.243	20	
Surr: Dichloroacetic acid (surr)	272.5	5.0	250	0	109	80-120	275.5	1.09	20	

DUP Sample ID: 0409056-03ADUP Test Code: E300 Units: mg/L Analysis Date: 09/09/04 2:27

Client ID: Run ID: IC201_040908A SeqNo: 535620 Prep Date: DF: 200

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8888	100	0	0	0	0-0	8900	0.135	20	
Fluoride	ND	20	0	0	0	0-0	0	0	20	
Sulfate	1610	200	0	0	0	0-0	1604	0.373	20	
Surr: Dichloroacetic acid (surr)	1122	20	1000	0	112	80-120	1088	3.08	20	

The following samples were analyzed in this batch:

0409078-01B 0409078-02B

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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: **R22999** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WBLKW1-091104** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/13/04 0:00**

Client ID: Run ID: **UV-2101PC_040913A** SeqNo: **536600** 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: **WLCSW1-091104** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/13/04 0:00**

Client ID: Run ID: **UV-2101PC_040913A** SeqNo: **536601** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1964	0.020	0.2	0	98.2	80-120	0			

MS Sample ID: **0409034-12CMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/13/04 0:00**

Client ID: Run ID: **UV-2101PC_040913A** SeqNo: **536610** 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	0.0044	95.1	75-125	0			

MSD Sample ID: **0409034-12CMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/13/04 0:00**

Client ID: Run ID: **UV-2101PC_040913A** SeqNo: **536611** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2019	0.020	0.2	0.0044	98.8	75-125	0.1946	3.68	25	

DUP Sample ID: **0409034-12CDUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **09/13/04 0:00**

Client ID: Run ID: **UV-2101PC_040913A** SeqNo: **536638** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0042	0.020	0	0	0	0-0	0.0044	0	20	J

The following samples were analyzed in this batch: 0409078-01D 0409078-02D

ND - Not Detected at the Reporting Limit

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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: 0409078
Project: Monthly

QC BATCH REPORT

Batch ID: R23039 InstrumentID: WetChem

MBLK Sample ID: WBLKW2-091404 Test Code: E310.1 Units: mg/L Analysis Date: 09/14/04 0:00

Client ID: Run ID: WETCHEM_040914E SeqNo: 537641 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: WLC5W2-091404 Test Code: E310.1 Units: mg/L Analysis Date: 09/14/04 0:00

Client ID: Run ID: WETCHEM_040914E SeqNo: 537642 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)	980.7	5.0	0	0.9806	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	980.7	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: 0409076-05DDUP Test Code: E310.1 Units: mg/L Analysis Date: 09/14/04 0:00

Client ID: Run ID: WETCHEM_040914E SeqNo: 537662 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)	529.6	5.0	0	0	0	0-0	529.6	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)	529.6	5.0	0	0	0	0-0	529.6	0	20	

The following samples were analyzed in this batch:

0409078-01B 0409078-02B

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

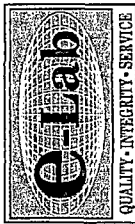
R - RPD outside accepted recovery limits

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, Inc.
10450 Stancil 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

Customer Information				Project Information				e-Lab Project Manager:				e-Lab Work Order #:					
Project Name				Parameter/Method Request for Analysis													
Project Number				A													
Bill To Company				B													
Invoice Attn.				C													
Address				D													
City/State/Zip				E													
Phone				F													
Fax				G													
e-Mail Address				H													
				I													
				J													
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RA 314	9/7/04	0815	L		8	X										
2	RA 4196	9/7/04	1400	L		8	X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
Date: 9/7/04		FedEx		☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour			
Relinquished by: <u>Burd</u>	Date: 9/7	Received by:	Date:	Notes:			
Relinquished by: <u>Burd</u>	Date: 9/7	Received by (Laboratory):	Date:				
Logged by (Laboratory):	Date: 9/7/04	Checked by (Laboratory): <u>[Signature]</u>	Date: 0920				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-H ₂ SO ₃ 6-NaHSO ₄ 7-Other 8-4°C							
QC Package: (Check Box Below)		Cooler Temp		Level II: Standard QC ☐ Level III: Raw Data ☐			
		e-Lab Cooler ID		TRRP LRC ☐ TRRP Level IV ☐			
				Level IV: SW846 Methods/CLP like ☐ Other: ☐			

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

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 9/8/2004 9:00:00 AM

Work Order Number 0409078

Received by: FSM

Checklist completed by RICHARD SMITH 9-8-04
Signature Date

Reviewed by [Signature] 9/9/04
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):	<u>4.6c</u>	<u>002</u>	
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: Trip blank not on COC; logged in without analysis.

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

SHIP DATE: 07SEP2004
ACCOUNT # 113684186

Pat

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77099

2815305656
BILL RECIPIENT

1062



Deliv

FedEx STANDARD OVERNIGHT

WED

System # 2223500 07SEP2004

DELIVER BY:

TRK# 7913 3252 3929 Form 0201

08SEP2004

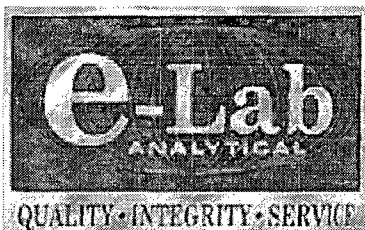
IAH

A2

77099-TX-US

A9 JGQA





e-Lab Analytical, Inc.

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

September 08, 2004

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

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

Re: Monthly

Work Order : **0408293**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 8/26/2004 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 Analytical, 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 Analytical, Inc. The total number of pages in this report is 28.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0408293

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0408293-01	RA 4196	Water		8/25/2004 08:30	8/26/2004 08:45	☐
0408293-02	RA 4798	Water		8/25/2004 08:45	8/26/2004 08:45	☐

e-Lab Analytical, Inc.

Date: *September 08, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0408293

Case Narrative

Batch R10123 Metals MS/MSD was an unrelated sample.

Batch 10129 LCS/LCSD RPD recoveries were outside of control limits for Benzidine (59.3%). Recoveries were within method control limits in the LSC/LSD, therefore the data was accepted.

Batch R22718 Anions MS was an unrelated sample.

e-Lab Analytical, Inc.
Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-01

Client Sample ID: RA 4196
Collection Date: 8/25/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/2/2004 3:59:11 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0200		mg/L	2	9/1/2004 3:44:00 PM
Arsenic	ND	0.00500		mg/L	1	8/31/2004 1:15:00 AM
Barium	0.0119	0.00500		mg/L	1	8/31/2004 1:15:00 AM
Beryllium	ND	0.00400		mg/L	2	9/1/2004 3:44:00 PM
Boron	0.177	0.0400		mg/L	2	9/1/2004 3:44:00 PM
Cadmium	ND	0.00100		mg/L	1	8/31/2004 1:15:00 AM
Calcium	435	25.0		mg/L	50	8/30/2004 8:35:00 PM
Chromium	ND	0.00400		mg/L	2	9/1/2004 3:44:00 PM
Cobalt	ND	0.00400		mg/L	2	9/1/2004 3:44:00 PM
Copper	0.00611	0.00400		mg/L	2	9/1/2004 3:44:00 PM
Iron	6.36	0.400		mg/L	2	9/1/2004 3:44:00 PM
Lead	ND	0.00500		mg/L	1	8/31/2004 1:15:00 AM
Magnesium	134	2.00		mg/L	10	8/30/2004 9:51:00 PM
Manganese	0.0816	0.0100		mg/L	2	9/1/2004 3:44:00 PM
Molybdenum	ND	0.0100		mg/L	2	9/1/2004 3:44:00 PM
Nickel	ND	0.0100		mg/L	2	9/1/2004 3:44:00 PM
Potassium	2.49	0.400		mg/L	2	9/1/2004 3:44:00 PM
Selenium	ND	0.0100		mg/L	2	9/1/2004 3:44:00 PM
Silver	ND	0.00500		mg/L	1	8/31/2004 1:15:00 AM
Sodium	103	2.00		mg/L	10	8/30/2004 9:51:00 PM
Vanadium	ND	0.0100		mg/L	2	9/1/2004 3:44:00 PM
Zinc	0.0667	0.0100		mg/L	2	9/1/2004 3:44:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2-Methylphenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:17:00 PM
2-Nitrophenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
3-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:17:00 PM
4-Methylphenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
4-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:17:00 PM
4-Nitrophenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Acenaphthene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Acenaphthylene	ND	10		µg/L	1	9/4/2004 9:17:00 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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-01

Client Sample ID: RA 4196
Collection Date: 8/25/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Anthracene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Benz(a)anthracene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Benzidine	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Hexachloroethane	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Isophorone	ND	10		µg/L	1	9/4/2004 9:17:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2004 9:17:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2004 9:17:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Naphthalene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Nitrobenzene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Phenanthrene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Phenol	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Pyrene	ND	10		µg/L	1	9/4/2004 9:17:00 PM
Surr: 2,4,6-Tribromophenol	63.8	39-153		%REC	1	9/4/2004 9:17:00 PM
Surr: 2-Fluorobiphenyl	56.5	40-147		%REC	1	9/4/2004 9:17:00 PM
Surr: 2-Fluorophenol	33.3	21-110		%REC	1	9/4/2004 9:17:00 PM
Surr: 4-Terphenyl-d14	70.5	39-141		%REC	1	9/4/2004 9:17:00 PM
Surr: Nitrobenzene-d5	64.2	37-140		%REC	1	9/4/2004 9:17:00 PM
Surr: Phenol-d6	20.7	11-100		%REC	1	9/4/2004 9:17:00 PM
VOLATILES BY GC/MS		SW8260			Analyst: PC	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
2-Butanone	ND	10		µg/L	1	8/27/2004 9:07:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/27/2004 9:07:00 PM
2-Hexanone	ND	10		µg/L	1	8/27/2004 9:07:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Acetone	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Benzene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Bromoform	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Bromomethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/27/2004 9:07:00 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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-01

Client Sample ID: RA 4196
Collection Date: 8/25/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Chloroethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Chloroform	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Chloromethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
m,p-Xylene	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Methylene chloride	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Styrene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Toluene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/27/2004 9:07:00 PM
Vinyl acetate	ND	10		µg/L	1	8/27/2004 9:07:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/27/2004 9:07:00 PM
Xylenes, Total	ND	15		µg/L	1	8/27/2004 9:07:00 PM
Surr: 1,2-Dichloroethane-d4	98.1	71-126		%REC	1	8/27/2004 9:07:00 PM
Surr: 4-Bromofluorobenzene	96.9	74-125		%REC	1	8/27/2004 9:07:00 PM
Surr: Dibromofluoromethane	94.6	73-126		%REC	1	8/27/2004 9:07:00 PM
Surr: Toluene-d8	89.4	75-125		%REC	1	8/27/2004 9:07:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	162	5.00		mg/L	10	8/30/2004 11:27:00 PM
Fluoride	0.450	0.100		mg/L	1	8/30/2004 10:58:00 PM
Sulfate	1,320	50.0		mg/L	50	8/30/2004 11:55:00 PM
Surr: Dichloroacetic acid (surr)	96.4	80-120		%REC	1	8/30/2004 10:58:00 PM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	10	8/30/2004 11:27:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	50	8/30/2004 11:55:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	230	5.00		mg/L	1	9/7/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/7/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/7/2004
Alkalinity, Total (As CaCO3)	230	5.00		mg/L	1	9/7/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	8/27/2004

Qualifiers: ND - Not Detected at the Reporting Limit
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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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-02

Client Sample ID: RA 4798
Collection Date: 8/25/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/2/2004 4:00:44 PM
					Prep Date: 9/1/2004	Analyst: JCJ
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	8/31/2004 2:13:00 AM
Arsenic	ND	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Barium	0.00818	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Beryllium	ND	0.00200		mg/L	1	8/31/2004 2:13:00 AM
Boron	0.208	0.0400		mg/L	2	9/1/2004 3:49:00 PM
Cadmium	ND	0.00100		mg/L	1	8/31/2004 2:13:00 AM
Calcium	476	25.0		mg/L	50	8/30/2004 8:40:00 PM
Chromium	ND	0.00200		mg/L	1	8/31/2004 2:13:00 AM
Cobalt	ND	0.00200		mg/L	1	8/31/2004 2:13:00 AM
Copper	0.0324	0.00200		mg/L	1	8/31/2004 2:13:00 AM
Iron	3.63	0.200		mg/L	1	8/31/2004 2:13:00 AM
Lead	ND	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Magnesium	140	2.00		mg/L	10	8/30/2004 9:55:00 PM
Manganese	0.00929	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Molybdenum	ND	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Nickel	0.0111	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Potassium	2.04	0.200		mg/L	1	8/31/2004 2:13:00 AM
Selenium	0.0177	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Silver	ND	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Sodium	106	2.00		mg/L	10	8/30/2004 9:55:00 PM
Vanadium	0.00611	0.00500		mg/L	1	8/31/2004 2:13:00 AM
Zinc	0.630	0.0500		mg/L	10	8/30/2004 9:55:00 PM
					Prep Date: 8/30/2004	Analyst: ALR
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2-Methylphenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:41:00 PM
2-Nitrophenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
3-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:41:00 PM
4-Methylphenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
4-Nitroaniline	ND	10		µg/L	1	9/4/2004 9:41:00 PM
4-Nitrophenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Acenaphthene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Acenaphthylene	ND	10		µg/L	1	9/4/2004 9:41:00 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 Analytical, Inc.
Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-02

Client Sample ID: RA 4798
Collection Date: 8/25/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Anthracene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Benz(a)anthracene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Benzidine	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Hexachloroethane	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Isophorone	ND	10		µg/L	1	9/4/2004 9:41:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/4/2004 9:41:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	9/4/2004 9:41:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Naphthalene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Nitrobenzene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Phenanthrene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Phenol	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Pyrene	ND	10		µg/L	1	9/4/2004 9:41:00 PM
Surr: 2,4,6-Tribromophenol	60.8	39-153		%REC	1	9/4/2004 9:41:00 PM
Surr: 2-Fluorobiphenyl	56.3	40-147		%REC	1	9/4/2004 9:41:00 PM
Surr: 2-Fluorophenol	30.9	21-110		%REC	1	9/4/2004 9:41:00 PM
Surr: 4-Terphenyl-d14	69.0	39-141		%REC	1	9/4/2004 9:41:00 PM
Surr: Nitrobenzene-d5	64.4	37-140		%REC	1	9/4/2004 9:41:00 PM
Surr: Phenol-d6	18.8	11-100		%REC	1	9/4/2004 9:41:00 PM

VOLATILES BY GC/MS
SW8260
Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
2-Butanone	ND	10		µg/L	1	8/27/2004 9:35:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/27/2004 9:35:00 PM
2-Hexanone	ND	10		µg/L	1	8/27/2004 9:35:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Acetone	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Benzene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Bromoform	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Bromomethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/27/2004 9:35:00 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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408293
Project: Monthly
Lab ID: 0408293-02

Client Sample ID: RA 4798
Collection Date: 8/25/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Chloroethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Chloroform	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Chloromethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
m,p-Xylene	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Methyl tert-butyl ether	6.0	5.0		µg/L	1	8/27/2004 9:35:00 PM
Methylene chloride	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Styrene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Toluene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/27/2004 9:35:00 PM
Vinyl acetate	ND	10		µg/L	1	8/27/2004 9:35:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/27/2004 9:35:00 PM
Xylenes, Total	ND	15		µg/L	1	8/27/2004 9:35:00 PM
Surr: 1,2-Dichloroethane-d4	102	71-126		%REC	1	8/27/2004 9:35:00 PM
Surr: 4-Bromofluorobenzene	91.4	74-125		%REC	1	8/27/2004 9:35:00 PM
Surr: Dibromofluoromethane	97.5	73-126		%REC	1	8/27/2004 9:35:00 PM
Surr: Toluene-d8	92.4	75-125		%REC	1	8/27/2004 9:35:00 PM

ANIONS BY ION CHROMATOGRAPHY
E300

 Analyst: **MG**

Chloride	133	2.50		mg/L	5	8/31/2004 12:52:00 AM
Fluoride	0.500	0.100		mg/L	1	8/31/2004 12:24:00 AM
Sulfate	1,380	50.0		mg/L	50	8/31/2004 1:21:00 AM
Surr: Dichloroacetic acid (surr)	98.0	80-120		%REC	1	8/31/2004 12:24:00 AM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	5	8/31/2004 12:52:00 AM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	50	8/31/2004 1:21:00 AM

ALKALINITY
E310.1

 Analyst: **HDO**

Alkalinity, Bicarbonate (As CaCO3)	250	5.00		mg/L	1	9/7/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/7/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/7/2004
Alkalinity, Total (As CaCO3)	250	5.00		mg/L	1	9/7/2004

CYANIDE, TOTAL
E335.3

 Analyst: **LMD**

Cyanide	ND	0.0200		mg/L	1	8/27/2004
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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 Analytical, Inc.

Date: Sep 08 2004

CLIENT: Navajo Refining Company
 Work Order: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 20:12
 Client ID: Run ID: ICP4500_040830A SeqNo: 530222 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.002677	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	0.0005799	0.0050								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: MBLKW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:01
 Client ID: Run ID: ICP4500_040831A SeqNo: 530776 Prep Date: 8/30/2004 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

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 20:17

Client ID: Run ID: ICP4500_040830A SeqNo: 530223 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04757	0.010	0.05	0	95.1	79-126	0			
Arsenic	0.05152	0.0050	0.05	0	103	80-121	0			
Barium	0.04751	0.0050	0.05	0	95	79.8-119	0			
Cadmium	0.05347	0.0020	0.05	0	107	79.1-119	0			
Calcium	4.878	0.50	5	0	97.6	80-121	0			
Chromium	0.04761	0.0050	0.05	0	95.2	79.3-121	0			
Cobalt	0.04731	0.0050	0.05	0	94.6	82-121	0			
Copper	0.04806	0.0050	0.05	0	96.1	83-121	0			
Iron	5.001	0.20	5	0	100	80-120	0			
Lead	0.04753	0.0050	0.05	0	95.1	80-118	0			
Magnesium	4.96	0.20	5	0	99.2	80-120	0			
Manganese	0.0474	0.0050	0.05	0	94.8	82-119	0			
Molybdenum	0.04627	0.0050	0.05	0	92.5	84.6-115	0			
Nickel	0.04857	0.0050	0.05	0	97.1	85-120	0			
Potassium	4.853	0.20	5	0	97.1	80-120	0			
Selenium	0.05145	0.0050	0.05	0	103	79.2-118	0			
Silver	0.04885	0.0050	0.05	0	97.7	83-117	0			
Sodium	4.806	0.20	5	0	96.1	82.4-120	0			
Vanadium	0.04723	0.0050	0.05	0	94.5	82.1-119	0			
Zinc	0.05094	0.0050	0.05	0	102	83-118	0			

LCS Sample ID: MLCSW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:05

Client ID: Run ID: ICP4500_040831A SeqNo: 530777 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05131	0.0020	0.05	0	103	78.9-120	0			
Boron	0.523	0.020	0.5	0	105	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MS Sample ID: 0408268-12CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:14

Client ID: Run ID: ICP4500_040830A SeqNo: 530241 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05115	0.0050	0.05	0.0007524	101	80-121	0			
Barium	0.2558	0.0050	0.05	0.1996	112	79.8-119	0			
Cadmium	0.04843	0.0020	0.05	0.00001543	96.8	79.1-119	0			
Calcium	83.79	0.50	5	77.24	131	80-121	0			SEO
Chromium	0.04765	0.0050	0.05	0.0003644	94.6	79.3-121	0			
Cobalt	0.04738	0.0050	0.05	0.00043	93.9	82-121	0			
Copper	0.04443	0.0050	0.05	0.001281	86.3	83-121	0			
Iron	5.454	0.20	5	0.402	101	80-120	0			
Magnesium	24.85	0.20	5	19.28	111	80-120	0			
Manganese	0.399	0.0050	0.05	0.3394	119	82-119	0			SO
Molybdenum	0.04852	0.0050	0.05	0.001933	93.2	84.6-115	0			
Nickel	0.05548	0.0050	0.05	0.009514	91.9	85-120	0			
Potassium	6.483	0.20	5	1.514	99.4	80-120	0			
Selenium	0.05212	0.0050	0.05	0.002385	99.5	79.2-118	0			
Silver	0.04199	0.0050	0.05	-0.00001199	84	83-117	0			
Sodium	ND	0.20	5	0	0	82.4-120	0			S
Vanadium	0.04855	0.0050	0.05	0.00006859	97	82.1-119	0			
Zinc	0.06433	0.0050	0.05	0.01875	91.2	83-118	0			

MS Sample ID: 0408268-12CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:42

Client ID: Run ID: ICP4500_040831A SeqNo: 530785 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05209	0.010	0.05	0.009535	85.1	79-126	0			
Beryllium	0.05688	0.0020	0.05	0.0001063	114	78.9-120	0			
Boron	0.688	0.020	0.5	0.1088	116	80-120	0			
Lead	0.04985	0.0050	0.05	0.001456	96.8	80-118	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MSD Sample ID: 0408268-12CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:19

Client ID: Run ID: ICP4500_040830A SeqNo: 530242 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05077	0.0050	0.05	0.0007524	100	80-121	0.05115	0.746	15	
Barium	0.2579	0.0050	0.05	0.1996	117	79.8-119	0.2558	0.818	15	
Cadmium	0.0489	0.0020	0.05	0.00001543	97.8	79.1-119	0.04843	0.966	15	
Calcium	84.41	0.50	5	77.24	143	80-121	83.79	0.737	15	SEO
Chromium	0.04751	0.0050	0.05	0.0003644	94.3	79.3-121	0.04765	0.294	15	
Cobalt	0.04836	0.0050	0.05	0.00043	95.9	82-121	0.04738	2.05	15	
Copper	0.04621	0.0050	0.05	0.001281	89.9	83-121	0.04443	3.93	15	
Iron	5.518	0.20	5	0.402	102	80-120	5.454	1.17	15	
Magnesium	25.41	0.20	5	19.28	123	80-120	24.85	2.23	15	S
Manganese	0.401	0.0050	0.05	0.3394	123	82-119	0.399	0.5	15	SO
Molybdenum	0.04937	0.0050	0.05	0.001933	94.9	84.6-115	0.04852	1.74	15	
Nickel	0.05616	0.0050	0.05	0.009514	93.3	85-120	0.05548	1.22	15	
Potassium	6.839	0.20	5	1.514	106	80-120	6.483	5.34	15	
Selenium	0.04824	0.0050	0.05	0.002385	91.7	79.2-118	0.05212	7.73	15	
Silver	0.04292	0.0050	0.05	-0.00001199	85.9	83-117	0.04199	2.19	15	
Sodium	ND	0.20	5	0	0	82.4-120	0	0	15	S
Vanadium	0.04823	0.0050	0.05	0.00006859	96.3	82.1-119	0.04855	0.661	15	
Zinc	0.06447	0.0050	0.05	0.01875	91.4	83-118	0.06433	0.217	15	

MSD Sample ID: 0408268-12CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:47

Client ID: Run ID: ICP4500_040831A SeqNo: 530786 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05095	0.010	0.05	0.009535	82.8	79-126	0.05209	2.21	15	
Beryllium	0.05577	0.0020	0.05	0.0001063	111	78.9-120	0.05688	1.97	15	
Boron	0.6599	0.020	0.5	0.1088	110	80-120	0.688	4.17	15	
Lead	0.0502	0.0050	0.05	0.001456	97.5	80-118	0.04985	0.7	15	

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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:09

Client ID: Run ID: ICP4500_040830A SeqNo: 530240 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050	0	0	0	0-0	0.0007524	0	25	
Barium	0.2114	0.0050	0	0	0	0-0	0.1996	5.74	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00001543	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0003644	0	25	
Cobalt	0.0004821	0.0050	0	0	0	0-0	0.00043	0	25	J
Copper	0.001396	0.0050	0	0	0	0-0	0.001281	0	25	J
Iron	0.3997	0.20	0	0	0	0-0	0.402	0.574	25	
Manganese	0.355	0.0050	0	0	0	0-0	0.3394	4.49	25	
Molybdenum	0.001976	0.0050	0	0	0	0-0	0.001933	0	25	J
Nickel	0.01001	0.0050	0	0	0	0-0	0.009514	5.08	25	
Potassium	1.617	0.20	0	0	0	0-0	1.514	6.58	25	
Selenium	0.003151	0.0050	0	0	0	0-0	0.002385	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.00001199	0	25	
Vanadium	ND	0.0050	0	0	0	0-0	0.00006859	0	25	
Zinc	0.01958	0.0050	0	0	0	0-0	0.01875	4.33	25	

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:19

Client ID: Run ID: ICP4500_040831A SeqNo: 530780 Prep Date: 8/30/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	78.06	5.0	0	0	0	0-0	78.59	0.677	25	
Magnesium	21.17	2.0	0	0	0	0-0	21.66	2.29	25	
Sodium	142.8	2.0	0	0	0	0-0	146.7	2.69	25	

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:38

Client ID: Run ID: ICP4500_040831A SeqNo: 530784 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.0083	0.010	0	0	0	0-0	0.009535	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.0001063	0	25	
Boron	0.09469	0.020	0	0	0	0-0	0.1088	13.9	25	
Lead	0.001322	0.0050	0	0	0	0-0	0.001456	0	25	J

The following samples were analyzed in this batch:

0408293-01C 0408293-02C

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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10174 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:20

Client ID: Run ID: MERCURY_040902A SeqNo: 531889 Prep Date: 9/1/2004 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: GLCSW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:22

Client ID: Run ID: MERCURY_040902A SeqNo: 531890 Prep Date: 9/1/2004 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	100	83-115	0			

LCSD Sample ID: GLCSDW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:23

Client ID: Run ID: MERCURY_040902A SeqNo: 531891 Prep Date: 9/1/2004 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	100	83-115	0.00501	0	20	

MS Sample ID: 0408263-07BMS Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:37

Client ID: Run ID: MERCURY_040902A SeqNo: 531894 Prep Date: 9/1/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00539	0.00020	0.005	0.000038	107	83-115	0			

MSD Sample ID: 0408263-07BMSP Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:38

Client ID: Run ID: MERCURY_040902A SeqNo: 531895 Prep Date: 9/1/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0055	0.00020	0.005	0.000038	109	83-115	0.00539	2.02	20	

DUP Sample ID: 0408263-07BDUP Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:32

Client ID: Run ID: MERCURY_040902A SeqNo: 531893 Prep Date: 9/1/2004 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	0.000038	0	20	

The following samples were analyzed in this batch:

0408293-01C 0408293-02C

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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10129 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040830 Test Code: SW8270 Units: µg/L Analysis Date: 09/07/04 21:34

Client ID: Run ID: SV-3_040830B SeqNo: 534249 Prep Date: 8/30/2004 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	66.44	10	100	0	66.4	39-153	0			
Surr: 2-Fluorobiphenyl	64.54	10	100	0	64.5	40-147	0			
Surr: 2-Fluorophenol	28.37	10	100	0	28.4	21-110	0			
Surr: 4-Terphenyl-d14	67.72	10	100	0	67.7	39-141	0			
Surr: Nitrobenzene-d5	67.13	10	100	0	67.1	37-140	0			
Surr: Phenol-d6	16.96	10	100	0	17	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10129 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040830 Test Code: SW8270 Units: µg/L Analysis Date: 09/08/04 13:22

Client ID: Run ID: SV-3_040830B SeqNo: 534255 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	39.57	10	50	0	79.1	50-115	0			
2,4,5-Trichlorophenol	82.89	10	100	0	82.9	68-128	0			
2,4,6-Trichlorophenol	79.86	10	100	0	79.9	66-125	0			
2-Methylnaphthalene	38.78	10	50	0	77.6	47-122	0			
2-Methylphenol	62.03	10	100	0	62	51-115	0			
2-Nitroaniline	41.71	10	50	0	83.4	64-128	0			
2-Nitrophenol	77.25	10	100	0	77.2	60-119	0			
3-Nitroaniline	32.86	10	50	0	65.7	61-118	0			
4-Methylphenol	85.04	10	150	0	56.7	44-115	0			
4-Nitroaniline	38.86	10	50	0	77.7	61-123	0			
4-Nitrophenol	40.63	10	100	0	40.6	17-100	0			
Acenaphthene	39.77	10	50	0	79.5	68-115	0			
Acenaphthylene	39.19	10	50	0	78.4	67-116	0			
Aniline	27.67	10	50	0	55.3	40-130	0			
Anthracene	39.56	10	50	0	79.1	70-129	0			
Benz(a)anthracene	41.63	10	50	0	83.3	55-131	0			
Benzidine	36.66	10	50	0	73.3	10-115	0			
Hexachloroethane	39.12	10	50	0	78.2	46-115	0			
Indeno(1,2,3-cd)pyrene	39.14	10	50	0	78.3	42-123	0			
Isophorone	41.92	10	50	0	83.8	63-117	0			
N-Nitrosodi-n-propylamine	39.55	10	50	0	79.1	67-115	0			
N-Nitrosodimethylamine	23.02	10	50	0	46	28-115	0			
N-Nitrosodiphenylamine	45.13	10	50	0	90.3	72-144	0			
Naphthalene	37.9	10	50	0	75.8	52-115	0			
Nitrobenzene	39.88	10	50	0	79.8	65-115	0			
Pentachlorophenol	78.43	10	100	0	78.4	65-123	0			
Phenanthrene	38.43	10	50	0	76.9	69-119	0			
Phenol	27.35	10	100	0	27.3	16-115	0			
Pyrene	39.58	10	50	0	79.2	51-130	0			
Surr: 2,4,6-Tribromophenol	87.81	10	100	0	87.8	39-153	0			
Surr: 2-Fluorobiphenyl	90.52	10	100	0	90.5	40-147	0			
Surr: 2-Fluorophenol	42.46	10	100	0	42.5	21-110	0			
Surr: 4-Terphenyl-d14	93.85	10	100	0	93.9	39-141	0			
Surr: Nitrobenzene-d5	87.9	10	100	0	87.9	37-140	0			
Surr: Phenol-d6	27.46	10	100	0	27.5	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: 10129 InstrumentID: SV-3

LCSD Sample ID: SLCS DW1-040830 Test Code: SW8270 Units: µg/L Analysis Date: 09/08/04 13:47

Client ID: Run ID: SV-3_040830B SeqNo: 534256 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.48	10	50	0	81	50-115	39.57	2.29	30	
2,4,5-Trichlorophenol	78.33	10	100	0	78.3	68-128	82.89	5.65	30	
2,4,6-Trichlorophenol	74.02	10	100	0	74	66-125	79.86	7.6	30	
2-Methylnaphthalene	36.09	10	50	0	72.2	47-122	38.78	7.19	30	
2-Methylphenol	59.51	10	100	0	59.5	51-115	62.03	4.14	30	
2-Nitroaniline	39.79	10	50	0	79.6	64-128	41.71	4.71	30	
2-Nitrophenol	74.66	10	100	0	74.7	60-119	77.25	3.41	30	
3-Nitroaniline	33.98	10	50	0	68	61-118	32.86	3.36	30	
4-Methylphenol	83.52	10	150	0	55.7	44-115	85.04	1.79	30	
4-Nitroaniline	35.55	10	50	0	71.1	61-123	38.86	8.9	30	
4-Nitrophenol	36.02	10	100	0	36	17-100	40.63	12.1	30	
Acenaphthene	37.91	10	50	0	75.8	68-115	39.77	4.8	30	
Acenaphthylene	37.55	10	50	0	75.1	67-116	39.19	4.26	30	
Aniline	23.95	10	50	0	47.9	40-130	27.67	14.4	30	
Anthracene	39.89	10	50	0	79.8	70-129	39.56	0.822	30	
Benz(a)anthracene	40.64	10	50	0	81.3	55-131	41.63	2.39	30	
Benzidine	19.9	10	50	0	39.8	10-115	36.66	59.3	30	R
Hexachloroethane	42.16	10	50	0	84.3	46-115	39.12	7.49	30	
Indeno(1,2,3-cd)pyrene	37.86	10	50	0	75.7	42-123	39.14	3.33	30	
Isophorone	40.68	10	50	0	81.4	63-117	41.92	2.99	30	
N-Nitrosodi-n-propylamine	40.9	10	50	0	81.8	67-115	39.55	3.36	30	
N-Nitrosodimethylamine	24.43	10	50	0	48.9	28-115	23.02	5.94	30	
N-Nitrosodiphenylamine	44.74	10	50	0	89.5	72-144	45.13	0.872	30	
Naphthalene	37.3	10	50	0	74.6	52-115	37.9	1.59	30	
Nitrobenzene	39.04	10	50	0	78.1	65-115	39.88	2.14	30	
Pentachlorophenol	72.8	10	100	0	72.8	65-123	78.43	7.45	30	
Phenanthrene	38.02	10	50	0	76	69-119	38.43	1.05	30	
Phenol	26.2	10	100	0	26.2	16-115	27.35	4.28	30	
Pyrene	39.49	10	50	0	79	51-130	39.58	0.218	30	
Surr: 2,4,6-Tribromophenol	90.1	10	100	0	90.1	39-153	87.81	2.57	30	
Surr: 2-Fluorobiphenyl	88.89	10	100	0	88.9	40-147	90.52	1.82	30	
Surr: 2-Fluorophenol	45.58	10	100	0	45.6	21-110	42.46	7.09	30	
Surr: 4-Terphenyl-d14	93.1	10	100	0	93.1	39-141	93.85	0.808	30	
Surr: Nitrobenzene-d5	89.56	10	100	0	89.6	37-140	87.9	1.87	30	
Surr: Phenol-d6	27.57	10	100	0	27.6	11-100	27.46	0.395	30	

The following samples were analyzed in this batch:

0408293-01E 0408293-02E

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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0827 Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 12:47

Client ID: Run ID: VOA1_040827A SeqNo: 529561 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								
Methyl tert-butyl ether	ND	5.0								
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	47.79	5.0	50	0	95.6	71-126		0		
Surr: 4-Bromofluorobenzene	47.27	5.0	50	0	94.5	74-125		0		
Surr: Dibromofluoromethane	45.58	5.0	50	0	91.2	73-126		0		
Surr: Toluene-d8	44.84	5.0	50	0	89.7	75-125		0		

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R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

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CLIENT: Navajo Refining Company
 Work Order: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

LCS Sample ID: VLCSW-0827 Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 12:20

Client ID: Run ID: VOA1_040827A SeqNo: 529560 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	54.34	5.0	50	0	109	75.2-120	0			
1,1,2,2-Tetrachloroethane	45.77	5.0	50	0	91.5	72.4-121	0			
1,1,2-Trichloroethane	46.31	5.0	50	0	92.6	80-120	0			
1,1-Dichloroethane	45.74	5.0	50	0	91.5	76.9-120	0			
1,1-Dichloroethene	47.14	5.0	50	0	94.3	72.6-123	0			
1,2-Dichloroethane	53.59	5.0	50	0	107	80-120	0			
2-Butanone	76.8	10	100	0	76.8	69-131	0			
2-Chloroethyl vinyl ether	87.19	10	100	0	87.2	60-135	0			
2-Hexanone	79.78	10	100	0	79.8	55.6-126	0			
4-Methyl-2-pentanone	79.89	10	100	0	79.9	67.4-121	0			
Acetone	85.17	10	100	0	85.2	64.4-140	0			
Benzene	45.33	5.0	50	0	90.7	80-120	0			
Bromodichloromethane	52.17	5.0	50	0	104	80-120	0			
Bromoform	47.13	5.0	50	0	94.3	77.9-121	0			
Bromomethane	56.7	5.0	50	0	113	63.3-137	0			
Carbon disulfide	97.69	10	100	0	97.7	74.1-123	0			
Carbon tetrachloride	54.36	5.0	50	0	109	74.7-120	0			
Chlorobenzene	50.27	5.0	50	0	101	80-120	0			
Chloroethane	46.88	5.0	50	0	93.8	74.7-126	0			
Chloroform	49.36	5.0	50	0	98.7	80-120	0			
Chloromethane	42.23	5.0	50	0	84.5	64.5-132	0			
cis-1,3-Dichloropropene	47.24	5.0	50	0	94.5	80-120	0			
Dibromochloromethane	51	5.0	50	0	102	80-120	0			
Ethylbenzene	48.63	5.0	50	0	97.3	80-120	0			
m,p-Xylene	96.82	10	100	0	96.8	80-120	0			
Methyl tert-butyl ether	47.31	5.0	50	0	94.6	73.7-122	0			
Methylene chloride	46.44	10	50	0	92.9	76.2-120	0			
Styrene	48.31	5.0	50	0	96.6	80-120	0			
Tetrachloroethene	48.14	5.0	50	0	96.3	68.5-130	0			
Toluene	45.35	5.0	50	0	90.7	80-120	0			
trans-1,3-Dichloropropene	49.13	5.0	50	0	98.3	80-120	0			
Trichloroethene	48.7	5.0	50	0	97.4	78.9-120	0			
Vinyl acetate	106.8	10	100	0	107	62.4-133	0			
Vinyl chloride	49.78	2.0	50	0	99.6	72.7-128	0			
Xylenes, Total	144.7	15	150	0	96.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.77	5.0	50	0	95.5	71-126	0			
Surr: 4-Bromofluorobenzene	46.17	5.0	50	0	92.3	74-125	0			
Surr: Dibromofluoromethane	46.35	5.0	50	0	92.7	73-126	0			
Surr: Toluene-d8	45.19	5.0	50	0	90.4	75-125	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MS Sample ID: 0408248-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 15:06

Client ID: Run ID: VOA1_040827A SeqNo: 529563 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	964.3	100	1000	0	96.4	75.2-120	0			
1,1,2,2-Tetrachloroethane	887.2	100	1000	0	88.7	72.4-121	0			
1,1,2-Trichloroethane	881.8	100	1000	0	88.2	80-120	0			
1,1-Dichloroethane	841.3	100	1000	0	84.1	76.9-120	0			
1,1-Dichloroethene	853.4	100	1000	0	85.3	72.6-123	0			
1,2-Dichloroethane	1019	100	1000	0	102	80-120	0			
2-Butanone	1481	200	2000	0	74.1	69-131	0			
2-Chloroethyl vinyl ether	1727	200	2000	0	86.4	60-135	0			
2-Hexanone	1541	200	2000	0	77.1	55.6-126	0			
4-Methyl-2-pentanone	1532	200	2000	0	76.6	67.4-121	0			
Acetone	1498	200	2000	0	74.9	64.4-140	0			
Benzene	886.3	100	1000	0	88.6	80-120	0			
Bromodichloromethane	1018	100	1000	0	102	80-120	0			
Bromoform	961.1	100	1000	0	96.1	77.9-121	0			
Bromomethane	1046	100	1000	0	105	63.3-137	0			
Carbon disulfide	1778	200	2000	0	88.9	74.1-123	0			
Carbon tetrachloride	980.8	100	1000	0	98.1	74.7-120	0			
Chlorobenzene	925.5	100	1000	0	92.5	80-120	0			
Chloroethane	904	100	1000	0	90.4	74.7-126	0			
Chloroform	944	100	1000	0	94.4	80-120	0			
Chloromethane	857.9	100	1000	0	85.8	64.5-132	0			
cis-1,3-Dichloropropene	923.7	100	1000	0	92.4	80-120	0			
Dibromochloromethane	983.8	100	1000	0	98.4	80-120	0			
Ethylbenzene	927	100	1000	0	92.7	80-120	0			
m,p-Xylene	1811	200	2000	0	90.5	80-120	0			
Methyl tert-butyl ether	888	100	1000	0	88.8	73.7-122	0			
Methylene chloride	891.1	200	1000	29.06	86.2	76.2-120	0			
Styrene	931.2	100	1000	0	93.1	80-120	0			
Tetrachloroethene	879.2	100	1000	0	87.9	68.5-130	0			
Toluene	871.2	100	1000	0	87.1	80-120	0			
trans-1,3-Dichloropropene	979.1	100	1000	0	97.9	80-120	0			
Trichloroethene	930	100	1000	0	93	78.9-120	0			
Vinyl acetate	2017	200	2000	0	101	62.4-133	0			
Vinyl chloride	902	40	1000	0	90.2	72.7-128	0			
Xylenes, Total	2745	300	3000	0	91.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	919.4	100	1000	0	91.9	71-126	0			
Surr: 4-Bromofluorobenzene	944.2	100	1000	0	94.4	74-125	0			
Surr: Dibromofluoromethane	893.5	100	1000	0	89.3	73-126	0			
Surr: Toluene-d8	888.7	100	1000	0	88.9	75-125	0			

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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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MSD Sample ID: 0408248-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 15:34

Client ID: Run ID: VOA1_040827A SeqNo: 529564 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1031	100	1000	0	103	75.2-120	964.3	6.69	20	
1,1,2,2-Tetrachloroethane	933.7	100	1000	0	93.4	72.4-121	887.2	5.11	20	
1,1,2-Trichloroethane	927.4	100	1000	0	92.7	80-120	881.8	5.03	20	
1,1-Dichloroethane	889.5	100	1000	0	89	76.9-120	841.3	5.57	20	
1,1-Dichloroethene	923.3	100	1000	0	92.3	72.6-123	853.4	7.86	20	
1,2-Dichloroethane	1055	100	1000	0	105	80-120	1019	3.47	20	
2-Butanone	1604	200	2000	0	80.2	69-131	1481	7.97	20	
2-Chloroethyl vinyl ether	1742	200	2000	0	87.1	60-135	1727	0.855	20	
2-Hexanone	1665	200	2000	0	83.2	55.6-126	1541	7.69	20	
4-Methyl-2-pentanone	1623	200	2000	0	81.1	67.4-121	1532	5.74	20	
Acetone	1667	200	2000	0	83.4	64.4-140	1498	10.7	20	
Benzene	886.9	100	1000	0	88.7	80-120	886.3	0.0702	20	
Bromodichloromethane	1009	100	1000	0	101	80-120	1018	0.872	20	
Bromoform	1016	100	1000	0	102	77.9-121	961.1	5.55	20	
Bromomethane	1120	100	1000	0	112	63.3-137	1046	6.84	20	
Carbon disulfide	1894	200	2000	0	94.7	74.1-123	1778	6.3	20	
Carbon tetrachloride	1016	100	1000	0	102	74.7-120	980.8	3.56	20	
Chlorobenzene	963.8	100	1000	0	96.4	80-120	925.5	4.06	20	
Chloroethane	963.9	100	1000	0	96.4	74.7-126	904	6.42	20	
Chloroform	990.5	100	1000	0	99.1	80-120	944	4.81	20	
Chloromethane	876	100	1000	0	87.6	64.5-132	857.9	2.09	20	
cis-1,3-Dichloropropene	920.4	100	1000	0	92	80-120	923.7	0.36	20	
Dibromochloromethane	1040	100	1000	0	104	80-120	983.8	5.57	20	
Ethylbenzene	943.5	100	1000	0	94.3	80-120	927	1.76	20	
m,p-Xylene	1866	200	2000	0	93.3	80-120	1811	3.01	20	
Methyl tert-butyl ether	958.3	100	1000	0	95.8	73.7-122	888	7.61	20	
Methylene chloride	936.8	200	1000	29.06	90.8	76.2-120	891.1	5	20	
Styrene	972.6	100	1000	0	97.3	80-120	931.2	4.35	20	
Tetrachloroethene	940.3	100	1000	0	94	68.5-130	879.2	6.72	20	
Toluene	900.8	100	1000	0	90.1	80-120	871.2	3.34	20	
trans-1,3-Dichloropropene	976.2	100	1000	0	97.6	80-120	979.1	0.294	20	
Trichloroethene	946.6	100	1000	0	94.7	78.9-120	930	1.77	20	
Vinyl acetate	2173	200	2000	0	109	62.4-133	2017	7.45	20	
Vinyl chloride	939.7	40	1000	0	94	72.7-128	902	4.09	20	
Xylenes, Total	2822	300	3000	0	94.1	80-120	2745	2.78	20	
Surr: 1,2-Dichloroethane-d4	943.5	100	1000	0	94.4	71-126	919.4	2.59	20	
Surr: 4-Bromofluorobenzene	933.8	100	1000	0	93.4	74-125	944.2	1.11	20	
Surr: Dibromofluoromethane	924.1	100	1000	0	92.4	73-126	893.5	3.36	20	
Surr: Toluene-d8	864.9	100	1000	0	86.5	75-125	888.7	2.72	20	

The following samples were analyzed in this batch:

0408293-01A 0408293-02A

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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P - Dual Column results percent difference > 40%

B - Analyte detected in assoc. Method Blank

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22666 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-082604 Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529072 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: WLCSW1-082604 Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529073 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2018	0.020	0.2	0	101	80-120	0			

MS Sample ID: 0408263-07CMS Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529086 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2037	0.020	0.2	0.0012	101	75-125	0			

MSD Sample ID: 0408263-07CMSD Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529087 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2019	0.020	0.2	0.0012	100	75-125	0.2037	0.888	25	

DUP Sample ID: 0408263-07CDUP Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529085 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	0.0012	0	20	

The following samples were analyzed in this batch:

0408293-01D 0408293-02D

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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: **R22718** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-083004** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 12:31**

Client ID: Run ID: **IC201_040830A** SeqNo: **530136** 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								
Surr: Dichloroacetic acid (surr)	5.1	0.10	5	0	102	80-120	0			

LCS Sample ID: **WLCSW1-083004** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 13:00**

Client ID: Run ID: **IC201_040830A** SeqNo: **530137** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.05	0.50	10	0	90.5	80-120	0			
Fluoride	1.9	0.10	2	0	95	80-120	0			
Sulfate	9.67	1.0	10	0	96.7	80-120	0			
Surr: Dichloroacetic acid (surr)	5.42	0.10	5	0	108	80-120	0			

LCS D Sample ID: **WLCSDW1-08300** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 13:28**

Client ID: Run ID: **IC201_040830A** SeqNo: **530138** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.06	0.50	10	0	90.6	80-120	9.05	0.11	20	
Fluoride	1.87	0.10	2	0	93.5	80-120	1.9	1.59	20	
Sulfate	9.62	1.0	10	0	96.2	80-120	9.67	0.518	20	
Surr: Dichloroacetic acid (surr)	5.05	0.10	5	0	101	80-120	5.42	7.07	20	

MS Sample ID: **0408208-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 17:16**

Client ID: Run ID: **IC201_040830A** SeqNo: **530146** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	161.1	2.5	50	107.6	107	75-125	0			
Fluoride	9.75	0.50	10	1	87.5	75-125	0			
Sulfate	1762	5.0	50	1679	165	75-125	0			SEO
Surr: Dichloroacetic acid (surr)	22.4	0.50	25	0	89.6	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: 0408293
 Project: Monthly

QC BATCH REPORT

Batch ID: R22718 InstrumentID: IC201

MSD Sample ID: 0408208-02BMSD Test Code: E300 Units: mg/L Analysis Date: 08/30/04 17:45

Client ID: Run ID: IC201_040830A SeqNo: 530147 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	156.9	2.5	50	107.6	98.7	75-125	161.1	2.67	20	
Fluoride	9.6	0.50	10	1	86	75-125	9.75	1.55	20	
Sulfate	1722	5.0	50	1679	84.9	75-125	1762	2.31	20	EO
Surr: Dichloroacetic acid (surr)	22.35	0.50	25	0	89.4	80-120	22.4	0.223	20	

DUP Sample ID: 0408208-01BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 14:54

Client ID: Run ID: IC201_040830A SeqNo: 530141 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	212.7	5.0	0	0	0	0-0	213	0.141	20	
Fluoride	ND	1.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	51.4	1.0	50	0	103	80-120	52	1.16	20	

DUP Sample ID: 0408208-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 16:48

Client ID: Run ID: IC201_040830A SeqNo: 530145 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.6	2.5	0	0	0	0-0	107.6	0.887	20	
Fluoride	1	0.50	0	0	0	0-0	1	0	20	
Surr: Dichloroacetic acid (surr)	24.85	0.50	25	0	99.4	80-120	26.55	6.61	20	

DUP Sample ID: 0408293-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/31/04 1:49

Client ID: RA 4798 Run ID: IC201_040830A SeqNo: 530164 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	153	25	0	0	0	0-0	153	0	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1376	50	0	0	0	0-0	1376	0	20	
Surr: Dichloroacetic acid (surr)	261.5	5.0	250	0	105	80-120	261.5	0	20	

The following samples were analyzed in this batch:

0408293-01B 0408293-02B

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: 0408293
Project: Monthly

QC BATCH REPORT

Batch ID: R22868 InstrumentID: WetChem

MBLK Sample ID: WBLKW1-090704 Test Code: E310.1 Units: mg/L Analysis Date: 09/07/04 0:00

Client ID: Run ID: WETCHEM_040907C SeqNo: 533518 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: WLCSW1-090704 Test Code: E310.1 Units: mg/L Analysis Date: 09/07/04 0:00

Client ID: Run ID: WETCHEM_040907C SeqNo: 533519 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)	1000	5.0	0	1	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: 0408283-01EDUP Test Code: E310.1 Units: mg/L Analysis Date: 09/07/04 0:00

Client ID: Run ID: WETCHEM_040907C SeqNo: 533526 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)	120	5.0	0	0	0	0-0	120	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)	120	5.0	0	0	0	0-0	120	0	20	

The following samples were analyzed in this batch:

0408293-01B 0408293-02B

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



Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Page 1 of 1

Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Customer Information				Project Information				e-Lab Project Manager				e-Lab Work Order #			
Purchase Order	Project Name	Project Number	Project Name	A	B	C	D	E	F	G	H	I	J		
Work Order	Project Number	Project Name	Project Name	A	B	C	D	E	F	G	H	I	J		
Company Name	Bill To Company	Invoice Attn.	Address	A	B	C	D	E	F	G	H	I	J		
Send Report To	City/State/Zip	Phone	Fax	A	B	C	D	E	F	G	H	I	J		
Address	City/State/Zip	Phone	Fax	A	B	C	D	E	F	G	H	I	J		
e-Mail Address	City/State/Zip	Phone	Fax	A	B	C	D	E	F	G	H	I	J		
1	RT 4196	8/25	0830	L	8										
2	4798	8/25	0845	L	8										
3															
4															
5															
6															
7															
8															
9															
10															

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
Relinquished by:	Date:	Time:	Date:	Time:	10 Wk Days	5 Wk Days	3 Wk Days
<i>[Signature]</i>	8/25	16:15	8/25	08:45	☐	☐	☐
Relinquished by:	Date:	Time:	Date:	Time:	☐	☐	☐
Relinquished by:	Date:	Time:	Date:	Time:	☐	☐	☐
Relinquished by:	Date:	Time:	Date:	Time:	☐	☐	☐

Preservative Key:		QC Package: (Check Box Below)	
1-HCl	2-HNO ₃	Level II: Standard QC	Level III: R/w Data
3-H ₂ SO ₄	4-NaOH	Level IV: SW846 Methods/CLP like	Other:
5-Na ₂ S ₂ O 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.

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 8/26/2004 8:45:00 AM

Work Order Number 0408293

Received by: RNG

Checklist completed by

Signature

Date

Reviewed by

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):	<u>3.4C</u>	<u>003</u>	
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: No Trip Blank was received.

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 Analytical, Inc.

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

September 08, 2004

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

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

Re: Monthly

Work Order : **0408264**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 3 samples on 8/25/2004 8:40:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 31.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0408264

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0408264-01	RA3333	Water		8/23/2004 09:00	8/25/2004 08:40	☐
0408264-02	RA314	Water		8/23/2004 09:15	8/25/2004 08:40	☐
0408264-03	RA307	Water		8/24/2004 09:00	8/25/2004 08:40	☐

e-Lab Analytical, Inc.**Date:** *September 08, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0408264

Case Narrative

Batch 10123 Metals MS/MSD was an unrelated sample.

Batch R22718 Anions MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-01

Client Sample ID: RA3333
Collection Date: 8/23/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			SW7470		Prep Date: 9/1/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	9/2/2004 3:53:03 PM
ICP METALS, TOTAL			SW6020		Prep Date: 8/30/2004	Analyst: ALR
Aluminum	0.0451	0.0200		mg/L	2	9/1/2004 3:29:00 PM
Arsenic	ND	0.00500		mg/L	1	8/31/2004 12:33:00 AM
Barium	0.00864	0.00500		mg/L	1	8/31/2004 12:33:00 AM
Beryllium	ND	0.00400		mg/L	2	9/1/2004 3:29:00 PM
Boron	0.113	0.0400		mg/L	2	9/1/2004 3:29:00 PM
Cadmium	ND	0.00100		mg/L	1	8/31/2004 12:33:00 AM
Calcium	383	25.0		mg/L	50	8/30/2004 8:21:00 PM
Chromium	ND	0.00400		mg/L	2	9/1/2004 3:29:00 PM
Cobalt	ND	0.00400		mg/L	2	9/1/2004 3:29:00 PM
Copper	0.00562	0.00400		mg/L	2	9/1/2004 3:29:00 PM
Iron	1.31	0.400		mg/L	2	9/1/2004 3:29:00 PM
Lead	0.00599	0.00500		mg/L	1	8/31/2004 12:33:00 AM
Magnesium	103	2.00		mg/L	10	8/30/2004 8:44:00 PM
Manganese	ND	0.0100		mg/L	2	9/1/2004 3:29:00 PM
Molybdenum	ND	0.0100		mg/L	2	9/1/2004 3:29:00 PM
Nickel	ND	0.0100		mg/L	2	9/1/2004 3:29:00 PM
Potassium	2.16	0.400		mg/L	2	9/1/2004 3:29:00 PM
Selenium	ND	0.0100		mg/L	2	9/1/2004 3:29:00 PM
Silver	ND	0.00500		mg/L	1	8/31/2004 12:33:00 AM
Sodium	66.5	2.00		mg/L	10	8/30/2004 8:44:00 PM
Vanadium	ND	0.0100		mg/L	2	9/1/2004 3:29:00 PM
Zinc	0.799	0.0500		mg/L	10	8/30/2004 8:44:00 PM
SEMIVOLATILE ORGANICS BY GC/MS			SW8270		Prep Date: 8/26/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2-Methylphenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:31:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:31:00 PM
4-Methylphenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:31:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Acenaphthene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Acenaphthylene	ND	10		µg/L	1	8/26/2004 4:31:00 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

AR Page 1 of 9

e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-01

Client Sample ID: RA3333
Collection Date: 8/23/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Anthracene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Benzidine	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Hexachloroethane	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Isophorone	ND	10		µg/L	1	8/26/2004 4:31:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2004 4:31:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2004 4:31:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Naphthalene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Nitrobenzene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Phenanthrene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Phenol	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Pyrene	ND	10		µg/L	1	8/26/2004 4:31:00 PM
Surr: 2,4,6-Tribromophenol	92.4	39-153		%REC	1	8/26/2004 4:31:00 PM
Surr: 2-Fluorobiphenyl	91.8	40-147		%REC	1	8/26/2004 4:31:00 PM
Surr: 2-Fluorophenol	56.0	21-110		%REC	1	8/26/2004 4:31:00 PM
Surr: 4-Terphenyl-d14	98.5	39-141		%REC	1	8/26/2004 4:31:00 PM
Surr: Nitrobenzene-d5	92.4	37-140		%REC	1	8/26/2004 4:31:00 PM
Surr: Phenol-d6	33.4	11-100		%REC	1	8/26/2004 4:31:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
2-Butanone	ND	10		µg/L	1	8/27/2004 7:17:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/27/2004 7:17:00 PM
2-Hexanone	ND	10		µg/L	1	8/27/2004 7:17:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Acetone	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Benzene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Bromoform	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Bromomethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/27/2004 7:17:00 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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-01

Client Sample ID: RA3333
Collection Date: 8/23/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Chloroethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Chloroform	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Chloromethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
m,p-Xylene	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Methylene chloride	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Styrene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Toluene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/27/2004 7:17:00 PM
Vinyl acetate	ND	10		µg/L	1	8/27/2004 7:17:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/27/2004 7:17:00 PM
Xylenes, Total	ND	15		µg/L	1	8/27/2004 7:17:00 PM
Surr: 1,2-Dichloroethane-d4	99.6	71-126		%REC	1	8/27/2004 7:17:00 PM
Surr: 4-Bromofluorobenzene	94.1	74-125		%REC	1	8/27/2004 7:17:00 PM
Surr: Dibromofluoromethane	94.8	73-126		%REC	1	8/27/2004 7:17:00 PM
Surr: Toluene-d8	90.9	75-125		%REC	1	8/27/2004 7:17:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	174	5.00		mg/L	10	8/30/2004 6:42:00 PM
Fluoride	0.510	0.100		mg/L	1	8/30/2004 6:13:00 PM
Sulfate	1,060	100		mg/L	100	8/30/2004 7:10:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	1	8/30/2004 6:13:00 PM
Surr: Dichloroacetic acid (surr)	99.2	80-120		%REC	10	8/30/2004 6:42:00 PM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	100	8/30/2004 7:10:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	160	5.00		mg/L	1	9/4/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Total (As CaCO3)	160	5.00		mg/L	1	9/4/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	8/27/2004

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 Analytical, Inc.
Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-02

Client Sample ID: RA314
Collection Date: 8/23/2004 9:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	9/2/2004 3:54:35 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0200		mg/L	2	9/1/2004 3:34:00 PM
Arsenic	ND	0.00500		mg/L	1	8/31/2004 12:38:00 AM
Barium	0.0211	0.00500		mg/L	1	8/31/2004 12:38:00 AM
Beryllium	ND	0.00400		mg/L	2	9/1/2004 3:34:00 PM
Boron	0.0537	0.0400		mg/L	2	9/1/2004 3:34:00 PM
Cadmium	ND	0.00100		mg/L	1	8/31/2004 12:38:00 AM
Calcium	284	25.0		mg/L	50	8/30/2004 8:26:00 PM
Chromium	ND	0.00400		mg/L	2	9/1/2004 3:34:00 PM
Cobalt	ND	0.00400		mg/L	2	9/1/2004 3:34:00 PM
Copper	ND	0.00400		mg/L	2	9/1/2004 3:34:00 PM
Iron	0.703	0.400		mg/L	2	9/1/2004 3:34:00 PM
Lead	ND	0.00500		mg/L	1	8/31/2004 12:38:00 AM
Magnesium	73.5	2.00		mg/L	10	8/30/2004 8:49:00 PM
Manganese	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
Molybdenum	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
Nickel	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
Potassium	1.53	0.400		mg/L	2	9/1/2004 3:34:00 PM
Selenium	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
Silver	ND	0.00500		mg/L	1	8/31/2004 12:38:00 AM
Sodium	119	2.00		mg/L	10	8/30/2004 8:49:00 PM
Vanadium	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
Zinc	ND	0.0100		mg/L	2	9/1/2004 3:34:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2-Methylphenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/26/2004 5:51:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/26/2004 5:51:00 PM
4-Methylphenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/26/2004 5:51:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Acenaphthene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Acenaphthylene	ND	10		µg/L	1	8/26/2004 5:51:00 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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-02

Client Sample ID: RA314
Collection Date: 8/23/2004 9:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Anthracene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Benzidine	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Hexachloroethane	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Isophorone	ND	10		µg/L	1	8/26/2004 5:51:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2004 5:51:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2004 5:51:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Naphthalene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Nitrobenzene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Phenanthrene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Phenol	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Pyrene	ND	10		µg/L	1	8/26/2004 5:51:00 PM
Surr: 2,4,6-Tribromophenol	93.0	39-153		%REC	1	8/26/2004 5:51:00 PM
Surr: 2-Fluorobiphenyl	94.7	40-147		%REC	1	8/26/2004 5:51:00 PM
Surr: 2-Fluorophenol	57.3	21-110		%REC	1	8/26/2004 5:51:00 PM
Surr: 4-Terphenyl-d14	100	39-141		%REC	1	8/26/2004 5:51:00 PM
Surr: Nitrobenzene-d5	94.1	37-140		%REC	1	8/26/2004 5:51:00 PM
Surr: Phenol-d6	34.7	11-100		%REC	1	8/26/2004 5:51:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
2-Butanone	ND	10		µg/L	1	8/27/2004 7:44:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/27/2004 7:44:00 PM
2-Hexanone	ND	10		µg/L	1	8/27/2004 7:44:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Acetone	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Benzene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Bromoform	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Bromomethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/27/2004 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

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e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
 Work Order: 0408264
 Project: Monthly
 Lab ID: 0408264-02

Client Sample ID: RA314
 Collection Date: 8/23/2004 9:15:00 AM
 Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Chloroethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Chloroform	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Chloromethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
m,p-Xylene	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Methylene chloride	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Styrene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Toluene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/27/2004 7:44:00 PM
Vinyl acetate	ND	10		µg/L	1	8/27/2004 7:44:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/27/2004 7:44:00 PM
Xylenes, Total	ND	15		µg/L	1	8/27/2004 7:44:00 PM
Surr: 1,2-Dichloroethane-d4	97.7	71-126		%REC	1	8/27/2004 7:44:00 PM
Surr: 4-Bromofluorobenzene	95.6	74-125		%REC	1	8/27/2004 7:44:00 PM
Surr: Dibromofluoromethane	94.1	73-126		%REC	1	8/27/2004 7:44:00 PM
Surr: Toluene-d8	90.9	75-125		%REC	1	8/27/2004 7:44:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	232	5.00		mg/L	10	8/30/2004 8:07:00 PM
Fluoride	0.900	0.100		mg/L	1	8/30/2004 7:39:00 PM
Sulfate	644	100		mg/L	100	8/30/2004 8:36:00 PM
Surr: Dichloroacetic acid (surr)	99.6	80-120		%REC	1	8/30/2004 7:39:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	10	8/30/2004 8:07:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	100	8/30/2004 8:36:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	170	5.00		mg/L	1	9/4/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Total (As CaCO3)	170	5.00		mg/L	1	9/4/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	8/27/2004

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 Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
 Work Order: 0408264
 Project: Monthly
 Lab ID: 0408264-03

Client Sample ID: RA307
 Collection Date: 8/24/2004 9:00:00 AM
 Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 9/1/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	9/2/2004 3:56:07 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 8/30/2004	Analyst: ALR
Aluminum	ND	0.0200		mg/L	2	9/1/2004 3:39:00 PM
Arsenic	ND	0.00500		mg/L	1	8/31/2004 1:10:00 AM
Barium	0.0101	0.00500		mg/L	1	8/31/2004 1:10:00 AM
Beryllium	ND	0.00400		mg/L	2	9/1/2004 3:39:00 PM
Boron	0.102	0.0400		mg/L	2	9/1/2004 3:39:00 PM
Cadmium	ND	0.00100		mg/L	1	8/31/2004 1:10:00 AM
Calcium	378	25.0		mg/L	50	8/30/2004 8:30:00 PM
Chromium	ND	0.00400		mg/L	2	9/1/2004 3:39:00 PM
Cobalt	ND	0.00400		mg/L	2	9/1/2004 3:39:00 PM
Copper	ND	0.00400		mg/L	2	9/1/2004 3:39:00 PM
Iron	1.07	0.400		mg/L	2	9/1/2004 3:39:00 PM
Lead	ND	0.00500		mg/L	1	8/31/2004 1:10:00 AM
Magnesium	104	2.00		mg/L	10	8/30/2004 8:53:00 PM
Manganese	ND	0.0100		mg/L	2	9/1/2004 3:39:00 PM
Molybdenum	ND	0.0100		mg/L	2	9/1/2004 3:39:00 PM
Nickel	ND	0.0100		mg/L	2	9/1/2004 3:39:00 PM
Potassium	2.10	0.400		mg/L	2	9/1/2004 3:39:00 PM
Selenium	ND	0.0100		mg/L	2	9/1/2004 3:39:00 PM
Silver	ND	0.00500		mg/L	1	8/31/2004 1:10:00 AM
Sodium	80.4	2.00		mg/L	10	8/30/2004 8:53:00 PM
Vanadium	ND	0.0100		mg/L	2	9/1/2004 3:39:00 PM
Zinc	0.0112	0.0100		mg/L	2	9/1/2004 3:39:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 8/26/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2-Methylphenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:58:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:58:00 PM
4-Methylphenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/26/2004 4:58:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Acenaphthene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Acenaphthylene	ND	10		µg/L	1	8/26/2004 4:58:00 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

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e-Lab Analytical, Inc.

Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-03

Client Sample ID: RA307
Collection Date: 8/24/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Anthracene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Benzidine	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Hexachloroethane	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Isophorone	ND	10		µg/L	1	8/26/2004 4:58:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/26/2004 4:58:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/26/2004 4:58:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Naphthalene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Nitrobenzene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Phenanthrene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Phenol	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Pyrene	ND	10		µg/L	1	8/26/2004 4:58:00 PM
Surr: 2,4,6-Tribromophenol	95.9	39-153		%REC	1	8/26/2004 4:58:00 PM
Surr: 2-Fluorobiphenyl	91.1	40-147		%REC	1	8/26/2004 4:58:00 PM
Surr: 2-Fluorophenol	58.8	21-110		%REC	1	8/26/2004 4:58:00 PM
Surr: 4-Terphenyl-d14	103	39-141		%REC	1	8/26/2004 4:58:00 PM
Surr: Nitrobenzene-d5	97.7	37-140		%REC	1	8/26/2004 4:58:00 PM
Surr: Phenol-d6	34.2	11-100		%REC	1	8/26/2004 4:58:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
2-Butanone	ND	10		µg/L	1	8/27/2004 8:12:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/27/2004 8:12:00 PM
2-Hexanone	ND	10		µg/L	1	8/27/2004 8:12:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Acetone	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Benzene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Bromoform	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Bromomethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Carbon disulfide	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/27/2004 8:12:00 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

AR Page 8 of 9

e-Lab Analytical, Inc.
Date: September 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0408264
Project: Monthly
Lab ID: 0408264-03

Client Sample ID: RA307
Collection Date: 8/24/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Chloroethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Chloroform	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Chloromethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
m,p-Xylene	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Methylene chloride	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Styrene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Toluene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/27/2004 8:12:00 PM
Vinyl acetate	ND	10		µg/L	1	8/27/2004 8:12:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/27/2004 8:12:00 PM
Xylenes, Total	ND	15		µg/L	1	8/27/2004 8:12:00 PM
Surr: 1,2-Dichloroethane-d4	99.1	71-126		%REC	1	8/27/2004 8:12:00 PM
Surr: 4-Bromofluorobenzene	91.7	74-125		%REC	1	8/27/2004 8:12:00 PM
Surr: Dibromofluoromethane	94.9	73-126		%REC	1	8/27/2004 8:12:00 PM
Surr: Toluene-d8	90.0	75-125		%REC	1	8/27/2004 8:12:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	240	50.0		mg/L	100	8/30/2004 10:30:00 PM
Fluoride	0.670	0.100		mg/L	1	8/30/2004 10:01:00 PM
Sulfate	1,070	100		mg/L	100	8/30/2004 10:30:00 PM
Surr: Dichloroacetic acid (surr)	97.4	80-120		%REC	1	8/30/2004 10:01:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	100	8/30/2004 10:30:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	180	5.00		mg/L	1	9/4/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	9/4/2004
Alkalinity, Total (As CaCO3)	180	5.00		mg/L	1	9/4/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	8/27/2004

Qualifiers: ND - Not Detected at the Reporting Limit
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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 Analytical, Inc.

Date: Sep 08 2004

CLIENT: Navajo Refining Company
 Work Order: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 20:12

Client ID: Run ID: ICP4500_040830A SeqNo: 530222 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.002677	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	0.0005799	0.0050								J
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: MBLKW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:01

Client ID: Run ID: ICP4500_040831A SeqNo: 530776 Prep Date: 8/30/2004 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: 0408264
Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 20:17

Client ID: Run ID: ICP4500_040830A SeqNo: 530223 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04757	0.010	0.05	0	95.1	79-126	0			
Arsenic	0.05152	0.0050	0.05	0	103	80-121	0			
Barium	0.04751	0.0050	0.05	0	95	79.8-119	0			
Cadmium	0.05347	0.0020	0.05	0	107	79.1-119	0			
Calcium	4.878	0.50	5	0	97.6	80-121	0			
Chromium	0.04761	0.0050	0.05	0	95.2	79.3-121	0			
Cobalt	0.04731	0.0050	0.05	0	94.6	82-121	0			
Copper	0.04806	0.0050	0.05	0	96.1	83-121	0			
Iron	5.001	0.20	5	0	100	80-120	0			
Lead	0.04753	0.0050	0.05	0	95.1	80-118	0			
Magnesium	4.96	0.20	5	0	99.2	80-120	0			
Manganese	0.0474	0.0050	0.05	0	94.8	82-119	0			
Molybdenum	0.04627	0.0050	0.05	0	92.5	84.6-115	0			
Nickel	0.04857	0.0050	0.05	0	97.1	85-120	0			
Potassium	4.853	0.20	5	0	97.1	80-120	0			
Selenium	0.05145	0.0050	0.05	0	103	79.2-118	0			
Silver	0.04885	0.0050	0.05	0	97.7	83-117	0			
Sodium	4.806	0.20	5	0	96.1	82.4-120	0			
Vanadium	0.04723	0.0050	0.05	0	94.5	82.1-119	0			
Zinc	0.05094	0.0050	0.05	0	102	83-118	0			

LCS Sample ID: MLCSW2-083004 Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:05

Client ID: Run ID: ICP4500_040831A SeqNo: 530777 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05131	0.0020	0.05	0	103	78.9-120	0			
Boron	0.523	0.020	0.5	0	105	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MS Sample ID: 0408268-12CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:14

Client ID: Run ID: ICP4500_040830A SeqNo: 530241 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05115	0.0050	0.05	0.0007524	101	80-121	0			
Barium	0.2558	0.0050	0.05	0.1996	112	79.8-119	0			
Cadmium	0.04843	0.0020	0.05	0.00001543	96.8	79.1-119	0			
Calcium	83.79	0.50	5	77.24	131	80-121	0			SEO
Chromium	0.04765	0.0050	0.05	0.0003644	94.6	79.3-121	0			
Cobalt	0.04738	0.0050	0.05	0.00043	93.9	82-121	0			
Copper	0.04443	0.0050	0.05	0.001281	86.3	83-121	0			
Iron	5.454	0.20	5	0.402	101	80-120	0			
Magnesium	24.85	0.20	5	19.28	111	80-120	0			
Manganese	0.399	0.0050	0.05	0.3394	119	82-119	0			SO
Molybdenum	0.04852	0.0050	0.05	0.001933	93.2	84.6-115	0			
Nickel	0.05548	0.0050	0.05	0.009514	91.9	85-120	0			
Potassium	6.483	0.20	5	1.514	99.4	80-120	0			
Selenium	0.05212	0.0050	0.05	0.002385	99.5	79.2-118	0			
Silver	0.04199	0.0050	0.05	-0.00001199	84	83-117	0			
Sodium	ND	0.20	5	0	0	82.4-120	0			S
Vanadium	0.04855	0.0050	0.05	0.00006859	97	82.1-119	0			
Zinc	0.06433	0.0050	0.05	0.01875	91.2	83-118	0			

MS Sample ID: 0408268-12CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:42

Client ID: Run ID: ICP4500_040831A SeqNo: 530785 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05209	0.010	0.05	0.009535	85.1	79-126	0			
Beryllium	0.05688	0.0020	0.05	0.0001063	114	78.9-120	0			
Boron	0.688	0.020	0.5	0.1088	116	80-120	0			
Lead	0.04985	0.0050	0.05	0.001456	96.8	80-118	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

MSD Sample ID: 0408268-12CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:19

Client ID: Run ID: ICP4500_040830A SeqNo: 530242 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05077	0.0050	0.05	0.0007524	100	80-121	0.05115	0.746	15	
Barium	0.2579	0.0050	0.05	0.1996	117	79.8-119	0.2558	0.818	15	
Cadmium	0.0489	0.0020	0.05	0.00001543	97.8	79.1-119	0.04843	0.966	15	
Calcium	84.41	0.50	5	77.24	143	80-121	83.79	0.737	15	SEO
Chromium	0.04751	0.0050	0.05	0.0003644	94.3	79.3-121	0.04765	0.294	15	
Cobalt	0.04836	0.0050	0.05	0.00043	95.9	82-121	0.04738	2.05	15	
Copper	0.04621	0.0050	0.05	0.001281	89.9	83-121	0.04443	3.93	15	
Iron	5.518	0.20	5	0.402	102	80-120	5.454	1.17	15	
Magnesium	25.41	0.20	5	19.28	123	80-120	24.85	2.23	15	S
Manganese	0.401	0.0050	0.05	0.3394	123	82-119	0.399	0.5	15	SO
Molybdenum	0.04937	0.0050	0.05	0.001933	94.9	84.6-115	0.04852	1.74	15	
Nickel	0.05616	0.0050	0.05	0.009514	93.3	85-120	0.05548	1.22	15	
Potassium	6.839	0.20	5	1.514	106	80-120	6.483	5.34	15	
Selenium	0.04824	0.0050	0.05	0.002385	91.7	79.2-118	0.05212	7.73	15	
Silver	0.04292	0.0050	0.05	-0.00001199	85.9	83-117	0.04199	2.19	15	
Sodium	ND	0.20	5	0	0	82.4-120	0	0	15	S
Vanadium	0.04823	0.0050	0.05	0.00006859	96.3	82.1-119	0.04855	0.661	15	
Zinc	0.06447	0.0050	0.05	0.01875	91.4	83-118	0.06433	0.217	15	

MSD Sample ID: 0408268-12CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:47

Client ID: Run ID: ICP4500_040831A SeqNo: 530786 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05095	0.010	0.05	0.009535	82.8	79-126	0.05209	2.21	15	
Beryllium	0.05577	0.0020	0.05	0.0001063	111	78.9-120	0.05688	1.97	15	
Boron	0.6599	0.020	0.5	0.1088	110	80-120	0.688	4.17	15	
Lead	0.0502	0.0050	0.05	0.001456	97.5	80-118	0.04985	0.7	15	

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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10123 InstrumentID: ICP4500

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 22:09

Client ID: Run ID: ICP4500_040830A SeqNo: 530240 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050	0	0	0	0-0	0.0007524	0	25	
Barium	0.2114	0.0050	0	0	0	0-0	0.1996	5.74	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00001543	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0003644	0	25	
Cobalt	0.0004821	0.0050	0	0	0	0-0	0.00043	0	25	J
Copper	0.001396	0.0050	0	0	0	0-0	0.001281	0	25	J
Iron	0.3997	0.20	0	0	0	0-0	0.402	0.574	25	
Manganese	0.355	0.0050	0	0	0	0-0	0.3394	4.49	25	
Molybdenum	0.001976	0.0050	0	0	0	0-0	0.001933	0	25	J
Nickel	0.01001	0.0050	0	0	0	0-0	0.009514	5.08	25	
Potassium	1.617	0.20	0	0	0	0-0	1.514	6.58	25	
Selenium	0.003151	0.0050	0	0	0	0-0	0.002385	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.00001199	0	25	
Vanadium	ND	0.0050	0	0	0	0-0	0.00006859	0	25	
Zinc	0.01958	0.0050	0	0	0	0-0	0.01875	4.33	25	

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:19

Client ID: Run ID: ICP4500_040831A SeqNo: 530780 Prep Date: 8/30/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	78.06	5.0	0	0	0	0-0	78.59	0.677	25	
Magnesium	21.17	2.0	0	0	0	0-0	21.66	2.29	25	
Sodium	142.8	2.0	0	0	0	0-0	146.7	2.69	25	

DUP Sample ID: 0408268-12CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/31/04 16:38

Client ID: Run ID: ICP4500_040831A SeqNo: 530784 Prep Date: 8/30/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.0083	0.010	0	0	0	0-0	0.009535	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.0001063	0	25	
Boron	0.09469	0.020	0	0	0	0-0	0.1088	13.9	25	
Lead	0.001322	0.0050	0	0	0	0-0	0.001456	0	25	J

The following samples were analyzed in this batch:

0408264-01C 0408264-02C 0408264-03C

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: 0408264
Project: Monthly

QC BATCH REPORT

Batch ID: 10174 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:20

Client ID: Run ID: MERCURY_040902A SeqNo: 531889 Prep Date: 9/1/2004 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: GLCSW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:22

Client ID: Run ID: MERCURY_040902A SeqNo: 531890 Prep Date: 9/1/2004 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	100	83-115	0			

LCSD Sample ID: GLCSDW1-090104 Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:23

Client ID: Run ID: MERCURY_040902A SeqNo: 531891 Prep Date: 9/1/2004 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	100	83-115	0.00501	0	20	

MS Sample ID: 0408263-07BMS Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:37

Client ID: Run ID: MERCURY_040902A SeqNo: 531894 Prep Date: 9/1/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00539	0.00020	0.005	0.000038	107	83-115	0			

MSD Sample ID: 0408263-07BMSD Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:38

Client ID: Run ID: MERCURY_040902A SeqNo: 531895 Prep Date: 9/1/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0055	0.00020	0.005	0.000038	109	83-115	0.00539	2.02	20	

DUP Sample ID: 0408263-07BDUP Test Code: SW7470 Units: mg/L Analysis Date: 09/02/04 15:32

Client ID: Run ID: MERCURY_040902A SeqNo: 531893 Prep Date: 9/1/2004 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	0.000038	0	20	

The following samples were analyzed in this batch:

0408264-01C 0408264-02C 0408264-03C

ND - Not Detected at the Reporting Limit

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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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10093 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040826 Test Code: SW8270 Units: µg/L Analysis Date: 08/26/04 17:25

Client ID: Run ID: SV-3_040826B SeqNo: 529610 Prep Date: 8/26/2004 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	89.64	10	100	0	89.6	39-153	0			
Surr: 2-Fluorobiphenyl	80.34	10	100	0	80.3	40-147	0			
Surr: 2-Fluorophenol	48.61	10	100	0	48.6	21-110	0			
Surr: 4-Terphenyl-d14	98	10	100	0	98	39-141	0			
Surr: Nitrobenzene-d5	85.66	10	100	0	85.7	37-140	0			
Surr: Phenol-d6	28.79	10	100	0	28.8	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10093 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040826 Test Code: SW8270 Units: µg/L Analysis Date: 08/27/04 14:00

Client ID: Run ID: SV-3_040826B SeqNo: 529619 Prep Date: 8/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.63	10	50	0	81.3	50-115	0			
2,4,5-Trichlorophenol	104.9	10	100	0	105	68-128	0			
2,4,6-Trichlorophenol	90.93	10	100	0	90.9	66-125	0			
2-Methylnaphthalene	41.58	10	50	0	83.2	47-122	0			
2-Methylphenol	80.98	10	100	0	81	51-115	0			
2-Nitroaniline	52.51	10	50	0	105	64-128	0			
2-Nitrophenol	92.25	10	100	0	92.2	60-119	0			
3-Nitroaniline	44.2	10	50	0	88.4	61-118	0			
4-Methylphenol	117.3	10	150	0	78.2	44-115	0			
4-Nitroaniline	49.16	10	50	0	98.3	61-123	0			
4-Nitrophenol	49.96	10	100	0	50	17-100	0			
Acenaphthene	48.5	10	50	0	97	68-115	0			
Acenaphthylene	48.53	10	50	0	97.1	67-116	0			
Aniline	35.31	10	50	0	70.6	40-130	0			
Anthracene	55.46	10	50	0	111	70-129	0			
Benz(a)anthracene	50.66	10	50	0	101	55-131	0			
Benzidine	12.12	10	50	0	24.2	10-115	0			
Hexachloroethane	36.89	10	50	0	73.8	46-115	0			
Indeno(1,2,3-cd)pyrene	59.44	10	50	0	119	42-123	0			
Isophorone	52.31	10	50	0	105	63-117	0			
N-Nitrosodi-n-propylamine	50.85	10	50	0	102	67-115	0			
N-Nitrosodimethylamine	24.74	10	50	0	49.5	28-115	0			
N-Nitrosodiphenylamine	57.55	10	50	0	115	72-144	0			
Naphthalene	44.13	10	50	0	88.3	52-115	0			
Nitrobenzene	46.19	10	50	0	92.4	65-115	0			
Pentachlorophenol	81.88	10	100	0	81.9	65-123	0			
Phenanthrene	48.61	10	50	0	97.2	69-119	0			
Phenol	44.41	10	100	0	44.4	16-115	0			
Pyrene	52.43	10	50	0	105	51-130	0			
Surr: 2,4,6-Tribromophenol	96.86	10	100	0	96.9	39-153	0			
Surr: 2-Fluorobiphenyl	90.5	10	100	0	90.5	40-147	0			
Surr: 2-Fluorophenol	60.22	10	100	0	60.2	21-110	0			
Surr: 4-Terphenyl-d14	102.5	10	100	0	102	39-141	0			
Surr: Nitrobenzene-d5	92.93	10	100	0	92.9	37-140	0			
Surr: Phenol-d6	41.18	10	100	0	41.2	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: 10093 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040826 Test Code: SW8270 Units: µg/L Analysis Date: 08/27/04 14:26

Client ID: Run ID: SV-3_040826B SeqNo: 529620 Prep Date: 8/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.28	10	50	0	82.6	50-115	40.63	1.6	30	
2,4,5-Trichlorophenol	110.1	10	100	0	110	68-128	104.9	4.88	30	
2,4,6-Trichlorophenol	89.78	10	100	0	89.8	66-125	90.93	1.27	30	
2-Methylnaphthalene	39.88	10	50	0	79.8	47-122	41.58	4.18	30	
2-Methylphenol	78.96	10	100	0	79	51-115	80.98	2.52	30	
2-Nitroaniline	50.71	10	50	0	101	64-128	52.51	3.49	30	
2-Nitrophenol	91.71	10	100	0	91.7	60-119	92.25	0.587	30	
3-Nitroaniline	44.38	10	50	0	88.8	61-118	44.2	0.412	30	
4-Methylphenol	112.8	10	150	0	75.2	44-115	117.3	3.94	30	
4-Nitroaniline	47.78	10	50	0	95.6	61-123	49.16	2.85	30	
4-Nitrophenol	46.33	10	100	0	46.3	17-100	49.96	7.55	30	
Acenaphthene	48.41	10	50	0	96.8	68-115	48.5	0.179	30	
Acenaphthylene	47.73	10	50	0	95.5	67-116	48.53	1.67	30	
Aniline	32.71	10	50	0	65.4	40-130	35.31	7.64	30	
Anthracene	55.73	10	50	0	111	70-129	55.46	0.484	30	
Benz(a)anthracene	50.26	10	50	0	101	55-131	50.66	0.788	30	
Benzidine	12.23	10	50	0	24.5	10-115	12.12	0.914	30	
Hexachloroethane	38.13	10	50	0	76.3	46-115	36.89	3.3	30	
Indeno(1,2,3-cd)pyrene	59.13	10	50	0	118	42-123	59.44	0.523	30	
Isophorone	50.72	10	50	0	101	63-117	52.31	3.08	30	
N-Nitrosodi-n-propylamine	48.01	10	50	0	96	67-115	50.85	5.75	30	
N-Nitrosodimethylamine	24.44	10	50	0	48.9	28-115	24.74	1.23	30	
N-Nitrosodiphenylamine	57.49	10	50	0	115	72-144	57.55	0.111	30	
Naphthalene	43.72	10	50	0	87.4	52-115	44.13	0.931	30	
Nitrobenzene	45.57	10	50	0	91.1	65-115	46.19	1.36	30	
Pentachlorophenol	77.67	10	100	0	77.7	65-123	81.88	5.27	30	
Phenanthrene	48.36	10	50	0	96.7	69-119	48.61	0.513	30	
Phenol	42.57	10	100	0	42.6	16-115	44.41	4.23	30	
Pyrene	51.87	10	50	0	104	51-130	52.43	1.08	30	
Surr: 2,4,6-Tribromophenol	91.18	10	100	0	91.2	39-153	96.86	6.05	30	
Surr: 2-Fluorobiphenyl	89.28	10	100	0	89.3	40-147	90.5	1.36	30	
Surr: 2-Fluorophenol	57.48	10	100	0	57.5	21-110	60.22	4.67	30	
Surr: 4-Terphenyl-d14	99.47	10	100	0	99.5	39-141	102.5	2.98	30	
Surr: Nitrobenzene-d5	91.28	10	100	0	91.3	37-140	92.93	1.79	30	
Surr: Phenol-d6	39.39	10	100	0	39.4	11-100	41.18	4.45	30	

The following samples were analyzed in this batch:

0408264-01E 0408264-02E 0408264-03E

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: 0408264
Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0827 Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 12:47

Client ID: Run ID: VOA1_040827A SeqNo: 529561 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								
Methyl tert-butyl ether	ND	5.0								
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	47.79	5.0	50	0	95.6	71-126		0		
Surr: 4-Bromofluorobenzene	47.27	5.0	50	0	94.5	74-125		0		
Surr: Dibromofluoromethane	45.58	5.0	50	0	91.2	73-126		0		
Surr: Toluene-d8	44.84	5.0	50	0	89.7	75-125		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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

LCS Sample ID: VLCSW-0827 Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 12:20

Client ID: Run ID: VOA1_040827A SeqNo: 529560 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	54.34	5.0	50	0	109	75.2-120	0			
1,1,2,2-Tetrachloroethane	45.77	5.0	50	0	91.5	72.4-121	0			
1,1,2-Trichloroethane	46.31	5.0	50	0	92.6	80-120	0			
1,1-Dichloroethane	45.74	5.0	50	0	91.5	76.9-120	0			
1,1-Dichloroethene	47.14	5.0	50	0	94.3	72.6-123	0			
1,2-Dichloroethane	53.59	5.0	50	0	107	80-120	0			
2-Butanone	76.8	10	100	0	76.8	69-131	0			
2-Chloroethyl vinyl ether	87.19	10	100	0	87.2	60-135	0			
2-Hexanone	79.78	10	100	0	79.8	55.6-126	0			
4-Methyl-2-pentanone	79.89	10	100	0	79.9	67.4-121	0			
Acetone	85.17	10	100	0	85.2	64.4-140	0			
Benzene	45.33	5.0	50	0	90.7	80-120	0			
Bromodichloromethane	52.17	5.0	50	0	104	80-120	0			
Bromoform	47.13	5.0	50	0	94.3	77.9-121	0			
Bromomethane	56.7	5.0	50	0	113	63.3-137	0			
Carbon disulfide	97.69	10	100	0	97.7	74.1-123	0			
Carbon tetrachloride	54.36	5.0	50	0	109	74.7-120	0			
Chlorobenzene	50.27	5.0	50	0	101	80-120	0			
Chloroethane	46.88	5.0	50	0	93.8	74.7-126	0			
Chloroform	49.36	5.0	50	0	98.7	80-120	0			
Chloromethane	42.23	5.0	50	0	84.5	64.5-132	0			
cis-1,3-Dichloropropene	47.24	5.0	50	0	94.5	80-120	0			
Dibromochloromethane	51	5.0	50	0	102	80-120	0			
Ethylbenzene	48.63	5.0	50	0	97.3	80-120	0			
m,p-Xylene	96.82	10	100	0	96.8	80-120	0			
Methyl tert-butyl ether	47.31	5.0	50	0	94.6	73.7-122	0			
Methylene chloride	46.44	10	50	0	92.9	76.2-120	0			
Styrene	48.31	5.0	50	0	96.6	80-120	0			
Tetrachloroethene	48.14	5.0	50	0	96.3	68.5-130	0			
Toluene	45.35	5.0	50	0	90.7	80-120	0			
trans-1,3-Dichloropropene	49.13	5.0	50	0	98.3	80-120	0			
Trichloroethene	48.7	5.0	50	0	97.4	78.9-120	0			
Vinyl acetate	106.8	10	100	0	107	62.4-133	0			
Vinyl chloride	49.78	2.0	50	0	99.6	72.7-128	0			
Xylenes, Total	144.7	15	150	0	96.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	47.77	5.0	50	0	95.5	71-126	0			
Surr: 4-Bromofluorobenzene	46.17	5.0	50	0	92.3	74-125	0			
Surr: Dibromofluoromethane	46.35	5.0	50	0	92.7	73-126	0			
Surr: Toluene-d8	45.19	5.0	50	0	90.4	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MS Sample ID: 0408248-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 15:06

Client ID: Run ID: VOA1_040827A SeqNo: 529563 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	964.3	100	1000	0	96.4	75.2-120	0			
1,1,2,2-Tetrachloroethane	887.2	100	1000	0	88.7	72.4-121	0			
1,1,2-Trichloroethane	881.8	100	1000	0	88.2	80-120	0			
1,1-Dichloroethane	841.3	100	1000	0	84.1	76.9-120	0			
1,1-Dichloroethene	853.4	100	1000	0	85.3	72.6-123	0			
1,2-Dichloroethane	1019	100	1000	0	102	80-120	0			
2-Butanone	1481	200	2000	0	74.1	69-131	0			
2-Chloroethyl vinyl ether	1727	200	2000	0	86.4	60-135	0			
2-Hexanone	1541	200	2000	0	77.1	55.6-126	0			
4-Methyl-2-pentanone	1532	200	2000	0	76.6	67.4-121	0			
Acetone	1498	200	2000	0	74.9	64.4-140	0			
Benzene	886.3	100	1000	0	88.6	80-120	0			
Bromodichloromethane	1018	100	1000	0	102	80-120	0			
Bromoform	961.1	100	1000	0	96.1	77.9-121	0			
Bromomethane	1046	100	1000	0	105	63.3-137	0			
Carbon disulfide	1778	200	2000	0	88.9	74.1-123	0			
Carbon tetrachloride	980.8	100	1000	0	98.1	74.7-120	0			
Chlorobenzene	925.5	100	1000	0	92.5	80-120	0			
Chloroethane	904	100	1000	0	90.4	74.7-126	0			
Chloroform	944	100	1000	0	94.4	80-120	0			
Chloromethane	857.9	100	1000	0	85.8	64.5-132	0			
cis-1,3-Dichloropropene	923.7	100	1000	0	92.4	80-120	0			
Dibromochloromethane	983.8	100	1000	0	98.4	80-120	0			
Ethylbenzene	927	100	1000	0	92.7	80-120	0			
m,p-Xylene	1811	200	2000	0	90.5	80-120	0			
Methyl tert-butyl ether	888	100	1000	0	88.8	73.7-122	0			
Methylene chloride	891.1	200	1000	29.06	86.2	76.2-120	0			
Styrene	931.2	100	1000	0	93.1	80-120	0			
Tetrachloroethene	879.2	100	1000	0	87.9	68.5-130	0			
Toluene	871.2	100	1000	0	87.1	80-120	0			
trans-1,3-Dichloropropene	979.1	100	1000	0	97.9	80-120	0			
Trichloroethene	930	100	1000	0	93	78.9-120	0			
Vinyl acetate	2017	200	2000	0	101	62.4-133	0			
Vinyl chloride	902	40	1000	0	90.2	72.7-128	0			
Xylenes, Total	2745	300	3000	0	91.5	80-120	0			
Surr: 1,2-Dichloroethane-d4	919.4	100	1000	0	91.9	71-126	0			
Surr: 4-Bromofluorobenzene	944.2	100	1000	0	94.4	74-125	0			
Surr: Dibromofluoromethane	893.5	100	1000	0	89.3	73-126	0			
Surr: Toluene-d8	888.7	100	1000	0	88.9	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: R22691 InstrumentID: VOA1

MSD Sample ID: 0408248-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 08/27/04 15:34

Client ID: Run ID: VOA1_040827A SeqNo: 529564 Prep Date: DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1031	100	1000	0	103	75.2-120	964.3	6.69	20	
1,1,2,2-Tetrachloroethane	933.7	100	1000	0	93.4	72.4-121	887.2	5.11	20	
1,1,2-Trichloroethane	927.4	100	1000	0	92.7	80-120	881.8	5.03	20	
1,1-Dichloroethane	889.5	100	1000	0	89	76.9-120	841.3	5.57	20	
1,1-Dichloroethene	923.3	100	1000	0	92.3	72.6-123	853.4	7.86	20	
1,2-Dichloroethane	1055	100	1000	0	105	80-120	1019	3.47	20	
2-Butanone	1604	200	2000	0	80.2	69-131	1481	7.97	20	
2-Chloroethyl vinyl ether	1742	200	2000	0	87.1	60-135	1727	0.855	20	
2-Hexanone	1665	200	2000	0	83.2	55.6-126	1541	7.69	20	
4-Methyl-2-pentanone	1623	200	2000	0	81.1	67.4-121	1532	5.74	20	
Acetone	1667	200	2000	0	83.4	64.4-140	1498	10.7	20	
Benzene	886.9	100	1000	0	88.7	80-120	886.3	0.0702	20	
Bromodichloromethane	1009	100	1000	0	101	80-120	1018	0.872	20	
Bromoform	1016	100	1000	0	102	77.9-121	961.1	5.55	20	
Bromomethane	1120	100	1000	0	112	63.3-137	1046	6.84	20	
Carbon disulfide	1894	200	2000	0	94.7	74.1-123	1778	6.3	20	
Carbon tetrachloride	1016	100	1000	0	102	74.7-120	980.8	3.56	20	
Chlorobenzene	963.8	100	1000	0	96.4	80-120	925.5	4.06	20	
Chloroethane	963.9	100	1000	0	96.4	74.7-126	904	6.42	20	
Chloroform	990.5	100	1000	0	99.1	80-120	944	4.81	20	
Chloromethane	876	100	1000	0	87.6	64.5-132	857.9	2.09	20	
cis-1,3-Dichloropropene	920.4	100	1000	0	92	80-120	923.7	0.36	20	
Dibromochloromethane	1040	100	1000	0	104	80-120	983.8	5.57	20	
Ethylbenzene	943.5	100	1000	0	94.3	80-120	927	1.76	20	
m,p-Xylene	1866	200	2000	0	93.3	80-120	1811	3.01	20	
Methyl tert-butyl ether	958.3	100	1000	0	95.8	73.7-122	888	7.61	20	
Methylene chloride	936.8	200	1000	29.06	90.8	76.2-120	891.1	5	20	
Styrene	972.6	100	1000	0	97.3	80-120	931.2	4.35	20	
Tetrachloroethene	940.3	100	1000	0	94	68.5-130	879.2	6.72	20	
Toluene	900.8	100	1000	0	90.1	80-120	871.2	3.34	20	
trans-1,3-Dichloropropene	976.2	100	1000	0	97.6	80-120	979.1	0.294	20	
Trichloroethene	946.6	100	1000	0	94.7	78.9-120	930	1.77	20	
Vinyl acetate	2173	200	2000	0	109	62.4-133	2017	7.45	20	
Vinyl chloride	939.7	40	1000	0	94	72.7-128	902	4.09	20	
Xylenes, Total	2822	300	3000	0	94.1	80-120	2745	2.78	20	
Surr: 1,2-Dichloroethane-d4	943.5	100	1000	0	94.4	71-126	919.4	2.59	20	
Surr: 4-Bromofluorobenzene	933.8	100	1000	0	93.4	74-125	944.2	1.11	20	
Surr: Dibromofluoromethane	924.1	100	1000	0	92.4	73-126	893.5	3.36	20	
Surr: Toluene-d8	864.9	100	1000	0	86.5	75-125	888.7	2.72	20	

The following samples were analyzed in this batch:

0408264-01A 0408264-02A 0408264-03A

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: 0408264
Project: Monthly

QC BATCH REPORT

Batch ID: R22666 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-082604 Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529072 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: WLCSW1-082604 Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529073 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2018	0.020	0.2	0	101	80-120	0			

MS Sample ID: 0408263-07CMS Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529086 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2037	0.020	0.2	0.0012	101	75-125	0			

MSD Sample ID: 0408263-07CMSD Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529087 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2019	0.020	0.2	0.0012	100	75-125	0.2037	0.888	25	

DUP Sample ID: 0408263-07CDUP Test Code: E335.3 Units: mg/L Analysis Date: 08/27/04 0:00

Client ID: Run ID: UV-2101PC_040827B SeqNo: 529085 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	0.0012	0	20	

The following samples were analyzed in this batch:

0408264-01D 0408264-02D 0408264-03D

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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: R22718 InstrumentID: IC201

MBLK Sample ID: WBLKW1-083004 Test Code: E300 Units: mg/L Analysis Date: 08/30/04 12:31

Client ID: Run ID: IC201_040830A SeqNo: 530136 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								
Surr: Dichloroacetic acid (surr)	5.1	0.10	5	0	102	80-120	0			

LCS Sample ID: WLCSW1-083004 Test Code: E300 Units: mg/L Analysis Date: 08/30/04 13:00

Client ID: Run ID: IC201_040830A SeqNo: 530137 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.05	0.50	10	0	90.5	80-120	0			
Fluoride	1.9	0.10	2	0	95	80-120	0			
Sulfate	9.67	1.0	10	0	96.7	80-120	0			
Surr: Dichloroacetic acid (surr)	5.42	0.10	5	0	108	80-120	0			

LCSD Sample ID: WLCSDW1-08300 Test Code: E300 Units: mg/L Analysis Date: 08/30/04 13:28

Client ID: Run ID: IC201_040830A SeqNo: 530138 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.06	0.50	10	0	90.6	80-120	9.05	0.11	20	
Fluoride	1.87	0.10	2	0	93.5	80-120	1.9	1.59	20	
Sulfate	9.62	1.0	10	0	96.2	80-120	9.67	0.518	20	
Surr: Dichloroacetic acid (surr)	5.05	0.10	5	0	101	80-120	5.42	7.07	20	

MS Sample ID: 0408208-02BMS Test Code: E300 Units: mg/L Analysis Date: 08/30/04 17:16

Client ID: Run ID: IC201_040830A SeqNo: 530146 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	161.1	2.5	50	107.6	107	75-125	0			
Fluoride	9.75	0.50	10	1	87.5	75-125	0			
Sulfate	1762	5.0	50	1679	165	75-125	0			SEO
Surr: Dichloroacetic acid (surr)	22.4	0.50	25	0	89.6	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: 0408264
 Project: Monthly

QC BATCH REPORT

Batch ID: R22718 InstrumentID: IC201

MSD Sample ID: 0408208-02BMSD Test Code: E300 Units: mg/L Analysis Date: 08/30/04 17:45

Client ID: Run ID: IC201_040830A SeqNo: 530147 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	156.9	2.5	50	107.6	98.7	75-125	161.1	2.67	20	
Fluoride	9.6	0.50	10	1	86	75-125	9.75	1.55	20	
Sulfate	1722	5.0	50	1679	84.9	75-125	1762	2.31	20	EO
Surr: Dichloroacetic acid (surr)	22.35	0.50	25	0	89.4	80-120	22.4	0.223	20	

DUP Sample ID: 0408208-01BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 14:54

Client ID: Run ID: IC201_040830A SeqNo: 530141 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	212.7	5.0	0	0	0	0-0	213	0.141	20	
Fluoride	ND	1.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	51.4	1.0	50	0	103	80-120	52	1.16	20	

DUP Sample ID: 0408208-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 16:48

Client ID: Run ID: IC201_040830A SeqNo: 530145 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.6	2.5	0	0	0	0-0	107.6	0.887	20	
Fluoride	1	0.50	0	0	0	0-0	1	0	20	
Surr: Dichloroacetic acid (surr)	24.85	0.50	25	0	99.4	80-120	26.55	6.61	20	

DUP Sample ID: 0408293-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/31/04 1:49

Client ID: Run ID: IC201_040830A SeqNo: 530164 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	153	25	0	0	0	0-0	153	0	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1376	50	0	0	0	0-0	1376	0	20	
Surr: Dichloroacetic acid (surr)	261.5	5.0	250	0	105	80-120	261.5	0	20	

The following samples were analyzed in this batch:

0408264-01B 0408264-02B 0408264-03B

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: 0408264
Project: Monthly

QC BATCH REPORT

Batch ID: R22824 InstrumentID: WetChem

MBLK Sample ID: WBLKW1-090404 Test Code: E310.1 Units: mg/L Analysis Date: 09/04/04 0:00

Client ID: Run ID: WETCHEM_040904B SeqNo: 532629 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: WLCSW1-090404 Test Code: E310.1 Units: mg/L Analysis Date: 09/04/04 0:00

Client ID: Run ID: WETCHEM_040904B SeqNo: 532630 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)	1000	5.0	0	1	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: 0408260-01CDUP Test Code: E310.1 Units: mg/L Analysis Date: 09/04/04 0:00

Client ID: Run ID: WETCHEM_040904B SeqNo: 532631 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)	40.01	5.0	0	0	0	0-0	40.01	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)	40.01	5.0	0	0	0	0-0	40.01	7.5E-05	20	

The following samples were analyzed in this batch:

0408264-01B 0408264-02B 0408264-03B

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 Stancil 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

Customer Information				Project Information				e-Lab Project Manager:				e-Lab Work Order #:					
Project Name				Monthly				Parameter/Method Request for Analysis				Monthly					
Project Number																	
Bill To Company																	
Invoice Attn.				Some													
Address																	
City/State/Zip																	
Phone																	
Fax																	
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RA 3333	8/23/04	0900	L		8	X										
2	RA 314	8/23/04	0915	L		8	X										
3	RA 307	8/24/04	0900	L		8	X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Samplers(s): Please Print & Sign		Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
Requisitioned by:	Date:	Received by:	Date:	☐ 10 Wk Days	☐ 5 Wk Days	☐ 3 Wk Days	☐ Other
<i>[Signature]</i>	8/24/04	<i>[Signature]</i>	8/24/04				
Requisitioned by:	Date:	Received by (Laboratory):	Date:				
<i>[Signature]</i>	8/24/04	<i>[Signature]</i>	8/24/04				
Logged by (Laboratory):	Date:	Checked by (Laboratory):	Date:				

QC Package: (Check Box Below)	
☐ Level II: Standard QC	☐ Level III: Raw Data
☐ TRRP LRC	☐ TRRP Level IV
☐ Level IV: SWB46 Methods/CLP like	☐ Other:

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 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.

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 8/25/2004 8:40:00 AM

Work Order Number 0408264

Received by: RSZ

Checklist completed by

Signature

Date

8/25/04

Reviewed by

Initials

Date

RSZ

8/29/07

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):	<u>3.1C</u>	<u>003</u>	
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 Analytical, Inc.

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

September 01, 2004

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

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

Re: Monthly

Work Order : **0408208**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 8/18/2004 9:05:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, 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,

Electronically approved by: Patrina A. Dathorne

Jeffrey L. Croston

e-Lab Analytical, Inc.

Date: *September 01, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0408208

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0408208-01	RA3156	Water		8/16/2004 13:30	8/18/2004 09:05	☐
0408208-02	Larue	Water		8/16/2004 13:45	8/18/2004 09:05	☐

e-Lab Analytical, Inc.**Date:** *September 01, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0408208

Case Narrative

Batch 10057 Metals MS/MSD was an unrelated sample.

Batch 10012 Semivolatiles LCS/LCSD RPD recoveries were outside of control limits for N-Nitrosodimethylamine (36.3%). LCS/LCSD recoveries met method criteria.

Batch R22538 Volatiles MS/MSD/RPD was an unrelated sample.

Batch R22718 Anions(sample Larue)MS recovery was outside of control limits for Sulfate(165% E & O flagged).

e-Lab Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-01

Client Sample ID: RA3156
Collection Date: 8/16/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	8/27/2004 1:55:19 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	8/27/2004 2:44:00 AM
Arsenic	ND	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Barium	0.00900	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Beryllium	ND	0.00400		mg/L	2	8/31/2004 1:22:00 PM
Boron	0.213	0.0400		mg/L	2	8/31/2004 1:22:00 PM
Cadmium	ND	0.00100		mg/L	1	8/27/2004 2:44:00 AM
Calcium	465	25.0		mg/L	50	8/27/2004 3:37:00 PM
Chromium	ND	0.00200		mg/L	1	8/27/2004 2:44:00 AM
Cobalt	ND	0.00200		mg/L	1	8/27/2004 2:44:00 AM
Copper	0.00583	0.00200		mg/L	1	8/27/2004 2:44:00 AM
Iron	1.69	0.200		mg/L	1	8/27/2004 2:44:00 AM
Lead	ND	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Magnesium	143	10.0		mg/L	50	8/27/2004 3:37:00 PM
Manganese	ND	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Molybdenum	ND	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Nickel	0.00661	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Potassium	2.49	0.200		mg/L	1	8/27/2004 2:44:00 AM
Selenium	0.0141	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Silver	ND	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Sodium	163	10.0		mg/L	50	8/27/2004 3:37:00 PM
Vanadium	0.00726	0.00500		mg/L	1	8/27/2004 2:44:00 AM
Zinc	0.0461	0.00500		mg/L	1	8/27/2004 2:44:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2-Methylphenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/21/2004 3:39:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/21/2004 3:39:00 PM
4-Methylphenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/21/2004 3:39:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Acenaphthene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Acenaphthylene	ND	10		µg/L	1	8/21/2004 3:39:00 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 Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-01

Client Sample ID: RA3156
Collection Date: 8/16/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Anthracene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Benzidine	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Hexachloroethane	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Isophorone	ND	10		µg/L	1	8/21/2004 3:39:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/21/2004 3:39:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/21/2004 3:39:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Naphthalene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Nitrobenzene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Phenanthrene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Phenol	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Pyrene	ND	10		µg/L	1	8/21/2004 3:39:00 PM
Surr: 2,4,6-Tribromophenol	91.7	39-153		%REC	1	8/21/2004 3:39:00 PM
Surr: 2-Fluorobiphenyl	87.0	40-147		%REC	1	8/21/2004 3:39:00 PM
Surr: 2-Fluorophenol	39.6	21-110		%REC	1	8/21/2004 3:39:00 PM
Surr: 4-Terphenyl-d14	91.4	39-141		%REC	1	8/21/2004 3:39:00 PM
Surr: Nitrobenzene-d5	88.0	37-140		%REC	1	8/21/2004 3:39:00 PM
Surr: Phenol-d6	24.0	11-100		%REC	1	8/21/2004 3:39:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
2-Butanone	ND	10		µg/L	1	8/20/2004 11:33:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/20/2004 11:33:00 PM
2-Hexanone	ND	10		µg/L	1	8/20/2004 11:33:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Acetone	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Benzene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Bromoform	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Bromomethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Carbon disulfide	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/20/2004 11:33:00 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 Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-01

Client Sample ID: RA3156
Collection Date: 8/16/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Chloroethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Chloroform	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Chloromethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
m,p-Xylene	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Methylene chloride	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Styrene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Toluene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/20/2004 11:33:00 PM
Vinyl acetate	ND	10		µg/L	1	8/20/2004 11:33:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/20/2004 11:33:00 PM
Xylenes, Total	ND	15		µg/L	1	8/20/2004 11:33:00 PM
Surr: 1,2-Dichloroethane-d4	97.1	71-126		%REC	1	8/20/2004 11:33:00 PM
Surr: 4-Bromofluorobenzene	98.0	74-125		%REC	1	8/20/2004 11:33:00 PM
Surr: Dibromofluoromethane	96.9	73-126		%REC	1	8/20/2004 11:33:00 PM
Surr: Toluene-d8	94.6	75-125		%REC	1	8/20/2004 11:33:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	213	5.00		mg/L	10	8/30/2004 2:25:00 PM
Fluoride	0.420	0.100		mg/L	1	8/27/2004 8:56:00 PM
Sulfate	1,470	100		mg/L	100	8/27/2004 9:53:00 PM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	8/30/2004 2:25:00 PM
Surr: Dichloroacetic acid (surr)	101	80-120		%REC	1	8/27/2004 8:56:00 PM
Surr: Dichloroacetic acid (surr)	103	80-120		%REC	100	8/27/2004 9:53:00 PM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	240	5.00		mg/L	1	8/27/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	8/27/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	8/27/2004
Alkalinity, Total (As CaCO3)	240	5.00		mg/L	1	8/27/2004
CYANIDE, TOTAL		E335.3		Analyst: HDO		
Cyanide	ND	0.0200		mg/L	1	8/20/2004

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 Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-02

Client Sample ID: Larue
Collection Date: 8/16/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 8/27/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	8/27/2004 1:56:50 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 8/24/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	8/27/2004 2:48:00 AM
Arsenic	ND	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Barium	0.00756	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Beryllium	ND	0.00400		mg/L	2	8/31/2004 1:27:00 PM
Boron	0.252	0.0400		mg/L	2	8/31/2004 1:27:00 PM
Cadmium	ND	0.00100		mg/L	1	8/27/2004 2:48:00 AM
Calcium	377	25.0		mg/L	50	8/27/2004 3:41:00 PM
Chromium	ND	0.00200		mg/L	1	8/27/2004 2:48:00 AM
Cobalt	ND	0.00200		mg/L	1	8/27/2004 2:48:00 AM
Copper	0.0110	0.00200		mg/L	1	8/27/2004 2:48:00 AM
Iron	1.56	0.200		mg/L	1	8/27/2004 2:48:00 AM
Lead	ND	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Magnesium	147	10.0		mg/L	50	8/27/2004 3:41:00 PM
Manganese	0.00722	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Molybdenum	ND	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Nickel	0.00765	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Potassium	1.57	0.200		mg/L	1	8/27/2004 2:48:00 AM
Selenium	0.0133	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Silver	ND	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Sodium	109	10.0		mg/L	50	8/27/2004 3:41:00 PM
Vanadium	0.00738	0.00500		mg/L	1	8/27/2004 2:48:00 AM
Zinc	0.0461	0.00500		mg/L	1	8/27/2004 2:48:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 8/19/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2-Methylphenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/21/2004 4:04:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/21/2004 4:04:00 PM
4-Methylphenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/21/2004 4:04:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Acenaphthene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Acenaphthylene	ND	10		µg/L	1	8/21/2004 4:04:00 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

AR Page 4 of 6

e-Lab Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-02

Client Sample ID: Larue
Collection Date: 8/16/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Anthracene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Benzidine	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Hexachloroethane	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Isophorone	ND	10		µg/L	1	8/21/2004 4:04:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/21/2004 4:04:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/21/2004 4:04:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Naphthalene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Nitrobenzene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Phenanthrene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Phenol	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Pyrene	ND	10		µg/L	1	8/21/2004 4:04:00 PM
Surr: 2,4,6-Tribromophenol	100	39-153		%REC	1	8/21/2004 4:04:00 PM
Surr: 2-Fluorobiphenyl	96.4	40-147		%REC	1	8/21/2004 4:04:00 PM
Surr: 2-Fluorophenol	47.3	21-110		%REC	1	8/21/2004 4:04:00 PM
Surr: 4-Terphenyl-d14	105	39-141		%REC	1	8/21/2004 4:04:00 PM
Surr: Nitrobenzene-d5	99.5	37-140		%REC	1	8/21/2004 4:04:00 PM
Surr: Phenol-d6	30.0	11-100		%REC	1	8/21/2004 4:04:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/21/2004
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/21/2004
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/21/2004
1,1-Dichloroethane	ND	5.0		µg/L	1	8/21/2004
1,1-Dichloroethene	ND	5.0		µg/L	1	8/21/2004
1,2-Dichloroethane	ND	5.0		µg/L	1	8/21/2004
2-Butanone	ND	10		µg/L	1	8/21/2004
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/21/2004
2-Hexanone	ND	10		µg/L	1	8/21/2004
4-Methyl-2-pentanone	ND	10		µg/L	1	8/21/2004
Acetone	ND	10		µg/L	1	8/21/2004
Benzene	ND	5.0		µg/L	1	8/21/2004
Bromodichloromethane	ND	5.0		µg/L	1	8/21/2004
Bromoform	ND	5.0		µg/L	1	8/21/2004
Bromomethane	ND	5.0		µg/L	1	8/21/2004
Carbon disulfide	ND	10		µg/L	1	8/21/2004
Carbon tetrachloride	ND	5.0		µg/L	1	8/21/2004

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 Analytical, Inc.

Date: September 01, 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly
Lab ID: 0408208-02

Client Sample ID: Larue
Collection Date: 8/16/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/21/2004
Chloroethane	ND	5.0		µg/L	1	8/21/2004
Chloroform	ND	5.0		µg/L	1	8/21/2004
Chloromethane	ND	5.0		µg/L	1	8/21/2004
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/21/2004
Dibromochloromethane	ND	5.0		µg/L	1	8/21/2004
Ethylbenzene	ND	5.0		µg/L	1	8/21/2004
m,p-Xylene	ND	10		µg/L	1	8/21/2004
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/21/2004
Methylene chloride	ND	10		µg/L	1	8/21/2004
Styrene	ND	5.0		µg/L	1	8/21/2004
Tetrachloroethene	ND	5.0		µg/L	1	8/21/2004
Toluene	ND	5.0		µg/L	1	8/21/2004
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/21/2004
Trichloroethene	ND	5.0		µg/L	1	8/21/2004
Vinyl acetate	ND	10		µg/L	1	8/21/2004
Vinyl chloride	ND	2.0		µg/L	1	8/21/2004
Xylenes, Total	ND	15		µg/L	1	8/21/2004
Surr: 1,2-Dichloroethane-d4	94.5	71-126		%REC	1	8/21/2004
Surr: 4-Bromofluorobenzene	96.0	74-125		%REC	1	8/21/2004
Surr: Dibromofluoromethane	92.0	73-126		%REC	1	8/21/2004
Surr: Toluene-d8	94.7	75-125		%REC	1	8/21/2004
ANIONS BY ION CHROMATOGRAPHY		E300	Analyst: MG			
Chloride	108	2.50		mg/L	5	8/30/2004 4:19:00 PM
Fluoride	0.580	0.100		mg/L	1	8/27/2004 11:19:00 PM
Sulfate	1,350	50.0		mg/L	50	8/28/2004 1:41:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	1	8/27/2004 11:19:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	50	8/28/2004 1:41:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	5	8/30/2004 4:19:00 PM
ALKALINITY		E310.1	Analyst: HDO			
Alkalinity, Bicarbonate (As CaCO3)	260	5.00		mg/L	1	8/27/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	8/27/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	8/27/2004
Alkalinity, Total (As CaCO3)	260	5.00		mg/L	1	8/27/2004
CYANIDE, TOTAL		E335.3	Analyst: HDO			
Cyanide	ND	0.0200		mg/L	1	8/20/2004

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 Analytical, Inc.

Date: Sep 01 2004

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-082404 Test Code: SW6020 Units: mg/L Analysis Date: 08/26/04 15:08
Client ID: Run ID: ICP4500_040826A SeqNo: 528258 Prep Date: 8/24/2004 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								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	0.0007465	0.0050								J
Cobalt	ND	0.0050								
Copper	0.0006203	0.0050								J
Iron	ND	0.20								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	0.0004224	0.0050								J
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	0.002618	0.0050								J

MBLK Sample ID: MBLKW2-082404 Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 13:47
Client ID: Run ID: ICP4500_040827A SeqNo: 528874 Prep Date: 8/24/2004 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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-082404 Test Code: SW6020 Units: mg/L Analysis Date: 08/26/04 15:12

Client ID: Run ID: ICP4500_040826A SeqNo: 528259 Prep Date: 8/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04599	0.010	0.05	0	92	79-126	0			
Arsenic	0.04997	0.0050	0.05	0	99.9	80-121	0			
Barium	0.04525	0.0050	0.05	0	90.5	79.8-119	0			
Beryllium	0.04895	0.0020	0.05	0	97.9	78.9-120	0			
Boron	0.5059	0.020	0.5	0	101	80-120	0			
Cadmium	0.05147	0.0020	0.05	0	103	79.1-119	0			
Calcium	5.182	0.50	5	0	104	80-121	0			
Chromium	0.04982	0.0050	0.05	0	99.6	79.3-121	0			
Cobalt	0.04633	0.0050	0.05	0	92.7	82-121	0			
Copper	0.04556	0.0050	0.05	0	91.1	83-121	0			
Iron	5.009	0.20	5	0	100	80-120	0			
Magnesium	5.324	0.20	5	0	106	80-120	0			
Manganese	0.04816	0.0050	0.05	0	96.3	82-119	0			
Molybdenum	0.04551	0.0050	0.05	0	91	84.6-115	0			
Nickel	0.04581	0.0050	0.05	0	91.6	85-120	0			
Potassium	4.971	0.20	5	0	99.4	80-120	0			
Selenium	0.04602	0.0050	0.05	0	92	79.2-118	0			
Silver	0.04662	0.0050	0.05	0	93.2	83-117	0			
Sodium	5.234	0.20	5	0	105	82.4-120	0			
Vanadium	0.05052	0.0050	0.05	0	101	82.1-119	0			
Zinc	0.04787	0.0050	0.05	0	95.7	83-118	0			

LCS Sample ID: MLCSW2-082404 Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 14:05

Client ID: Run ID: ICP4500_040827A SeqNo: 528974 Prep Date: 8/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.04621	0.0050	0.05	0	92.4	80-118	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

MS Sample ID: 0408229-03CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/26/04 18:52

Client ID: Run ID: ICP4500_040826A SeqNo: 528478 Prep Date: 8/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	44.73	0.010	0.05	49.06	-8660	79-126	0			SEO
Arsenic	0.0486	0.0050	0.05	0.006301	84.6	80-121	0			
Barium	2.032	0.0050	0.05	2.002	60	79.8-119	0			SEO
Cadmium	0.04451	0.0020	0.05	0.000207	88.6	79.1-119	0			
Calcium	139.5	0.50	5	133.4	122	80-121	0			SEO
Chromium	0.09977	0.0050	0.05	0.06224	75.1	79.3-121	0			S
Cobalt	0.07669	0.0050	0.05	0.03599	81.4	82-121	0			S
Copper	0.07887	0.0050	0.05	0.04309	71.6	83-121	0			S
Iron	51.7	0.20	5	50.81	17.8	80-120	0			SEO
Lead	0.08246	0.0050	0.05	0.0361	92.7	80-118	0			
Magnesium	30.99	0.20	5	27.29	74	80-120	0			SO
Manganese	1.087	0.0050	0.05	1.034	106	82-119	0			EO
Molybdenum	0.03794	0.0050	0.05	0.001912	72.1	84.6-115	0			S
Nickel	0.1293	0.0050	0.05	0.0959	66.8	85-120	0			S
Potassium	12.81	0.20	5	8.906	78.1	80-120	0			S
Selenium	0.04797	0.0050	0.05	0.009056	77.8	79.2-118	0			S
Silver	0.0401	0.0050	0.05	0.00006557	80.1	83-117	0			S
Sodium	107.8	0.20	5	0	2160	82.4-120	0			SE
Vanadium	0.1005	0.0050	0.05	0.06367	73.7	82.1-119	0			S
Zinc	0.1693	0.0050	0.05	0.1234	91.8	83-118	0			

MS Sample ID: 0408229-03CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 16:58

Client ID: Run ID: ICP4500_040827A SeqNo: 529235 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05639	0.0040	0.05	0.008184	96.4	78.9-120	0			

MS Sample ID: 0408229-03CMS Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 14:03

Client ID: Run ID: ICP4500_040830A SeqNo: 529821 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6698	0.040	0.5	0.1338	107	80-120	0			

ND - Not Detected at the Reporting Limit

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R - RPD outside accepted recovery limits

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

MSD Sample ID: 0408229-03CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/26/04 18:57

Client ID: Run ID: ICP4500_040826A SeqNo: 528479 Prep Date: 8/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	41.38	0.010	0.05	49.06	-15400	79-126	44.73	7.78	15	SEO
Arsenic	0.04845	0.0050	0.05	0.006301	84.3	80-121	0.0486	0.309	15	
Barium	2.012	0.0050	0.05	2.002	20	79.8-119	2.032	0.989	15	SEO
Cadmium	0.04389	0.0020	0.05	0.000207	87.4	79.1-119	0.04451	1.4	15	
Calcium	137.5	0.50	5	133.4	82	80-121	139.5	1.44	15	EO
Chromium	0.09514	0.0050	0.05	0.06224	65.8	79.3-121	0.09977	4.75	15	S
Cobalt	0.07541	0.0050	0.05	0.03599	78.8	82-121	0.07669	1.68	15	S
Copper	0.07722	0.0050	0.05	0.04309	68.3	83-121	0.07887	2.11	15	S
Iron	48.56	0.20	5	50.81	-45	80-120	51.7	6.26	15	SO
Lead	0.08053	0.0050	0.05	0.0361	88.9	80-118	0.08246	2.37	15	
Magnesium	29.54	0.20	5	27.29	45	80-120	30.99	4.79	15	SO
Manganese	1.061	0.0050	0.05	1.034	54	82-119	1.087	2.42	15	SEO
Molybdenum	0.03756	0.0050	0.05	0.001912	71.3	84.6-115	0.03794	1.01	15	S
Nickel	0.1263	0.0050	0.05	0.0959	60.8	85-120	0.1293	2.35	15	S
Potassium	11.81	0.20	5	8.906	58.1	80-120	12.81	8.12	15	S
Selenium	0.04529	0.0050	0.05	0.009056	72.5	79.2-118	0.04797	5.75	15	S
Silver	0.03987	0.0050	0.05	0.00006557	79.6	83-117	0.0401	0.575	15	S
Sodium	ND	0.20	5	0	0	82.4-120	107.8	0	15	S
Vanadium	0.09608	0.0050	0.05	0.06367	64.8	82.1-119	0.1005	4.5	15	S
Zinc	0.1521	0.0050	0.05	0.1234	57.4	83-118	0.1693	10.7	15	S

MSD Sample ID: 0408229-03CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 17:03

Client ID: Run ID: ICP4500_040827A SeqNo: 529236 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.0552	0.0040	0.05	0.008184	94	78.9-120	0.05639	2.13	15	

MSD Sample ID: 0408229-03CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 14:07

Client ID: Run ID: ICP4500_040830A SeqNo: 529822 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6294	0.040	0.5	0.1338	99.1	80-120	0.6698	6.22	15	

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/26/04 18:48

Client ID: Run ID: ICP4500_040826A SeqNo: 528477 Prep Date: 8/24/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.005672	0.0050	0	0	0	0-0	0.006301	10.5	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.000207	0	25	
Chromium	0.05656	0.0050	0	0	0	0-0	0.06224	9.56	25	
Cobalt	0.03522	0.0050	0	0	0	0-0	0.03599	2.16	25	
Copper	0.04243	0.0050	0	0	0	0-0	0.04309	1.54	25	
Lead	0.03674	0.0050	0	0	0	0-0	0.0361	1.76	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001912	0	25	
Nickel	0.09089	0.0050	0	0	0	0-0	0.0959	5.36	25	
Potassium	8.115	0.20	0	0	0	0-0	8.906	9.29	25	
Selenium	0.007886	0.0050	0	0	0	0-0	0.009056	13.8	25	
Silver	ND	0.0050	0	0	0	0-0	0.00006557	0	25	
Vanadium	0.05761	0.0050	0	0	0	0-0	0.06367	9.99	25	
Zinc	0.1238	0.0050	0	0	0	0-0	0.1234	0.324	25	

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 14:14

Client ID: Run ID: ICP4500_040827A SeqNo: 528976 Prep Date: 8/24/2004 DF: 500

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	71.58	5.0	0	0	0	0-0	63.28	12.3	25	

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 14:23

Client ID: Run ID: ICP4500_040827A SeqNo: 528978 Prep Date: 8/24/2004 DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	1.842	0.25	0	0	0	0-0	1.927	4.51	25	

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 14:32

Client ID: Run ID: ICP4500_040827A SeqNo: 528980 Prep Date: 8/24/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	143.9	5.0	0	0	0	0-0	144.1	0.139	25	
Iron	50.55	2.0	0	0	0	0-0	53.36	5.41	25	
Magnesium	31.07	2.0	0	0	0	0-0	31.23	0.514	25	
Manganese	1.094	0.050	0	0	0	0-0	1.084	0.918	25	
Sodium	119.3	2.0	0	0	0	0-0	116.4	2.46	25	

ND - Not Detected at the Reporting Limit

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly

QC BATCH REPORT

Batch ID: 10057 InstrumentID: ICP4500

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/27/04 16:53
Client ID: Run ID: ICP4500_040827A SeqNo: 529234 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.008015	0.0040	0	0	0	0-0	0.008184	2.09	25	

DUP Sample ID: 0408229-03CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/30/04 13:58
Client ID: Run ID: ICP4500_040830A SeqNo: 529820 Prep Date: 8/24/2004 DF: 2

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.123	0.040	0	0	0	0-0	0.1338	8.41	25	

The following samples were analyzed in this batch:

0408208-01C 0408208-02C

ND - Not Detected at the Reporting Limit

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R - RPD outside accepted recovery limits

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CLIENT: Navajo Refining Company
 Work Order: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10096 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-082704 Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:32

Client ID: Run ID: MERCURY_040827A SeqNo: 528850 Prep Date: 8/27/2004 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: GLCSW1-082704 Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:34

Client ID: Run ID: MERCURY_040827A SeqNo: 528851 Prep Date: 8/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00495	0.00020	0.005	0	99	83-115	0			

LCSD Sample ID: GLCSDW1-082704 Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:35

Client ID: Run ID: MERCURY_040827A SeqNo: 528852 Prep Date: 8/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00477	0.00020	0.005	0	95.4	83-115	0.00495	3.7	20	

MS Sample ID: 0408189-07BMS Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:43

Client ID: Run ID: MERCURY_040827A SeqNo: 528855 Prep Date: 8/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00495	0.00020	0.005	0.00001	98.8	83-115	0			

MSD Sample ID: 0408189-07BMSD Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:44

Client ID: Run ID: MERCURY_040827A SeqNo: 528856 Prep Date: 8/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00512	0.00020	0.005	0.00001	102	83-115	0.00495	3.38	20	

DUP Sample ID: 0408189-07BDUP Test Code: SW7470 Units: mg/L Analysis Date: 08/27/04 13:41

Client ID: Run ID: MERCURY_040827A SeqNo: 528854 Prep Date: 8/27/2004 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	0.00001	0	20	

The following samples were analyzed in this batch:

0408208-01C 0408208-02C

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10012 InstrumentID: SV-2

MBLK Sample ID: SBLKW1-040819 Test Code: SW8270 Units: µg/L Analysis Date: 08/21/04 12:17

Client ID: Run ID: SV-2_040819A SeqNo: 526807 Prep Date: 8/19/2004 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	102.3	10	100	0	102	39-153		0		
Surr: 2-Fluorobiphenyl	92.86	10	100	0	92.9	40-147		0		
Surr: 2-Fluorophenol	39.91	10	100	0	39.9	21-110		0		
Surr: 4-Terphenyl-d14	98.4	10	100	0	98.4	39-141		0		
Surr: Nitrobenzene-d5	95.78	10	100	0	95.8	37-140		0		
Surr: Phenol-d6	23.4	10	100	0	23.4	11-100		0		

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R - RPD outside accepted recovery limits

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CLIENT: Navajo Refining Company
 Work Order: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10012 InstrumentID: SV-2

LCS Sample ID: SLCSW1-040819 Test Code: SW8270 Units: µg/L Analysis Date: 08/21/04 12:42

Client ID: Run ID: SV-2_040819A SeqNo: 526808 Prep Date: 8/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	52.78	10	50	0	106	50-115	0			
2,4,5-Trichlorophenol	107.2	10	100	0	107	68-128	0			
2,4,6-Trichlorophenol	105.8	10	100	0	106	66-125	0			
2-Methylnaphthalene	49.18	10	50	0	98.4	47-122	0			
2-Methylphenol	74.05	10	100	0	74	51-115	0			
2-Nitroaniline	55.15	10	50	0	110	64-128	0			
2-Nitrophenol	100.3	10	100	0	100	60-119	0			
3-Nitroaniline	48.47	10	50	0	96.9	61-118	0			
4-Methylphenol	98.48	10	150	0	65.7	44-115	0			
4-Nitroaniline	52.1	10	50	0	104	61-123	0			
4-Nitrophenol	45.46	10	100	0	45.5	17-100	0			
Acenaphthene	54.63	10	50	0	109	68-115	0			
Acenaphthylene	54.28	10	50	0	109	67-116	0			
Aniline	41.31	10	50	0	82.6	40-130	0			
Anthracene	55.92	10	50	0	112	70-129	0			
Benz(a)anthracene	55.88	10	50	0	112	55-131	0			
Benzidine	27.89	10	50	0	55.8	10-115	0			
Hexachloroethane	48.26	10	50	0	96.5	46-115	0			
Indeno(1,2,3-cd)pyrene	55.11	10	50	0	110	42-123	0			
Isophorone	56.17	10	50	0	112	63-117	0			
N-Nitrosodi-n-propylamine	51.86	10	50	0	104	67-115	0			
N-Nitrosodimethylamine	19.02	10	50	0	38	28-115	0			
N-Nitrosodiphenylamine	61.63	10	50	0	123	72-144	0			
Naphthalene	51.17	10	50	0	102	52-115	0			
Nitrobenzene	53.84	10	50	0	108	65-115	0			
Pentachlorophenol	99.41	10	100	0	99.4	65-123	0			
Phenanthrene	51.94	10	50	0	104	69-119	0			
Phenol	37.69	10	100	0	37.7	16-115	0			
Pyrene	55.33	10	50	0	111	51-130	0			
Surr: 2,4,6-Tribromophenol	110.7	10	100	0	111	39-153	0			
Surr: 2-Fluorobiphenyl	101.1	10	100	0	101	40-147	0			
Surr: 2-Fluorophenol	52.85	10	100	0	52.9	21-110	0			
Surr: 4-Terphenyl-d14	107.9	10	100	0	108	39-141	0			
Surr: Nitrobenzene-d5	103.2	10	100	0	103	37-140	0			
Surr: Phenol-d6	32.85	10	100	0	32.9	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: 10012 InstrumentID: SV-2

LCSD Sample ID: SLCSDW1-040819 Test Code: SW8270 Units: µg/L Analysis Date: 08/21/04 13:08

Client ID: Run ID: SV-2_040819A SeqNó: 526809 Prep Date: 8/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	50.64	10	50	0	101	50-115	52.78	4.14	30	
2,4,5-Trichlorophenol	108.6	10	100	0	109	68-128	107.2	1.31	30	
2,4,6-Trichlorophenol	107.1	10	100	0	107	66-125	105.8	1.27	30	
2-Methylnaphthalene	48.01	10	50	0	96	47-122	49.18	2.39	30	
2-Methylphenol	74.21	10	100	0	74.2	51-115	74.05	0.211	30	
2-Nitroaniline	57.13	10	50	0	114	64-128	55.15	3.53	30	
2-Nitrophenol	100.3	10	100	0	100	60-119	100.3	0.0336	30	
3-Nitroaniline	50.12	10	50	0	100	61-118	48.47	3.35	30	
4-Methylphenol	99.76	10	150	0	66.5	44-115	98.48	1.3	30	
4-Nitroaniline	51.76	10	50	0	104	61-123	52.1	0.66	30	
4-Nitrophenol	47.7	10	100	0	47.7	17-100	45.46	4.82	30	
Acenaphthene	54.43	10	50	0	109	68-115	54.63	0.377	30	
Acenaphthylene	54.82	10	50	0	110	67-116	54.28	0.989	30	
Aniline	44.97	10	50	0	89.9	40-130	41.31	8.47	30	
Anthracene	56.77	10	50	0	114	70-129	55.92	1.51	30	
Benz(a)anthracene	55.39	10	50	0	111	55-131	55.88	0.886	30	
Benzidine	32.26	10	50	0	64.5	10-115	27.89	14.5	30	
Hexachloroethane	46.95	10	50	0	93.9	46-115	48.26	2.75	30	
Indeno(1,2,3-cd)pyrene	58.36	10	50	0	117	42-123	55.11	5.73	30	
Isophorone	57.29	10	50	0	115	63-117	56.17	1.97	30	
N-Nitrosodi-n-propylamine	52.93	10	50	0	106	67-115	51.86	2.04	30	
N-Nitrosodimethylamine	27.46	10	50	0	54.9	28-115	19.02	36.3	30	R
N-Nitrosodiphenylamine	61.05	10	50	0	122	72-144	61.63	0.942	30	
Naphthalene	51.46	10	50	0	103	52-115	51.17	0.557	30	
Nitrobenzene	54.07	10	50	0	108	65-115	53.84	0.435	30	
Pentachlorophenol	107.8	10	100	0	108	65-123	99.41	8.13	30	
Phenanthrene	51.9	10	50	0	104	69-119	51.94	0.0742	30	
Phenol	40.61	10	100	0	40.6	16-115	37.69	7.47	30	
Pyrene	54.36	10	50	0	109	51-130	55.33	1.76	30	
Surr: 2,4,6-Tribromophenol	113.5	10	100	0	114	39-153	110.7	2.53	30	
Surr: 2-Fluorobiphenyl	101.8	10	100	0	102	40-147	101.1	0.696	30	
Surr: 2-Fluorophenol	59.27	10	100	0	59.3	21-110	52.85	11.4	30	
Surr: 4-Terphenyl-d14	110.3	10	100	0	110	39-141	107.9	2.15	30	
Surr: Nitrobenzene-d5	104.3	10	100	0	104	37-140	103.2	1.01	30	
Surr: Phenol-d6	37.31	10	100	0	37.3	11-100	32.85	12.7	30	

The following samples were analyzed in this batch:

0408208-01E 0408208-02E

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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: R22538 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0820 Test Code: SW8260 Units: µg/L Analysis Date: 08/20/04 17:36

Client ID: Run ID: VOA1_040820A SeqNo: 526529 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								
Methyl tert-butyl ether	ND	5.0								
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	47.04	5.0	50	0	94.1	71-126		0		
Surr: 4-Bromofluorobenzene	49.83	5.0	50	0	99.7	74-125		0		
Surr: Dibromofluoromethane	47.74	5.0	50	0	95.5	73-126		0		
Surr: Toluene-d8	51.38	5.0	50	0	103	75-125		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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: R22538 InstrumentID: VOA1

LCS Sample ID: VLCSW-0820 Test Code: SW8260 Units: µg/L Analysis Date: 08/20/04 17:08

Client ID: Run ID: VOA1_040820A SeqNo: 526528 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	48.62	5.0	50	0	97.2	75.2-120	0			
1,1,2,2-Tetrachloroethane	48.09	5.0	50	0	96.2	72.4-121	0			
1,1,2-Trichloroethane	48.89	5.0	50	0	97.8	80-120	0			
1,1-Dichloroethane	47.5	5.0	50	0	95	76.9-120	0			
1,1-Dichloroethene	45.55	5.0	50	0	91.1	72.6-123	0			
1,2-Dichloroethane	46.48	5.0	50	0	93	80-120	0			
2-Butanone	83.44	10	100	0	83.4	69-131	0			
2-Chloroethyl vinyl ether	93.96	10	100	0	94	60-135	0			
2-Hexanone	92.77	10	100	0	92.8	55.6-126	0			
4-Methyl-2-pentanone	91.23	10	100	0	91.2	67.4-121	0			
Acetone	82.05	10	100	0	82	64.4-140	0			
Benzene	50.9	5.0	50	0	102	80-120	0			
Bromodichloromethane	48.5	5.0	50	0	97	80-120	0			
Bromoform	47.28	5.0	50	0	94.6	77.9-121	0			
Bromomethane	52.62	5.0	50	0	105	63.3-137	0			
Carbon disulfide	95.77	10	100	0	95.8	74.1-123	0			
Carbon tetrachloride	48.68	5.0	50	0	97.4	74.7-120	0			
Chlorobenzene	50.48	5.0	50	0	101	80-120	0			
Chloroethane	50.4	5.0	50	0	101	74.7-126	0			
Chloroform	45.62	5.0	50	0	91.2	80-120	0			
Chloromethane	53.05	5.0	50	0	106	64.5-132	0			
cis-1,3-Dichloropropene	53.31	5.0	50	0	107	80-120	0			
Dibromochloromethane	48.1	5.0	50	0	96.2	80-120	0			
Ethylbenzene	48.79	5.0	50	0	97.6	80-120	0			
m,p-Xylene	96.36	10	100	0	96.4	80-120	0			
Methyl tert-butyl ether	48.99	5.0	50	0	98	73.7-122	0			
Methylene chloride	49.15	10	50	0	98.3	76.2-120	0			
Styrene	53.65	5.0	50	0	107	80-120	0			
Tetrachloroethene	49.49	5.0	50	0	99	68.5-130	0			
Toluene	55.32	5.0	50	0	111	80-120	0			
trans-1,3-Dichloropropene	51.34	5.0	50	0	103	80-120	0			
Trichloroethene	48.56	5.0	50	0	97.1	78.9-120	0			
Vinyl acetate	96.18	10	100	0	96.2	62.4-133	0			
Vinyl chloride	51.22	2.0	50	0	102	72.7-128	0			
Xylenes, Total	147.2	15	150	0	98.1	80-120	0			
Surr: 1,2-Dichloroethane-d4	41.69	5.0	50	0	83.4	71-126	0			
Surr: 4-Bromofluorobenzene	48.28	5.0	50	0	96.6	74-125	0			
Surr: Dibromofluoromethane	42.38	5.0	50	0	84.8	73-126	0			
Surr: Toluene-d8	49.22	5.0	50	0	98.4	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: R22538 InstrumentID: VOA1

MS Sample ID: 0408212-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 08/20/04 18:31

Client ID: Run ID: VOA1_040820A SeqNo: 526531 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	4733	500	5000	0	94.7	75.2-120	0			
1,1,2,2-Tetrachloroethane	2843	500	5000	0	56.9	72.4-121	0			S
1,1,2-Trichloroethane	4926	500	5000	0	98.5	80-120	0			
1,1-Dichloroethane	4554	500	5000	0	91.1	76.9-120	0			
1,1-Dichloroethene	4305	500	5000	0	86.1	72.6-123	0			
1,2-Dichloroethane	5034	500	5000	0	101	80-120	0			
2-Butanone	8604	1,000	10000	0	86	69-131	0			
2-Chloroethyl vinyl ether	5167	1,000	10000	0	51.7	60-135	0			S
2-Hexanone	9487	1,000	10000	0	94.9	55.6-126	0			
4-Methyl-2-pentanone	9220	1,000	10000	0	92.2	67.4-121	0			
Acetone	9237	1,000	10000	0	92.4	64.4-140	0			
Benzene	4991	500	5000	0	99.8	80-120	0			
Bromodichloromethane	4924	500	5000	0	98.5	80-120	0			
Bromoform	4862	500	5000	0	97.2	77.9-121	0			
Bromomethane	4765	500	5000	0	95.3	63.3-137	0			
Carbon disulfide	7795	1,000	10000	0	77.9	74.1-123	0			
Carbon tetrachloride	5010	500	5000	0	100	74.7-120	0			
Chlorobenzene	5146	500	5000	0	103	80-120	0			
Chloroethane	4551	500	5000	0	91	74.7-126	0			
Chloroform	15310	500	5000	9711	112	80-120	0			
Chloromethane	4674	500	5000	0	93.5	64.5-132	0			
cis-1,3-Dichloropropene	5240	500	5000	0	105	80-120	0			
Dibromochloromethane	4971	500	5000	0	99.4	80-120	0			
Ethylbenzene	4556	500	5000	0	91.1	80-120	0			
m,p-Xylene	9106	1,000	10000	0	91.1	80-120	0			
Methyl tert-butyl ether	4637	500	5000	0	92.7	73.7-122	0			
Methylene chloride	4846	1,000	5000	0	96.9	76.2-120	0			
Styrene	5010	500	5000	0	100	80-120	0			
Tetrachloroethene	4903	500	5000	0	98.1	68.5-130	0			
Toluene	5043	500	5000	0	101	80-120	0			
trans-1,3-Dichloropropene	5225	500	5000	0	105	80-120	0			
Trichloroethene	6387	500	5000	0	128	78.9-120	0			S
Vinyl acetate	609.9	1,000	10000	0	6.1	62.4-133	0			JS
Vinyl chloride	4493	200	5000	0	89.9	72.7-128	0			
Xylenes, Total	13870	1,500	15000	0	92.4	80-120	0			
Surr: 1,2-Dichloroethane-d4	4501	500	5000	0	90	71-126	0			
Surr: 4-Bromofluorobenzene	5106	500	5000	0	102	74-125	0			
Surr: Dibromofluoromethane	4658	500	5000	0	93.2	73-126	0			
Surr: Toluene-d8	5036	500	5000	0	101	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: R22538 InstrumentID: VOA1

MSD Sample ID: 0408212-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 08/20/04 18:59

Client ID: Run ID: VOA1_040820A SeqNo: 526532 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	4811	500	5000	0	96.2	75.2-120	4733	1.63	20	
1,1,2,2-Tetrachloroethane	2512	500	5000	0	50.2	72.4-121	2843	12.3	20	S
1,1,2-Trichloroethane	5024	500	5000	0	100	80-120	4926	1.96	20	
1,1-Dichloroethane	4816	500	5000	0	96.3	76.9-120	4554	5.61	20	
1,1-Dichloroethene	4610	500	5000	0	92.2	72.6-123	4305	6.84	20	
1,2-Dichloroethane	4812	500	5000	0	96.2	80-120	5034	4.51	20	
2-Butanone	8973	1,000	10000	0	89.7	69-131	8604	4.19	20	
2-Chloroethyl vinyl ether	3950	1,000	10000	0	39.5	60-135	5167	26.7	20	SR
2-Hexanone	9544	1,000	10000	0	95.4	55.6-126	9487	0.596	20	
4-Methyl-2-pentanone	9223	1,000	10000	0	92.2	67.4-121	9220	0.0258	20	
Acetone	9091	1,000	10000	0	90.9	64.4-140	9237	1.6	20	
Benzene	5043	500	5000	0	101	80-120	4991	1.03	20	
Bromodichloromethane	4945	500	5000	0	98.9	80-120	4924	0.424	20	
Bromoform	4846	500	5000	0	96.9	77.9-121	4862	0.324	20	
Bromomethane	5204	500	5000	0	104	63.3-137	4765	8.8	20	
Carbon disulfide	8159	1,000	10000	0	81.6	74.1-123	7795	4.57	20	
Carbon tetrachloride	5060	500	5000	0	101	74.7-120	5010	0.984	20	
Chlorobenzene	5133	500	5000	0	103	80-120	5146	0.266	20	
Chloroethane	5104	500	5000	0	102	74.7-126	4551	11.5	20	
Chloroform	16610	500	5000	9711	138	80-120	15310	8.14	20	S
Chloromethane	5074	500	5000	0	101	64.5-132	4674	8.22	20	
cis-1,3-Dichloropropene	5180	500	5000	0	104	80-120	5240	1.16	20	
Dibromochloromethane	4839	500	5000	0	96.8	80-120	4971	2.69	20	
Ethylbenzene	4814	500	5000	0	96.3	80-120	4556	5.5	20	
m,p-Xylene	9861	1,000	10000	0	98.6	80-120	9106	7.97	20	
Methyl tert-butyl ether	5068	500	5000	0	101	73.7-122	4637	8.87	20	
Methylene chloride	5029	1,000	5000	0	101	76.2-120	4846	3.71	20	
Styrene	5181	500	5000	0	104	80-120	5010	3.36	20	
Tetrachloroethene	5063	500	5000	0	101	68.5-130	4903	3.22	20	
Toluene	5223	500	5000	0	104	80-120	5043	3.5	20	
trans-1,3-Dichloropropene	5278	500	5000	0	106	80-120	5225	1	20	
Trichloroethene	6916	500	5000	0	138	78.9-120	6387	7.96	20	S
Vinyl acetate	326.4	1,000	10000	0	3.26	62.4-133	609.9	0	20	JS
Vinyl chloride	4907	200	5000	0	98.1	72.7-128	4493	8.82	20	
Xylenes, Total	14720	1,500	15000	0	98.1	80-120	13870	5.94	20	
Surr: 1,2-Dichloroethane-d4	4327	500	5000	0	86.5	71-126	4501	3.93	20	
Surr: 4-Bromofluorobenzene	4921	500	5000	0	98.4	74-125	5106	3.69	20	
Surr: Dibromofluoromethane	4465	500	5000	0	89.3	73-126	4658	4.23	20	
Surr: Toluene-d8	4922	500	5000	0	98.4	75-125	5036	2.29	20	

The following samples were analyzed in this batch:

0408208-01A 0408208-02A

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: 0408208
Project: Monthly

QC BATCH REPORT

Batch ID: **R22545** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WBLKW1-082004** Test Code: **E335.3** Units: **mg/L** Analysis Date: **08/20/04 0:00**

Client ID: Run ID: **UV-2101PC_040820D** SeqNo: **526626** 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: **WLCSW1-082004** Test Code: **E335.3** Units: **mg/L** Analysis Date: **08/20/04 0:00**

Client ID: Run ID: **UV-2101PC_040820D** SeqNo: **526627** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1777	0.020	0.2	0	88.8	80-120	0			

MS Sample ID: **0408208-01DMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **08/20/04 0:00**

Client ID: **RA3156** Run ID: **UV-2101PC_040820D** SeqNo: **526639** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1706	0.020	0.2	0.0036	83.5	75-125	0			

MSD Sample ID: **0408208-01DMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **08/20/04 0:00**

Client ID: **RA3156** Run ID: **UV-2101PC_040820D** SeqNo: **526640** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1703	0.020	0.2	0.0036	83.4	75-125	0.1706	0.176	25	

DUP Sample ID: **0408208-01DDUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **08/20/04 0:00**

Client ID: **RA3156** Run ID: **UV-2101PC_040820D** SeqNo: **526638** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.004	0.020	0	0	0	0-0	0.0036	0	20	J

The following samples were analyzed in this batch:

0408208-01D 0408208-02D

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0408208
Project: Monthly

QC BATCH REPORT

Batch ID: **R22673** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-082704** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/27/04 0:00**

Client ID: Run ID: **WETCHEM_040827D** SeqNo: **529221** 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)	ND	5.0								

LCS Sample ID: **WLCSW1-082704** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/27/04 0:00**

Client ID: Run ID: **WETCHEM_040827D** SeqNo: **529222** 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: **0408205-01EDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **08/27/04 0:00**

Client ID: Run ID: **WETCHEM_040827D** SeqNo: **529230** 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)	400.1	5.0	0	0	0	0-0	400.1	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)	400.1	5.0	0	0	0	0-0	400.1	0	20	

The following samples were analyzed in this batch:

0408208-01B 0408208-02B

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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: **R22674** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-082704** Test Code: **E300** Units: **mg/L** Analysis Date: **08/27/04 18:33**

Client ID: Run ID: **IC201_040827A** SeqNo: **529319** 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								
Surr: Dichloroacetic acid (surr)	5.07	0.10	5	0	101	80-120	0			

LCS Sample ID: **WLCSW1-082704** Test Code: **E300** Units: **mg/L** Analysis Date: **08/27/04 19:02**

Client ID: Run ID: **IC201_040827A** SeqNo: **529320** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.07	0.50	10	0	90.7	80-120	0			
Fluoride	1.94	0.10	2	0	97	80-120	0			
Sulfate	9.68	1.0	10	0	96.8	80-120	0			
Surr: Dichloroacetic acid (surr)	5.1	0.10	5	0	102	80-120	0			

LCSD Sample ID: **WLCSDW1-08270** Test Code: **E300** Units: **mg/L** Analysis Date: **08/27/04 19:30**

Client ID: Run ID: **IC201_040827A** SeqNo: **529321** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.07	0.50	10	0	90.7	80-120	9.07	0	20	
Fluoride	1.97	0.10	2	0	98.5	80-120	1.94	1.53	20	
Sulfate	9.67	1.0	10	0	96.7	80-120	9.68	0.103	20	
Surr: Dichloroacetic acid (surr)	5.45	0.10	5	0	109	80-120	5.1	6.64	20	

MS Sample ID: **0408309-17DMS** Test Code: **E300** Units: **mg/L** Analysis Date: **08/28/04 7:52**

Client ID: Run ID: **IC201_040827A** SeqNo: **529339** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	32.39	0.50	10	22.44	99.5	75-125	0			
Fluoride	1.93	0.10	2	0.23	85	75-125	0			
Sulfate	15.48	1.0	10	6.48	90	75-125	0			
Surr: Dichloroacetic acid (surr)	5.26	0.10	5	0	105	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: **R22674** InstrumentID: **IC201**

MSD Sample ID: **0408309-17DMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **08/28/04 8:20**

Client ID: Run ID: **IC201_040827A** SeqNo: **529340** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	32.43	0.50	10	22.44	99.9	75-125	32.39	0.123	20	
Fluoride	1.9	0.10	2	0.23	83.5	75-125	1.93	1.57	20	
Sulfate	15.49	1.0	10	6.48	90.1	75-125	15.48	0.0646	20	
Surr: Dichloroacetic acid (surr)	5.38	0.10	5	0	108	80-120	5.26	2.26	20	

DUP Sample ID: **0408309-17DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **08/28/04 7:23**

Client ID: Run ID: **IC201_040827A** SeqNo: **529338** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	22.45	0.50	0	0	0	0-0	22.44	0.0446	20	
Fluoride	0.2	0.10	0	0	0	0-0	0.23	14	20	
Sulfate	6.42	1.0	0	0	0	0-0	6.48	0.93	20	
Surr: Dichloroacetic acid (surr)	5.33	0.10	5	0	107	80-120	5.35	0.375	20	

DUP Sample ID: **0408208-02BDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **08/28/04 2:10**

Client ID: **Larue** Run ID: **IC201_040827A** SeqNo: **529343** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	138.5	25	0	0	0	0-0	139	0.36	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1350	50	0	0	0	0-0	1348	0.148	20	
Surr: Dichloroacetic acid (surr)	260	5.0	250	0	104	80-120	264	1.53	20	

The following samples were analyzed in this batch:

0408208-01B 0408208-02B

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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: **R22718** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-083004** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 12:31**

Client ID: Run ID: **IC201_040830A** SeqNo: **530136** 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								
Surr: Dichloroacetic acid (surr)	5.1	0.10	5	0	102	80-120	0			

LCS Sample ID: **WLCSW1-083004** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 13:00**

Client ID: Run ID: **IC201_040830A** SeqNo: **530137** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.05	0.50	10	0	90.5	80-120	0			
Fluoride	1.9	0.10	2	0	95	80-120	0			
Sulfate	9.67	1.0	10	0	96.7	80-120	0			
Surr: Dichloroacetic acid (surr)	5.42	0.10	5	0	108	80-120	0			

LCSD Sample ID: **WLCSDW1-08300** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 13:28**

Client ID: Run ID: **IC201_040830A** SeqNo: **530138** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.06	0.50	10	0	90.6	80-120	9.05	0.11	20	
Fluoride	1.87	0.10	2	0	93.5	80-120	1.9	1.59	20	
Sulfate	9.62	1.0	10	0	96.2	80-120	9.67	0.518	20	
Surr: Dichloroacetic acid (surr)	5.05	0.10	5	0	101	80-120	5.42	7.07	20	

MS Sample ID: **0408208-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **08/30/04 17:16**

Client ID: **Larue** Run ID: **IC201_040830A** SeqNo: **530146** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	161.1	2.5	50	107.6	107	75-125	0			
Fluoride	9.75	0.50	10	1	87.5	75-125	0			
Sulfate	1762	5.0	50	1679	165	75-125	0			SEO
Surr: Dichloroacetic acid (surr)	22.4	0.50	25	0	89.6	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: 0408208
 Project: Monthly

QC BATCH REPORT

Batch ID: R22718 InstrumentID: IC201

MSD Sample ID: 0408208-02BMUSD Test Code: E300 Units: mg/L Analysis Date: 08/30/04 17:45

Client ID: Larue Run ID: IC201_040830A SeqNo: 530147 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	156.9	2.5	50	107.6	98.7	75-125	161.1	2.67	20	
Fluoride	9.6	0.50	10	1	86	75-125	9.75	1.55	20	
Sulfate	1722	5.0	50	1679	84.9	75-125	1762	2.31	20	EO
Surr: Dichloroacetic acid (surr)	22.35	0.50	25	0	89.4	80-120	22.4	0.223	20	

DUP Sample ID: 0408208-01BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 14:54

Client ID: RA3156 Run ID: IC201_040830A SeqNo: 530141 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	212.7	5.0	0	0	0	0-0	213	0.141	20	
Fluoride	ND	1.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	51.4	1.0	50	0	103	80-120	52	1.16	20	

DUP Sample ID: 0408208-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/30/04 16:48

Client ID: Larue Run ID: IC201_040830A SeqNo: 530145 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	106.6	2.5	0	0	0	0-0	107.6	0.887	20	
Fluoride	1	0.50	0	0	0	0-0	1	0	20	
Surr: Dichloroacetic acid (surr)	24.85	0.50	25	0	99.4	80-120	26.55	6.61	20	

DUP Sample ID: 0408293-02BDUP Test Code: E300 Units: mg/L Analysis Date: 08/31/04 1:49

Client ID: Run ID: IC201_040830A SeqNo: 530164 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	153	25	0	0	0	0-0	153	0	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1376	50	0	0	0	0-0	1376	0	20	
Surr: Dichloroacetic acid (surr)	261.5	5.0	250	0	105	80-120	261.5	0	20	

The following samples were analyzed in this batch:

0408208-01B 0408208-02B

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

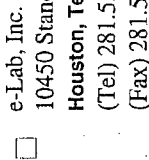
R - RPD outside accepted recovery limits

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



Chain of Custody Form

Page 7 of 7

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

Customer Information						Project Information				e-Lab Project Manager:		e-Lab Work Order #:					
Purchase Order	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
Work Order																	
Company Name																	
Send Report To																	
Address																	
City/State/Zip																	
Phone																	
Fax																	
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RA-3756	8/16/04	1330	L		8	X										
2	vacue	8/16/04	1345	L		8	X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Shipments: Please Print & Sign _____
 Date: 8/16 Time: 1615
 Relinquished by: [Signature]
 Relinquished by: [Signature]
 Logged by (Laboratory): [Signature]

QC Package: (Check Box Below)
☐ Level II: Standard QC ☐ Level III: Raw Data
☐ TRAP LRC ☐ TRAP Level IV
☐ Level IV: SW846 Methods/CLP like ☐ Other:

Results Due Date: _____
 Required Turnaround Time: (Check Box)
☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Notes: _____
 Received by: _____
 Received by (Laboratory): _____
 Checked by (Laboratory): _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₈ 6-NaHSO₄ 7-Other 8-4°C
 Note: Any changes must be made in writing once samples

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e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 8/18/2004 9:05:00 AM

Work Order Number 0408208

Received by: FSM

Checklist completed by

[Signature]
Signature

8/18/04
Date

Reviewed by

[Signature]
Initials

8/19/04
Date

Matrix: W

Carrier name E-Lab

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):	<u>3.2c</u>	<u>004</u>	
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. # 0408208

NAVAJO REFINING COMPANY
501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 17AUG2004
ACCOUNT # 113684186

Paid

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
HOUSTON TX 77000

2815305656
BILL RECIPIENT



Online

FedEx STANDARD OVERNIGHT

System # 2223500 17AUG2004
TRK# 7902 4366 5488 Form 0201

WED

DELIVER BY:
18AUG2004

IAH

A2

77099-TX-US

A9 JGQA



OSUS v5.2.03 2223500 2844 04/02



e-Lab Analytical, Inc.

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

August 18, 2004

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

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

Re: Monthly

Work Order : **0408033**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 8/4/2004 8:40:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 28.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0408033

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0408033-01	RA 313	Water		8/3/2004 13:30	8/4/2004 08:40	☐
0408033-02	RA 1227	Water		8/3/2004 13:45	8/4/2004 08:40	☐

e-Lab Analytical, Inc.**Date:** *August 18, 2004***CLIENT:** Navajo Refining Company**Project:** Monthly**Work Order:** 0408033**Case Narrative**

Batch 9904 Metals MS/MSD was an unrelated sample.

Batch R22229 Volatiles MS was an unrelated sample.

e-Lab Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-01

Client Sample ID: RA 313
Collection Date: 8/3/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 8/10/2004 Analyst: JCJ 8/11/2004 11:54:50 AM
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0100		mg/L	1	Prep Date: 8/10/2004 Analyst: ALR 8/11/2004 4:22:00 PM
Arsenic	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Barium	0.0230	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Beryllium	ND	0.00200		mg/L	1	8/11/2004 4:22:00 PM
Boron	0.0448	0.0200		mg/L	1	8/11/2004 4:22:00 PM
Cadmium	ND	0.00100		mg/L	1	8/11/2004 4:22:00 PM
Calcium	190	25.0		mg/L	50	8/10/2004 6:11:00 PM
Chromium	ND	0.00200		mg/L	1	8/11/2004 4:22:00 PM
Cobalt	ND	0.00200		mg/L	1	8/11/2004 4:22:00 PM
Copper	ND	0.00200		mg/L	1	8/11/2004 4:22:00 PM
Iron	0.498	0.200		mg/L	1	8/11/2004 4:22:00 PM
Lead	ND	0.00500		mg/L	1	8/12/2004 3:36:00 PM
Magnesium	48.5	10.0		mg/L	50	8/10/2004 6:11:00 PM
Manganese	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Molybdenum	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Nickel	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Potassium	0.998	0.200		mg/L	1	8/11/2004 4:22:00 PM
Selenium	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Silver	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Sodium	14.6	0.200		mg/L	1	8/11/2004 4:22:00 PM
Vanadium	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
Zinc	ND	0.00500		mg/L	1	8/11/2004 4:22:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 8/5/2004 Analyst: HV 8/6/2004 8:28:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
2-Methylphenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:28:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:28:00 PM
4-Methylphenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:28:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Acenaphthene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Acenaphthylene	ND	10		µg/L	1	8/6/2004 8:28:00 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 Analytical, Inc.
Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-01

Client Sample ID: RA 313
Collection Date: 8/3/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Anthracene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Benzidine	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Hexachloroethane	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Isophorone	ND	10		µg/L	1	8/6/2004 8:28:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/6/2004 8:28:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/6/2004 8:28:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Naphthalene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Nitrobenzene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Phenanthrene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Phenol	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Pyrene	ND	10		µg/L	1	8/6/2004 8:28:00 PM
Surr: 2,4,6-Tribromophenol	92.0	39-153		%REC	1	8/6/2004 8:28:00 PM
Surr: 2-Fluorobiphenyl	96.6	40-147		%REC	1	8/6/2004 8:28:00 PM
Surr: 2-Fluorophenol	43.9	21-110		%REC	1	8/6/2004 8:28:00 PM
Surr: 4-Terphenyl-d14	94.2	39-141		%REC	1	8/6/2004 8:28:00 PM
Surr: Nitrobenzene-d5	94.4	37-140		%REC	1	8/6/2004 8:28:00 PM
Surr: Phenol-d6	24.5	11-100		%REC	1	8/6/2004 8:28:00 PM

VOLATILES BY GC/MS
SW8260
Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
2-Butanone	ND	10		µg/L	1	8/5/2004 8:55:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/5/2004 8:55:00 PM
2-Hexanone	ND	10		µg/L	1	8/5/2004 8:55:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Acetone	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Benzene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Bromoform	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Bromomethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Carbon disulfide	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/5/2004 8:55:00 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 Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-01

Client Sample ID: RA 313
Collection Date: 8/3/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Chloroethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Chloroform	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Chloromethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
m,p-Xylene	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Methylene chloride	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Styrene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Toluene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/5/2004 8:55:00 PM
Vinyl acetate	ND	10		µg/L	1	8/5/2004 8:55:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/5/2004 8:55:00 PM
Xylenes, Total	ND	15		µg/L	1	8/5/2004 8:55:00 PM
Surr: 1,2-Dichloroethane-d4	103	71-126		%REC	1	8/5/2004 8:55:00 PM
Surr: 4-Bromofluorobenzene	90.8	74-125		%REC	1	8/5/2004 8:55:00 PM
Surr: Dibromofluoromethane	107	73-126		%REC	1	8/5/2004 8:55:00 PM
Surr: Toluene-d8	93.4	75-125		%REC	1	8/5/2004 8:55:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	15.7	0.500		mg/L	1	8/5/2004 8:05:00 PM
Fluoride	0.930	0.100		mg/L	1	8/5/2004 8:05:00 PM
Sulfate	447	20.0		mg/L	20	8/5/2004 8:33:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	1	8/5/2004 8:05:00 PM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	20	8/5/2004 8:33:00 PM
ALKALINITY		E310.1		Analyst: MG		
Alkalinity, Bicarbonate (As CaCO3)	180	5.00		mg/L	1	8/13/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	8/13/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	8/13/2004
Alkalinity, Total (As CaCO3)	180	5.00		mg/L	1	8/13/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	8/9/2004

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
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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

AR Page 3 of 6

e-Lab Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-02

Client Sample ID: RA 1227
Collection Date: 8/3/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 8/10/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	8/11/2004 11:56:22 AM
ICP METALS, TOTAL						
		SW6020			Prep Date: 8/10/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	8/11/2004 4:27:00 PM
Arsenic	ND	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Barium	0.00889	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Beryllium	ND	0.00200		mg/L	1	8/11/2004 4:27:00 PM
Boron	0.217	0.200		mg/L	10	8/10/2004 7:05:00 PM
Cadmium	ND	0.00100		mg/L	1	8/11/2004 4:27:00 PM
Calcium	501	25.0		mg/L	50	8/10/2004 6:16:00 PM
Chromium	ND	0.00200		mg/L	1	8/11/2004 4:27:00 PM
Cobalt	ND	0.00200		mg/L	1	8/11/2004 4:27:00 PM
Copper	0.00838	0.00200		mg/L	1	8/11/2004 4:27:00 PM
Iron	0.944	0.200		mg/L	1	8/11/2004 4:27:00 PM
Lead	ND	0.00500		mg/L	1	8/12/2004 3:42:00 PM
Magnesium	198	10.0		mg/L	50	8/10/2004 6:16:00 PM
Manganese	ND	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Molybdenum	ND	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Nickel	ND	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Potassium	1.50	0.200		mg/L	1	8/11/2004 4:27:00 PM
Selenium	0.0120	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Silver	ND	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Sodium	142	10.0		mg/L	50	8/10/2004 6:16:00 PM
Vanadium	0.00804	0.00500		mg/L	1	8/11/2004 4:27:00 PM
Zinc	0.0114	0.00500		mg/L	1	8/11/2004 4:27:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 8/5/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2-Methylphenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:54:00 PM
2-Nitrophenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
3-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:54:00 PM
4-Methylphenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
4-Nitroaniline	ND	10		µg/L	1	8/6/2004 8:54:00 PM
4-Nitrophenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Acenaphthene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Acenaphthylene	ND	10		µg/L	1	8/6/2004 8:54:00 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 Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-02

Client Sample ID: RA 1227
Collection Date: 8/3/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Anthracene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Benz(a)anthracene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Benzidine	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Hexachloroethane	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Isophorone	ND	10		µg/L	1	8/6/2004 8:54:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/6/2004 8:54:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/6/2004 8:54:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Naphthalene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Nitrobenzene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Pentachlorophenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Phenanthrene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Phenol	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Pyrene	ND	10		µg/L	1	8/6/2004 8:54:00 PM
Surr: 2,4,6-Tribromophenol	84.1	39-153		%REC	1	8/6/2004 8:54:00 PM
Surr: 2-Fluorobiphenyl	94.5	40-147		%REC	1	8/6/2004 8:54:00 PM
Surr: 2-Fluorophenol	41.2	21-110		%REC	1	8/6/2004 8:54:00 PM
Surr: 4-Terphenyl-d14	88.7	39-141		%REC	1	8/6/2004 8:54:00 PM
Surr: Nitrobenzene-d5	91.2	37-140		%REC	1	8/6/2004 8:54:00 PM
Surr: Phenol-d6	21.9	11-100		%REC	1	8/6/2004 8:54:00 PM

VOLATILES BY GC/MS**SW8260**

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
2-Butanone	ND	10		µg/L	1	8/5/2004 9:23:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	8/5/2004 9:23:00 PM
2-Hexanone	ND	10		µg/L	1	8/5/2004 9:23:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Acetone	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Benzene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Bromoform	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Bromomethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Carbon disulfide	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	8/5/2004 9:23:00 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

AR Page 5 of 6

e-Lab Analytical, Inc.

Date: August 18, 2004

CLIENT: Navajo Refining Company
Work Order: 0408033
Project: Monthly
Lab ID: 0408033-02

Client Sample ID: RA 1227
Collection Date: 8/3/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Chloroethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Chloroform	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Chloromethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Ethylbenzene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
m,p-Xylene	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Methylene chloride	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Styrene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Toluene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Trichloroethene	ND	5.0		µg/L	1	8/5/2004 9:23:00 PM
Vinyl acetate	ND	10		µg/L	1	8/5/2004 9:23:00 PM
Vinyl chloride	ND	2.0		µg/L	1	8/5/2004 9:23:00 PM
Xylenes, Total	ND	15		µg/L	1	8/5/2004 9:23:00 PM
Surr: 1,2-Dichloroethane-d4	106	71-126		%REC	1	8/5/2004 9:23:00 PM
Surr: 4-Bromofluorobenzene	89.5	74-125		%REC	1	8/5/2004 9:23:00 PM
Surr: Dibromofluoromethane	112	73-126		%REC	1	8/5/2004 9:23:00 PM
Surr: Toluene-d8	91.5	75-125		%REC	1	8/5/2004 9:23:00 PM
ANIONS BY ION CHROMATOGRAPHY				E300	Analyst: MG	
Chloride	120	2.50		mg/L	5	8/5/2004 10:56:00 PM
Fluoride	0.570	0.100		mg/L	1	8/5/2004 10:27:00 PM
Sulfate	1,350	50.0		mg/L	50	8/5/2004 11:24:00 PM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	1	8/5/2004 10:27:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	5	8/5/2004 10:56:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	50	8/5/2004 11:24:00 PM
ALKALINITY				E310.1	Analyst: MG	
Alkalinity, Bicarbonate (As CaCO3)	270	5.00		mg/L	1	8/13/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	8/13/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	8/13/2004
Alkalinity, Total (As CaCO3)	270	5.00		mg/L	1	8/13/2004
CYANIDE, TOTAL				E335.3	Analyst: LMD	
Cyanide	ND	0.0200		mg/L	1	8/9/2004

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 Analytical, Inc.

Date: Aug 18 2004

CLIENT: Navajo Refining Company

Work Order: 0408033

Project: Monthly

QC BATCH REPORT

Batch ID: 9904 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-081004 Test Code: SW6020 Units: mg/L Analysis Date: 08/10/04 18:02

Client ID: Run ID: ICP4500_040810A SeqNo: 521548 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Barium	0.0008843	0.0050								J
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Cobalt	ND	0.0050								
Copper	0.0008465	0.0050								J
Iron	ND	0.20								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	0.001517	0.0050								J

MBLK Sample ID: MBLKW2-081004 Test Code: SW6020 Units: mg/L Analysis Date: 08/12/04 14:37

Client ID: Run ID: ICP4500_040812A SeqNo: 522782 Prep Date: 8/10/2004 DF: 1

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

MBLK Sample ID: MBLKW2-081004 Test Code: SW6020 Units: mg/L Analysis Date: 08/11/04 20:11

Client ID: Run ID: ICP4500_040811A SeqNo: 524080 Prep Date: 8/10/2004 DF: 1

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

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9904 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-081004 Test Code: SW6020 Units: mg/L Analysis Date: 08/10/04 18:07

Client ID: Run ID: ICP4500_040810A SeqNo: 521549 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04382	0.010	0.05	0	87.6	79-126	0			
Barium	0.0464	0.0050	0.05	0	92.8	79.8-119	0			
Beryllium	0.05186	0.0020	0.05	0	104	78.9-120	0			
Boron	0.5054	0.020	0.5	0	101	80-120	0			
Cadmium	0.05259	0.0020	0.05	0	105	79.1-119	0			
Calcium	4.788	0.50	5	0	95.8	80-121	0			
Chromium	0.04599	0.0050	0.05	0	92	79.3-121	0			
Cobalt	0.04661	0.0050	0.05	0	93.2	82-121	0			
Copper	0.04689	0.0050	0.05	0	93.8	83-121	0			
Iron	4.827	0.20	5	0	96.5	80-120	0			
Magnesium	4.864	0.20	5	0	97.3	80-120	0			
Manganese	0.04819	0.0050	0.05	0	96.4	82-119	0			
Molybdenum	0.04491	0.0050	0.05	0	89.8	84.6-115	0			
Nickel	0.04846	0.0050	0.05	0	96.9	85-120	0			
Potassium	4.878	0.20	5	0	97.6	80-120	0			
Selenium	0.0533	0.0050	0.05	0	107	79.2-118	0			
Silver	0.04833	0.0050	0.05	0	96.7	83-117	0			
Sodium	4.69	0.20	5	0	93.8	82.4-120	0			
Vanadium	0.04688	0.0050	0.05	0	93.8	82.1-119	0			
Zinc	0.05307	0.0050	0.05	0	106	83-118	0			

LCS Sample ID: MLCSW2-081004 Test Code: SW6020 Units: mg/L Analysis Date: 08/11/04 20:16

Client ID: Run ID: ICP4500_040811A SeqNo: 524081 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05039	0.0050	0.05	0	101	80-121	0			
Lead	0.0431	0.0050	0.05	0	86.2	80-118	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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9904 InstrumentID: ICP4500

MS	Sample ID: 0408092-02CMS			Test Code: SW6020		Units: mg/L	Analysis Date: 08/11/04 19:48			
Client ID:	Run ID: ICP4500_040811A			SeqNo: 522216		Prep Date: 8/10/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05217	0.010	0.05	0.01352	77.3	79-126	0			S
Arsenic	0.05011	0.0050	0.05	0.001335	97.6	80-121	0			
Barium	0.1172	0.0050	0.05	0.07998	74.4	79.8-119	0			S
Beryllium	0.05131	0.0020	0.05	0.00004934	103	78.9-120	0			
Boron	0.7363	0.020	0.5	0.1914	109	80-120	0			
Cadmium	0.0472	0.0020	0.05	0.00008581	94.2	79.1-119	0			
Calcium	107.1	0.50	5	105.7	28	80-121	0			SEO
Chromium	0.04428	0.0050	0.05	0.001494	85.6	79.3-121	0			
Cobalt	0.04302	0.0050	0.05	0.0003783	85.3	82-121	0			
Copper	0.04159	0.0050	0.05	0.0007875	81.6	83-121	0			S
Iron	4.928	0.20	5	0.3668	91.2	80-120	0			
Lead	0.04197	0.0050	0.05	0.0001027	83.7	80-118	0			
Magnesium	7.222	0.20	5	2.889	86.7	80-120	0			
Manganese	0.05603	0.0050	0.05	0.01314	85.8	82-119	0			
Molybdenum	0.04409	0.0050	0.05	0.003146	81.9	84.6-115	0			S
Nickel	0.04548	0.0050	0.05	0.003907	83.1	85-120	0			S
Potassium	10.53	0.20	5	5.98	91	80-120	0			
Selenium	0.05084	0.0050	0.05	0.002637	96.4	79.2-118	0			
Silver	0.04079	0.0050	0.05	0.00002997	81.5	83-117	0			S
Sodium	26.27	0.20	5	22.94	66.6	82.4-120	0			SO
Vanadium	0.04812	0.0050	0.05	0.003261	89.7	82.1-119	0			
Zinc	0.05588	0.0050	0.05	0.01259	86.6	83-118	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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9904 InstrumentID: ICP4500

MSD Sample ID: 0408092-02CMSD Test Code: SW6020 Units: mg/L Analysis Date: 08/11/04 19:53

Client ID: Run ID: ICP4500_040811A SeqNo: 522217 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05455	0.010	0.05	0.01352	82.1	79-126	0.05217	4.46	15	
Arsenic	0.05023	0.0050	0.05	0.001335	97.8	80-121	0.05011	0.239	15	
Barium	0.1182	0.0050	0.05	0.07998	76.4	79.8-119	0.1172	0.85	15	S
Beryllium	0.04963	0.0020	0.05	0.00004934	99.2	78.9-120	0.05131	3.33	15	
Boron	0.6872	0.020	0.5	0.1914	99.2	80-120	0.7363	6.9	15	
Cadmium	0.04759	0.0020	0.05	0.00008581	95	79.1-119	0.0472	0.823	15	
Calcium	107.1	0.50	5	105.7	28	80-121	107.1	0	15	SEO
Chromium	0.04493	0.0050	0.05	0.001494	86.9	79.3-121	0.04428	1.46	15	
Cobalt	0.04391	0.0050	0.05	0.0003783	87.1	82-121	0.04302	2.05	15	
Copper	0.04223	0.0050	0.05	0.0007875	82.9	83-121	0.04159	1.53	15	S
Iron	5.003	0.20	5	-0.3668	92.7	80-120	4.928	1.51	15	
Lead	0.04197	0.0050	0.05	0.0001027	83.7	80-118	0.04197	0	15	
Magnesium	7.308	0.20	5	2.889	88.4	80-120	7.222	1.18	15	
Manganese	0.05655	0.0050	0.05	0.01314	86.8	82-119	0.05603	0.924	15	
Molybdenum	0.04484	0.0050	0.05	0.003146	83.4	84.6-115	0.04409	1.69	15	S
Nickel	0.04648	0.0050	0.05	0.003907	85.1	85-120	0.04548	2.17	15	
Potassium	10.83	0.20	5	5.98	97	80-120	10.53	2.81	15	
Selenium	0.04984	0.0050	0.05	0.002637	94.4	79.2-118	0.05084	1.99	15	
Silver	0.04124	0.0050	0.05	0.00002997	82.4	83-117	0.04079	1.1	15	S
Sodium	26.47	0.20	5	22.94	70.6	82.4-120	26.27	0.758	15	SO
Vanadium	0.04862	0.0050	0.05	0.003261	90.7	82.1-119	0.04812	1.03	15	
Zinc	0.05541	0.0050	0.05	0.01259	85.6	83-118	0.05588	0.845	15	

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CLIENT: Navajo Refining Company
 Work Order: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9904 InstrumentID: ICP4500

DUP Sample ID: 0408092-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/11/04 19:43

Client ID: Run ID: ICP4500_040811A SeqNo: 522215 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.01242	0.010	0	0	0	0-0	0.01352	8.48	25	
Arsenic	ND	0.0050	0	0	0	0-0	0.001335	0	25	
Barium	0.07516	0.0050	0	0	0	0-0	0.07998	6.21	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00004934	0	25	
Boron	0.1872	0.020	0	0	0	0-0	0.1914	2.22	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00008581	0	25	
Chromium	0.0009325	0.0050	0	0	0	0-0	0.001494	0	25	J
Cobalt	0.0003565	0.0050	0	0	0	0-0	0.0003783	0	25	J
Copper	0.0007176	0.0050	0	0	0	0-0	0.0007875	0	25	J
Iron	0.3224	0.20	0	0	0	0-0	0.3668	12.9	25	
Lead	ND	0.0050	0	0	0	0-0	0.0001027	0	25	
Magnesium	2.867	0.20	0	0	0	0-0	2.889	0.764	25	
Manganese	0.01244	0.0050	0	0	0	0-0	0.01314	5.47	25	
Molybdenum	0.002996	0.0050	0	0	0	0-0	0.003146	0	25	J
Nickel	0.003649	0.0050	0	0	0	0-0	0.003907	0	25	J
Potassium	5.964	0.20	0	0	0	0-0	5.98	0.268	25	
Selenium	0.002591	0.0050	0	0	0	0-0	0.002637	0	25	J
Silver	ND	0.0050	0	0	0	0-0	0.00002997	0	25	
Vanadium	0.003238	0.0050	0	0	0	0-0	0.003261	0	25	J
Zinc	0.01075	0.0050	0	0	0	0-0	0.01259	15.8	25	

DUP Sample ID: 0408092-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/12/04 13:38

Client ID: Run ID: ICP4500_040812A SeqNo: 522665 Prep Date: 8/10/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	98.92	5.0	0	0	0	0-0	98.23	0.7	25	
Sodium	22.55	2.0	0	0	0	0-0	22.27	1.25	25	

The following samples were analyzed in this batch:

0408033-01C 0408033-02C

ND - Not Detected at the Reporting Limit

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CLIENT: Navajo Refining Company
 Work Order: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9920 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-081004 Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:26

Client ID: Run ID: MERCURY_040811A SeqNo: 521869 Prep Date: 8/10/2004 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: GLCSW1-081004 Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:28

Client ID: Run ID: MERCURY_040811A SeqNo: 521870 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00524	0.00020	0.005	0	105	83-115	0			

LCSD Sample ID: GLCSDW1-081004 Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:29

Client ID: Run ID: MERCURY_040811A SeqNo: 521871 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00528	0.00020	0.005	0	106	83-115	0.00524	0.76	20	

MS Sample ID: 0408060-01CMS Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:36

Client ID: Run ID: MERCURY_040811A SeqNo: 521874 Prep Date: 8/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00497	0.00020	0.005	-0.00001	99.6	83-115	0			

MSD Sample ID: 0408060-01CMSD Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:38

Client ID: Run ID: MERCURY_040811A SeqNo: 521875 Prep Date: 8/10/2004 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	-0.00001	100	83-115	0.00497	0.602	20	

DUP Sample ID: 0408060-01CDUP Test Code: SW7470 Units: mg/L Analysis Date: 08/11/04 11:34

Client ID: Run ID: MERCURY_040811A SeqNo: 521873 Prep Date: 8/10/2004 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	-0.00001	0	20	

The following samples were analyzed in this batch:

0408033-01C 0408033-02C

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9862 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040805 Test Code: SW8270 Units: µg/L Analysis Date: 08/06/04 13:07
 Client ID: Run ID: SV-3_040805B SeqNo: 520557 Prep Date: 8/5/2004 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	97.65	10	100	0	97.6	39-153		0		
Surr: 2-Fluorobiphenyl	92.56	10	100	0	92.6	40-147		0		
Surr: 2-Fluorophenol	40.71	10	100	0	40.7	21-110		0		
Surr: 4-Terphenyl-d14	101.8	10	100	0	102	39-141		0		
Surr: Nitrobenzene-d5	97.85	10	100	0	97.9	37-140		0		
Surr: Phenol-d6	25.61	10	100	0	25.6	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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9862 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040805 Test Code: SW8270 Units: µg/L Analysis Date: 08/06/04 13:33

Client ID: Run ID: SV-3_040805B SeqNo: 520558 Prep Date: 8/5/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	45.98	10	50	0	92	50-115	0			
2,4,5-Trichlorophenol	105.4	10	100	0	105	68-128	0			
2,4,6-Trichlorophenol	101	10	100	0	101	66-125	0			
2-Methylnaphthalene	45.94	10	50	0	91.9	47-122	0			
2-Methylphenol	71.43	10	100	0	71.4	51-115	0			
2-Nitroaniline	53.97	10	50	0	108	64-128	0			
2-Nitrophenol	97.74	10	100	0	97.7	60-119	0			
3-Nitroaniline	40.58	10	50	0	81.2	61-118	0			
4-Methylphenol	94.52	10	150	0	63	44-115	0			
4-Nitroaniline	52.44	10	50	0	105	61-123	0			
4-Nitrophenol	25.26	10	100	0	25.3	17-100	0			
Acenaphthene	53.7	10	50	0	107	68-115	0			
Acenaphthylene	53.79	10	50	0	108	67-116	0			
Aniline	38.95	10	50	0	77.9	40-130	0			
Anthracene	62.13	10	50	0	124	70-129	0			
Benz(a)anthracene	56.37	10	50	0	113	55-131	0			
Benzidine	37.22	10	50	0	74.4	10-115	0			
Hexachloroethane	38.98	10	50	0	78	46-115	0			
Indeno(1,2,3-cd)pyrene	56.61	10	50	0	113	42-123	0			
Isophorone	55.2	10	50	0	110	63-117	0			
N-Nitrosodi-n-propylamine	48.81	10	50	0	97.6	67-115	0			
N-Nitrosodimethylamine	23	10	50	0	46	28-115	0			
N-Nitrosodiphenylamine	63	10	50	0	126	72-144	0			
Naphthalene	47.68	10	50	0	95.4	52-115	0			
Nitrobenzene	50.04	10	50	0	100	65-115	0			
Pentachlorophenol	93.07	10	100	0	93.1	65-123	0			
Phenanthrene	52.6	10	50	0	105	69-119	0			
Phenol	30.99	10	100	0	31	16-115	0			
Pyrene	59.1	10	50	0	118	51-130	0			
Surr: 2,4,6-Tribromophenol	98.99	10	100	0	99	39-153	0			
Surr: 2-Fluorobiphenyl	93.7	10	100	0	93.7	40-147	0			
Surr: 2-Fluorophenol	49.67	10	100	0	49.7	21-110	0			
Surr: 4-Terphenyl-d14	110.2	10	100	0	110	39-141	0			
Surr: Nitrobenzene-d5	96.95	10	100	0	97	37-140	0			
Surr: Phenol-d6	30.06	10	100	0	30.1	11-100	0			

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U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: 9862 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040805 Test Code: SW8270 Units: µg/L Analysis Date: 08/06/04 13:59

Client ID: Run ID: SV-3_040805B SeqNo: 520560 Prep Date: 8/5/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	50	10	50	0	100	50-115	45.98	8.37	30	
2,4,5-Trichlorophenol	107.5	10	100	0	107	68-128	105.4	1.92	30	
2,4,6-Trichlorophenol	100.5	10	100	0	101	66-125	101	0.514	30	
2-Methylnaphthalene	47.32	10	50	0	94.6	47-122	45.94	2.96	30	
2-Methylphenol	73.54	10	100	0	73.5	51-115	71.43	2.91	30	
2-Nitroaniline	54.09	10	50	0	108	64-128	53.97	0.227	30	
2-Nitrophenol	99.83	10	100	0	99.8	60-119	97.74	2.11	30	
3-Nitroaniline	40.6	10	50	0	81.2	61-118	40.58	0.0614	30	
4-Methylphenol	95.97	10	150	0	64	44-115	94.52	1.52	30	
4-Nitroaniline	52.42	10	50	0	105	61-123	52.44	0.0368	30	
4-Nitrophenol	27.28	10	100	0	27.3	17-100	25.26	7.72	30	
Acenaphthene	54.32	10	50	0	109	68-115	53.7	1.15	30	
Acenaphthylene	53.68	10	50	0	107	67-116	53.79	0.212	30	
Aniline	42.33	10	50	0	84.7	40-130	38.95	8.32	30	
Anthracene	62.08	10	50	0	124	70-129	62.13	0.0666	30	
Benz(a)anthracene	56.55	10	50	0	113	55-131	56.37	0.313	30	
Benzidine	34.53	10	50	0	69.1	10-115	37.22	7.48	30	
Hexachloroethane	44.94	10	50	0	89.9	46-115	38.98	14.2	30	
Indeno(1,2,3-cd)pyrene	57.4	10	50	0	115	42-123	56.61	1.38	30	
Isophorone	56.91	10	50	0	114	63-117	55.2	3.04	30	
N-Nitrosodi-n-propylamine	50.77	10	50	0	102	67-115	48.81	3.94	30	
N-Nitrosodimethylamine	25.81	10	50	0	51.6	28-115	23	11.5	30	
N-Nitrosodiphenylamine	63.11	10	50	0	126	72-144	63	0.168	30	
Naphthalene	50.33	10	50	0	101	52-115	47.68	5.4	30	
Nitrobenzene	52.6	10	50	0	105	65-115	50.04	5	30	
Pentachlorophenol	95.46	10	100	0	95.5	65-123	93.07	2.53	30	
Phenanthrene	53.53	10	50	0	107	69-119	52.6	1.75	30	
Phenol	32.25	10	100	0	32.3	16-115	30.99	3.97	30	
Pyrene	58.96	10	50	0	118	51-130	59.1	0.234	30	
Surr: 2,4,6-Tribromophenol	98.25	10	100	0	98.3	39-153	98.99	0.75	30	
Surr: 2-Fluorobiphenyl	92.09	10	100	0	92.1	40-147	93.7	1.73	30	
Surr: 2-Fluorophenol	51.4	10	100	0	51.4	21-110	49.67	3.43	30	
Surr: 4-Terphenyl-d14	106	10	100	0	106	39-141	110.2	3.84	30	
Surr: Nitrobenzene-d5	98.58	10	100	0	98.6	37-140	96.95	1.67	30	
Surr: Phenol-d6	30.02	10	100	0	30	11-100	30.06	0.127	30	

The following samples were analyzed in this batch:

0408033-01E 0408033-02E

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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: R22229 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0805 Test Code: SW8260 Units: µg/L Analysis Date: 08/05/04 11:10
 Client ID: Run ID: VOA1_040805A SeqNo: 520013 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								
Methyl tert-butyl ether	ND	5.0								
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	45.65	5.0	50	0	91.3	71-126		0		
Surr: 4-Bromofluorobenzene	47.72	5.0	50	0	95.4	74-125		0		
Surr: Dibromofluoromethane	44.54	5.0	50	0	89.1	73-126		0		
Surr: Toluene-d8	44.87	5.0	50	0	89.7	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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: R22229 InstrumentID: VOA1

LCS Sample ID: VLCSW-0805 Test Code: SW8260 Units: µg/L Analysis Date: 08/05/04 10:42

Client ID: Run ID: VOA1_040805A SeqNo: 520012 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	53.93	5.0	50	0	108	75.2-120	0			
1,1,2,2-Tetrachloroethane	45.8	5.0	50	0	91.6	72.4-121	0			
1,1,2-Trichloroethane	47.82	5.0	50	0	95.6	80-120	0			
1,1-Dichloroethane	50.13	5.0	50	0	100	76.9-120	0			
1,1-Dichloroethene	52.93	5.0	50	0	106	72.6-123	0			
1,2-Dichloroethane	47.12	5.0	50	0	94.2	80-120	0			
2-Butanone	112.3	10	100	0	112	69-131	0			
2-Chloroethyl vinyl ether	89.84	10	100	0	89.8	60-135	0			
2-Hexanone	92.04	10	100	0	92	55.6-126	0			
4-Methyl-2-pentanone	82.4	10	100	0	82.4	67.4-121	0			
Acetone	104.8	10	100	0	105	64.4-140	0			
Benzene	49.03	5.0	50	0	98.1	80-120	0			
Bromodichloromethane	48.08	5.0	50	0	96.2	80-120	0			
Bromoform	47.39	5.0	50	0	94.8	77.9-121	0			
Bromomethane	44.93	5.0	50	0	89.9	63.3-137	0			
Carbon disulfide	102.4	10	100	0	102	74.1-123	0			
Carbon tetrachloride	54.35	5.0	50	0	109	74.7-120	0			
Chlorobenzene	49.6	5.0	50	0	99.2	80-120	0			
Chloroethane	45.96	5.0	50	0	91.9	74.7-126	0			
Chloroform	49.84	5.0	50	0	99.7	80-120	0			
Chloromethane	41.3	5.0	50	0	82.6	64.5-132	0			
cis-1,3-Dichloropropene	49.55	5.0	50	0	99.1	80-120	0			
Dibromochloromethane	48.24	5.0	50	0	96.5	80-120	0			
Ethylbenzene	54.08	5.0	50	0	108	80-120	0			
m,p-Xylene	102.9	10	100	0	103	80-120	0			
Methyl tert-butyl ether	53.55	5.0	50	0	107	73.7-122	0			
Methylene chloride	47.05	10	50	0	94.1	76.2-120	0			
Styrene	47.04	5.0	50	0	94.1	80-120	0			
Tetrachloroethene	53.52	5.0	50	0	107	68.5-130	0			
Toluene	51.51	5.0	50	0	103	80-120	0			
trans-1,3-Dichloropropene	50.17	5.0	50	0	100	80-120	0			
Trichloroethene	52.01	5.0	50	0	104	78.9-120	0			
Vinyl acetate	120.5	10	100	0	121	62.4-133	0			
Vinyl chloride	47.77	2.0	50	0	95.5	72.7-128	0			
Xylenes, Total	154.6	15	150	0	103	80-120	0			
Surr: 1,2-Dichloroethane-d4	46.72	5.0	50	0	93.4	71-126	0			
Surr: 4-Bromofluorobenzene	48.32	5.0	50	0	96.6	74-125	0			
Surr: Dibromofluoromethane	46.3	5.0	50	0	92.6	73-126	0			
Surr: Toluene-d8	47.95	5.0	50	0	95.9	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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: R22229 InstrumentID: VOA1

MS	Sample ID: 0407361-03ZMS			Test Code: SW8260		Units: µg/L	Analysis Date: 08/05/04 14:24			
Client ID:	Run ID:	VOA1_040805A		SeqNo:	520015		Prep Date:	DF: 500		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22890	2,500	25000	0	91.6	75.2-120	0			
1,1,2,2-Tetrachloroethane	22570	2,500	25000	0	90.3	72.4-121	0			
1,1,2-Trichloroethane	26210	2,500	25000	0	105	80-120	0			
1,1-Dichloroethane	23240	2,500	25000	0	92.9	76.9-120	0			
1,1-Dichloroethene	20840	2,500	25000	0	83.3	72.6-123	0			
1,2-Dichloroethane	26140	2,500	25000	0	105	80-120	0			
2-Butanone	52930	5,000	50000	0	106	69-131	0			
2-Chloroethyl vinyl ether	46500	5,000	50000	0	93	60-135	0			
2-Hexanone	50120	5,000	50000	0	100	55.6-126	0			
4-Methyl-2-pentanone	48500	5,000	50000	0	97	67.4-121	0			
Acetone	45210	5,000	50000	0	90.4	64.4-140	0			
Benzene	23270	2,500	25000	0	93.1	80-120	0			
Bromodichloromethane	24690	2,500	25000	0	98.8	80-120	0			
Bromoform	27220	2,500	25000	0	109	77.9-121	0			
Bromomethane	18170	2,500	25000	0	72.7	63.3-137	0			
Carbon disulfide	42700	5,000	50000	0	85.4	74.1-123	0			
Carbon tetrachloride	22670	2,500	25000	0	90.7	74.7-120	0			
Chlorobenzene	24770	2,500	25000	0	99.1	80-120	0			
Chloroethane	19960	2,500	25000	0	79.8	74.7-126	0			
Chloroform	24920	2,500	25000	0	99.7	80-120	0			
Chloromethane	17110	2,500	25000	0	68.4	64.5-132	0			
cis-1,3-Dichloropropene	25120	2,500	25000	0	100	80-120	0			
Dibromochloromethane	27490	2,500	25000	0	110	80-120	0			
Ethylbenzene	24830	2,500	25000	0	99.3	80-120	0			
m,p-Xylene	47010	5,000	50000	0	94	80-120	0			
Methyl tert-butyl ether	27080	2,500	25000	0	108	73.7-122	0			
Methylene chloride	23520	5,000	25000	0	94.1	76.2-120	0			
Styrene	23840	2,500	25000	0	95.4	80-120	0			
Tetrachloroethene	81560	2,500	25000	59540	88.1	68.5-130	0			
Toluene	24260	2,500	25000	0	97	80-120	0			
trans-1,3-Dichloropropene	24570	2,500	25000	0	98.3	80-120	0			
Trichloroethene	35600	2,500	25000	10180	102	78.9-120	0			
Vinyl acetate	63540	5,000	50000	0	127	62.4-133	0			
Vinyl chloride	19930	1,000	25000	1927	72	72.7-128	0			S
Xylenes, Total	71840	7,500	75000	0	95.8	80-120	0			
Surr: 1,2-Dichloroethane-d4	23950	2,500	25000	0	95.8	71-126	0			
Surr: 4-Bromofluorobenzene	25430	2,500	25000	0	102	74-125	0			
Surr: Dibromofluoromethane	23520	2,500	25000	0	94.1	73-126	0			
Surr: Toluene-d8	25170	2,500	25000	0	101	75-125	0			

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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: R22229 InstrumentID: VOA1

MSD Sample ID: 0407361-03ZMSD Test Code: SW8260 Units: µg/L Analysis Date: 08/05/04 14:52

Client ID: Run ID: VOA1_040805A SeqNo: 520016 Prep Date: DF: 500

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24440	2,500	25000	0	97.8	75.2-120	22890	6.55	20	
1,1,2,2-Tetrachloroethane	22580	2,500	25000	0	90.3	72.4-121	22570	0.0317	20	
1,1,2-Trichloroethane	25030	2,500	25000	0	100	80-120	26210	4.6	20	
1,1-Dichloroethane	23280	2,500	25000	0	93.1	76.9-120	23240	0.166	20	
1,1-Dichloroethene	22960	2,500	25000	0	91.8	72.6-123	20840	9.71	20	
1,2-Dichloroethane	25460	2,500	25000	0	102	80-120	26140	2.65	20	
2-Butanone	49430	5,000	50000	0	98.9	69-131	52930	6.84	20	
2-Chloroethyl vinyl ether	46080	5,000	50000	0	92.2	60-135	46500	0.914	20	
2-Hexanone	47660	5,000	50000	0	95.3	55.6-126	50120	5.04	20	
4-Methyl-2-pentanone	46360	5,000	50000	0	92.7	67.4-121	48500	4.52	20	
Acetone	42730	5,000	50000	0	85.5	64.4-140	45210	5.64	20	
Benzene	23790	2,500	25000	0	95.1	80-120	23270	2.21	20	
Bromodichloromethane	24770	2,500	25000	0	99.1	80-120	24690	0.33	20	
Bromoform	26180	2,500	25000	0	105	77.9-121	27220	3.87	20	
Bromomethane	20090	2,500	25000	0	80.4	63.3-137	18170	10.1	20	
Carbon disulfide	45080	5,000	50000	0	90.2	74.1-123	42700	5.41	20	
Carbon tetrachloride	24100	2,500	25000	0	96.4	74.7-120	22670	6.15	20	
Chlorobenzene	24990	2,500	25000	0	100	80-120	24770	0.911	20	
Chloroethane	21470	2,500	25000	0	85.9	74.7-126	19960	7.32	20	
Chloroform	24120	2,500	25000	0	96.5	80-120	24920	3.25	20	
Chloromethane	18530	2,500	25000	0	74.1	64.5-132	17110	7.98	20	
cis-1,3-Dichloropropene	23810	2,500	25000	0	95.2	80-120	25120	5.36	20	
Dibromochloromethane	25880	2,500	25000	0	104	80-120	27490	6.06	20	
Ethylbenzene	25260	2,500	25000	0	101	80-120	24830	1.71	20	
m,p-Xylene	47800	5,000	50000	0	95.6	80-120	47010	1.65	20	
Methyl tert-butyl ether	26860	2,500	25000	0	107	73.7-122	27080	0.82	20	
Methylene chloride	23650	5,000	25000	0	94.6	76.2-120	23520	0.566	20	
Styrene	23540	2,500	25000	0	94.2	80-120	23840	1.28	20	
Tetrachloroethene	87660	2,500	25000	59540	112	68.5-130	81560	7.2	20	
Toluene	23940	2,500	25000	0	95.8	80-120	24260	1.34	20	
trans-1,3-Dichloropropene	25650	2,500	25000	0	103	80-120	24570	4.27	20	
Trichloroethene	37460	2,500	25000	10180	109	78.9-120	35600	5.09	20	
Vinyl acetate	60270	5,000	50000	0	121	62.4-133	63540	5.29	20	
Vinyl chloride	22370	1,000	25000	1927	81.8	72.7-128	19930	11.5	20	
Xylenes, Total	73300	7,500	75000	0	97.7	80-120	71840	2	20	
Surr: 1,2-Dichloroethane-d4	23010	2,500	25000	0	92	71-126	23950	4.03	20	
Surr: 4-Bromofluorobenzene	25140	2,500	25000	0	101	74-125	25430	1.14	20	
Surr: Dibromofluoromethane	22580	2,500	25000	0	90.3	73-126	23520	4.07	20	
Surr: Toluene-d8	23610	2,500	25000	0	94.4	75-125	25170	6.4	20	

The following samples were analyzed in this batch:

0408033-01A 0408033-02A

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: 0408033
 Project: Monthly

QC BATCH REPORT

Batch ID: **R22239** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-080504** Test Code: **E300** Units: **mg/L** Analysis Date: **08/05/04 18:39**

Client ID: Run ID: **IC201_040805A** SeqNo: **520217** 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								
Surr: Dichloroacetic acid (surr)	4.98	0.10	5	0	99.6	80-120	0			

LCS Sample ID: **WLCSDW1-080504** Test Code: **E300** Units: **mg/L** Analysis Date: **08/05/04 19:08**

Client ID: Run ID: **IC201_040805A** SeqNo: **520218** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.15	0.50	10	0	91.5	80-120	0			
Fluoride	1.91	0.10	2	0	95.5	80-120	0			
Sulfate	9.75	1.0	10	0	97.5	80-120	0			
Surr: Dichloroacetic acid (surr)	5.68	0.10	5	0	114	80-120	0			

LCSD Sample ID: **WLCSDW1-08050** Test Code: **E300** Units: **mg/L** Analysis Date: **08/05/04 19:36**

Client ID: Run ID: **IC201_040805A** SeqNo: **520219** 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	9.15	0.109	20	
Fluoride	1.93	0.10	2	0	96.5	80-120	1.91	1.04	20	
Sulfate	9.73	1.0	10	0	97.3	80-120	9.75	0.205	20	
Surr: Dichloroacetic acid (surr)	5.33	0.10	5	0	107	80-120	5.68	6.36	20	

MS Sample ID: **0408033-01BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **08/05/04 21:30**

Client ID: **RA 313** Run ID: **IC201_040805A** SeqNo: **520223** Prep Date: DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	199.4	10	200	33.8	82.8	75-125	0			
Fluoride	39.6	2.0	40	3.8	89.5	75-125	0			
Sulfate	650.6	20	200	446.6	102	75-125	0			
Surr: Dichloroacetic acid (surr)	108.2	2.0	100	0	108	80-120	0			

ND - Not Detected at the Reporting Limit

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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

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 7/28/2004 9:00:00 AM

Work Order Number 0407318

Received by: FSM

Checklist completed by

RICHARD SANDERZ 7/28/04
Signature Date

Reviewed by

JK 7/30/04
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):	<u>2.9c</u>	<u>002</u>	
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 Analytical, Inc.

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

August 06, 2004

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

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

Re: Monthly

Work Order : **0407271**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 7/23/2004 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 Analytical, 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 Analytical, 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,

Jeffrey L. Croston

Electronically approved by: Patricia A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0407271

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0407271-01	RA313	Water		7/22/2004 08:15	7/23/2004 08:30	☐
0407271-02	RA3333	Water		7/22/2004 08:30	7/23/2004 08:30	☐

e-Lab Analytical, Inc.

Date: *August 06, 2004*

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0407271

Case Narrative

Batch 9760 Metals MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-01

Client Sample ID: RA313
Collection Date: 7/22/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL					
Mercury	ND	0.000200	mg/L	1	8/3/2004 3:05:29 PM
ICP METALS, TOTAL					
Aluminum	ND	0.0100	mg/L	1	7/31/2004 7:43:00 PM
Arsenic	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Barium	0.0239	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Beryllium	ND	0.00200	mg/L	1	7/31/2004 7:43:00 PM
Boron	0.0523	0.0200	mg/L	1	8/4/2004 1:02:00 PM
Cadmium	ND	0.00100	mg/L	1	7/31/2004 7:43:00 PM
Calcium	216	25.0	mg/L	50	7/31/2004 6:22:00 PM
Chromium	ND	0.00200	mg/L	1	7/31/2004 7:43:00 PM
Cobalt	ND	0.00200	mg/L	1	7/31/2004 7:43:00 PM
Copper	ND	0.00200	mg/L	1	7/31/2004 7:43:00 PM
Iron	0.607	0.200	mg/L	1	7/31/2004 7:43:00 PM
Lead	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Magnesium	48.1	2.00	mg/L	10	7/31/2004 7:29:00 PM
Manganese	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Molybdenum	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Nickel	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Potassium	0.964	0.200	mg/L	1	7/31/2004 7:43:00 PM
Selenium	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Silver	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Sodium	14.0	0.200	mg/L	1	7/31/2004 7:43:00 PM
Vanadium	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
Zinc	ND	0.00500	mg/L	1	7/31/2004 7:43:00 PM
SEMIVOLATILE ORGANICS BY GC/MS					
1,2,4-Trichlorobenzene	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2,4,5-Trichlorophenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2,4,6-Trichlorophenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2-Methylnaphthalene	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2-Methylphenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2-Nitroaniline	ND	10	µg/L	1	7/26/2004 10:02:00 PM
2-Nitrophenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
3-Nitroaniline	ND	10	µg/L	1	7/26/2004 10:02:00 PM
4-Methylphenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
4-Nitroaniline	ND	10	µg/L	1	7/26/2004 10:02:00 PM
4-Nitrophenol	ND	10	µg/L	1	7/26/2004 10:02:00 PM
Acenaphthene	ND	10	µg/L	1	7/26/2004 10:02:00 PM
Acenaphthylene	ND	10	µg/L	1	7/26/2004 10:02:00 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 Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-01

Client Sample ID: RA313
Collection Date: 7/22/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Anthracene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Benzidine	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Hexachloroethane	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Isophorone	ND	10		µg/L	1	7/26/2004 10:02:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/26/2004 10:02:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/26/2004 10:02:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Naphthalene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Nitrobenzene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Phenanthrene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Phenol	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Pyrene	ND	10		µg/L	1	7/26/2004 10:02:00 PM
Surr: 2,4,6-Tribromophenol	107	39-153		%REC	1	7/26/2004 10:02:00 PM
Surr: 2-Fluorobiphenyl	94.5	40-147		%REC	1	7/26/2004 10:02:00 PM
Surr: 2-Fluorophenol	43.4	21-110		%REC	1	7/26/2004 10:02:00 PM
Surr: 4-Terphenyl-d14	104	39-141		%REC	1	7/26/2004 10:02:00 PM
Surr: Nitrobenzene-d5	92.6	37-140		%REC	1	7/26/2004 10:02:00 PM
Surr: Phenol-d6	24.4	11-100		%REC	1	7/26/2004 10:02:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: HLBW

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2004 7:17:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/28/2004 7:17:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2004 7:17:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Acetone	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Carbon disulfide	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2004 7:17:00 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 Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-01

Client Sample ID: RA313
Collection Date: 7/22/2004 8:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Chloromethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
m,p-Xylene	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Methylene chloride	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2004 7:17:00 PM
Vinyl acetate	ND	10		µg/L	1	7/28/2004 7:17:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/28/2004 7:17:00 PM
Xylenes, Total	ND	15		µg/L	1	7/28/2004 7:17:00 PM
Surr: 1,2-Dichloroethane-d4	88.3	71-126		%REC	1	7/28/2004 7:17:00 PM
Surr: 4-Bromofluorobenzene	108	74-125		%REC	1	7/28/2004 7:17:00 PM
Surr: Dibromofluoromethane	99.4	73-126		%REC	1	7/28/2004 7:17:00 PM
Surr: Toluene-d8	112	75-125		%REC	1	7/28/2004 7:17:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	15.6	0.500		mg/L	1	7/23/2004 5:45:00 PM
Fluoride	0.930	0.100		mg/L	1	7/23/2004 5:45:00 PM
Sulfate	481	10.0		mg/L	10	7/23/2004 6:14:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	1	7/23/2004 5:45:00 PM
Surr: Dichloroacetic acid (surr)	107	80-120		%REC	10	7/23/2004 6:14:00 PM

ALKALINITY**E310.1**Analyst: **HDO**

Alkalinity, Bicarbonate (As CaCO3)	200	5.00		mg/L	1	7/29/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Total (As CaCO3)	200	5.00		mg/L	1	7/29/2004

CYANIDE, TOTAL**E335.3**Analyst: **LMD**

Cyanide	ND	0.0200		mg/L	1	7/25/2004
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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

AR Page 3 of 6

e-Lab Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-02

Client Sample ID: RA3333
Collection Date: 7/22/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.00200		mg/L	1	8/3/2004 3:19:28 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	7/31/2004 7:48:00 PM
Arsenic	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Barium	0.00851	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Beryllium	ND	0.00200		mg/L	1	7/31/2004 7:48:00 PM
Boron	0.110	0.0200		mg/L	1	8/4/2004 1:07:00 PM
Cadmium	ND	0.00100		mg/L	1	7/31/2004 7:48:00 PM
Calcium	396	25.0		mg/L	50	7/31/2004 6:27:00 PM
Chromium	ND	0.00200		mg/L	1	7/31/2004 7:48:00 PM
Cobalt	ND	0.00200		mg/L	1	7/31/2004 7:48:00 PM
Copper	0.00264	0.00200		mg/L	1	7/31/2004 7:48:00 PM
Iron	2.48	0.200		mg/L	1	7/31/2004 7:48:00 PM
Lead	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Magnesium	93.9	2.00		mg/L	10	7/31/2004 7:34:00 PM
Manganese	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Molybdenum	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Nickel	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Potassium	1.80	0.200		mg/L	1	7/31/2004 7:48:00 PM
Selenium	0.0116	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Silver	ND	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Sodium	77.1	2.00		mg/L	10	7/31/2004 7:34:00 PM
Vanadium	0.00705	0.00500		mg/L	1	7/31/2004 7:48:00 PM
Zinc	0.547	0.0500		mg/L	10	7/31/2004 7:34:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2-Methylphenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/26/2004 10:26:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/26/2004 10:26:00 PM
4-Methylphenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/26/2004 10:26:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Acenaphthene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Acenaphthylene	ND	10		µg/L	1	7/26/2004 10:26:00 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 Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-02

Client Sample ID: RA3333
Collection Date: 7/22/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Anthracene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Benzidine	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Hexachloroethane	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Isophorone	ND	10		µg/L	1	7/26/2004 10:26:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/26/2004 10:26:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/26/2004 10:26:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Naphthalene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Nitrobenzene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Phenanthrene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Phenol	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Pyrene	ND	10		µg/L	1	7/26/2004 10:26:00 PM
Surr: 2,4,6-Tribromophenol	103	39-153		%REC	1	7/26/2004 10:26:00 PM
Surr: 2-Fluorobiphenyl	91.7	40-147		%REC	1	7/26/2004 10:26:00 PM
Surr: 2-Fluorophenol	42.1	21-110		%REC	1	7/26/2004 10:26:00 PM
Surr: 4-Terphenyl-d14	107	39-141		%REC	1	7/26/2004 10:26:00 PM
Surr: Nitrobenzene-d5	90.7	37-140		%REC	1	7/26/2004 10:26:00 PM
Surr: Phenol-d6	24.7	11-100		%REC	1	7/26/2004 10:26:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: HLBW

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
2-Butanone	ND	10		µg/L	1	7/28/2004 7:47:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/28/2004 7:47:00 PM
2-Hexanone	ND	10		µg/L	1	7/28/2004 7:47:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Acetone	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Benzene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Bromoform	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Bromomethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Carbon disulfide	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/28/2004 7:47:00 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 Analytical, Inc.

Date: August 06, 2004

CLIENT: Navajo Refining Company
Work Order: 0407271
Project: Monthly
Lab ID: 0407271-02

Client Sample ID: RA3333
Collection Date: 7/22/2004 8:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Chloroethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Chloroform	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Chloromethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
m,p-Xylene	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Methylene chloride	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Styrene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Toluene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/28/2004 7:47:00 PM
Vinyl acetate	ND	10		µg/L	1	7/28/2004 7:47:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/28/2004 7:47:00 PM
Xylenes, Total	ND	15		µg/L	1	7/28/2004 7:47:00 PM
Surr: 1,2-Dichloroethane-d4	88.2	71-126		%REC	1	7/28/2004 7:47:00 PM
Surr: 4-Bromofluorobenzene	111	74-125		%REC	1	7/28/2004 7:47:00 PM
Surr: Dibromofluoromethane	97.0	73-126		%REC	1	7/28/2004 7:47:00 PM
Surr: Toluene-d8	113	75-125		%REC	1	7/28/2004 7:47:00 PM

ANIONS BY ION CHROMATOGRAPHY**E300**Analyst: **MG**

Chloride	152	5.00		mg/L	10	7/23/2004 7:39:00 PM
Fluoride	0.640	0.100		mg/L	1	7/23/2004 7:11:00 PM
Sulfate	954	100		mg/L	100	7/23/2004 8:08:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	1	7/23/2004 7:11:00 PM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	10	7/23/2004 7:39:00 PM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	100	7/23/2004 8:08:00 PM

ALKALINITY**E310.1**Analyst: **HDO**

Alkalinity, Bicarbonate (As CaCO3)	170	5.00		mg/L	1	7/29/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/29/2004
Alkalinity, Total (As CaCO3)	170	5.00		mg/L	1	7/29/2004

CYANIDE, TOTAL**E335.3**Analyst: **LMD**

Cyanide	ND	0.0200		mg/L	1	7/25/2004
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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 Analytical, Inc.

Date: Aug 06 2004

CLIENT: Navajo Refining Company

Work Order: 0407271

Project: Monthly

QC BATCH REPORT

Batch ID: 9760

InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-072704 Test Code: SW6020 Units: mg/L Analysis Date: 07/30/04 16:05

Client ID: Run ID: ICP4500_040730A SeqNo: 517282 Prep Date: 7/27/2004 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								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	0.0818	0.50								J
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Sodium	0.2584	0.20								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: 9760 InstrumentID: ICP4500

LCS Sample ID: **MLCSW1-072704** Test Code: **SW6020** Units: **mg/L** Analysis Date: **07/30/04 16:09**

Client ID: Run ID: **ICP4500_040730A** SeqNo: **517283** Prep Date: **7/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04805	0.010	0.05	0	96.1	79-126	0			
Arsenic	0.05165	0.0050	0.05	0	103	80-121	0			
Barium	0.04777	0.0050	0.05	0	95.5	79.8-119	0			
Beryllium	0.04815	0.0020	0.05	0	96.3	78.9-120	0			
Boron	0.4822	0.020	0	-0.001108	0	80-120	0			
Cadmium	0.05311	0.0020	0.05	0	106	79.1-119	0			
Calcium	5.091	0.50	5	0	102	80-121	0			
Chromium	0.04666	0.0050	0.05	0	93.3	79.3-121	0			
Cobalt	0.04845	0.0050	0.05	0	96.9	82-121	0			
Copper	0.04734	0.0050	0.05	0	94.7	83-121	0			
Iron	5.056	0.20	5	0	101	80-120	0			
Lead	0.04614	0.0050	0.05	0	92.3	80-118	0			
Magnesium	5.255	0.20	5	0	105	80-120	0			
Manganese	0.04684	0.0050	0.05	0	93.7	82-119	0			
Molybdenum	0.04377	0.0050	0.05	0	87.5	84.6-115	0			
Nickel	0.04852	0.0050	0.05	0	97	85-120	0			
Potassium	5.318	0.20	5	0	106	80-120	0			
Selenium	0.05268	0.0050	0.05	0	105	79.2-118	0			
Silver	0.04722	0.0050	0.05	0	94.4	83-117	0			
Sodium	5.085	0.20	5	0	102	82.4-120	0			
Vanadium	0.04701	0.0050	0.05	0	94	82.1-119	0			
Zinc	0.05398	0.0050	0.05	0	108	83-118	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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: 9760 InstrumentID: ICP4500

MS Sample ID: 0407245-05CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/31/04 14:48

Client ID: Run ID: ICP4500_040731A SeqNo: 517528 Prep Date: 7/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04578	0.010	0.05	0.004601	82.4	79-126	0			
Arsenic	0.04991	0.0050	0.05	0	99.8	80-121	0			
Barium	0.08031	0.0050	0.05	0.03605	88.5	79.8-119	0			
Beryllium	0.0496	0.0020	0.05	0	99.2	78.9-120	0			
Boron	0.5789	0.020	0	0.1056	0	80-120	0			
Cadmium	0.04853	0.0020	0.05	0.0002884	96.5	79.1-119	0			
Calcium	98.74	0.50	5	93.77	99.4	80-121	0			EO
Chromium	0.04436	0.0050	0.05	0	88.7	79.3-121	0			
Cobalt	0.04276	0.0050	0.05	0.0007819	84	82-121	0			
Copper	0.04051	0.0050	0.05	0.000763	79.5	83-121	0			S
Iron	4.786	0.20	5	0.2484	90.8	80-120	0			
Lead	0.04366	0.0050	0.05	0	87.3	80-118	0			
Magnesium	10.02	0.20	5	5.498	90.4	80-120	0			
Manganese	0.06996	0.0050	0.05	0.02633	87.3	82-119	0			
Molybdenum	0.0442	0.0050	0.05	0	88.4	84.6-115	0			
Nickel	0.04491	0.0050	0.05	0.003507	82.8	85-120	0			S
Potassium	13.45	0.20	5	8.849	92	80-120	0			
Selenium	0.05322	0.0050	0.05	0.003249	99.9	79.2-118	0			
Silver	0.03768	0.0050	0.05	0	75.4	83-117	0			S
Sodium	2000	0.20	5	0	40000	82.4-120	0			SE
Vanadium	0.04574	0.0050	0.05	0.0004995	90.5	82.1-119	0			
Zinc	0.1042	0.0050	0.05	0.05816	92.1	83-118	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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: 9760 InstrumentID: ICP4500

MSD		Sample ID: 0407245-05CMSD		Test Code: SW6020		Units: mg/L		Analysis Date: 07/31/04 14:53		
Client ID:		Run ID: ICP4500_040731A		SeqNo: 517529		Prep Date: 7/27/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04597	0.010	0.05	0.004601	82.7	79-126	0.04578	0.414	15	
Arsenic	0.05063	0.0050	0.05	0	101	80-121	0.04991	1.43	15	
Barium	0.08024	0.0050	0.05	0.03605	88.4	79.8-119	0.08031	0.0872	15	
Beryllium	0.04875	0.0020	0.05	0	97.5	78.9-120	0.0496	1.73	15	
Boron	0.5724	0.020	0	0.1056	0	80-120	0.5789	1.13	15	
Cadmium	0.04915	0.0020	0.05	0.0002884	97.7	79.1-119	0.04853	1.27	15	
Calcium	97.59	0.50	5	93.77	76.4	80-121	98.74	1.17	15	SEO
Chromium	0.0452	0.0050	0.05	0	90.4	79.3-121	0.04436	1.88	15	
Cobalt	0.04395	0.0050	0.05	0.0007819	86.3	82-121	0.04276	2.74	15	
Copper	0.04117	0.0050	0.05	0.000763	80.8	83-121	0.04051	1.62	15	S
Iron	4.818	0.20	5	0.2484	91.4	80-120	4.786	0.666	15	
Lead	0.04425	0.0050	0.05	0	88.5	80-118	0.04366	1.34	15	
Magnesium	10.14	0.20	5	5.498	92.8	80-120	10.02	1.19	15	
Manganese	0.0695	0.0050	0.05	0.02633	86.3	82-119	0.06996	0.66	15	
Molybdenum	0.04537	0.0050	0.05	0	90.7	84.6-115	0.0442	2.61	15	
Nickel	0.04574	0.0050	0.05	0.003507	84.5	85-120	0.04491	1.83	15	S
Potassium	13.35	0.20	5	8.849	90	80-120	13.45	0.746	15	
Selenium	0.0518	0.0050	0.05	0.003249	97.1	79.2-118	0.05322	2.7	15	
Silver	0.03995	0.0050	0.05	0	79.9	83-117	0.03768	5.85	15	S
Sodium	2000	0.20	5	0	40000	82.4-120	2000	0	15	SE
Vanadium	0.04663	0.0050	0.05	0.0004995	92.3	82.1-119	0.04574	1.93	15	
Zinc	0.1025	0.0050	0.05	0.05816	88.7	83-118	0.1042	1.64	15	

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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: 9760 InstrumentID: ICP4500

DUP Sample ID: 0407245-05CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/31/04 14:43
 Client ID: Run ID: ICP4500_040731A SeqNo: 517527 Prep Date: 7/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.004476	0.010	0	0	0	0-0	0.004601	0	25	J
Arsenic	ND	0.0050	0	0	0	0-0	0.0008023	0	25	
Barium	0.03547	0.0050	0	0	0	0-0	0.03605	1.62	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.0002568	0	25	
Boron	0.1021	0.020	0	0	0	0-0	0.1056	3.37	25	
Cadmium	0.0001731	0.0020	0	0	0	0-0	0.0002884	0	25	J
Chromium	ND	0.0050	0	0	0	0-0	0.0004792	0	25	
Cobalt	0.0007157	0.0050	0	0	0	0-0	0.0007819	0	25	J
Copper	0.000729	0.0050	0	0	0	0-0	0.000763	0	25	J
Iron	0.2422	0.20	0	0	0	0-0	0.2484	2.53	25	
Lead	ND	0.0050	0	0	0	0-0	0.00007642	0	25	
Magnesium	5.553	0.20	0	0	0	0-0	5.498	0.995	25	
Manganese	0.02583	0.0050	0	0	0	0-0	0.02633	1.92	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001011	0	25	
Nickel	0.00343	0.0050	0	0	0	0-0	0.003507	0	25	J
Potassium	8.747	0.20	0	0	0	0-0	8.849	1.16	25	
Selenium	0.002954	0.0050	0	0	0	0-0	0.003249	0	25	J
Silver	ND	0.0050	0	0	0	0-0	0.00002754	0	25	
Sodium	ND	0.20	0	0	0	0-0	0	0	25	
Vanadium	0.0004141	0.0050	0	0	0	0-0	0.0004995	0	25	J
Zinc	0.05803	0.0050	0	0	0	0-0	0.05816	0.224	25	

DUP Sample ID: 0407245-05CDUP Test Code: SW6020 Units: mg/L Analysis Date: 08/02/04 18:26
 Client ID: Run ID: ICP4500_040802A SeqNo: 518162 Prep Date: 7/27/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	102.5	5.0	0	0	0	0-0	100.6	1.87	25	

The following samples were analyzed in this batch:

0407271-01C 0407271-02C

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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: 9817 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-080204 Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 14:58

Client ID: Run ID: MERCURY_040803B SeqNo: 518570 Prep Date: 8/2/2004 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: GLCSW1-080204 Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 15:00

Client ID: Run ID: MERCURY_040803B SeqNo: 518571 Prep Date: 8/2/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00462	0.00020	0.005	0	92.4	83-115	0			

LCSD Sample ID: GLCSDW1-080204 Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 15:01

Client ID: Run ID: MERCURY_040803B SeqNo: 518572 Prep Date: 8/2/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00522	0.00020	0.005	0	104	83-115	0.00462	12.2	20	

MS Sample ID: 0407271-01CMS Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 15:08

Client ID: RA313 Run ID: MERCURY_040803B SeqNo: 518575 Prep Date: 8/2/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00475	0.00020	0.005	0.000008	94.8	83-115	0			

MSD Sample ID: 0407271-01CMSD Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 15:12

Client ID: RA313 Run ID: MERCURY_040803B SeqNo: 518576 Prep Date: 8/2/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00468	0.00020	0.005	0.000008	93.4	83-115	0.00475	1.48	20	

DUP Sample ID: 0407271-01CDUP Test Code: SW7470 Units: mg/L Analysis Date: 08/03/04 15:07

Client ID: RA313 Run ID: MERCURY_040803B SeqNo: 518574 Prep Date: 8/2/2004 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	0.000008	0	20	

The following samples were analyzed in this batch:

0407271-01C 0407271-02C

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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: 9730 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040723 Test Code: SW8270 Units: µg/L Analysis Date: 07/26/04 15:54
 Client ID: Run ID: SV-3_040726A SeqNo: 515255 Prep Date: 7/23/2004 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	100	10	100	0	100	39-153	0			
Surr: 2-Fluorobiphenyl	96.01	10	100	0	96	40-147	0			
Surr: 2-Fluorophenol	40.85	10	100	0	40.8	21-110	0			
Surr: 4-Terphenyl-d14	106.5	10	100	0	107	39-141	0			
Surr: Nitrobenzene-d5	91.62	10	100	0	91.6	37-140	0			
Surr: Phenol-d6	23.94	10	100	0	23.9	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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: 9730 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040723 Test Code: SW8270 Units: µg/L Analysis Date: 07/26/04 16:19
 Client ID: Run ID: SV-3_040726A SeqNo: 515256 Prep Date: 7/23/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.51	10	50	0	87	50-115	0			
2,4,5-Trichlorophenol	104.3	10	100	0	104	68-128	0			
2,4,6-Trichlorophenol	100.8	10	100	0	101	66-125	0			
2-Methylnaphthalene	44.75	10	50	0	89.5	47-122	0			
2-Methylphenol	74.62	10	100	0	74.6	51-115	0			
2-Nitroaniline	53.59	10	50	0	107	64-128	0			
2-Nitrophenol	99.6	10	100	0	99.6	60-119	0			
3-Nitroaniline	50.85	10	50	0	102	61-118	0			
4-Methylphenol	98.44	10	150	0	65.6	44-115	0			
4-Nitroaniline	52.46	10	50	0	105	61-123	0			
4-Nitrophenol	37.59	10	100	0	37.6	17-100	0			
Acenaphthene	50.99	10	50	0	102	68-115	0			
Acenaphthylene	50.51	10	50	0	101	67-116	0			
Aniline	46.16	10	50	0	92.3	40-130	0			
Anthracene	53.46	10	50	0	107	70-129	0			
Benz(a)anthracene	56.63	10	50	0	113	55-131	0			
Benzidine	40.83	10	50	0	81.7	10-115	0			
Hexachloroethane	39.86	10	50	0	79.7	46-115	0			
Indeno(1,2,3-cd)pyrene	55.23	10	50	0	110	42-123	0			
Isophorone	51.55	10	50	0	103	63-117	0			
N-Nitrosodi-n-propylamine	50.36	10	50	0	101	67-115	0			
N-Nitrosodimethylamine	23.56	10	50	0	47.1	28-115	0			
N-Nitrosodiphenylamine	54.98	10	50	0	110	72-144	0			
Naphthalene	45.89	10	50	0	91.8	52-115	0			
Nitrobenzene	48.33	10	50	0	96.7	65-115	0			
Pentachlorophenol	98.86	10	100	0	98.9	65-123	0			
Phenanthrene	52.88	10	50	0	106	69-119	0			
Phenol	30.48	10	100	0	30.5	16-115	0			
Pyrene	51.66	10	50	0	103	51-130	0			
Surr: 2,4,6-Tribromophenol	107.9	10	100	0	108	39-153	0			
Surr: 2-Fluorobiphenyl	98.98	10	100	0	99	40-147	0			
Surr: 2-Fluorophenol	50.13	10	100	0	50.1	21-110	0			
Surr: 4-Terphenyl-d14	107.3	10	100	0	107	39-141	0			
Surr: Nitrobenzene-d5	98.37	10	100	0	98.4	37-140	0			
Surr: Phenol-d6	26.91	10	100	0	26.9	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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: 9730 InstrumentID: SV-3

MS Sample ID: 0407227-09EMS Test Code: SW8270 Units: µg/L Analysis Date: 07/26/04 17:08

Client ID: Run ID: SV-3_040726A SeqNo: 515257 Prep Date: 7/23/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	53.1	11	57.47	0	92.4	50-115	0			
2,4,5-Trichlorophenol	116.9	11	114.9	0	102	68-128	0			
2,4,6-Trichlorophenol	115	11	114.9	0	100	66-125	0			
2-Methylnaphthalene	52.79	11	57.47	0	91.9	47-122	0			
2-Methylphenol	86.92	11	114.9	0	75.6	51-115	0			
2-Nitroaniline	61.01	11	57.47	0	106	64-128	0			
2-Nitrophenol	112.4	11	114.9	0	97.8	60-119	0			
3-Nitroaniline	50.79	11	57.47	0	88.4	61-118	0			
4-Methylphenol	117.8	11	172.4	0	68.3	44-115	0			
4-Nitroaniline	60.76	11	57.47	0	106	61-123	0			
4-Nitrophenol	53.85	11	114.9	0	46.8	17-100	0			
Acenaphthene	56.83	11	57.47	0	98.9	68-115	0			
Acenaphthylene	56.31	11	57.47	0	98	67-116	0			
Aniline	37.32	11	57.47	0	64.9	40-130	0			
Anthracene	59.96	11	57.47	0	104	70-129	0			
Benz(a)anthracene	65.4	11	57.47	0	114	55-131	0			
Benzidine	6.81	11	57.47	0	11.8	10-115	0			J
Hexachloroethane	49.96	11	57.47	0	86.9	46-115	0			
Indeno(1,2,3-cd)pyrene	61.89	11	57.47	0	108	42-123	0			
Isophorone	58.25	11	57.47	0	101	63-117	0			
N-Nitrosodi-n-propylamine	57.32	11	57.47	0	99.7	67-115	0			
N-Nitrosodimethylamine	29.79	11	57.47	0	51.8	28-115	0			
N-Nitrosodiphenylamine	63.56	11	57.47	0	111	72-144	0			
Naphthalene	54.17	11	57.47	0	94.2	52-115	0			
Nitrobenzene	57.33	11	57.47	0	99.8	65-115	0			
Pentachlorophenol	119.8	11	114.9	0	104	65-123	0			
Phenanthrene	60.99	11	57.47	0	106	69-119	0			
Phenol	39.81	11	114.9	0	34.6	16-115	0			
Pyrene	59.41	11	57.47	0	103	51-130	0			
Surr: 2,4,6-Tribromophenol	123.9	11	114.9	0	108	39-153	0			
Surr: 2-Fluorobiphenyl	108.5	11	114.9	0	94.4	40-147	0			
Surr: 2-Fluorophenol	59.31	11	114.9	0	51.6	21-110	0			
Surr: 4-Terphenyl-d14	112.4	11	114.9	0	97.8	39-141	0			
Surr: Nitrobenzene-d5	108.3	11	114.9	0	94.2	37-140	0			
Surr: Phenol-d6	36.81	11	114.9	0	32	11-100	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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: 9730 InstrumentID: SV-3

MSD Sample ID: 0407227-09EMSD Test Code: SW8270 Units: µg/L Analysis Date: 07/26/04 17:33

Client ID: Run ID: SV-3_040726A SeqNo: 515258 Prep Date: 7/23/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	56.49	12	60.98	0	92.6	50-115	53.1	6.19	30	
2,4,5-Trichlorophenol	124.4	12	122	0	102	68-128	116.9	6.18	30	
2,4,6-Trichlorophenol	121.1	12	122	0	99.3	66-125	115	5.18	30	
2-Methylnaphthalene	56.79	12	60.98	0	93.1	47-122	52.79	7.3	30	
2-Methylphenol	94.58	12	122	0	77.6	51-115	86.92	8.44	30	
2-Nitroaniline	64.34	12	60.98	0	106	64-128	61.01	5.31	30	
2-Nitrophenol	119.5	12	122	0	98	60-119	112.4	6.06	30	
3-Nitroaniline	54.96	12	60.98	0	90.1	61-118	50.79	7.89	30	
4-Methylphenol	131.2	12	182.9	0	71.7	44-115	117.8	10.8	30	
4-Nitroaniline	63.8	12	60.98	0	105	61-123	60.76	4.87	30	
4-Nitrophenol	56.58	12	122	0	46.4	17-100	53.85	4.96	30	
Acenaphthene	60.92	12	60.98	0	99.9	68-115	56.83	6.94	30	
Acenaphthylene	60.51	12	60.98	0	99.2	67-116	56.31	7.19	30	
Aniline	38.82	12	60.98	0	63.7	40-130	37.32	3.93	30	
Anthracene	63.75	12	60.98	0	105	70-129	59.96	6.13	30	
Benz(a)anthracene	66.59	12	60.98	0	109	55-131	65.4	1.81	30	
Benzidine	7.134	12	60.98	0	11.7	10-115	6.81	0	30	J
Hexachloroethane	53.41	12	60.98	0	87.6	46-115	49.96	6.69	30	
Indeno(1,2,3-cd)pyrene	68.03	12	60.98	0	112	42-123	61.89	9.44	30	
Isophorone	63.11	12	60.98	0	104	63-117	58.25	8.01	30	
N-Nitrosodi-n-propylamine	59.47	12	60.98	0	97.5	67-115	57.32	3.68	30	
N-Nitrosodimethylamine	34.06	12	60.98	0	55.9	28-115	29.79	13.4	30	
N-Nitrosodiphenylamine	65.74	12	60.98	0	108	72-144	63.56	3.38	30	
Naphthalene	57.78	12	60.98	0	94.8	52-115	54.17	6.46	30	
Nitrobenzene	59.16	12	60.98	0	97	65-115	57.33	3.14	30	
Pentachlorophenol	132.7	12	122	0	109	65-123	119.8	10.3	30	
Phenanthrene	63.58	12	60.98	0	104	69-119	60.99	4.17	30	
Phenol	45.52	12	122	0	37.3	16-115	39.81	13.4	30	
Pyrene	61.14	12	60.98	0	100	51-130	59.41	2.88	30	
Surr: 2,4,6-Tribromophenol	131.6	12	122	0	108	39-153	123.9	6.07	30	
Surr: 2-Fluorobiphenyl	118.1	12	122	0	96.8	40-147	108.5	8.49	30	
Surr: 2-Fluorophenol	69.6	12	122	0	57.1	21-110	59.31	16	30	
Surr: 4-Terphenyl-d14	121	12	122	0	99.3	39-141	112.4	7.4	30	
Surr: Nitrobenzene-d5	121.2	12	122	0	99.4	37-140	108.3	11.2	30	
Surr: Phenol-d6	42.4	12	122	0	34.8	11-100	36.81	14.1	30	

The following samples were analyzed in this batch:

0407271-01E 0407271-02E

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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MBLK Sample ID: VBLKW-0728 Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 10:24
 Client ID: Run ID: VOA3_040728A SeqNo: 515976 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								
Methyl tert-butyl ether	ND	5.0								
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	53.68	5.0	50	0	107	71-126	0			
Surr: 4-Bromofluorobenzene	51.07	5.0	50	0	102	74-125	0			
Surr: Dibromofluoromethane	55.16	5.0	50	0	110	73-126	0			
Surr: Toluene-d8	55.07	5.0	50	0	110	75-125	0			

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CLIENT: Navajo Refining Company
 Work Order: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

LCS Sample ID: VLCSW-0728 Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 9:24
 Client ID: Run ID: VOA3_040728A SeqNo: 515975 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	50.94	5.0	50	0	102	75.2-120	0			
1,1,2,2-Tetrachloroethane	49.25	5.0	50	0	98.5	72.4-121	0			
1,1,2-Trichloroethane	49.47	5.0	50	0	98.9	80-120	0			
1,1-Dichloroethane	49.92	5.0	50	0	99.8	76.9-120	0			
1,1-Dichloroethene	49.99	5.0	50	0	100	72.6-123	0			
1,2-Dichloroethane	48.83	5.0	50	0	97.7	80-120	0			
2-Butanone	101.3	10	100	0	101	69-131	0			
2-Chloroethyl vinyl ether	97.24	10	100	0	97.2	60-135	0			
2-Hexanone	98.42	10	100	0	98.4	55.6-126	0			
4-Methyl-2-pentanone	102	10	100	0	102	67.4-121	0			
Acetone	108.4	10	100	0	108	64.4-140	0			
Benzene	49	5.0	50	0	98	80-120	0			
Bromodichloromethane	51.04	5.0	50	0	102	80-120	0			
Bromoform	49.33	5.0	50	0	98.7	77.9-121	0			
Bromomethane	47.55	5.0	50	0	95.1	63.3-137	0			
Carbon disulfide	103.9	10	100	0	104	74.1-123	0			
Carbon tetrachloride	52.05	5.0	50	0	104	74.7-120	0			
Chlorobenzene	49.75	5.0	50	0	99.5	80-120	0			
Chloroethane	49.38	5.0	50	0	98.8	74.7-126	0			
Chloroform	50.79	5.0	50	0	102	80-120	0			
Chloromethane	49.97	5.0	50	0	99.9	64.5-132	0			
cis-1,3-Dichloropropene	52.64	5.0	50	0	105	80-120	0			
Dibromochloromethane	49.12	5.0	50	0	98.2	80-120	0			
Ethylbenzene	51.2	5.0	50	0	102	80-120	0			
m,p-Xylene	103.2	10	100	0	103	80-120	0			
Methyl tert-butyl ether	49.03	5.0	50	0	98.1	73.7-122	0			
Methylene chloride	47.85	10	50	0	95.7	76.2-120	0			
Styrene	50.42	5.0	50	0	101	80-120	0			
Tetrachloroethene	48.36	5.0	50	0	96.7	68.5-130	0			
Toluene	50.82	5.0	50	0	102	80-120	0			
trans-1,3-Dichloropropene	51.93	5.0	50	0	104	80-120	0			
Trichloroethene	50.75	5.0	50	0	102	78.9-120	0			
Vinyl acetate	108.6	10	100	0	109	62.4-133	0			
Vinyl chloride	50.63	2.0	50	0	101	72.7-128	0			
Xylenes, Total	156	15	150	0	104	80-120	0			
Surr: 1,2-Dichloroethane-d4	53.36	5.0	50	0	107	71-126	0			
Surr: 4-Bromofluorobenzene	55.29	5.0	50	0	111	74-125	0			
Surr: Dibromofluoromethane	54.7	5.0	50	0	109	73-126	0			
Surr: Toluene-d8	53.19	5.0	50	0	106	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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MS Sample ID: 0407280-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 13:51

Client ID: Run ID: VOA3_040728A SeqNo: 515981 Prep Date: DF: 25

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1356	120	1250	0	108	75.2-120	0			
1,1,2,2-Tetrachloroethane	1298	120	1250	0	104	72.4-121	0			
1,1,2-Trichloroethane	1281	120	1250	0	102	80-120	0			
1,1-Dichloroethane	1321	120	1250	0	106	76.9-120	0			
1,1-Dichloroethene	1357	120	1250	0	109	72.6-123	0			
1,2-Dichloroethane	1319	120	1250	0	105	80-120	0			
2-Butanone	2574	250	2500	0	103	69-131	0			
2-Chloroethyl vinyl ether	2407	250	2500	0	96.3	60-135	0			
2-Hexanone	2447	250	2500	0	97.9	55.6-126	0			
4-Methyl-2-pentanone	2521	250	2500	0	101	67.4-121	0			
Acetone	2671	250	2500	0	107	64.4-140	0			
Benzene	1299	120	1250	0	104	80-120	0			
Bromodichloromethane	1339	120	1250	0	107	80-120	0			
Bromoform	1248	120	1250	0	99.8	77.9-121	0			
Bromomethane	1454	120	1250	0	116	63.3-137	0			
Carbon disulfide	2754	250	2500	0	110	74.1-123	0			
Carbon tetrachloride	1379	120	1250	0	110	74.7-120	0			
Chlorobenzene	1306	120	1250	0	104	80-120	0			
Chloroethane	1337	120	1250	0	107	74.7-126	0			
Chloroform	1365	120	1250	0	109	80-120	0			
Chloromethane	1231	120	1250	0	98.5	64.5-132	0			
cis-1,3-Dichloropropene	1357	120	1250	0	109	80-120	0			
Dibromochloromethane	1236	120	1250	0	98.9	80-120	0			
Ethylbenzene	1335	120	1250	0	107	80-120	0			
m,p-Xylene	2702	250	2500	0	108	80-120	0			
Methyl tert-butyl ether	1251	120	1250	0	100	73.7-122	0			
Methylene chloride	1290	250	1250	0	103	76.2-120	0			
Styrene	1282	120	1250	0	103	80-120	0			
Tetrachloroethene	1266	120	1250	0	101	68.5-130	0			
Toluene	1332	120	1250	0	107	80-120	0			
trans-1,3-Dichloropropene	1308	120	1250	0	105	80-120	0			
Trichloroethene	1312	120	1250	0	105	78.9-120	0			
Vinyl acetate	2885	250	2500	0	115	62.4-133	0			
Vinyl chloride	1290	50	1250	0	103	72.7-128	0			
Xylenes, Total	4073	380	3750	0	109	80-120	0			
Surr: 1,2-Dichloroethane-d4	1326	120	1250	0	106	71-126	0			
Surr: 4-Bromofluorobenzene	1386	120	1250	0	111	74-125	0			
Surr: Dibromofluoromethane	1369	120	1250	0	110	73-126	0			
Surr: Toluene-d8	1389	120	1250	0	111	75-125	0			

ND - Not Detected at the Reporting Limit

Q - 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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R22061 InstrumentID: VOA3

MSD Sample ID: 0407280-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 07/28/04 14:21

Client ID: Run ID: VOA3_040728A SeqNo: 516045 Prep Date: DF: 25

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1340	120	1250	0	107	75.2-120	1356	1.18	20	
1,1,2,2-Tetrachloroethane	1324	120	1250	0	106	72.4-121	1298	1.97	20	
1,1,2-Trichloroethane	1261	120	1250	0	101	80-120	1281	1.62	20	
1,1-Dichloroethane	1299	120	1250	0	104	76.9-120	1321	1.67	20	
1,1-Dichloroethene	1319	120	1250	0	106	72.6-123	1357	2.83	20	
1,2-Dichloroethane	1267	120	1250	0	101	80-120	1319	3.95	20	
2-Butanone	2620	250	2500	0	105	69-131	2574	1.75	20	
2-Chloroethyl vinyl ether	2387	250	2500	0	95.5	60-135	2407	0.831	20	
2-Hexanone	2447	250	2500	0	97.9	55.6-126	2447	0.00678	20	
4-Methyl-2-pentanone	2595	250	2500	0	104	67.4-121	2521	2.88	20	
Acetone	2663	250	2500	0	107	64.4-140	2671	0.306	20	
Benzene	1292	120	1250	0	103	80-120	1299	0.589	20	
Bromodichloromethane	1312	120	1250	0	105	80-120	1339	2.05	20	
Bromoform	1263	120	1250	0	101	77.9-121	1248	1.24	20	
Bromomethane	1341	120	1250	0	107	63.3-137	1454	8.07	20	
Carbon disulfide	2745	250	2500	0	110	74.1-123	2754	0.302	20	
Carbon tetrachloride	1333	120	1250	0	107	74.7-120	1379	3.38	20	
Chlorobenzene	1268	120	1250	0	101	80-120	1306	2.96	20	
Chloroethane	1329	120	1250	0	106	74.7-126	1337	0.608	20	
Chloroform	1345	120	1250	0	108	80-120	1365	1.5	20	
Chloromethane	1261	120	1250	0	101	64.5-132	1231	2.45	20	
cis-1,3-Dichloropropene	1362	120	1250	0	109	80-120	1357	0.42	20	
Dibromochloromethane	1265	120	1250	0	101	80-120	1236	2.32	20	
Ethylbenzene	1378	120	1250	0	110	80-120	1335	3.15	20	
m,p-Xylene	2689	250	2500	0	108	80-120	2702	0.47	20	
Methyl tert-butyl ether	1226	120	1250	0	98.1	73.7-122	1251	2	20	
Methylene chloride	1273	250	1250	0	102	76.2-120	1290	1.29	20	
Styrene	1311	120	1250	0	105	80-120	1282	2.26	20	
Tetrachloroethene	1286	120	1250	0	103	68.5-130	1266	1.57	20	
Toluene	1332	120	1250	0	107	80-120	1332	0.0102	20	
trans-1,3-Dichloropropene	1351	120	1250	0	108	80-120	1308	3.22	20	
Trichloroethene	1304	120	1250	0	104	78.9-120	1312	0.609	20	
Vinyl acetate	2907	250	2500	0	116	62.4-133	2885	0.761	20	
Vinyl chloride	1335	50	1250	0	107	72.7-128	1290	3.43	20	
Xylenes, Total	4080	380	3750	0	109	80-120	4073	0.187	20	
Surr: 1,2-Dichloroethane-d4	1300	120	1250	0	104	71-126	1326	2.03	20	
Surr: 4-Bromofluorobenzene	1323	120	1250	0	106	74-125	1386	4.64	20	
Surr: Dibromofluoromethane	1334	120	1250	0	107	73-126	1369	2.58	20	
Surr: Toluene-d8	1374	120	1250	0	110	75-125	1389	1.11	20	

The following samples were analyzed in this batch:

0407271-01A 0407271-02A

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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: **R21983** InstrumentID: **UV-2101PC**

MBLK	Sample ID: WBLKW1-072504				Test Code: E335.3		Units: mg/L		Analysis Date: 07/25/04 0:00		
Client ID:	Run ID: UV-2101PC_040725A		SeqNo: 513927		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: WLCSW1-072504			Test Code: E335.3		Units: mg/L		Analysis Date: 07/25/04 0:00		
Client ID:	Run ID: UV-2101PC_040725A			SeqNo: 513928		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2044	0.020	0.2	0	102	80-120	0			

MS	Sample ID: 0407271-02DMS			Test Code: E335.3		Units: mg/L		Analysis Date: 07/25/04 0:00		
Client ID: RA3333	Run ID: UV-2101PC_040725A			SeqNo: 513940		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2105	0.020	0.2	0.0032	104	75-125	0			

MSD		Sample ID: 0407271-02DMSD			Test Code: E335.3		Units: mg/L		Analysis Date: 07/25/04 0:00	
Client ID: RA3333		Run ID: UV-2101PC_040725A			SeqNo: 513941		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2092	0.020	0.2	0.0032	103	75-125	0.2105	0.619	25	

DUP	Sample ID: 0407271-02DDUP			Test Code: E335.3		Units: mg/L		Analysis Date: 07/25/04 0:00		
Client ID: RA3333	Run ID: UV-2101PC_040725A			SeqNo: 513939		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.003	0.020	0	0	0	0-0	0.0032	0	20	J

The following samples were analyzed in this batch:

0407271-01D 0407271-02D

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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R21985 InstrumentID: IC201

MBLK Sample ID: WBLKW1-072304 Test Code: E300 Units: mg/L Analysis Date: 07/23/04 13:00

Client ID: Run ID: IC201_040723A SeqNo: 514016 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								
Surr: Dichloroacetic acid (surr)	5.04	0.10	5	0	101	80-120	0			

LCS Sample ID: WLC SW1-072304 Test Code: E300 Units: mg/L Analysis Date: 07/23/04 13:29

Client ID: Run ID: IC201_040723A SeqNo: 514017 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.17	0.50	10	0	91.7	80-120	0			
Fluoride	1.94	0.10	2	0	97	80-120	0			
Sulfate	9.7	1.0	10	0	97	80-120	0			
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120	0			

LCSD Sample ID: WLCSDW1-07230 Test Code: E300 Units: mg/L Analysis Date: 07/23/04 13:57

Client ID: Run ID: IC201_040723A SeqNo: 514018 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.16	0.50	10	0	91.6	80-120	9.17	0.109	20	
Fluoride	1.94	0.10	2	0	97	80-120	1.94	0	20	
Sulfate	9.71	1.0	10	0	97.1	80-120	9.7	0.103	20	
Surr: Dichloroacetic acid (surr)	5.41	0.10	5	0	108	80-120	5.47	1.1	20	

MS Sample ID: 0407269-01BMS Test Code: E300 Units: mg/L Analysis Date: 07/23/04 15:51

Client ID: Run ID: IC201_040723A SeqNo: 514022 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	507.6	5.0	100	413.1	94.5	75-125	0			EO
Fluoride	19.5	1.0	20	2.4	85.5	75-125	0			
Sulfate	612.9	10	100	493.3	120	75-125	0			EO
Surr: Dichloroacetic acid (surr)	52.8	1.0	50	0	106	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: 0407271
 Project: Monthly

QC BATCH REPORT

Batch ID: R21985 InstrumentID: IC201

MSD Sample ID: 0407269-01BMSD Test Code: E300 Units: mg/L Analysis Date: 07/23/04 16:20

Client ID: Run ID: IC201_040723A SeqNo: 514023 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	497.7	5.0	100	413.1	84.6	75-125	507.6	1.97	20	O
Fluoride	19.9	1.0	20	2.4	87.5	75-125	19.5	2.03	20	
Sulfate	599.5	10	100	493.3	106	75-125	612.9	2.21	20	EO
Surr: Dichloroacetic acid (surr)	52.9	1.0	50	0	106	80-120	52.8	0.189	20	

DUP Sample ID: 0407269-01BDUP Test Code: E300 Units: mg/L Analysis Date: 07/23/04 15:23

Client ID: Run ID: IC201_040723A SeqNo: 514021 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	411.4	5.0	0	0	0	0-0	413.1	0.412	20	
Fluoride	2	1.0	0	0	0	0-0	2.4	18.2	20	
Sulfate	494.3	10	0	0	0	0-0	493.3	0.203	20	
Surr: Dichloroacetic acid (surr)	52.9	1.0	50	0	106	80-120	52	1.72	20	

DUP Sample ID: 0407271-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/23/04 20:36

Client ID: RA3333 Run ID: IC201_040723A SeqNo: 514031 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	229	50	0	0	0	0-0	230	0.436	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	954	100	0	0	0	0-0	954	0	20	
Surr: Dichloroacetic acid (surr)	523	10	500	0	105	80-120	524	0.191	20	

The following samples were analyzed in this batch:

0407271-01B 0407271-02B

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: 0407271
Project: Monthly

QC BATCH REPORT

Batch ID: R22094 InstrumentID: WetChem

MBLK Sample ID: WBLKW1-072904 Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: Run ID: WETCHEM_040729D SeqNo: 516921 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: WLCSW1-072904 Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: Run ID: WETCHEM_040729D SeqNo: 516922 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)	1000	5.0	0	0.01	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: 0407271-01BDUP Test Code: E310.1 Units: mg/L Analysis Date: 07/29/04 0:00

Client ID: RA313 Run ID: WETCHEM_040729D SeqNo: 516933 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)	200.1	5.0	0	0	0	0-0	200.1	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)	200.1	5.0	0	0	0	0-0	200.1	0	20	

The following samples were analyzed in this batch:

0407271-01B 0407271-02B

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

Customer Information										Project Information										e-Lab Project Manager										e-Lab Work Order #																			
Purchase Order					Project Name					Monthly					Parameter/Method Request for Analysis					Volatiles Select BTEX/MTBE 8260					Tot. Metals WQCC-Cation 60207000					Semi-volatiles Select 8270					Chloride, Fluoride, Sulfate					Alkalinity					Cyanide				
Work Order					Project Number					Navajo Refining Company					Navajo Refining Company					Jeff Byrd					P.O. Box 159					509 East Main					Artesia, New Mexico 88211					(505) 748-3311					(505) 746-5421				
Company Name					Bill To Company					Invoice Attn					Address					City/State/Zip					Phone					Fax					e-Mail Address														
Send Report To					Jeff Byrd					P.O. Box 159					509 East Main					Artesia, New Mexico 88211					(505) 748-3311					(505) 746-5421																			
City/State/Zip					Artesia, New Mexico 88211					City/State/Zip					Artesia, New Mexico 88211					(505) 748-3311					(505) 746-5421																								
Phone					(505) 748-3311					Phone					(505) 748-3311					(505) 746-5421																													
Fax					(505) 746-5421					Fax					(505) 746-5421																																		
e-Mail Address					e-Mail Address					e-Mail Address					e-Mail Address					e-Mail Address					e-Mail Address																								
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold																																
1	RA 313	7/22/04	0815	L		8	X	X	X	X	X	X	X																																				
2	RA 3333	7/22/04	0830	L		8	X	X	X	X	X	X	X																																				
3																																																	
4																																																	
5																																																	
6																																																	
7																																																	
8																																																	
9																																																	
10																																																	

Shipment Method: **Fed Ex**

Received by: **7/22/04 10:15**

Relinquished by: **7/22/04 10:15**

Relinquished by: **7/22/04 10:15**

Logged by (Laboratory): **7/22/04 10:15**

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-H₂SO₄ 7-Other 8-4°C

Required Turnaround Time: (Check Box)

☐ STD 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Results Due Date: **7/23/04 10:15**

QC Package: (Check One Box Below)

☒ Level I Std QC ☐ Level II Std QC ☐ Level III Std QC ☐ Level IV SWR40/CLP ☐ Other

Note: 1. 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 Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 7/23/2004 8:30:00 AM

Work Order Number 0407271

Received by: RSZ

Checklist completed by

Signature

Date

Reviewed by

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):

2.7c

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 Analytical, Inc.

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

July 28, 2004

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

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

Re: Monthly

Work Order : **0407165**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 7/15/2004 8:50:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, 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,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0407165

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0407165-01	Larue	Water		7/14/2004 09:00	7/15/2004 08:50	☐
0407165-02	RA 3156	Water		7/14/2004 09:30	7/15/2004 08:50	☐

e-Lab Analytical, Inc.

Date: *July 28, 2004*

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0407165

Case Narrative

Batch 9655 Semivolatiles MSD and RPD was an unrelated sample.

Batch R21909 Anions MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-01

Client Sample ID: Larue
Collection Date: 7/14/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 7/26/2004 Analyst: JCJ 7/26/2004 4:45:33 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0100		mg/L	1	Prep Date: 7/19/2004 Analyst: SA 7/22/2004 6:45:00 AM
Arsenic	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Barium	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Beryllium	ND	0.00200		mg/L	1	7/22/2004 6:45:00 AM
Boron	0.252	0.0200		mg/L	1	7/22/2004 6:45:00 AM
Cadmium	ND	0.00100		mg/L	1	7/22/2004 6:45:00 AM
Calcium	436	10.0		mg/L	20	7/22/2004 9:40:00 PM
Chromium	ND	0.00200		mg/L	1	7/22/2004 6:45:00 AM
Cobalt	ND	0.00200		mg/L	1	7/22/2004 6:45:00 AM
Copper	ND	0.00200		mg/L	1	7/22/2004 6:45:00 AM
Iron	ND	0.200		mg/L	1	7/22/2004 6:45:00 AM
Lead	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Magnesium	164	4.00		mg/L	20	7/22/2004 9:40:00 PM
Manganese	0.00703	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Molybdenum	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Nickel	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Potassium	1.63	0.200		mg/L	1	7/22/2004 6:45:00 AM
Selenium	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Silver	ND	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Sodium	115	4.00		mg/L	20	7/22/2004 9:40:00 PM
Vanadium	0.00793	0.00500		mg/L	1	7/22/2004 6:45:00 AM
Zinc	0.00989	0.00500		mg/L	1	7/22/2004 6:45:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 7/15/2004 Analyst: HV 7/21/2004 9:33:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
2-Methylphenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/21/2004 9:33:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/21/2004 9:33:00 PM
4-Methylphenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/21/2004 9:33:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Acenaphthene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Acenaphthylene	ND	10		µg/L	1	7/21/2004 9:33:00 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 Analytical, Inc.
Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-01

Client Sample ID: Larue
Collection Date: 7/14/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Anthracene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Benzidine	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Hexachloroethane	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Isophorone	ND	10		µg/L	1	7/21/2004 9:33:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/21/2004 9:33:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/21/2004 9:33:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Naphthalene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Nitrobenzene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Phenanthrene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Phenol	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Pyrene	ND	10		µg/L	1	7/21/2004 9:33:00 PM
Surr: 2,4,6-Tribromophenol	69.5	39-153		%REC	1	7/21/2004 9:33:00 PM
Surr: 2-Fluorobiphenyl	68.6	40-147		%REC	1	7/21/2004 9:33:00 PM
Surr: 2-Fluorophenol	30.9	21-110		%REC	1	7/21/2004 9:33:00 PM
Surr: 4-Terphenyl-d14	70.5	39-141		%REC	1	7/21/2004 9:33:00 PM
Surr: Nitrobenzene-d5	68.3	37-140		%REC	1	7/21/2004 9:33:00 PM
Surr: Phenol-d6	18.0	11-100		%REC	1	7/21/2004 9:33:00 PM
VOLATILES BY GC/MS				SW8260	Analyst: PC	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
2-Butanone	ND	10		µg/L	1	7/19/2004 8:03:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/19/2004 8:03:00 PM
2-Hexanone	ND	10		µg/L	1	7/19/2004 8:03:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Acetone	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Benzene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Bromoform	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Bromomethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Carbon disulfide	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/19/2004 8:03:00 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 Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-01

Client Sample ID: Larue
Collection Date: 7/14/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Chloroethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Chloroform	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Chloromethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
m,p-Xylene	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Methylene chloride	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Styrene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Toluene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/19/2004 8:03:00 PM
Vinyl acetate	ND	10		µg/L	1	7/19/2004 8:03:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/19/2004 8:03:00 PM
Xylenes, Total	ND	15		µg/L	1	7/19/2004 8:03:00 PM
Surr: 1,2-Dichloroethane-d4	84.7	71-126		%REC	1	7/19/2004 8:03:00 PM
Surr: 4-Bromofluorobenzene	90.8	74-125		%REC	1	7/19/2004 8:03:00 PM
Surr: Dibromofluoromethane	85.4	73-126		%REC	1	7/19/2004 8:03:00 PM
Surr: Toluene-d8	88.1	75-125		%REC	1	7/19/2004 8:03:00 PM
ANIONS BY ION CHROMATOGRAPHY				E300		Analyst: LMD
Chloride	111	2.50		mg/L	5	7/22/2004 2:03:00 AM
Fluoride	0.580	0.100		mg/L	1	7/22/2004 1:35:00 AM
Sulfate	1,330	50.0		mg/L	50	7/22/2004 2:32:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	1	7/22/2004 1:35:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	5	7/22/2004 2:03:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	50	7/22/2004 2:32:00 AM
ALKALINITY				E310.1		Analyst: LMD
Alkalinity, Bicarbonate (As CaCO3)	270	5.00		mg/L	1	7/22/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Total (As CaCO3)	270	5.00		mg/L	1	7/22/2004
CYANIDE, TOTAL				E335.3		Analyst: LMD
Cyanide	ND	0.0200		mg/L	1	7/17/2004

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 Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-02

Client Sample ID: RA 3156
Collection Date: 7/14/2004 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 7/26/2004 Analyst: JCJ 7/26/2004 4:52:50 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0100		mg/L	1	Prep Date: 7/19/2004 Analyst: SA 7/22/2004 6:51:00 AM
Arsenic	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Barium	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Beryllium	ND	0.00200		mg/L	1	7/22/2004 6:51:00 AM
Boron	0.216	0.0200		mg/L	1	7/22/2004 6:51:00 AM
Cadmium	ND	0.00100		mg/L	1	7/22/2004 6:51:00 AM
Calcium	496	10.0		mg/L	20	7/22/2004 9:46:00 PM
Chromium	0.00236	0.00200		mg/L	1	7/22/2004 6:51:00 AM
Cobalt	ND	0.00200		mg/L	1	7/22/2004 6:51:00 AM
Copper	0.00384	0.00200		mg/L	1	7/22/2004 6:51:00 AM
Iron	ND	0.200		mg/L	1	7/22/2004 6:51:00 AM
Lead	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Magnesium	155	4.00		mg/L	20	7/22/2004 9:46:00 PM
Manganese	0.00646	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Molybdenum	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Nickel	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Potassium	2.55	0.200		mg/L	1	7/22/2004 6:51:00 AM
Selenium	0.00951	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Silver	ND	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Sodium	172	4.00		mg/L	20	7/22/2004 9:46:00 PM
Vanadium	0.00693	0.00500		mg/L	1	7/22/2004 6:51:00 AM
Zinc	0.0306	0.00500		mg/L	1	7/22/2004 6:51:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 7/19/2004 Analyst: HV 7/25/2004 12:36:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2004 12:36:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2004 12:36:00 PM
4-Methylphenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/25/2004 12:36:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Acenaphthene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2004 12:36:00 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 Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-02

Client Sample ID: RA 3156
Collection Date: 7/14/2004 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Anthracene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Benzidine	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Isophorone	ND	10		µg/L	1	7/25/2004 12:36:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2004 12:36:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2004 12:36:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Naphthalene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Phenanthrene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Phenol	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Pyrene	ND	10		µg/L	1	7/25/2004 12:36:00 PM
Surr: 2,4,6-Tribromophenol	108	39-153		%REC	1	7/25/2004 12:36:00 PM
Surr: 2-Fluorobiphenyl	97.5	40-147		%REC	1	7/25/2004 12:36:00 PM
Surr: 2-Fluorophenol	44.3	21-110		%REC	1	7/25/2004 12:36:00 PM
Surr: 4-Terphenyl-d14	102	39-141		%REC	1	7/25/2004 12:36:00 PM
Surr: Nitrobenzene-d5	94.0	37-140		%REC	1	7/25/2004 12:36:00 PM
Surr: Phenol-d6	26.8	11-100		%REC	1	7/25/2004 12:36:00 PM

VOLATILES BY GC/MS**SW8260****Analyst: PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
2-Butanone	ND	10		µg/L	1	7/19/2004 8:28:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/19/2004 8:28:00 PM
2-Hexanone	ND	10		µg/L	1	7/19/2004 8:28:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Acetone	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Benzene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Bromoform	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Bromomethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Carbon disulfide	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/19/2004 8:28:00 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 Analytical, Inc.

Date: July 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly
Lab ID: 0407165-02

Client Sample ID: RA 3156
Collection Date: 7/14/2004 9:30:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Chloroethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Chloroform	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Chloromethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
m,p-Xylene	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Methylene chloride	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Styrene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Toluene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/19/2004 8:28:00 PM
Vinyl acetate	ND	10		µg/L	1	7/19/2004 8:28:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/19/2004 8:28:00 PM
Xylenes, Total	ND	15		µg/L	1	7/19/2004 8:28:00 PM
Surr: 1,2-Dichloroethane-d4	84.2	71-126		%REC	1	7/19/2004 8:28:00 PM
Surr: 4-Bromofluorobenzene	87.2	74-125		%REC	1	7/19/2004 8:28:00 PM
Surr: Dibromofluoromethane	87.3	73-126		%REC	1	7/19/2004 8:28:00 PM
Surr: Toluene-d8	86.5	75-125		%REC	1	7/19/2004 8:28:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	207	5.00		mg/L	10	7/22/2004 4:26:00 AM
Fluoride	0.430	0.100		mg/L	1	7/22/2004 3:00:00 AM
Sulfate	1,440	100		mg/L	100	7/22/2004 4:54:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	1	7/22/2004 3:00:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	10	7/22/2004 4:26:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	100	7/22/2004 4:54:00 AM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	235	5.00		mg/L	1	7/22/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Total (As CaCO3)	235	5.00		mg/L	1	7/22/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	7/17/2004

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 Analytical, Inc.

Date: Jul 28 2004

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly

QC BATCH REPORT

Batch ID: 9647 InstrumentID: ICP7500

MBLK Sample ID: MBLKW1-071904 Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 5:48
Client ID: Run ID: ICP7500_040721C SeqNo: 512507 Prep Date: 7/19/2004 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	0.01107	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	0.2675	0.50								J
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	0.03845	0.20								J
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: MBLKW1-071904 Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 20:54
Client ID: Run ID: ICP7500_040722A SeqNo: 513164 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.015	0.010								

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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9647 InstrumentID: ICP7500

LCS Sample ID: MLCSW1-071904 Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 5:53

Client ID: Run ID: ICP7500_040721C SeqNo: 512508 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04952	0.0050	0.05	0	99	80-121	0			
Barium	0.05617	0.0050	0.05	0	112	79.8-119	0			
Beryllium	0.0484	0.0020	0.05	0	96.8	78.9-120	0			
Boron	0.5341	0.020	0	-0.007959	0	80-120	0			
Cadmium	0.05664	0.0020	0.05	0	113	79.1-119	0			
Calcium	5.209	0.50	5	0	104	80-121	0			
Chromium	0.04752	0.0050	0.05	0	95	79.3-121	0			
Cobalt	0.04651	0.0050	0.05	0	93	82-121	0			
Copper	0.04617	0.0050	0.05	0	92.3	83-121	0			
Iron	5.078	0.20	5	0	102	80-120	0			
Lead	0.04485	0.0050	0.05	0	89.7	80-118	0			
Magnesium	5.324	0.20	5	0	106	80-120	0			
Manganese	0.04849	0.0050	0.05	0	97	82-119	0			
Nickel	0.04828	0.0050	0.05	0	96.6	85-120	0			
Potassium	5.306	0.20	5	0	106	80-120	0			
Selenium	0.0495	0.0050	0.05	0	99	79.2-118	0			
Silver	0.04313	0.0050	0.05	0	86.3	83-117	0			
Sodium	5.205	0.20	5	0	104	82.4-120	0			
Vanadium	0.04807	0.0050	0.05	0	96.1	82.1-119	0			
Zinc	0.04911	0.0050	0.05	0	98.2	83-118	0			

LCS Sample ID: MLCSW1-071904 Test Code: SW6020 Units: mg/L Analysis Date: 07/23/04 14:12

Client ID: Run ID: ICP7500_040723A SeqNo: 513453 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05658	0.010	0.05	0	113	79-126	0			
Molybdenum	0.04801	0.0050	0.05	0	96	84.6-115	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9647 InstrumentID: ICP7500

MS Sample ID: 0407174-07CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 7:08

Client ID: Run ID: ICP7500_040721C SeqNo: 512524 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.03899	0.010	0.05	-0.002621	83.2	79-126	0			
Arsenic	0.04914	0.0050	0.05	-0.0008387	100	80-121	0			
Barium	0.03947	0.0050	0.05	-0.00421	87.4	79.8-119	0			
Boron	0.5345	0.020	0	0.01216	0	80-120	0			
Cadmium	0.04603	0.0020	0.05	-0.00004586	92.2	79.1-119	0			
Calcium	4.784	0.50	5	0.7668	80.3	80-121	0			
Chromium	0.04477	0.0050	0.05	0.0001007	89.3	79.3-121	0			
Cobalt	0.04393	0.0050	0.05	-0.00001264	87.9	82-121	0			
Copper	0.04391	0.0050	0.05	-0.0001676	88.2	83-121	0			
Iron	4.772	0.20	5	-0.003628	95.5	80-120	0			
Lead	0.04365	0.0050	0.05	-0.00001977	87.3	80-118	0			
Magnesium	4.622	0.20	5	0.2407	87.6	80-120	0			
Manganese	0.04549	0.0050	0.05	-0.00002527	91	82-119	0			
Molybdenum	0.04382	0.0050	0.05	-0.0001675	88	84.6-115	0			
Nickel	0.04573	0.0050	0.05	0.0002155	91	85-120	0			
Potassium	4.813	0.20	5	0.005151	96.2	80-120	0			
Selenium	0.04735	0.0050	0.05	-0.001535	97.8	79.2-118	0			
Silver	0.04778	0.0050	0.05	-0.0003609	96.3	83-117	0			
Sodium	4.498	0.20	5	0.258	84.8	82.4-120	0			
Vanadium	0.04482	0.0050	0.05	0.0001307	89.4	82.1-119	0			
Zinc	0.04722	0.0050	0.05	-0.0003896	95.2	83-118	0			

MS Sample ID: 0407174-07CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 22:03

Client ID: Run ID: ICP7500_040722A SeqNo: 513176 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05073	0.0020	0.05	0	101	78.9-120	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9647 InstrumentID: ICP7500

MSD Sample ID: 0407174-07CMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 7:14

Client ID: Run ID: ICP7500_040721C SeqNo: 512527 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04197	0.010	0.05	-0.002621	89.2	79-126	0.03899	7.36	15	
Arsenic	0.05041	0.0050	0.05	-0.0008387	102	80-121	0.04914	2.55	15	
Barium	0.04255	0.0050	0.05	-0.00421	93.5	79.8-119	0.03947	7.51	15	
Boron	0.5697	0.020	0	0.01216	0	80-120	0.5345	6.38	15	
Cadmium	0.04762	0.0020	0.05	-0.00004586	95.3	79.1-119	0.04603	3.4	15	
Calcium	4.991	0.50	5	0.7668	84.5	80-121	4.784	4.24	15	
Chromium	0.04702	0.0050	0.05	0.0001007	93.8	79.3-121	0.04477	4.9	15	
Cobalt	0.04624	0.0050	0.05	-0.00001264	92.5	82-121	0.04393	5.12	15	
Copper	0.04593	0.0050	0.05	-0.0001676	92.2	83-121	0.04391	4.5	15	
Iron	4.964	0.20	5	-0.003628	99.4	80-120	4.772	3.94	15	
Lead	0.04527	0.0050	0.05	-0.00001977	90.6	80-118	0.04365	3.64	15	
Magnesium	4.822	0.20	5	0.2407	91.6	80-120	4.622	4.24	15	
Manganese	0.04705	0.0050	0.05	-0.00002527	94.2	82-119	0.04549	3.37	15	
Molybdenum	0.04697	0.0050	0.05	-0.0001675	94.3	84.6-115	0.04382	6.94	15	
Nickel	0.04844	0.0050	0.05	0.0002155	96.4	85-120	0.04573	5.76	15	
Potassium	5.057	0.20	5	0.005151	101	80-120	4.813	4.94	15	
Selenium	0.04997	0.0050	0.05	-0.001535	103	79.2-118	0.04735	5.38	15	
Silver	0.04813	0.0050	0.05	-0.0003609	97	83-117	0.04778	0.73	15	
Sodium	4.731	0.20	5	0.258	89.5	82.4-120	4.498	5.05	15	
Vanadium	0.0472	0.0050	0.05	0.0001307	94.1	82.1-119	0.04482	5.17	15	
Zinc	0.04926	0.0050	0.05	-0.0003896	99.3	83-118	0.04722	4.23	15	

MSD Sample ID: 0407174-07CMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 22:09

Client ID: Run ID: ICP7500_040722A SeqNo: 513177 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.05073	0.0020	0.05	0	101	78.9-120	0.05073	0	15	

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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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9647 InstrumentID: ICP7500

DUP Sample ID: 0407174-07CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 7:02

Client ID: Run ID: ICP7500_040721C SeqNo: 512521 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010	0	0	0	0-0	-0.002621	0	25	
Arsenic	ND	0.0050	0	0	0	0-0	-0.0008387	0	25	
Barium	ND	0.0050	0	0	0	0-0	-0.00421	0	25	
Boron	ND	0.020	0	0	0	0-0	0.01216	0	25	
Cadmium	ND	0.0020	0	0	0	0-0	-0.00004586	0	25	
Calcium	0.225	0.50	0	0	0	0-0	0.7668	0	25	J
Chromium	ND	0.0050	0	0	0	0-0	0.0001007	0	25	
Cobalt	ND	0.0050	0	0	0	0-0	-0.00001264	0	25	
Copper	ND	0.0050	0	0	0	0-0	-0.0001676	0	25	
Iron	ND	0.20	0	0	0	0-0	-0.003628	0	25	
Lead	ND	0.0050	0	0	0	0-0	-0.00001977	0	25	
Magnesium	0.07947	0.20	0	0	0	0-0	0.2407	0	25	J
Manganese	ND	0.0050	0	0	0	0-0	-0.00002527	0	25	
Molybdenum	ND	0.0050	0	0	0	0-0	-0.0001675	0	25	
Nickel	0.003499	0.0050	0	0	0	0-0	0.0002155	0	25	J
Potassium	ND	0.20	0	0	0	0-0	0.005151	0	25	
Selenium	ND	0.0050	0	0	0	0-0	-0.001535	0	25	
Silver	ND	0.0050	0	0	0	0-0	-0.0003609	0	25	
Sodium	0.08162	0.20	0	0	0	0-0	0.258	0	25	J
Vanadium	ND	0.0050	0	0	0	0-0	0.0001307	0	25	
Zinc	0.002546	0.0050	0	0	0	0-0	-0.0003896	0	25	J

DUP Sample ID: 0407174-07CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 21:57

Client ID: Run ID: ICP7500_040722A SeqNo: 513175 Prep Date: 7/19/2004 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	0	25	

The following samples were analyzed in this batch:

0407165-01C 0407165-02C

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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R - RPD outside accepted recovery limits

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9741 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-072604 Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:25

Client ID: Run ID: MERCURY_040726B SeqNo: 514829 Prep Date: 7/26/2004 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: GLCSW2-072604 Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:26

Client ID: Run ID: MERCURY_040726B SeqNo: 514830 Prep Date: 7/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00499	0.00020	0.005	0	99.8	83-115	0			

LCSD Sample ID: GLCSDW2-072604 Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:28

Client ID: Run ID: MERCURY_040726B SeqNo: 514831 Prep Date: 7/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0048	0.00020	0.005	0	96	83-115	0.00499	3.88	20	

MS Sample ID: 0407160-01CMS Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:37

Client ID: Run ID: MERCURY_040726B SeqNo: 514834 Prep Date: 7/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00515	0.00020	0.005	0.000013	103	83-115	0			

MSD Sample ID: 0407160-01CMSD Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:38

Client ID: Run ID: MERCURY_040726B SeqNo: 514835 Prep Date: 7/26/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00522	0.00020	0.005	0.000013	104	83-115	0.00515	1.35	20	

DUP Sample ID: 0407160-01CDUP Test Code: SW7470 Units: mg/L Analysis Date: 07/26/04 16:35

Client ID: Run ID: MERCURY_040726B SeqNo: 514833 Prep Date: 7/26/2004 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	0.000013	0	20	

The following samples were analyzed in this batch:

0407165-01C 0407165-02C

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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9606 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040715 Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 13:16

Client ID: Run ID: SV-3_040715A SeqNo: 509089 Prep Date: 7/15/2004 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	76.59	10	100	0	76.6	39-153		0		
Surr: 2-Fluorobiphenyl	65.5	10	100	0	65.5	40-147		0		
Surr: 2-Fluorophenol	30.28	10	100	0	30.3	21-110		0		
Surr: 4-Terphenyl-d14	69.47	10	100	0	69.5	39-141		0		
Surr: Nitrobenzene-d5	60.01	10	100	0	60	37-140		0		
Surr: Phenol-d6	18.38	10	100	0	18.4	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9606 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040715 Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 13:43

Client ID: Run ID: SV-3_040715A SeqNo: 509090 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	35.62	10	50	0	71.2	50-115	0			
2,4,5-Trichlorophenol	77.31	10	100	0	77.3	68-128	0			
2,4,6-Trichlorophenol	79.88	10	100	0	79.9	66-125	0			
2-Methylnaphthalene	35.45	10	50	0	70.9	47-122	0			
2-Methylphenol	73.21	10	100	0	73.2	51-115	0			
2-Nitroaniline	42.11	10	50	0	84.2	64-128	0			
2-Nitrophenol	68.45	10	100	0	68.5	60-119	0			
3-Nitroaniline	37.57	10	50	0	75.1	61-118	0			
4-Methylphenol	107.4	10	150	0	71.6	44-115	0			
4-Nitroaniline	39.74	10	50	0	79.5	61-123	0			
4-Nitrophenol	51.42	10	100	0	51.4	17-100	0			
Acenaphthene	40.63	10	50	0	81.3	68-115	0			
Acenaphthylene	40.03	10	50	0	80.1	67-116	0			
Aniline	37.2	10	50	0	74.4	40-130	0			
Anthracene	40.69	10	50	0	81.4	70-129	0			
Benz(a)anthracene	39.15	10	50	0	78.3	55-131	0			
Benzidine	44.45	10	50	0	88.9	10-115	0			
Hexachloroethane	38.44	10	50	0	76.9	46-115	0			
Indeno(1,2,3-cd)pyrene	48.36	10	50	0	96.7	42-123	0			
Isophorone	36.58	10	50	0	73.2	63-117	0			
N-Nitrosodi-n-propylamine	40.23	10	50	0	80.5	67-115	0			
N-Nitrosodimethylamine	24.88	10	50	0	49.8	28-115	0			
N-Nitrosodiphenylamine	43.57	10	50	0	87.1	72-144	0			
Naphthalene	36.34	10	50	0	72.7	52-115	0			
Nitrobenzene	34.29	10	50	0	68.6	65-115	0			
Pentachlorophenol	75.74	10	100	0	75.7	65-123	0			
Phenanthrene	40.55	10	50	0	81.1	69-119	0			
Phenol	43.65	10	100	0	43.6	16-115	0			
Pyrene	39.35	10	50	0	78.7	51-130	0			
Surr: 2,4,6-Tribromophenol	80.76	10	100	0	80.8	39-153	0			
Surr: 2-Fluorobiphenyl	71.21	10	100	0	71.2	40-147	0			
Surr: 2-Fluorophenol	57.65	10	100	0	57.6	21-110	0			
Surr: 4-Terphenyl-d14	72.58	10	100	0	72.6	39-141	0			
Surr: Nitrobenzene-d5	63.47	10	100	0	63.5	37-140	0			
Surr: Phenol-d6	38.09	10	100	0	38.1	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9606 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040715 Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 14:09

Client ID: Run ID: SV-3_040715A SeqNo: 509091 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	36.92	10	50	0	73.8	50-115	35.62	3.59	30	
2,4,5-Trichlorophenol	77.97	10	100	0	78	68-128	77.31	0.847	30	
2,4,6-Trichlorophenol	81.64	10	100	0	81.6	66-125	79.88	2.17	30	
2-Methylnaphthalene	36.97	10	50	0	73.9	47-122	35.45	4.18	30	
2-Methylphenol	76.29	10	100	0	76.3	51-115	73.21	4.12	30	
2-Nitroaniline	44.54	10	50	0	89.1	64-128	42.11	5.61	30	
2-Nitrophenol	73.16	10	100	0	73.2	60-119	68.45	6.65	30	
3-Nitroaniline	37.58	10	50	0	75.2	61-118	37.57	0.026	30	
4-Methylphenol	111.4	10	150	0	74.3	44-115	107.4	3.63	30	
4-Nitroaniline	41.4	10	50	0	82.8	61-123	39.74	4.09	30	
4-Nitrophenol	55.58	10	100	0	55.6	17-100	51.42	7.78	30	
Acenaphthene	41.57	10	50	0	83.1	68-115	40.63	2.3	30	
Acenaphthylene	40.89	10	50	0	81.8	67-116	40.03	2.11	30	
Aniline	38.81	10	50	0	77.6	40-130	37.2	4.22	30	
Anthracene	43.11	10	50	0	86.2	70-129	40.69	5.79	30	
Benz(a)anthracene	41.78	10	50	0	83.6	55-131	39.15	6.49	30	
Benzidine	48.72	10	50	0	97.4	10-115	44.45	9.15	30	
Hexachloroethane	40.86	10	50	0	81.7	46-115	38.44	6.1	30	
Indeno(1,2,3-cd)pyrene	51.65	10	50	0	103	42-123	48.36	6.59	30	
Isophorone	38.42	10	50	0	76.8	63-117	36.58	4.9	30	
N-Nitrosodi-n-propylamine	42.59	10	50	0	85.2	67-115	40.23	5.71	30	
N-Nitrosodimethylamine	26.58	10	50	0	53.2	28-115	24.88	6.61	30	
N-Nitrosodiphenylamine	46.77	10	50	0	93.5	72-144	43.57	7.07	30	
Naphthalene	38.24	10	50	0	76.5	52-115	36.34	5.07	30	
Nitrobenzene	32.59	10	50	0	65.2	65-115	34.29	5.08	30	
Pentachlorophenol	83.2	10	100	0	83.2	65-123	75.74	9.39	30	
Phenanthrene	41.99	10	50	0	84	69-119	40.55	3.5	30	
Phenol	45.21	10	100	0	45.2	16-115	43.65	3.51	30	
Pyrene	41.75	10	50	0	83.5	51-130	39.35	5.9	30	
Surr: 2,4,6-Tribromophenol	85.32	10	100	0	85.3	39-153	80.76	5.49	30	
Surr: 2-Fluorobiphenyl	71.72	10	100	0	71.7	40-147	71.21	0.721	30	
Surr: 2-Fluorophenol	60.54	10	100	0	60.5	21-110	57.65	4.9	30	
Surr: 4-Terphenyl-d14	74.6	10	100	0	74.6	39-141	72.58	2.75	30	
Surr: Nitrobenzene-d5	67.15	10	100	0	67.1	37-140	63.47	5.63	30	
Surr: Phenol-d6	40.09	10	100	0	40.1	11-100	38.09	5.13	30	

The following samples were analyzed in this batch:

0407165-01E

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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9655 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040719 Test Code: SW8270 Units: µg/L Analysis Date: 07/20/04 19:58

Client ID: Run ID: SV-3_040720A SeqNo: 511693 Prep Date: 7/19/2004 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	106.4	10	100	0	106	39-153	0			
Surr: 2-Fluorobiphenyl	96.67	10	100	0	96.7	40-147	0			
Surr: 2-Fluorophenol	40.03	10	100	0	40	21-110	0			
Surr: 4-Terphenyl-d14	96	10	100	0	96	39-141	0			
Surr: Nitrobenzene-d5	96.78	10	100	0	96.8	37-140	0			
Surr: Phenol-d6	25.08	10	100	0	25.1	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9655 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040719 Test Code: SW8270 Units: µg/L Analysis Date: 07/20/04 20:23

Client ID: Run ID: SV-3_040720A SeqNo: 511694 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	50.52	10	50	0	101	50-115	0			
2,4,5-Trichlorophenol	111.5	10	100	0	112	68-128	0			
2,4,6-Trichlorophenol	107.6	10	100	0	108	66-125	0			
2-Methylnaphthalene	46.56	10	50	0	93.1	47-122	0			
2-Methylphenol	94.13	10	100	0	94.1	51-115	0			
2-Nitroaniline	57.06	10	50	0	114	64-128	0			
2-Nitrophenol	100.6	10	100	0	101	60-119	0			
3-Nitroaniline	56.31	10	50	0	113	61-118	0			
4-Methylphenol	137.4	10	150	0	91.6	44-115	0			
4-Nitroaniline	55.49	10	50	0	111	61-123	0			
4-Nitrophenol	71.17	10	100	0	71.2	17-100	0			
Acenaphthene	53.78	10	50	0	108	68-115	0			
Acenaphthylene	53.55	10	50	0	107	67-116	0			
Aniline	55.14	10	50	0	110	40-130	0			
Anthracene	56.8	10	50	0	114	70-129	0			
Benz(a)anthracene	56.08	10	50	0	112	55-131	0			
Benzidine	49.68	10	50	0	99.4	10-115	0			
Hexachloroethane	51.67	10	50	0	103	46-115	0			
Indeno(1,2,3-cd)pyrene	60.46	10	50	0	121	42-123	0			
Isophorone	53.9	10	50	0	108	63-117	0			
N-Nitrosodi-n-propylamine	52.45	10	50	0	105	67-115	0			
N-Nitrosodimethylamine	34.75	10	50	0	69.5	28-115	0			
N-Nitrosodiphenylamine	57.73	10	50	0	115	72-144	0			
Naphthalene	50.83	10	50	0	102	52-115	0			
Nitrobenzene	51.7	10	50	0	103	65-115	0			
Pentachlorophenol	102.1	10	100	0	102	65-123	0			
Phenanthrene	55.16	10	50	0	110	69-119	0			
Phenol	56.22	10	100	0	56.2	16-115	0			
Pyrene	52.45	10	50	0	105	51-130	0			
Surr: 2,4,6-Tribromophenol	107.9	10	100	0	108	39-153	0			
Surr: 2-Fluorobiphenyl	99.63	10	100	0	99.6	40-147	0			
Surr: 2-Fluorophenol	78.73	10	100	0	78.7	21-110	0			
Surr: 4-Terphenyl-d14	101.5	10	100	0	102	39-141	0			
Surr: Nitrobenzene-d5	98.05	10	100	0	98.1	37-140	0			
Surr: Phenol-d6	53.54	10	100	0	53.5	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9655 InstrumentID: SV-3

MS Sample ID: 0407192-07DMS Test Code: SW8270 Units: µg/L Analysis Date: 07/20/04 21:38

Client ID: Run ID: SV-3_040720A SeqNo: 511695 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	54.69	23	56.75	0	96.4	50-115	0			
2,4,5-Trichlorophenol	123.1	23	113.5	0	108	68-128	0			
2,4,6-Trichlorophenol	117.2	23	113.5	0	103	66-125	0			
2-Methylnaphthalene	52.41	23	56.75	0	92.3	47-122	0			
2-Methylphenol	104.9	23	113.5	0	92.4	51-115	0			
2-Nitroaniline	61.84	23	56.75	0	109	64-128	0			
2-Nitrophenol	109.5	23	113.5	0	96.5	60-119	0			
3-Nitroaniline	65.6	23	56.75	0	116	61-118	0			
4-Methylphenol	152.2	23	340.5	0	44.7	44-115	0			
4-Nitroaniline	63.46	23	56.75	0	112	61-123	0			
4-Nitrophenol	68.79	23	113.5	0	60.6	17-100	0			
Acenaphthene	60.07	23	56.75	0	106	68-115	0			
Acenaphthylene	60.95	23	56.75	0	107	67-116	0			
Aniline	56.42	23	56.75	0	99.4	40-130	0			
Anthracene	66.16	23	56.75	0	117	70-129	0			
Benz(a)anthracene	60.4	23	56.75	0	106	55-131	0			
Benzidine	16.77	23	56.75	0	29.5	10-115	0			J
Hexachloroethane	51.69	23	56.75	0	91.1	46-115	0			
Indeno(1,2,3-cd)pyrene	56.13	23	56.75	0	98.9	42-123	0			
Isophorone	58.38	23	56.75	0	103	63-117	0			
N-Nitrosodi-n-propylamine	58.22	23	56.75	0	103	67-115	0			
N-Nitrosodimethylamine	43.39	23	56.75	0	76.5	28-115	0			
N-Nitrosodiphenylamine	66.67	23	56.75	0	117	72-144	0			
Naphthalene	55.18	23	56.75	0	97.2	52-115	0			
Nitrobenzene	59.87	23	56.75	0	105	65-115	0			
Pentachlorophenol	114.4	23	113.5	0	101	65-123	0			
Phenanthrene	64.51	23	56.75	0	114	69-119	0			
Phenol	64.78	23	113.5	0	57.1	16-115	0			
Pyrene	59.23	23	56.75	0	104	51-130	0			
Surr: 2,4,6-Tribromophenol	125.5	23	113.5	0	111	39-153	0			
Surr: 2-Fluorobiphenyl	114	23	113.5	0	100	40-147	0			
Surr: 2-Fluorophenol	81.94	23	113.5	0	72.2	21-110	0			
Surr: 4-Terphenyl-d14	116.8	23	113.5	0	103	39-141	0			
Surr: Nitrobenzene-d5	107.4	23	113.5	0	94.6	37-140	0			
Surr: Phenol-d6	62.21	23	113.5	0	54.8	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: 9655 InstrumentID: SV-3

MSD Sample ID: 0407192-07DMSD Test Code: SW8270 Units: µg/L Analysis Date: 07/20/04 22:02

Client ID: Run ID: SV-3_040720A SeqNo: 511696 Prep Date: 7/19/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.04	22	55.5	0	72.2	50-115	54.69	30.9	30	R
2,4,5-Trichlorophenol	96.43	22	111	0	86.9	68-128	123.1	24.3	30	
2,4,6-Trichlorophenol	94.33	22	111	0	85	66-125	117.2	21.6	30	
2-Methylnaphthalene	38.49	22	55.5	0	69.3	47-122	52.41	30.6	30	R
2-Methylphenol	83.21	22	111	0	75	51-115	104.9	23	30	
2-Nitroaniline	49.15	22	55.5	0	88.6	64-128	61.84	22.9	30	
2-Nitrophenol	81.04	22	111	0	73	60-119	109.5	29.9	30	
3-Nitroaniline	56.28	22	55.5	0	101	61-118	65.6	15.3	30	
4-Methylphenol	124.6	22	333	0	37.4	44-115	152.2	19.9	30	S
4-Nitroaniline	53.48	22	55.5	0	96.4	61-123	63.46	17.1	30	
4-Nitrophenol	55.7	22	111	0	50.2	17-100	68.79	21	30	
Acenaphthene	47.17	22	55.5	0	85	68-115	60.07	24.1	30	
Acenaphthylene	46.6	22	55.5	0	84	67-116	60.95	26.7	30	
Aniline	30.74	22	55.5	0	55.4	40-130	56.42	58.9	30	R
Anthracene	50.97	22	55.5	0	91.8	70-129	66.16	25.9	30	
Benz(a)anthracene	45.89	22	55.5	0	82.7	55-131	60.4	27.3	30	
Benzidine	25.08	22	55.5	0	45.2	10-115	16.77	39.7	30	R
Hexachloroethane	37.9	22	55.5	0	68.3	46-115	51.69	30.8	30	R
Indeno(1,2,3-cd)pyrene	41.48	22	55.5	0	74.7	42-123	56.13	30	30	R
Isophorone	44.34	22	55.5	0	79.9	63-117	58.38	27.3	30	
N-Nitrosodi-n-propylamine	44.83	22	55.5	0	80.8	67-115	58.22	26	30	
N-Nitrosodimethylamine	38	22	55.5	0	68.5	28-115	43.39	13.2	30	
N-Nitrosodiphenylamine	53.31	22	55.5	0	96.1	72-144	66.67	22.3	30	
Naphthalene	41.02	22	55.5	0	73.9	52-115	55.18	29.4	30	
Nitrobenzene	44.78	22	55.5	0	80.7	65-115	59.87	28.8	30	
Pentachlorophenol	88.04	22	111	0	79.3	65-123	114.4	26.1	30	
Phenanthrene	49.83	22	55.5	0	89.8	69-119	64.51	25.7	30	
Phenol	52.95	22	111	0	47.7	16-115	64.78	20.1	30	
Pyrene	45.39	22	55.5	0	81.8	51-130	59.23	26.5	30	
Surr: 2,4,6-Tribromophenol	98.54	22	111	0	88.8	39-153	125.5	24.1	30	
Surr: 2-Fluorobiphenyl	88.98	22	111	0	80.2	40-147	114	24.6	30	
Surr: 2-Fluorophenol	64.87	22	111	0	58.4	21-110	81.94	23.3	30	
Surr: 4-Terphenyl-d14	96.57	22	111	0	87	39-141	116.8	18.9	30	
Surr: Nitrobenzene-d5	79.37	22	111	0	71.5	37-140	107.4	30	30	R
Surr: Phenol-d6	49.3	22	111	0	44.4	11-100	62.21	23.1	30	

The following samples were analyzed in this batch:

0407165-02E

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: 0407165
Project: Monthly

QC BATCH REPORT

Batch ID: **R21831** InstrumentID: **VOA2**

MBLK Sample ID: **VBLKW-0719** Test Code: **SW8260** Units: **µg/L** Analysis Date: **07/19/04 11:33**

Client ID: Run ID: **VOA2_040719A** SeqNo: **510670** 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								
Methyl tert-butyl ether	ND	5.0								
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	42.27	5.0	50	0	84.5	71-126		0		
Surr: 4-Bromofluorobenzene	43.71	5.0	50	0	87.4	74-125		0		
Surr: Dibromofluoromethane	43.99	5.0	50	0	88	73-126		0		
Surr: Toluene-d8	44.34	5.0	50	0	88.7	75-125		0		

ND - Not Detected at the Reporting Limit

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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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: R21831 InstrumentID: VOA2

LCS Sample ID: VLCSW-0719 Test Code: SW8260 Units: µg/L Analysis Date: 07/19/04 10:42

Client ID: Run ID: VOA2_040719A SeqNo: 510669 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	49.5	5.0	50	0	99	75.2-120	0			
1,1,2,2-Tetrachloroethane	47.64	5.0	50	0	95.3	72.4-121	0			
1,1,2-Trichloroethane	49.05	5.0	50	0	98.1	80-120	0			
1,1-Dichloroethane	40.8	5.0	50	0	81.6	76.9-120	0			
1,1-Dichloroethene	42.24	5.0	50	0	84.5	72.6-123	0			
1,2-Dichloroethane	50.08	5.0	50	0	100	80-120	0			
2-Butanone	98.22	10	100	0	98.2	69-131	0			
2-Chloroethyl vinyl ether	99.78	10	100	0	99.8	60-135	0			
2-Hexanone	109.7	10	100	0	110	55.6-126	0			
4-Methyl-2-pentanone	105.7	10	100	0	106	67.4-121	0			
Acetone	110	10	100	0	110	64.4-140	0			
Benzene	47.36	5.0	50	0	94.7	80-120	0			
Bromodichloromethane	49.67	5.0	50	0	99.3	80-120	0			
Bromoform	52.48	5.0	50	0	105	77.9-121	0			
Bromomethane	46.73	5.0	50	0	93.5	63.3-137	0			
Carbon disulfide	81.78	10	100	0	81.8	74.1-123	0			
Carbon tetrachloride	50.26	5.0	50	0	101	74.7-120	0			
Chlorobenzene	48.77	5.0	50	0	97.5	80-120	0			
Chloroethane	46	5.0	50	0	92	74.7-126	0			
Chloroform	46.23	5.0	50	0	92.5	80-120	0			
Chloromethane	43.9	5.0	50	0	87.8	64.5-132	0			
cis-1,3-Dichloropropene	51.24	5.0	50	0	102	80-120	0			
Dibromochloromethane	50.88	5.0	50	0	102	80-120	0			
Ethylbenzene	49.39	5.0	50	0	98.8	80-120	0			
m,p-Xylene	98.82	10	100	0	98.8	80-120	0			
Methyl tert-butyl ether	50.87	5.0	50	0	102	73.7-122	0			
Methylene chloride	41.13	10	50	0	82.3	76.2-120	0			
Styrene	50.69	5.0	50	0	101	80-120	0			
Tetrachloroethene	51.64	5.0	50	0	103	68.5-130	0			
Toluene	48.46	5.0	50	0	96.9	80-120	0			
trans-1,3-Dichloropropene	52.38	5.0	50	0	105	80-120	0			
Trichloroethene	50.2	5.0	50	0	100	78.9-120	0			
Vinyl acetate	106.1	10	100	0	106	62.4-133	0			
Vinyl chloride	46.69	2.0	50	0	93.4	72.7-128	0			
Xylenes, Total	148.4	15	150	0	98.9	80-120	0			
Surr: 1,2-Dichloroethane-d4	40.65	5.0	50	0	81.3	71-126	0			
Surr: 4-Bromofluorobenzene	46.15	5.0	50	0	92.3	74-125	0			
Surr: Dibromofluoromethane	41.66	5.0	50	0	83.3	73-126	0			
Surr: Toluene-d8	45.05	5.0	50	0	90.1	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: R21831 InstrumentID: VOA2

MS Sample ID: 0407154-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/19/04 14:05

Client ID: Run ID: VOA2_040719A SeqNo: 510672 Prep Date: DF: 250

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	12140	1,200	12500	0	97.1	75.2-120	0			
1,1,2,2-Tetrachloroethane	11150	1,200	12500	0	89.2	72.4-121	0			
1,1,2-Trichloroethane	12470	1,200	12500	0	99.8	80-120	0			
1,1-Dichloroethane	11610	1,200	12500	0	92.9	76.9-120	0			
1,1-Dichloroethene	9668	1,200	12500	0	77.3	72.6-123	0			
1,2-Dichloroethane	12100	1,200	12500	0	96.8	80-120	0			
2-Butanone	24170	2,500	25000	0	96.7	69-131	0			
2-Chloroethyl vinyl ether	23350	2,500	25000	0	93.4	60-135	0			
2-Hexanone	28460	2,500	25000	0	114	55.6-126	0			
4-Methyl-2-pentanone	26920	2,500	25000	0	108	67.4-121	0			
Acetone	28630	2,500	25000	0	115	64.4-140	0			
Benzene	12840	1,200	12500	1617	89.8	80-120	0			
Bromodichloromethane	12110	1,200	12500	0	96.9	80-120	0			
Bromoform	12900	1,200	12500	0	103	77.9-121	0			
Bromomethane	10540	1,200	12500	0	84.3	63.3-137	0			
Carbon disulfide	21710	2,500	25000	0	86.8	74.1-123	0			
Carbon tetrachloride	15530	1,200	12500	3701	94.7	74.7-120	0			
Chlorobenzene	17760	1,200	12500	6761	88	80-120	0			
Chloroethane	11150	1,200	12500	0	89.2	74.7-126	0			
Chloroform	27960	1,200	12500	16690	90.2	80-120	0			
Chloromethane	11340	1,200	12500	0	90.7	64.5-132	0			
cis-1,3-Dichloropropene	12280	1,200	12500	0	98.3	80-120	0			
Dibromochloromethane	12560	1,200	12500	0	101	80-120	0			
Ethylbenzene	12120	1,200	12500	0	97	80-120	0			
m,p-Xylene	24660	2,500	25000	0	98.7	80-120	0			
Methyl tert-butyl ether	12470	1,200	12500	0	99.7	73.7-122	0			
Methylene chloride	11050	2,500	12500	251	86.4	76.2-120	0			
Styrene	12310	1,200	12500	0	98.5	80-120	0			
Tetrachloroethene	12830	1,200	12500	307.5	100	68.5-130	0			
Toluene	11740	1,200	12500	0	93.9	80-120	0			
trans-1,3-Dichloropropene	12720	1,200	12500	0	102	80-120	0			
Trichloroethene	13050	1,200	12500	382.7	101	78.9-120	0			
Vinyl acetate	16340	2,500	25000	0	65.4	62.4-133	0			
Vinyl chloride	11910	500	12500	0	95.2	72.7-128	0			
Xylenes, Total	36910	3,800	37500	0	98.4	80-120	0			
Surr: 1,2-Dichloroethane-d4	10910	1,200	12500	0	87.3	71-126	0			
Surr: 4-Bromofluorobenzene	12050	1,200	12500	0	96.4	74-125	0			
Surr: Dibromofluoromethane	10810	1,200	12500	0	86.5	73-126	0			
Surr: Toluene-d8	11660	1,200	12500	0	93.3	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: R21831 InstrumentID: VOA2

MSD			Sample ID: 0407154-01AMSD			Test Code: SW8260		Units: µg/L		Analysis Date: 07/19/04 14:33	
Client ID:		Run ID: VOA2_040719A			SeqNo: 510673		Prep Date:		DF: 250		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	12300	1,200	12500	0	98.4	75.2-120	12140	1.31	20		
1,1,2,2-Tetrachloroethane	11100	1,200	12500	0	88.8	72.4-121	11150	0.381	20		
1,1,2-Trichloroethane	12660	1,200	12500	0	101	80-120	12470	1.46	20		
1,1-Dichloroethane	10890	1,200	12500	0	87.2	76.9-120	11610	6.37	20		
1,1-Dichloroethene	10340	1,200	12500	0	82.7	72.6-123	9668	6.67	20		
1,2-Dichloroethane	12510	1,200	12500	0	100	80-120	12100	3.41	20		
2-Butanone	25510	2,500	25000	0	102	69-131	24170	5.39	20		
2-Chloroethyl vinyl ether	23900	2,500	25000	0	95.6	60-135	23350	2.29	20		
2-Hexanone	29060	2,500	25000	0	116	55.6-126	28460	2.07	20		
4-Methyl-2-pentanone	27690	2,500	25000	0	111	67.4-121	26920	2.82	20		
Acetone	28630	2,500	25000	0	115	64.4-140	28630	0.0181	20		
Benzene	13310	1,200	12500	1617	93.5	80-120	12840	3.55	20		
Bromodichloromethane	12400	1,200	12500	0	99.2	80-120	12110	2.29	20		
Bromoform	13180	1,200	12500	0	105	77.9-121	12900	2.16	20		
Bromomethane	11380	1,200	12500	0	91	63.3-137	10540	7.65	20		
Carbon disulfide	22610	2,500	25000	0	90.4	74.1-123	21710	4.08	20		
Carbon tetrachloride	16060	1,200	12500	3701	98.9	74.7-120	15530	3.35	20		
Chlorobenzene	18250	1,200	12500	6761	91.9	80-120	17760	2.71	20		
Chloroethane	11550	1,200	12500	0	92.4	74.7-126	11150	3.48	20		
Chloroform	27240	1,200	12500	16690	84.4	80-120	27960	2.59	20		
Chloromethane	11380	1,200	12500	0	91.1	64.5-132	11340	0.38	20		
cis-1,3-Dichloropropene	12670	1,200	12500	0	101	80-120	12280	3.12	20		
Dibromochloromethane	12910	1,200	12500	0	103	80-120	12560	2.71	20		
Ethylbenzene	12480	1,200	12500	0	99.8	80-120	12120	2.91	20		
m,p-Xylene	25180	2,500	25000	0	101	80-120	24660	2.07	20		
Methyl tert-butyl ether	12650	1,200	12500	0	101	73.7-122	12470	1.47	20		
Methylene chloride	10390	2,500	12500	251	81.1	76.2-120	11050	6.19	20		
Styrene	12620	1,200	12500	0	101	80-120	12310	2.5	20		
Tetrachloroethene	13110	1,200	12500	307.5	102	68.5-130	12830	2.1	20		
Toluene	12160	1,200	12500	0	97.3	80-120	11740	3.54	20		
trans-1,3-Dichloropropene	12790	1,200	12500	0	102	80-120	12720	0.554	20		
Trichloroethene	13550	1,200	12500	382.7	105	78.9-120	13050	3.73	20		
Vinyl acetate	16770	2,500	25000	0	67.1	62.4-133	16340	2.6	20		
Vinyl chloride	11890	500	12500	0	95.1	72.7-128	11910	0.11	20		
Xylenes, Total	37950	3,800	37500	0	101	80-120	36910	2.78	20		
Surr: 1,2-Dichloroethane-d4	10830	1,200	12500	0	86.7	71-126	10910	0.714	20		
Surr: 4-Bromofluorobenzene	12050	1,200	12500	0	96.4	74-125	12050	0.0324	20		
Surr: Dibromofluoromethane	11040	1,200	12500	0	88.3	73-126	10810	2.07	20		
Surr: Toluene-d8	11800	1,200	12500	0	94.4	75-125	11660	1.17	20		

The following samples were analyzed in this batch:

0407165-01A 0407165-02A

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly

QC BATCH REPORT

Batch ID: R21788 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-071704 Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509554 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: WLCSW1-071704 Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509555 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1941	0.020	0.2	0	97	80-120	0			

MS Sample ID: 0407129-03DMS Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509573 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1963	0.020	0.2	-0.002	99.1	75-125	0			

MSD Sample ID: 0407129-03DMSD Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509574 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1936	0.020	0.2	-0.002	97.8	75-125	0.1963	1.38	25	

DUP Sample ID: 0407129-03DDUP Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509572 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	

The following samples were analyzed in this batch:

0407165-01D 0407165-02D

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R - RPD outside accepted recovery limits

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CLIENT: Navajo Refining Company
 Work Order: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: R21909 InstrumentID: IC201

MBLK Sample ID: WBLKW1-072104 Test Code: E300 Units: mg/L Analysis Date: 07/21/04 17:30

Client ID: Run ID: WETCHEM_040721H SeqNo: 512565 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								
Surr: Dichloroacetic acid (surr)	5.24	0.10	5	0	105	80-120		0		

LCS Sample ID: WLCSW1-072104 Test Code: E300 Units: mg/L Analysis Date: 07/21/04 17:58

Client ID: Run ID: WETCHEM_040721H SeqNo: 512566 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.02	0.50	10	0	90.2	80-120		0		
Fluoride	1.87	0.10	2	0	93.5	80-120		0		
Sulfate	9.61	1.0	10	0	96.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.43	0.10	5	0	109	80-120		0		

LCS Sample ID: WLCSW1DUP-072 Test Code: E300 Units: mg/L Analysis Date: 07/21/04 18:27

Client ID: Run ID: WETCHEM_040721H SeqNo: 512567 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.03	0.50	10	0	90.3	80-120		0		
Fluoride	1.91	0.10	2	0	95.5	80-120		0		
Sulfate	9.61	1.0	10	0	96.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.31	0.10	5	0	106	80-120		0		

MS Sample ID: 0407129-02BMS Test Code: E300 Units: mg/L Analysis Date: 07/21/04 22:43

Client ID: Run ID: WETCHEM_040721H SeqNo: 512576 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	172.4	2.5	50	124.3	96.3	75-125		0		
Fluoride	10.05	0.50	10	1	90.5	75-125		0		
Sulfate	1768	5.0	50	1772	-9.1	75-125		0		SEO
Surr: Dichloroacetic acid (surr)	27.45	0.50	25	0	110	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: 0407165
 Project: Monthly

QC BATCH REPORT

Batch ID: R21909 InstrumentID: IC201

MSD Sample ID: 0407129-02BMSD Test Code: E300 Units: mg/L Analysis Date: 07/21/04 23:12

Client ID: Run ID: WETCHEM_040721H SeqNo: 512577 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	172.4	2.5	50	124.3	96.1	75-125	172.4	0.058	20	
Fluoride	10.05	0.50	10	1	90.5	75-125	10.05	0	20	
Sulfate	1770	5.0	50	1772	-5.6	75-125	1768	0.0989	20	SEO
Surr: Dichloroacetic acid (surr)	27.05	0.50	25	0	108	80-120	27.45	1.47	20	

DUP Sample ID: 0407129-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/21/04 21:18

Client ID: Run ID: WETCHEM_040721H SeqNo: 512573 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	124.2	2.5	-0	-0	0	0-0	124.3	0.0402	20	
Fluoride	1	0.50	0	0	0	0-0	1	0	20	
Surr: Dichloroacetic acid (surr)	27.15	0.50	25	0	109	80-120	27.1	0.184	20	

DUP Sample ID: 0407129-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/22/04 0:09

Client ID: Run ID: WETCHEM_040721H SeqNo: 512579 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	146.5	25	0	0	0	0-0	147	0.341	20	
Fluoride	ND	5.0	-0	0	0	0-0	0	0	20	
Sulfate	1347	50	0	0	0	0-0	1348	0.0742	20	
Surr: Dichloroacetic acid (surr)	276	5.0	250	0	110	80-120	276.5	0.181	20	

DUP Sample ID: 0407165-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/22/04 5:23

Client ID: RA 3156 Run ID: WETCHEM_040721H SeqNo: 512593 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	267	50	-0	0	0	0-0	267	0	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1437	100	0	0	0	0-0	1439	0.139	20	
Surr: Dichloroacetic acid (surr)	554	10	500	0	111	80-120	551	0.543	20	

The following samples were analyzed in this batch:

0407165-01B 0407165-02B

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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R - RPD outside accepted recovery limits

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B - Analyte detected in assoc. Method Blank

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CLIENT: Navajo Refining Company
Work Order: 0407165
Project: Monthly

QC BATCH REPORT

Batch ID: **R21916** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-072204** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512756** 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: **WLCSW1-072204** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512757** 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)	1000	5.0	0	0	0	0-0	0	0		
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0	0		
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0	0		
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0407119-02DDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512775** 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	

DUP Sample ID: **0407217-04BDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512776** 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)	470.1	5.0	0	0	0	0-0	470.1	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)	470.1	5.0	0	0	0	0-0	470.1	0	20	

The following samples were analyzed in this batch:

0407165-01B 0407165-02B

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



e-Lab Analytical, Inc.

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

July 26, 2004

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

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

Re: Monthly

Work Order : **0407129**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 3 samples on 7/13/2004 9:20:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, 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,

Electronically approved by: Jeffrey L Croston

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0407129

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0407129-01	RA 314	Water		7/12/2004 13:15	7/13/2004 09:20	☐
0407129-02	RA 1227	Water		7/12/2004 13:30	7/13/2004 09:20	☐
0407129-03	RA 307	Water		7/12/2004 13:45	7/13/2004 09:20	☐

e-Lab Analytical, Inc.**Date:** July 26, 2004

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0407129

Case Narrative

Batch 9601 Metals MS/MSD was an unrelated sample.

Batch R21773 Volatiles MS/MSD was an unrelated sample.

Batch R21909 Anions (sample RA 1227) MS/MSD was outside of control limits for Sulfate. Sample results were E and O flagged indicatng that the background concentration exceeded the working calibration range and was >4 times greater than the spike amount; therefore, the results should not be evaluated.

e-Lab Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-01

Client Sample ID: RA 314
Collection Date: 7/12/2004 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 7/20/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/20/2004 4:36:43 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 7/15/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	7/23/2004 4:33:00 AM
Arsenic	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Barium	0.0220	0.00500		mg/L	1	7/24/2004 9:34:00 PM
Beryllium	ND	0.00200		mg/L	1	7/23/2004 4:33:00 AM
Boron	0.0427	0.0200		mg/L	1	7/23/2004 4:33:00 AM
Cadmium	ND	0.00100		mg/L	1	7/23/2004 4:33:00 AM
Calcium	225	25.0		mg/L	50	7/22/2004 2:28:00 AM
Chromium	ND	0.00200		mg/L	1	7/23/2004 4:33:00 AM
Cobalt	ND	0.00200		mg/L	1	7/23/2004 4:33:00 AM
Copper	0.00354	0.00200		mg/L	1	7/23/2004 4:33:00 AM
Iron	2.00	0.200		mg/L	1	7/23/2004 4:33:00 AM
Lead	ND	0.00500		mg/L	1	7/24/2004 9:34:00 PM
Magnesium	52.4	10.0		mg/L	50	7/22/2004 2:28:00 AM
Manganese	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Molybdenum	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Nickel	0.00773	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Potassium	1.53	0.200		mg/L	1	7/23/2004 4:33:00 AM
Selenium	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Silver	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Sodium	109	10.0		mg/L	50	7/22/2004 2:28:00 AM
Vanadium	ND	0.00500		mg/L	1	7/23/2004 4:33:00 AM
Zinc	0.0123	0.00500		mg/L	1	7/23/2004 4:33:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/14/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2,4,5-Trichlorophenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2,4,6-Trichlorophenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2-Methylphenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2-Nitroaniline	ND	11		µg/L	1	7/17/2004 3:58:00 PM
2-Nitrophenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
3-Nitroaniline	ND	11		µg/L	1	7/17/2004 3:58:00 PM
4-Methylphenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
4-Nitroaniline	ND	11		µg/L	1	7/17/2004 3:58:00 PM
4-Nitrophenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Acenaphthene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Acenaphthylene	ND	11		µg/L	1	7/17/2004 3:58:00 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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-01

Client Sample ID: RA 314
Collection Date: 7/12/2004 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Anthracene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Benz(a)anthracene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Benzidine	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Hexachloroethane	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Isophorone	ND	11		µg/L	1	7/17/2004 3:58:00 PM
N-Nitrosodi-n-propylamine	ND	11		µg/L	1	7/17/2004 3:58:00 PM
N-Nitrosodimethylamine	ND	11		µg/L	1	7/17/2004 3:58:00 PM
N-Nitrosodiphenylamine	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Naphthalene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Nitrobenzene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Pentachlorophenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Phenanthrene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Phenol	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Pyrene	ND	11		µg/L	1	7/17/2004 3:58:00 PM
Surr: 2,4,6-Tribromophenol	98.1	39-153		%REC	1	7/17/2004 3:58:00 PM
Surr: 2-Fluorobiphenyl	91.2	40-147		%REC	1	7/17/2004 3:58:00 PM
Surr: 2-Fluorophenol	57.4	21-110		%REC	1	7/17/2004 3:58:00 PM
Surr: 4-Terphenyl-d14	99.5	39-141		%REC	1	7/17/2004 3:58:00 PM
Surr: Nitrobenzene-d5	83.9	37-140		%REC	1	7/17/2004 3:58:00 PM
Surr: Phenol-d6	35.9	11-100		%REC	1	7/17/2004 3:58:00 PM

VOLATILES BY GC/MS**SW8260****Analyst: PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
2-Butanone	ND	10		µg/L	1	7/16/2004 6:48:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/16/2004 6:48:00 PM
2-Hexanone	ND	10		µg/L	1	7/16/2004 6:48:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Acetone	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Benzene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Bromoform	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Bromomethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Carbon disulfide	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/16/2004 6:48:00 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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-01

Client Sample ID: RA 314
Collection Date: 7/12/2004 1:15:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Chloroethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Chloroform	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Chloromethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
m,p-Xylene	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Methylene chloride	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Styrene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Toluene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/16/2004 6:48:00 PM
Vinyl acetate	ND	10		µg/L	1	7/16/2004 6:48:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/16/2004 6:48:00 PM
Xylenes, Total	ND	15		µg/L	1	7/16/2004 6:48:00 PM
Surr: 1,2-Dichloroethane-d4	95.7	71-126		%REC	1	7/16/2004 6:48:00 PM
Surr: 4-Bromofluorobenzene	84.5	74-125		%REC	1	7/16/2004 6:48:00 PM
Surr: Dibromofluoromethane	95.1	73-126		%REC	1	7/16/2004 6:48:00 PM
Surr: Toluene-d8	90.8	75-125		%REC	1	7/16/2004 6:48:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300			Analyst: LMD	
Chloride	220	5.00		mg/L	10	7/21/2004 7:24:00 PM
Fluoride	0.960	0.100		mg/L	1	7/21/2004 6:55:00 PM
Sulfate	628	100		mg/L	100	7/21/2004 7:52:00 PM
Surr: Dichloroacetic acid (surr)	113	80-120		%REC	1	7/21/2004 6:55:00 PM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	10	7/21/2004 7:24:00 PM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	100	7/21/2004 7:52:00 PM
ALKALINITY		E310.1			Analyst: LMD	
Alkalinity, Bicarbonate (As CaCO3)	185	5.00		mg/L	1	7/22/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Total (As CaCO3)	185	5.00		mg/L	1	7/22/2004
CYANIDE, TOTAL		E335.3			Analyst: LMD	
Cyanide	ND	0.0200		mg/L	1	7/17/2004

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E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-02

Client Sample ID: RA 1227
Collection Date: 7/12/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 7/20/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/20/2004 4:38:15 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 7/15/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	7/23/2004 4:38:00 AM
Arsenic	ND	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Barium	0.00858	0.00500		mg/L	1	7/24/2004 9:39:00 PM
Beryllium	ND	0.00200		mg/L	1	7/23/2004 4:38:00 AM
Boron	0.254	0.0200		mg/L	1	7/23/2004 4:38:00 AM
Cadmium	ND	0.00100		mg/L	1	7/23/2004 4:38:00 AM
Calcium	427	25.0		mg/L	50	7/22/2004 2:32:00 AM
Chromium	ND	0.00200		mg/L	1	7/23/2004 4:38:00 AM
Cobalt	ND	0.00200		mg/L	1	7/23/2004 4:38:00 AM
Copper	0.00658	0.00200		mg/L	1	7/23/2004 4:38:00 AM
Iron	3.66	0.200		mg/L	1	7/23/2004 4:38:00 AM
Lead	ND	0.00500		mg/L	1	7/24/2004 9:39:00 PM
Magnesium	166	10.0		mg/L	50	7/22/2004 2:32:00 AM
Manganese	ND	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Molybdenum	ND	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Nickel	0.0149	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Potassium	1.71	0.200		mg/L	1	7/23/2004 4:38:00 AM
Selenium	0.0144	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Silver	ND	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Sodium	117	10.0		mg/L	50	7/22/2004 2:32:00 AM
Vanadium	0.00933	0.00500		mg/L	1	7/23/2004 4:38:00 AM
Zinc	0.0132	0.00500		mg/L	1	7/23/2004 4:38:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 7/14/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:21:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:21:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:21:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 10:21:00 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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-02

Client Sample ID: RA 1227
Collection Date: 7/12/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 10:21:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 10:21:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 10:21:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 10:21:00 PM
Surr: 2,4,6-Tribromophenol	90.1	39-153		%REC	1	7/16/2004 10:21:00 PM
Surr: 2-Fluorobiphenyl	92.0	40-147		%REC	1	7/16/2004 10:21:00 PM
Surr: 2-Fluorophenol	58.0	21-110		%REC	1	7/16/2004 10:21:00 PM
Surr: 4-Terphenyl-d14	92.2	39-141		%REC	1	7/16/2004 10:21:00 PM
Surr: Nitrobenzene-d5	92.3	37-140		%REC	1	7/16/2004 10:21:00 PM
Surr: Phenol-d6	32.9	11-100		%REC	1	7/16/2004 10:21:00 PM
VOLATILES BY GC/MS		SW8260		Analyst: PC		
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
2-Butanone	ND	10		µg/L	1	7/16/2004 7:14:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/16/2004 7:14:00 PM
2-Hexanone	ND	10		µg/L	1	7/16/2004 7:14:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Acetone	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Benzene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Bromofom	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Bromomethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Carbon disulfide	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/16/2004 7:14:00 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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-02

Client Sample ID: RA 1227
Collection Date: 7/12/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Chloroethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Chloroform	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Chloromethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
m,p-Xylene	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Methylene chloride	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Styrene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Toluene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/16/2004 7:14:00 PM
Vinyl acetate	ND	10		µg/L	1	7/16/2004 7:14:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/16/2004 7:14:00 PM
Xylenes, Total	ND	15		µg/L	1	7/16/2004 7:14:00 PM
Surr: 1,2-Dichloroethane-d4	92.8	71-126		%REC	1	7/16/2004 7:14:00 PM
Surr: 4-Bromofluorobenzene	85.2	74-125		%REC	1	7/16/2004 7:14:00 PM
Surr: Dibromofluoromethane	93.2	73-126		%REC	1	7/16/2004 7:14:00 PM
Surr: Toluene-d8	89.2	75-125		%REC	1	7/16/2004 7:14:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	124	2.50		mg/L	5	7/21/2004 8:49:00 PM
Fluoride	0.680	0.100		mg/L	1	7/21/2004 8:21:00 PM
Sulfate	1,350	50.0		mg/L	50	7/21/2004 11:41:00 PM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	1	7/21/2004 8:21:00 PM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	5	7/21/2004 8:49:00 PM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	50	7/21/2004 11:41:00 PM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	280	5.00		mg/L	1	7/22/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Total (As CaCO3)	280	5.00		mg/L	1	7/22/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	7/17/2004

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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-03

Client Sample ID: RA 307
Collection Date: 7/12/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	7/20/2004 4:39:48 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	7/23/2004 4:43:00 AM
Arsenic	ND	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Barium	0.0101	0.00500		mg/L	1	7/24/2004 9:44:00 PM
Beryllium	ND	0.00200		mg/L	1	7/23/2004 4:43:00 AM
Boron	0.0963	0.0200		mg/L	1	7/23/2004 4:43:00 AM
Cadmium	ND	0.00100		mg/L	1	7/23/2004 4:43:00 AM
Calcium	383	25.0		mg/L	50	7/22/2004 2:37:00 AM
Chromium	ND	0.00200		mg/L	1	7/23/2004 4:43:00 AM
Cobalt	ND	0.00200		mg/L	1	7/23/2004 4:43:00 AM
Copper	0.00390	0.00200		mg/L	1	7/23/2004 4:43:00 AM
Iron	3.19	0.200		mg/L	1	7/23/2004 4:43:00 AM
Lead	ND	0.00500		mg/L	1	7/24/2004 9:44:00 PM
Magnesium	117	10.0		mg/L	50	7/22/2004 2:37:00 AM
Manganese	ND	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Molybdenum	ND	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Nickel	0.0115	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Potassium	2.08	0.200		mg/L	1	7/23/2004 4:43:00 AM
Selenium	0.0129	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Silver	ND	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Sodium	109	10.0		mg/L	50	7/22/2004 2:37:00 AM
Vanadium	0.00721	0.00500		mg/L	1	7/23/2004 4:43:00 AM
Zinc	0.0153	0.00500		mg/L	1	7/23/2004 4:43:00 AM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2-Methylphenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:50:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:50:00 PM
4-Methylphenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/16/2004 10:50:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Acenaphthene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Acenaphthylene	ND	10		µg/L	1	7/16/2004 10:50:00 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 Analytical, Inc.
Date: July 26, 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly
Lab ID: 0407129-03

Client Sample ID: RA 307
Collection Date: 7/12/2004 1:45:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Anthracene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Benzidine	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Hexachloroethane	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Isophorone	ND	10		µg/L	1	7/16/2004 10:50:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/16/2004 10:50:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/16/2004 10:50:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Naphthalene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Nitrobenzene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Phenanthrene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Phenol	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Pyrene	ND	10		µg/L	1	7/16/2004 10:50:00 PM
Surr: 2,4,6-Tribromophenol	88.5	39-153		%REC	1	7/16/2004 10:50:00 PM
Surr: 2-Fluorobiphenyl	86.4	40-147		%REC	1	7/16/2004 10:50:00 PM
Surr: 2-Fluorophenol	56.6	21-110		%REC	1	7/16/2004 10:50:00 PM
Surr: 4-Terphenyl-d14	91.5	39-141		%REC	1	7/16/2004 10:50:00 PM
Surr: Nitrobenzene-d5	89.3	37-140		%REC	1	7/16/2004 10:50:00 PM
Surr: Phenol-d6	33.0	11-100		%REC	1	7/16/2004 10:50:00 PM

VOLATILES BY GC/MS
SW8260
Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
2-Butanone	ND	10		µg/L	1	7/16/2004 7:39:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/16/2004 7:39:00 PM
2-Hexanone	ND	10		µg/L	1	7/16/2004 7:39:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Acetone	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Benzene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Bromoform	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Bromomethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Carbon disulfide	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/16/2004 7:39:00 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 Analytical, Inc.

Date: July 26, 2004

CLIENT: Navajo Refining Company
 Work Order: 0407129
 Project: Monthly
 Lab ID: 0407129-03

Client Sample ID: RA 307
 Collection Date: 7/12/2004 1:45:00 PM
 Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Chloroethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Chloroform	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Chloromethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
m,p-Xylene	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Methylene chloride	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Styrene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Toluene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/16/2004 7:39:00 PM
Vinyl acetate	ND	10		µg/L	1	7/16/2004 7:39:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/16/2004 7:39:00 PM
Xylenes, Total	ND	15		µg/L	1	7/16/2004 7:39:00 PM
Surr: 1,2-Dichloroethane-d4	91.0	71-126		%REC	1	7/16/2004 7:39:00 PM
Surr: 4-Bromofluorobenzene	84.5	74-125		%REC	1	7/16/2004 7:39:00 PM
Surr: Dibromofluoromethane	92.0	73-126		%REC	1	7/16/2004 7:39:00 PM
Surr: Toluene-d8	88.3	75-125		%REC	1	7/16/2004 7:39:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: LMD		
Chloride	274	50.0		mg/L	100	7/22/2004 1:06:00 AM
Fluoride	0.660	0.100		mg/L	1	7/22/2004 12:38:00 AM
Sulfate	1,080	100		mg/L	100	7/22/2004 1:06:00 AM
Surr: Dichloroacetic acid (surr)	109	80-120		%REC	1	7/22/2004 12:38:00 AM
Surr: Dichloroacetic acid (surr)	112	80-120		%REC	100	7/22/2004 1:06:00 AM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	175	5.00		mg/L	1	7/22/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	7/22/2004
Alkalinity, Total (As CaCO3)	175	5.00		mg/L	1	7/22/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	7/17/2004

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 Analytical, Inc.

Date: Jul 26 2004

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly

QC BATCH REPORT

Batch ID: 9601 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-071504 Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 0:11
Client ID: Run ID: ICP4500_040721A SeqNo: 512057 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.02677	0.010								
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	0.005394	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

QC Page: 1 of 18

CLIENT: Navajo Refining Company
 Work Order: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9601 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-071504 Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 0:16

Client ID: Run ID: ICP4500_040721A SeqNo: 512058 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05155	0.010	0.05	0	103	79-126	0			
Arsenic	0.05161	0.0050	0.05	0	103	80-121	0			
Barium	0.0446	0.0050	0.05	0	89.2	79.8-119	0			
Beryllium	0.05581	0.0020	0.05	0	112	78.9-120	0			
Boron	0.5806	0.020	0.5	0	116	80-120	0			
Cadmium	0.05174	0.0020	0.05	0	103	79.1-119	0			
Calcium	4.629	0.50	5	0	92.6	80-121	0			
Chromium	0.04549	0.0050	0.05	0	91	79.3-121	0			
Cobalt	0.04604	0.0050	0.05	0	92.1	82-121	0			
Copper	0.04651	0.0050	0.05	0	93	83-121	0			
Iron	4.812	0.20	5	0	96.2	80-120	0			
Lead	0.04438	0.0050	0.05	0	88.8	80-118	0			
Magnesium	4.459	0.20	5	0	89.2	80-120	0			
Manganese	0.04571	0.0050	0.05	0	91.4	82-119	0			
Molybdenum	0.04475	0.0050	0.05	0	89.5	84.6-115	0			
Nickel	0.04692	0.0050	0.05	0	93.8	85-120	0			
Potassium	4.623	0.20	5	0	92.5	80-120	0			
Selenium	0.05867	0.0050	0.05	0	117	79.2-118	0			
Sodium	4.305	0.20	5	0	86.1	82.4-120	0			
Vanadium	0.04497	0.0050	0.05	0	89.9	82.1-119	0			
Zinc	0.05193	0.0050	0.05	0	104	83-118	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9601 InstrumentID: ICP4500

MS Sample ID: 0407116-07DMS Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 1:23

Client ID: Run ID: ICP4500_040721A SeqNo: 512066 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04297	0.010	0.05	-0.003868	93.7	79-126	0			
Arsenic	0.05181	0.0050	0.05	0.0008047	102	80-121	0			
Barium	0.05061	0.0050	0.05	0.00411	93	79.8-119	0			
Beryllium	0.05333	0.0020	0.05	0.0001349	106	78.9-120	0			
Boron	0.5751	0.020	0.5	0.01177	113	80-120	0			
Cadmium	0.05176	0.0020	0.05	0.0001259	103	79.1-119	0			
Calcium	4.919	0.50	5	-0.01675	98.7	80-121	0			
Chromium	0.04605	0.0050	0.05	0.00008939	91.9	79.3-121	0			
Cobalt	0.04745	0.0050	0.05	0.000124	94.7	82-121	0			
Copper	0.046	0.0050	0.05	0.0001284	91.7	83-121	0			
Iron	4.944	0.20	5	0.008759	98.7	80-120	0			
Magnesium	4.792	0.20	5	0.00666	95.7	80-120	0			
Manganese	0.04809	0.0050	0.05	0.00163	92.9	82-119	0			
Molybdenum	0.04432	0.0050	0.05	0.0003935	87.9	84.6-115	0			
Nickel	0.0463	0.0050	0.05	0.0002323	92.1	85-120	0			
Potassium	4.746	0.20	5	0.00964	94.7	80-120	0			
Selenium	0.05392	0.0050	0.05	0.002461	103	79.2-118	0			
Silver	0.03823	0.0050	0.05	-0.00004331	76.5	83-117	0			S
Sodium	4.579	0.20	5	-0.01142	91.8	82.4-120	0			
Vanadium	0.04591	0.0050	0.05	0.0001133	91.6	82.1-119	0			
Zinc	0.05335	0.0050	0.05	0.001817	103	83-118	0			

MS Sample ID: 0407116-07DMS Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 23:51

Client ID: Run ID: ICP4500_040722A SeqNo: 512922 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.04539	0.0050	0.05	-5.924E-06	90.8	80-118	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9601 InstrumentID: ICP4500

MSD Sample ID: 0407116-07DMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 1:28

Client ID: Run ID: ICP4500_040721A SeqNo: 512067 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04176	0.010	0.05	-0.003868	91.3	79-126	0.04297	2.86	15	
Arsenic	0.05264	0.0050	0.05	0.0008047	104	80-121	0.05181	1.59	15	
Barium	0.05031	0.0050	0.05	0.00411	92.4	79.8-119	0.05061	0.595	15	
Beryllium	0.05302	0.0020	0.05	0.0001349	106	78.9-120	0.05333	0.583	15	
Boron	0.5949	0.020	0.5	0.01177	117	80-120	0.5751	3.38	15	
Cadmium	0.05161	0.0020	0.05	0.0001259	103	79.1-119	0.05176	0.29	15	
Calcium	4.798	0.50	5	-0.01675	96.3	80-121	4.919	2.49	15	
Chromium	0.04644	0.0050	0.05	0.00008939	92.7	79.3-121	0.04605	0.843	15	
Cobalt	0.04696	0.0050	0.05	0.000124	93.7	82-121	0.04745	1.04	15	
Copper	0.04712	0.0050	0.05	0.0001284	94	83-121	0.046	2.41	15	
Iron	5.045	0.20	5	0.008759	101	80-120	4.944	2.02	15	
Magnesium	4.883	0.20	5	0.00666	97.5	80-120	4.792	1.88	15	
Manganese	0.04937	0.0050	0.05	0.00163	95.5	82-119	0.04809	2.63	15	
Molybdenum	0.04465	0.0050	0.05	0.0003935	88.5	84.6-115	0.04432	0.742	15	
Nickel	0.04771	0.0050	0.05	0.0002323	95	85-120	0.0463	3	15	
Potassium	4.819	0.20	5	0.00964	96.2	80-120	4.746	1.53	15	
Selenium	0.05469	0.0050	0.05	0.002461	104	79.2-118	0.05392	1.42	15	
Silver	0.03743	0.0050	0.05	-0.00004331	74.9	83-117	0.03823	2.11	15	S
Sodium	4.73	0.20	5	-0.01142	94.8	82.4-120	4.579	3.24	15	
Vanadium	0.04627	0.0050	0.05	0.0001133	92.3	82.1-119	0.04591	0.781	15	
Zinc	0.05266	0.0050	0.05	0.001817	102	83-118	0.05335	1.3	15	

MSD Sample ID: 0407116-07DMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 23:56

Client ID: Run ID: ICP4500_040722A SeqNo: 512923 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.04506	0.0050	0.05	-5.924E-06	90.1	80-118	0.04539	0.73	15	

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9601 InstrumentID: ICP4500

DUP Sample ID: 0407116-07DDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 1:19

Client ID: Run ID: ICP4500_040721A SeqNo: 512065 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010	0	0	0	0-0	-0.003868	0	25	
Arsenic	ND	0.0050	0	0	0	0-0	0.0008047	0	25	
Barium	0.004724	0.0050	0	0	0	0-0	0.00411	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.0001349	0	25	
Boron	ND	0.020	0	0	0	0-0	0.01177	0	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.0001259	0	25	
Calcium	ND	0.50	0	0	0	0-0	-0.01675	0	25	
Chromium	ND	0.0050	0	0	0	0-0	0.00008939	0	25	
Cobalt	ND	0.0050	0	0	0	0-0	0.000124	0	25	
Copper	ND	0.0050	0	0	0	0-0	0.0001284	0	25	
Iron	ND	0.20	0	0	0	0-0	0.008759	0	25	
Magnesium	ND	0.20	0	0	0	0-0	0.00666	0	25	
Manganese	0.001498	0.0050	0	0	0	0-0	0.00163	0	25	J
Molybdenum	ND	0.0050	0	0	0	0-0	0.0003935	0	25	
Nickel	ND	0.0050	0	0	0	0-0	0.0002323	0	25	
Potassium	ND	0.20	0	0	0	0-0	0.00964	0	25	
Selenium	0.004687	0.0050	0	0	0	0-0	0.002461	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-0.00004331	0	25	
Sodium	ND	0.20	0	0	0	0-0	-0.01142	0	25	
Vanadium	ND	0.0050	0	0	0	0-0	0.0001133	0	25	
Zinc	ND	0.0050	0	0	0	0-0	0.001817	0	25	

DUP Sample ID: 0407116-07DDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/22/04 23:47

Client ID: Run ID: ICP4500_040722A SeqNo: 512921 Prep Date: 7/15/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	ND	0.0050	0	0	0	0-0	-5.924E-06	0	25	

The following samples were analyzed in this batch:

0407129-01C 0407129-02C 0407129-03C

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9661 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-072004 Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 15:51

Client ID: Run ID: MERCURY_040720A SeqNo: 511507 Prep Date: 7/20/2004 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: GLCSW1-072004 Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 15:53

Client ID: Run ID: MERCURY_040720A SeqNo: 511508 Prep Date: 7/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00477	0.00020	0.005	0	95.4	83-115	0			

LCSD Sample ID: GLCSDW1-072004 Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 15:55

Client ID: Run ID: MERCURY_040720A SeqNo: 511509 Prep Date: 7/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0049	0.00020	0.005	0	98	83-115	0.00477	2.69	20	

MS Sample ID: 0407138-02FMS Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 16:18

Client ID: Run ID: MERCURY_040720A SeqNo: 511248 Prep Date: 7/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00446	0.00020	0.005	0.000036	88.5	83-115	0			

MSD Sample ID: 0407138-02FMSD Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 16:19

Client ID: Run ID: MERCURY_040720A SeqNo: 511249 Prep Date: 7/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00454	0.00020	0.005	0.000036	90.1	83-115	0.00446	1.78	20	

DUP Sample ID: 0407138-02FDUP Test Code: SW7470 Units: mg/L Analysis Date: 07/20/04 16:00

Client ID: Run ID: MERCURY_040720A SeqNo: 511247 Prep Date: 7/20/2004 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	0.000036	0	20	

The following samples were analyzed in this batch:

0407129-01C 0407129-02C 0407129-03C

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9590 InstrumentID: SV-2

MBLK Sample ID: SBLKW1-040714 Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 12:18

Client ID: Run ID: SV-2_040715B SeqNo: 509080 Prep Date: 7/14/2004 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	89.83	10	100	0	89.8	39-153		0		
Surr: 2-Fluorobiphenyl	93	10	100	0	93	40-147		0		
Surr: 2-Fluorophenol	62.88	10	100	0	62.9	21-110		0		
Surr: 4-Terphenyl-d14	96.31	10	100	0	96.3	39-141		0		
Surr: Nitrobenzene-d5	91.53	10	100	0	91.5	37-140		0		
Surr: Phenol-d6	36.81	10	100	0	36.8	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9590 Instrument ID: SV-2

LCS Sample ID: SLCSW1-040714 Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 12:48

Client ID: Run ID: SV-2_040715B SeqNo: 509081 Prep Date: 7/14/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.46	10	50	0	80.9	50-115	0			
2,4,5-Trichlorophenol	102.2	10	100	0	102	68-128	0			
2,4,6-Trichlorophenol	100.8	10	100	0	101	66-125	0			
2-Methylnaphthalene	42.72	10	50	0	85.4	47-122	0			
2-Methylphenol	86.76	10	100	0	86.8	51-115	0			
2-Nitroaniline	56.41	10	50	0	113	64-128	0			
2-Nitrophenol	87	10	100	0	87	60-119	0			
3-Nitroaniline	47.62	10	50	0	95.2	61-118	0			
4-Methylphenol	124.9	10	150	0	83.3	44-115	0			
4-Nitroaniline	48.02	10	50	0	96	61-123	0			
4-Nitrophenol	66.78	10	100	0	66.8	17-100	0			
Acenaphthene	55.06	10	50	0	110	68-115	0			
Acenaphthylene	47.68	10	50	0	95.4	67-116	0			
Aniline	43.68	10	50	0	87.4	40-130	0			
Anthracene	50.31	10	50	0	101	70-129	0			
Benz(a)anthracene	50.54	10	50	0	101	55-131	0			
Benidine	40.05	10	50	0	80.1	10-115	0			
Hexachloroethane	49.62	10	50	0	99.2	46-115	0			
Indeno(1,2,3-cd)pyrene	54.76	10	50	0	110	42-123	0			
Isophorone	45.49	10	50	0	91	63-117	0			
N-Nitrosodi-n-propylamine	47.83	10	50	0	95.7	67-115	0			
N-Nitrosodimethylamine	37.27	10	50	0	74.5	28-115	0			
N-Nitrosodiphenylamine	51.84	10	50	0	104	72-144	0			
Naphthalene	41.28	10	50	0	82.6	52-115	0			
Nitrobenzene	46.27	10	50	0	92.5	65-115	0			
Pentachlorophenol	84.52	10	100	0	84.5	65-123	0			
Phenanthrene	48.67	10	50	0	97.3	69-119	0			
Phenol	50.44	10	100	0	50.4	16-115	0			
Pyrene	44.6	10	50	0	89.2	51-130	0			
Surr: 2,4,6-Tribromophenol	95.58	10	100	0	95.6	39-153	0			
Surr: 2-Fluorobiphenyl	92.95	10	100	0	93	40-147	0			
Surr: 2-Fluorophenol	73.22	10	100	0	73.2	21-110	0			
Surr: 4-Terphenyl-d14	93.68	10	100	0	93.7	39-141	0			
Surr: Nitrobenzene-d5	87.85	10	100	0	87.8	37-140	0			
Surr: Phenol-d6	47.09	10	100	0	47.1	11-100	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: 0407129
Project: Monthly

QC BATCH REPORT

Batch ID: 9590 InstrumentID: SV-2

MS Sample ID: 0407138-02EMS Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 16:22

Client ID: Run ID: SV-2_040715B SeqNo: 510162 Prep Date: 7/14/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.12	11	54.35	0	73.8	50-115	0			
2,4,5-Trichlorophenol	106.7	11	108.7	0	98.2	68-128	0			
2,4,6-Trichlorophenol	99.82	11	108.7	0	91.8	66-125	0			
2-Methylnaphthalene	45.94	11	54.35	0	84.5	47-122	0			
2-Methylphenol	81.53	11	108.7	0	75	51-115	0			
2-Nitroaniline	57.95	11	54.35	0	107	64-128	0			
2-Nitrophenol	90.57	11	108.7	0	83.3	60-119	0			
3-Nitroaniline	39.23	11	54.35	0	72.2	61-118	0			
4-Methylphenol	105.8	11	163	0	64.9	44-115	0			
4-Nitroaniline	47.63	11	54.35	0	87.6	61-123	0			
4-Nitrophenol	46.33	11	108.7	0	42.6	17-100	0			
Acenaphthene	55.1	11	54.35	0	101	68-115	0			
Acenaphthylene	48.16	11	54.35	0	88.6	67-116	0			
Aniline	39.32	11	54.35	0	72.3	40-130	0			
Anthracene	49.38	11	54.35	0	90.9	70-129	0			
Benz(a)anthracene	51.28	11	54.35	0	94.4	55-131	0			
Benzidine	7.566	11	54.35	0	13.9	10-115	0			J
Hexachloroethane	48.4	11	54.35	0	89.1	46-115	0			
Indeno(1,2,3-cd)pyrene	57.17	11	54.35	0	105	42-123	0			
Isophorone	49.16	11	54.35	0	90.5	63-117	0			
N-Nitrosodi-n-propylamine	62.07	11	54.35	0	114	67-115	0			
N-Nitrosodimethylamine	30.97	11	54.35	0	57	28-115	0			
N-Nitrosodiphenylamine	52.35	11	54.35	0	96.3	72-144	0			
Naphthalene	42.03	11	54.35	0	77.3	52-115	0			
Nitrobenzene	47.31	11	54.35	0	87.1	65-115	0			
Pentachlorophenol	93.01	11	108.7	0	85.6	65-123	0			
Phenanthrene	47.44	11	54.35	0	87.3	69-119	0			
Phenol	34.84	11	108.7	0	32.1	16-115	0			
Pyrene	46.08	11	54.35	0	84.8	51-130	0			
Surr: 2,4,6-Tribromophenol	97.99	11	108.7	0	90.1	39-153	0			
Surr: 2-Fluorobiphenyl	92.94	11	108.7	0	85.5	40-147	0			
Surr: 2-Fluorophenol	50.23	11	108.7	0	46.2	21-110	0			
Surr: 4-Terphenyl-d14	96.09	11	108.7	0	88.4	39-141	0			
Surr: Nitrobenzene-d5	90.69	11	108.7	0	83.4	37-140	0			
Surr: Phenol-d6	34.21	11	108.7	0	31.5	11-100	0			

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: 9590 InstrumentID: SV-2

MSD Sample ID: 0407138-02EMSD Test Code: SW8270 Units: µg/L Analysis Date: 07/16/04 16:53

Client ID: Run ID: SV-2_040715B SeqNo: 510163 Prep Date: 7/14/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.51	11	53.76	0	75.3	50-115	40.12	0.974	30	
2,4,5-Trichlorophenol	97.87	11	107.5	0	91	68-128	106.7	8.66	30	
2,4,6-Trichlorophenol	95.49	11	107.5	0	88.8	66-125	99.82	4.44	30	
2-Methylnaphthalene	41.1	11	53.76	0	76.4	47-122	45.94	11.1	30	
2-Methylphenol	68.23	11	107.5	0	63.5	51-115	81.53	17.8	30	
2-Nitroaniline	54.59	11	53.76	0	102	64-128	57.95	5.98	30	
2-Nitrophenol	85.86	11	107.5	0	79.8	60-119	90.57	5.34	30	
3-Nitroaniline	41.16	11	53.76	0	76.6	61-118	39.23	4.8	30	
4-Methylphenol	83.48	11	161.3	0	51.8	44-115	105.8	23.6	30	
4-Nitroaniline	43.87	11	53.76	0	81.6	61-123	47.63	8.23	30	
4-Nitrophenol	42.3	11	107.5	0	39.3	17-100	46.33	9.09	30	
Acenaphthene	51.83	11	53.76	0	96.4	68-115	55.1	6.11	30	
Acenaphthylene	45.53	11	53.76	0	84.7	67-116	48.16	5.62	30	
Aniline	33.44	11	53.76	0	62.2	40-130	39.32	16.1	30	
Anthracene	48.73	11	53.76	0	90.6	70-129	49.38	1.32	30	
Benz(a)anthracene	48.63	11	53.76	0	90.5	55-131	51.28	5.31	30	
Benzidine	7.042	11	53.76	0	13.1	10-115	7.566	0	30	J
Hexachloroethane	45.05	11	53.76	0	83.8	46-115	48.4	7.16	30	
Indeno(1,2,3-cd)pyrene	51.84	11	53.76	0	96.4	42-123	57.17	9.8	30	
Isophorone	45.56	11	53.76	0	84.7	63-117	49.16	7.6	30	
N-Nitrosodi-n-propylamine	46.59	11	53.76	0	86.7	67-115	62.07	28.5	30	
N-Nitrosodimethylamine	29.68	11	53.76	0	55.2	28-115	30.97	4.28	30	
N-Nitrosodiphenylamine	51.28	11	53.76	0	95.4	72-144	52.35	2.06	30	
Naphthalene	40.53	11	53.76	0	75.4	52-115	42.03	3.63	30	
Nitrobenzene	45.66	11	53.76	0	84.9	65-115	47.31	3.55	30	
Pentachlorophenol	88.86	11	107.5	0	82.6	65-123	93.01	4.56	30	
Phenanthrene	47.51	11	53.76	0	88.4	69-119	47.44	0.131	30	
Phenol	29.7	11	107.5	0	27.6	16-115	34.84	15.9	30	
Pyrene	44.55	11	53.76	0	82.9	51-130	46.08	3.39	30	
Surr: 2,4,6-Tribromophenol	96.96	11	107.5	0	90.2	39-153	97.99	1.06	30	
Surr: 2-Fluorobiphenyl	90.45	11	107.5	0	84.1	40-147	92.94	2.71	30	
Surr: 2-Fluorophenol	45.02	11	107.5	0	41.9	21-110	50.23	10.9	30	
Surr: 4-Terphenyl-d14	91.29	11	107.5	0	84.9	39-141	96.09	5.12	30	
Surr: Nitrobenzene-d5	88.55	11	107.5	0	82.4	37-140	90.69	2.38	30	
Surr: Phenol-d6	28.68	11	107.5	0	26.7	11-100	34.21	17.6	30	

The following samples were analyzed in this batch:

0407129-01E 0407129-02E 0407129-03E

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: R21773 InstrumentID: VOA2

MBLK Sample ID: VBLKW-0716 Test Code: SW8260 Units: µg/L Analysis Date: 07/16/04 11:36

Client ID: Run ID: VOA2_040716A SeqNo: 508933 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								
Methyl tert-butyl ether	ND	5.0								
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	46.18	5.0	50	0	92.4	71-126	0			
Surr: 4-Bromofluorobenzene	43.45	5.0	50	0	86.9	74-125	0			
Surr: Dibromofluoromethane	46.91	5.0	50	0	93.8	73-126	0			
Surr: Toluene-d8	46.03	5.0	50	0	92.1	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: R21773 InstrumentID: VOA2

LCS Sample ID: VLCSW-0716 Test Code: SW8260 Units: µg/L Analysis Date: 07/16/04 10:45

Client ID: Run ID: VOA2_040716A SeqNo: 508932 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	48.33	5.0	50	0	96.7	75.2-120	0			
1,1,2,2-Tetrachloroethane	46.74	5.0	50	0	93.5	72.4-121	0			
1,1,2-Trichloroethane	48.19	5.0	50	0	96.4	80-120	0			
1,1-Dichloroethane	46.2	5.0	50	0	92.4	76.9-120	0			
1,1-Dichloroethene	48.47	5.0	50	0	96.9	72.6-123	0			
1,2-Dichloroethane	47.47	5.0	50	0	94.9	80-120	0			
2-Butanone	96.07	10	100	0	96.1	69-131	0			
2-Chloroethyl vinyl ether	98.91	10	100	0	98.9	60-135	0			
2-Hexanone	107.8	10	100	0	108	55.6-126	0			
4-Methyl-2-pentanone	101.1	10	100	0	101	67.4-121	0			
Acetone	115.3	10	100	0	115	64.4-140	0			
Benzene	46.87	5.0	50	0	93.7	80-120	0			
Bromodichloromethane	47.98	5.0	50	0	96	80-120	0			
Bromoform	49.06	5.0	50	0	98.1	77.9-121	0			
Bromomethane	49.31	5.0	50	0	98.6	63.3-137	0			
Carbon disulfide	91.44	10	100	0	91.4	74.1-123	0			
Carbon tetrachloride	48.17	5.0	50	0	96.3	74.7-120	0			
Chlorobenzene	47.23	5.0	50	0	94.5	80-120	0			
Chloroethane	47.18	5.0	50	0	94.4	74.7-126	0			
Chloroform	46.62	5.0	50	0	93.2	80-120	0			
Chloromethane	46.05	5.0	50	0	92.1	64.5-132	0			
cis-1,3-Dichloropropene	48.64	5.0	50	0	97.3	80-120	0			
Dibromochloromethane	49.23	5.0	50	0	98.5	80-120	0			
Ethylbenzene	49.12	5.0	50	0	98.2	80-120	0			
m,p-Xylene	97.84	10	100	0	97.8	80-120	0			
Methyl tert-butyl ether	48.99	5.0	50	0	98	73.7-122	0			
Methylene chloride	43.19	10	50	0	86.4	76.2-120	0			
Styrene	49.32	5.0	50	0	98.6	80-120	0			
Tetrachloroethene	50.79	5.0	50	0	102	68.5-130	0			
Toluene	48.1	5.0	50	0	96.2	80-120	0			
trans-1,3-Dichloropropene	49.04	5.0	50	0	98.1	80-120	0			
Trichloroethene	47.79	5.0	50	0	95.6	78.9-120	0			
Vinyl acetate	104.7	10	100	0	105	62.4-133	0			
Vinyl chloride	49.85	2.0	50	0	99.7	72.7-128	0			
Xylenes, Total	146.7	15	150	0	97.8	80-120	0			
Surr: 1,2-Dichloroethane-d4	42.42	5.0	50	0	84.8	71-126	0			
Surr: 4-Bromofluorobenzene	45.17	5.0	50	0	90.3	74-125	0			
Surr: Dibromofluoromethane	42.37	5.0	50	0	84.7	73-126	0			
Surr: Toluene-d8	45.54	5.0	50	0	91.1	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: R21773 InstrumentID: VOA2

MS Sample ID: 0407107-21AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/16/04 14:08

Client ID: Run ID: VOA2_040716A SeqNo: 508941 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	47.13	5.0	50	0	94.3	75.2-120	0			
1,1,2,2-Tetrachloroethane	54.54	5.0	50	0	109	72.4-121	0			
1,1,2-Trichloroethane	54.37	5.0	50	0	109	80-120	0			
1,1-Dichloroethane	44.81	5.0	50	0	89.6	76.9-120	0			
1,1-Dichloroethene	46.25	5.0	50	0	92.5	72.6-123	0			
1,2-Dichloroethane	53.47	5.0	50	0	107	80-120	0			
2-Butanone	114.4	10	100	0	114	69-131	0			
2-Chloroethyl vinyl ether	18.07	10	100	0	18.1	60-135	0			S
2-Hexanone	119.8	10	100	0	120	55.6-126	0			
4-Methyl-2-pentanone	118.2	10	100	0	118	67.4-121	0			
Acetone	109.1	10	100	0	109	64.4-140	0			
Benzene	49.8	5.0	50	0	99.6	80-120	0			
Bromodichloromethane	52.05	5.0	50	0	104	80-120	0			
Bromoform	54.64	5.0	50	0	109	77.9-121	0			
Bromomethane	44.65	5.0	50	0	89.3	63.3-137	0			
Carbon disulfide	89.58	10	100	0	89.6	74.1-123	0			
Carbon tetrachloride	45.24	5.0	50	0	90.5	74.7-120	0			
Chlorobenzene	49.04	5.0	50	0	98.1	80-120	0			
Chloroethane	47.27	5.0	50	0	94.5	74.7-126	0			
Chloroform	50.5	5.0	50	0	101	80-120	0			
Chloromethane	46.07	5.0	50	0	92.1	64.5-132	0			
cis-1,3-Dichloropropene	53.51	5.0	50	0	107	80-120	0			
Dibromochloromethane	53.41	5.0	50	0	107	80-120	0			
Ethylbenzene	49.13	5.0	50	0	98.3	80-120	0			
m,p-Xylene	98.43	10	100	0	98.4	80-120	0			
Methyl tert-butyl ether	55.56	5.0	50	0	111	73.7-122	0			
Methylene chloride	46.97	10	50	0	93.9	76.2-120	0			
Styrene	51.92	5.0	50	0	104	80-120	0			
Tetrachloroethene	47.41	5.0	50	0	94.8	68.5-130	0			
Toluene	48.77	5.0	50	0	97.5	80-120	0			
trans-1,3-Dichloropropene	55.31	5.0	50	0	111	80-120	0			
Trichloroethene	47.77	5.0	50	0	95.5	78.9-120	0			
Vinyl acetate	126.1	10	100	0	126	62.4-133	0			
Vinyl chloride	46.9	2.0	50	0	93.8	72.7-128	0			
Xylenes, Total	148.8	15	150	0	99.2	80-120	0			
Surr: 1,2-Dichloroethane-d4	44.39	5.0	50	0	88.8	71-126	0			
Surr: 4-Bromofluorobenzene	45.89	5.0	50	0	91.8	74-125	0			
Surr: Dibromofluoromethane	44.31	5.0	50	0	88.6	73-126	0			
Surr: Toluene-d8	45.99	5.0	50	0	92	75-125	0			

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R - RPD outside accepted recovery limits

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: R21773 InstrumentID: VOA2

MSD Sample ID: 0407107-21AMSD Test Code: SW8260 Units: µg/L Analysis Date: 07/16/04 14:34

Client ID: Run ID: VOA2_040716A SeqNo: 508943 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	46.55	5.0	50	0	93.1	75.2-120	47.13	1.23	20	
1,1,2,2-Tetrachloroethane	54.57	5.0	50	0	109	72.4-121	54.54	0.042	20	
1,1,2-Trichloroethane	53.94	5.0	50	0	108	80-120	54.37	0.798	20	
1,1-Dichloroethane	40.69	5.0	50	0	81.4	76.9-120	44.81	9.63	20	
1,1-Dichloroethene	46.34	5.0	50	0	92.7	72.6-123	46.25	0.198	20	
1,2-Dichloroethane	53.85	5.0	50	0	108	80-120	53.47	0.704	20	
2-Butanone	113.9	10	100	0	114	69-131	114.4	0.441	20	
2-Chloroethyl vinyl ether	19.78	10	100	0	19.8	60-135	18.07	9.07	20	S
2-Hexanone	121.9	10	100	0	122	55.6-126	119.8	1.7	20	
4-Methyl-2-pentanone	120.5	10	100	0	120	67.4-121	118.2	1.93	20	
Acetone	107.6	10	100	0	108	64.4-140	109.1	1.41	20	
Benzene	50.31	5.0	50	0	101	80-120	49.8	1.03	20	
Bromodichloromethane	52.91	5.0	50	0	106	80-120	52.05	1.63	20	
Bromoform	55.82	5.0	50	0	112	77.9-121	54.64	2.14	20	
Bromomethane	48.32	5.0	50	0	96.6	63.3-137	44.65	7.9	20	
Carbon disulfide	84.57	10	100	0	84.6	74.1-123	89.58	5.76	20	
Carbon tetrachloride	44.95	5.0	50	0	89.9	74.7-120	45.24	0.646	20	
Chlorobenzene	48.6	5.0	50	0	97.2	80-120	49.04	0.904	20	
Chloroethane	46.97	5.0	50	0	93.9	74.7-126	47.27	0.652	20	
Chloroform	49	5.0	50	0	98	80-120	50.5	3.01	20	
Chloromethane	46.38	5.0	50	0	92.8	64.5-132	46.07	0.675	20	
cis-1,3-Dichloropropene	53.55	5.0	50	0	107	80-120	53.51	0.0726	20	
Dibromochloromethane	53.28	5.0	50	0	107	80-120	53.41	0.247	20	
Ethylbenzene	47.41	5.0	50	0	94.8	80-120	49.13	3.56	20	
m,p-Xylene	95.25	10	100	0	95.3	80-120	98.43	3.28	20	
Methyl tert-butyl ether	56.52	5.0	50	0	113	73.7-122	55.56	1.71	20	
Methylene chloride	45.65	10	50	0	91.3	76.2-120	46.97	2.84	20	
Styrene	50.81	5.0	50	0	102	80-120	51.92	2.16	20	
Tetrachloroethene	46.09	5.0	50	0	92.2	68.5-130	47.41	2.81	20	
Toluene	48.26	5.0	50	0	96.5	80-120	48.77	1.04	20	
trans-1,3-Dichloropropene	55.8	5.0	50	0	112	80-120	55.31	0.882	20	
Trichloroethene	48.38	5.0	50	0	96.8	78.9-120	47.77	1.25	20	
Vinyl acetate	123.9	10	100	0	124	62.4-133	126.1	1.78	20	
Vinyl chloride	47.71	2.0	50	0	95.4	72.7-128	46.9	1.73	20	
Xylenes, Total	144.6	15	150	0	96.4	80-120	148.8	2.86	20	
Surr: 1,2-Dichloroethane-d4	44.75	5.0	50	0	89.5	71-126	44.39	0.795	20	
Surr: 4-Bromofluorobenzene	46.51	5.0	50	0	93	74-125	45.89	1.34	20	
Surr: Dibromofluoromethane	43.86	5.0	50	0	87.7	73-126	44.31	1.02	20	
Surr: Toluene-d8	46.32	5.0	50	0	92.6	75-125	45.99	0.7	20	

The following samples were analyzed in this batch:

0407129-01A 0407129-02A 0407129-03A

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

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0407129
Project: Monthly

QC BATCH REPORT

Batch ID: R21788 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-071704 Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509554 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: WLCSW1-071704 Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: Run ID: UV-2101PC_040717A SeqNo: 509555 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1941	0.020	0.2	0	97	80-120	0			

MS Sample ID: 0407129-03DMS Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: RA 307 Run ID: UV-2101PC_040717A SeqNo: 509573 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1963	0.020	0.2	-0.002	99.1	75-125	0			

MSD Sample ID: 0407129-03DMSD Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: RA 307 Run ID: UV-2101PC_040717A SeqNo: 509574 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1936	0.020	0.2	-0.002	97.8	75-125	0.1963	1.38	25	

DUP Sample ID: 0407129-03DDUP Test Code: E335.3 Units: mg/L Analysis Date: 07/17/04 0:00

Client ID: RA 307 Run ID: UV-2101PC_040717A SeqNo: 509572 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	

The following samples were analyzed in this batch:

0407129-01D 0407129-02D 0407129-03D

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

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CLIENT: Navajo Refining Company
 Work Order: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: **R21909** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-072104** Test Code: **E300** Units: **mg/L** Analysis Date: **07/21/04 17:30**

Client ID: Run ID: **WETCHEM_040721H** SeqNo: **512565** 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								
Surr: Dichloroacetic acid (surr)	5.24	0.10	5	0	105	80-120		0		

LCS Sample ID: **WLCSW1-072104** Test Code: **E300** Units: **mg/L** Analysis Date: **07/21/04 17:58**

Client ID: Run ID: **WETCHEM_040721H** SeqNo: **512566** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.02	0.50	10	0	90.2	80-120		0		
Fluoride	1.87	0.10	2	0	93.5	80-120		0		
Sulfate	9.61	1.0	10	0	96.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.43	0.10	5	0	109	80-120		0		

LCS Sample ID: **WLCSW1DUP-072** Test Code: **E300** Units: **mg/L** Analysis Date: **07/21/04 18:27**

Client ID: Run ID: **WETCHEM_040721H** SeqNo: **512567** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.03	0.50	10	0	90.3	80-120		0		
Fluoride	1.91	0.10	2	0	95.5	80-120		0		
Sulfate	9.61	1.0	10	0	96.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.31	0.10	5	0	106	80-120		0		

MS Sample ID: **0407129-02BMS** Test Code: **E300** Units: **mg/L** Analysis Date: **07/21/04 22:43**

Client ID: **RA 1227** Run ID: **WETCHEM_040721H** SeqNo: **512576** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	172.4	2.5	50	124.3	96.3	75-125		0		
Fluoride	10.05	0.50	10	1	90.5	75-125		0		
Sulfate	1768	5.0	50	1772	-9.1	75-125		0		SEO
Surr: Dichloroacetic acid (surr)	27.45	0.50	25	0	110	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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: R21909 InstrumentID: IC201

MSD Sample ID: 0407129-02BMSD Test Code: E300 Units: mg/L Analysis Date: 07/21/04 23:12

Client ID: RA 1227 Run ID: WETCHEM_040721H SeqNo: 512577 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	172.4	2.5	50	124.3	96.1	75-125	172.4	0.058	20	
Fluoride	10.05	0.50	10	1	90.5	75-125	10.05	0	20	
Sulfate	1770	5.0	50	1772	-5.6	75-125	1768	0.0989	20	SEO
Surr: Dichloroacetic acid (surr)	27.05	0.50	25	0	108	80-120	27.45	1.47	20	

DUP Sample ID: 0407129-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/21/04 21:18

Client ID: RA 1227 Run ID: WETCHEM_040721H SeqNo: 512573 Prep Date: DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	124.2	2.5	0	0	0	0-0	124.3	0.0402	20	
Fluoride	1	0.50	0	0	0	0-0	1	0	20	
Surr: Dichloroacetic acid (surr)	27.15	0.50	25	0	109	80-120	27.1	0.184	20	

DUP Sample ID: 0407129-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/22/04 0:09

Client ID: RA 1227 Run ID: WETCHEM_040721H SeqNo: 512579 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	146.5	25	0	0	0	0-0	147	0.341	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1347	50	0	0	0	0-0	1348	0.0742	20	
Surr: Dichloroacetic acid (surr)	276	5.0	250	0	110	80-120	276.5	0.181	20	

DUP Sample ID: 0407165-02BDUP Test Code: E300 Units: mg/L Analysis Date: 07/22/04 5:23

Client ID: Run ID: WETCHEM_040721H SeqNo: 512593 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	267	50	0	0	0	0-0	267	0	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1437	100	0	0	0	0-0	1439	0.139	20	
Surr: Dichloroacetic acid (surr)	554	10	500	0	111	80-120	551	0.543	20	

The following samples were analyzed in this batch:

0407129-01B 0407129-02B 0407129-03B

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: 0407129
 Project: Monthly

QC BATCH REPORT

Batch ID: **R21916** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-072204** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512756** 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: **WLCSW1-072204** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512757** 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)	1000	5.0	0	1	0	0-0	0			
Alkalinity, Carbonate (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Hydroxide (As CaCO3)	ND	5.0	0	0	0	0-0	0			
Alkalinity, Total (As CaCO3)	1000	5.0	1000	0	100	80-120	0			

DUP Sample ID: **0407119-02DDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512775** 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	

DUP Sample ID: **0407217-04BDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **07/22/04 0:00**

Client ID: Run ID: **WETCHEM_040722A** SeqNo: **512776** 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)	470.1	5.0	0	0	0	0-0	470.1	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)	470.1	5.0	0	0	0	0-0	470.1	0	20	

The following samples were analyzed in this batch:

0407129-01B 0407129-02B 0407129-03B

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

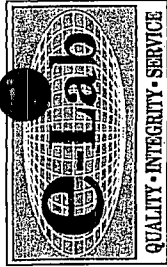
R - RPD outside accepted recovery limits

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 Stancil Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

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

Page of

Customer Information				Project Information				e-Lab Project Manager				e-Lab Work Order #					
Customer Information				Project Information				Parameter/Method Request for Analysis									
Purchase Order	Project Name	Project Number	Monthly	A	B	C	D	E	F	G	H	I	J	Hold			
Work Order	Navajo Refining Company	Bill To Company	Navajo Refining Company														
Company Name	Navajo Refining Company	Invoice Attn	Jeff Byrd														
Send Report To	Jeff Byrd																
Address	P.O. Box 159		P.O. Box 159														
	509 East Main		509 East Main														
City/State/Zip	Artesia, New Mexico 88211		Artesia, New Mexico 88211														
Phone	(505) 748-3311		(505) 748-3311														
Fax	(505) 746-5421		(505) 746-5421														
e-Mail Address																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RA 314	7/12/04	1315	L	1,2,4,8	8	X	X	X	X	X	X	X	X	X	X	X
2	RA 1227	/	1330	/	/	/	X	X	X	X	X	X	X	X	X	X	X
3	RA 307	/	1345	/	/	/	X	X	X	X	X	X	X	X	X	X	X
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:					
Relinquished by: <i>[Signature]</i>				FedEx				☐ STD 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour				☐ 10 Day TAT Standard GC					
Relinquished by: <i>[Signature]</i>				Received by: <i>[Signature]</i>				Notes:									
Logged by (Laboratory):				Received by (Laboratory):				e-Lab Cooler ID				Cooler Temp.					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C				Checked by (Laboratory):				QC Package: (Check One Box Below)				TRRP Checklist					
								☐ Level III Std QC Raw Data ☐ TRRP Level IV				☐ Level IV SW9418/CLP ☐ Other					

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

e-Lab Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 7/13/2004 9:20:00 AM

Work Order Number 0407129

Received by: RSZ

Checklist completed by

Signature

Date

Reviewed by

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):

3.6c

002

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:

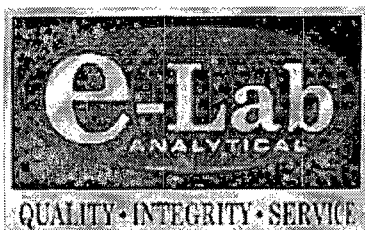
Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



e-Lab Analytical, Inc.

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

July 14, 2004

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

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

Re: Monthly

Work Order : **0406330**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 3 samples on 6/29/2004 8:40:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, 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,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0406330

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0406330-01	RA4798	Water		6/28/2004 09:15	6/29/2004 08:40	☐
0406330-02	RA3156	Water		6/28/2004 10:00	6/29/2004 08:40	☐
0406330-03	RA3333	Water		6/28/2004 10:10	6/29/2004 08:40	☐

e-Lab Analytical, Inc.**Date:** *July 14, 2004*

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0406330

Case Narrative

Batch 9490 Metals MS/MSD was an unrelated sample.

BatchR21572 Volatiles (sample RA4798) MS/MSD recoveries were outside of control limits for 2-Chloroethyl vinyl ether (10.4% and 5.39%). 2-Chloroethyl vinyl ether decomposes very quickly when introduced into an acidic matrix.

e-Lab Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-01

Client Sample ID: RA4798
Collection Date: 6/28/2004 9:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	7/7/2004 1:41:12 PM
ICP METALS, TOTAL						
Aluminum	0.0160	0.0100		mg/L	1	7/6/2004 9:53:00 PM
Arsenic	ND	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Barium	0.00836	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Beryllium	ND	0.00200		mg/L	1	7/6/2004 9:53:00 PM
Boron	0.182	0.0200		mg/L	1	7/6/2004 9:53:00 PM
Cadmium	ND	0.00100		mg/L	1	7/6/2004 9:53:00 PM
Calcium	486	25.0		mg/L	50	7/6/2004 6:30:00 PM
Chromium	ND	0.00200		mg/L	1	7/6/2004 9:53:00 PM
Cobalt	ND	0.00200		mg/L	1	7/6/2004 9:53:00 PM
Copper	0.0324	0.00200		mg/L	1	7/6/2004 9:53:00 PM
Iron	5.50	0.200		mg/L	1	7/6/2004 9:53:00 PM
Lead	0.0145	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Magnesium	149	2.00		mg/L	10	7/6/2004 6:44:00 PM
Manganese	0.0173	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Molybdenum	ND	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Nickel	0.00522	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Potassium	2.15	0.200		mg/L	1	7/6/2004 9:53:00 PM
Selenium	0.0174	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Silver	ND	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Sodium	113	2.00		mg/L	10	7/6/2004 6:44:00 PM
Vanadium	0.00967	0.00500		mg/L	1	7/6/2004 9:53:00 PM
Zinc	1.27	0.0500		mg/L	10	7/6/2004 6:44:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2-Methylphenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/7/2004 12:52:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/7/2004 12:52:00 PM
4-Methylphenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/7/2004 12:52:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Acenaphthene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Acenaphthylene	ND	10		µg/L	1	7/7/2004 12:52:00 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-01

Client Sample ID: RA4798
Collection Date: 6/28/2004 9:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Anthracene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Benzidine	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Hexachloroethane	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Isophorone	ND	10		µg/L	1	7/7/2004 12:52:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/7/2004 12:52:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/7/2004 12:52:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Naphthalene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Nitrobenzene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Phenanthrene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Phenol	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Pyrene	ND	10		µg/L	1	7/7/2004 12:52:00 PM
Surr: 2,4,6-Tribromophenol	87.2	39-153		%REC	1	7/7/2004 12:52:00 PM
Surr: 2-Fluorobiphenyl	79.5	40-147		%REC	1	7/7/2004 12:52:00 PM
Surr: 2-Fluorophenol	36.6	21-110		%REC	1	7/7/2004 12:52:00 PM
Surr: 4-Terphenyl-d14	92.4	39-141		%REC	1	7/7/2004 12:52:00 PM
Surr: Nitrobenzene-d5	73.4	37-140		%REC	1	7/7/2004 12:52:00 PM
Surr: Phenol-d6	20.8	11-100		%REC	1	7/7/2004 12:52:00 PM

VOLATILES BY GC/MS**SW8260**

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
2-Butanone	ND	10		µg/L	1	7/7/2004 1:50:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/7/2004 1:50:00 PM
2-Hexanone	ND	10		µg/L	1	7/7/2004 1:50:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/7/2004 1:50:00 PM
Acetone	ND	10		µg/L	1	7/7/2004 1:50:00 PM
Benzene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Bromoform	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Bromomethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Carbon disulfide	ND	10		µg/L	1	7/7/2004 1:50:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/7/2004 1:50:00 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-01

Client Sample ID: RA4798
Collection Date: 6/28/2004 9:15:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Chloroethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Chloroform	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Chloromethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
m,p-Xylene	ND	10		µg/L	1	7/7/2004 1:50:00 PM
Methyl tert-butyl ether	5.2	5.0		µg/L	1	7/7/2004 1:50:00 PM
Methylene chloride	ND	10		µg/L	1	7/7/2004 1:50:00 PM
o-Xylene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Styrene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Toluene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/7/2004 1:50:00 PM
Vinyl acetate	ND	10		µg/L	1	7/7/2004 1:50:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/7/2004 1:50:00 PM
Xylenes, Total	ND	15		µg/L	1	7/7/2004 1:50:00 PM
Surr: 1,2-Dichloroethane-d4	89.0	71-126		%REC	1	7/7/2004 1:50:00 PM
Surr: 4-Bromofluorobenzene	86.2	74-125		%REC	1	7/7/2004 1:50:00 PM
Surr: Dibromofluoromethane	90.8	73-126		%REC	1	7/7/2004 1:50:00 PM
Surr: Toluene-d8	89.7	75-125		%REC	1	7/7/2004 1:50:00 PM

ANIONS BY ION CHROMATOGRAPHY
E300

 Analyst: **MG**

Chloride	208	50.0	mg/L	100	7/8/2004 9:10:00 PM
Fluoride	0.600	0.100	mg/L	1	7/8/2004 8:42:00 PM
Sulfate	1,470	100	mg/L	100	7/8/2004 9:10:00 PM
Surr: Dichloroacetic acid (surr)	106	80-120	%REC	100	7/8/2004 9:10:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120	%REC	1	7/8/2004 8:42:00 PM

ALKALINITY
E310.1

 Analyst: **HDO**

Alkalinity, Bicarbonate (As CaCO3)	240	5.00	mg/L	1	6/30/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00	mg/L	1	6/30/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00	mg/L	1	6/30/2004
Alkalinity, Total (As CaCO3)	240	5.00	mg/L	1	6/30/2004

CYANIDE, TOTAL
E335.3

 Analyst: **HDO**

Cyanide	ND	0.0200	mg/L	1	7/2/2004
---------	----	--------	------	---	----------

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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-02

Client Sample ID: RA3156
Collection Date: 6/28/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL					
		SW7470		Prep Date: 7/6/2004	Analyst: JCJ
Mercury	ND	0.000200	mg/L	1	7/7/2004 1:15:42 PM
ICP METALS, TOTAL					
		SW6020		Prep Date: 7/6/2004	Analyst: ALR
Aluminum	ND	0.0100	mg/L	1	7/6/2004 9:57:00 PM
Arsenic	ND	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Barium	0.00808	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Beryllium	ND	0.00200	mg/L	1	7/6/2004 9:57:00 PM
Boron	0.187	0.0200	mg/L	1	7/6/2004 9:57:00 PM
Cadmium	ND	0.00100	mg/L	1	7/6/2004 9:57:00 PM
Calcium	533	25.0	mg/L	50	7/6/2004 6:35:00 PM
Chromium	ND	0.00200	mg/L	1	7/6/2004 9:57:00 PM
Cobalt	ND	0.00200	mg/L	1	7/6/2004 9:57:00 PM
Copper	0.00399	0.00200	mg/L	1	7/6/2004 9:57:00 PM
Iron	1.59	0.200	mg/L	1	7/6/2004 9:57:00 PM
Lead	ND	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Magnesium	146	2.00	mg/L	10	7/6/2004 6:48:00 PM
Manganese	0.00970	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Molybdenum	ND	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Nickel	0.00698	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Potassium	2.46	0.200	mg/L	1	7/6/2004 9:57:00 PM
Selenium	0.0127	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Silver	ND	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Sodium	163	2.00	mg/L	10	7/6/2004 6:48:00 PM
Vanadium	ND	0.00500	mg/L	1	7/6/2004 9:57:00 PM
Zinc	0.0708	0.00500	mg/L	1	7/6/2004 9:57:00 PM
SEMIVOLATILE ORGANICS BY GC/MS					
		SW8270		Prep Date: 7/1/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2,4,5-Trichlorophenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2,4,6-Trichlorophenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2-Methylnaphthalene	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2-Methylphenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2-Nitroaniline	ND	10	µg/L	1	7/6/2004 9:23:00 PM
2-Nitrophenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
3-Nitroaniline	ND	10	µg/L	1	7/6/2004 9:23:00 PM
4-Methylphenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
4-Nitroaniline	ND	10	µg/L	1	7/6/2004 9:23:00 PM
4-Nitrophenol	ND	10	µg/L	1	7/6/2004 9:23:00 PM
Acenaphthene	ND	10	µg/L	1	7/6/2004 9:23:00 PM
Acenaphthylene	ND	10	µg/L	1	7/6/2004 9:23:00 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company

Client Sample ID: RA3156

Work Order: 0406330

Collection Date: 6/28/2004 10:00:00 AM

Project: Monthly

Lab ID: 0406330-02

Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Anthracene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Benzidine	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Hexachloroethane	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Isophorone	ND	10		µg/L	1	7/6/2004 9:23:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/6/2004 9:23:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/6/2004 9:23:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Naphthalene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Nitrobenzene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Phenanthrene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Phenol	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Pyrene	ND	10		µg/L	1	7/6/2004 9:23:00 PM
Surr: 2,4,6-Tribromophenol	83.3	39-153		%REC	1	7/6/2004 9:23:00 PM
Surr: 2-Fluorobiphenyl	76.1	40-147		%REC	1	7/6/2004 9:23:00 PM
Surr: 2-Fluorophenol	33.0	21-110		%REC	1	7/6/2004 9:23:00 PM
Surr: 4-Terphenyl-d14	90.2	39-141		%REC	1	7/6/2004 9:23:00 PM
Surr: Nitrobenzene-d5	69.3	37-140		%REC	1	7/6/2004 9:23:00 PM
Surr: Phenol-d6	18.8	11-100		%REC	1	7/6/2004 9:23:00 PM
VOLATILES BY GC/MS		SW8260		Analyst: PC		
1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
2-Butanone	ND	10		µg/L	1	7/7/2004 3:06:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/7/2004 3:06:00 PM
2-Hexanone	ND	10		µg/L	1	7/7/2004 3:06:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/7/2004 3:06:00 PM
Acetone	ND	10		µg/L	1	7/7/2004 3:06:00 PM
Benzene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Bromoform	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Bromomethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Carbon disulfide	ND	10		µg/L	1	7/7/2004 3:06:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/7/2004 3:06:00 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company

Client Sample ID: RA3156

Work Order: 0406330

Collection Date: 6/28/2004 10:00:00 AM

Project: Monthly

Lab ID: 0406330-02

Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Chloroethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Chloroform	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Chloromethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
m,p-Xylene	ND	10		µg/L	1	7/7/2004 3:06:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Methylene chloride	ND	10		µg/L	1	7/7/2004 3:06:00 PM
o-Xylene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Styrene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Toluene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/7/2004 3:06:00 PM
Vinyl acetate	ND	10		µg/L	1	7/7/2004 3:06:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/7/2004 3:06:00 PM
Xylenes, Total	ND	15		µg/L	1	7/7/2004 3:06:00 PM
Surr: 1,2-Dichloroethane-d4	91.3	71-126		%REC	1	7/7/2004 3:06:00 PM
Surr: 4-Bromofluorobenzene	91.5	74-125		%REC	1	7/7/2004 3:06:00 PM
Surr: Dibromofluoromethane	94.2	73-126		%REC	1	7/7/2004 3:06:00 PM
Surr: Toluene-d8	94.8	75-125		%REC	1	7/7/2004 3:06:00 PM
ANIONS BY ION CHROMATOGRAPHY				E300	Analyst: MG	
Chloride	226	5.00		mg/L	10	7/8/2004 10:36:00 PM
Fluoride	0.530	0.100		mg/L	1	7/8/2004 10:07:00 PM
Sulfate	1,510	100		mg/L	100	7/8/2004 11:04:00 PM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	100	7/8/2004 11:04:00 PM
Surr: Dichloroacetic acid (surr)	96.2	80-120		%REC	1	7/8/2004 10:07:00 PM
Surr: Dichloroacetic acid (surr)	107	80-120		%REC	10	7/8/2004 10:36:00 PM
ALKALINITY				E310.1	Analyst: HDO	
Alkalinity, Bicarbonate (As CaCO3)	240	5.00		mg/L	1	6/30/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/30/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/30/2004
Alkalinity, Total (As CaCO3)	240	5.00		mg/L	1	6/30/2004
CYANIDE, TOTAL				E335.3	Analyst: HDO	
Cyanide	ND	0.0200		mg/L	1	7/2/2004

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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-03

Client Sample ID: RA3333
Collection Date: 6/28/2004 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	7/6/2004 10:02:00 PM
ICP METALS, TOTAL						
Aluminum	0.0126	0.0100		mg/L	1	7/6/2004 10:02:00 PM
Arsenic	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Barium	0.00757	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Beryllium	ND	0.00200		mg/L	1	7/6/2004 10:02:00 PM
Boron	0.101	0.0200		mg/L	1	7/6/2004 10:02:00 PM
Cadmium	ND	0.00100		mg/L	1	7/6/2004 10:02:00 PM
Calcium	377	25.0		mg/L	50	7/6/2004 6:39:00 PM
Chromium	0.00396	0.00200		mg/L	1	7/6/2004 10:02:00 PM
Cobalt	ND	0.00200		mg/L	1	7/6/2004 10:02:00 PM
Copper	0.00284	0.00200		mg/L	1	7/6/2004 10:02:00 PM
Iron	1.11	0.200		mg/L	1	7/6/2004 10:02:00 PM
Lead	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Magnesium	110	2.00		mg/L	10	7/6/2004 6:53:00 PM
Manganese	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Molybdenum	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Nickel	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Potassium	1.76	0.200		mg/L	1	7/6/2004 10:02:00 PM
Selenium	0.0114	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Silver	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Sodium	85.9	2.00		mg/L	10	7/6/2004 6:53:00 PM
Vanadium	ND	0.00500		mg/L	1	7/6/2004 10:02:00 PM
Zinc	0.503	0.0500		mg/L	10	7/6/2004 6:53:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2-Methylphenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/6/2004 9:53:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/6/2004 9:53:00 PM
4-Methylphenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
4-Nitroaniline	ND	10		µg/L	1	7/6/2004 9:53:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Acenaphthene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Acenaphthylene	ND	10		µg/L	1	7/6/2004 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-03

Client Sample ID: RA3333
Collection Date: 6/28/2004 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Anthracene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Benzidine	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Hexachloroethane	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Isophorone	ND	10		µg/L	1	7/6/2004 9:53:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/6/2004 9:53:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/6/2004 9:53:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Naphthalene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Nitrobenzene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Pentachlorophenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Phenanthrene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Phenol	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Pyrene	ND	10		µg/L	1	7/6/2004 9:53:00 PM
Surr: 2,4,6-Tribromophenol	83.4	39-153		%REC	1	7/6/2004 9:53:00 PM
Surr: 2-Fluorobiphenyl	76.2	40-147		%REC	1	7/6/2004 9:53:00 PM
Surr: 2-Fluorophenol	35.2	21-110		%REC	1	7/6/2004 9:53:00 PM
Surr: 4-Terphenyl-d14	92.1	39-141		%REC	1	7/6/2004 9:53:00 PM
Surr: Nitrobenzene-d5	69.6	37-140		%REC	1	7/6/2004 9:53:00 PM
Surr: Phenol-d6	19.8	11-100		%REC	1	7/6/2004 9:53:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
2-Butanone	ND	10		µg/L	1	7/7/2004 3:57:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/7/2004 3:57:00 PM
2-Hexanone	ND	10		µg/L	1	7/7/2004 3:57:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/7/2004 3:57:00 PM
Acetone	ND	10		µg/L	1	7/7/2004 3:57:00 PM
Benzene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Bromoform	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Bromomethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Carbon disulfide	ND	10		µg/L	1	7/7/2004 3:57:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/7/2004 3:57:00 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 Analytical, Inc.

Date: July 14, 2004

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly
Lab ID: 0406330-03

Client Sample ID: RA3333
Collection Date: 6/28/2004 10:10:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Chloroethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Chloroform	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Chloromethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
m,p-Xylene	ND	10		µg/L	1	7/7/2004 3:57:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Methylene chloride	ND	10		µg/L	1	7/7/2004 3:57:00 PM
o-Xylene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Styrene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Toluene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/7/2004 3:57:00 PM
Vinyl acetate	ND	10		µg/L	1	7/7/2004 3:57:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/7/2004 3:57:00 PM
Xylenes, Total	ND	15		µg/L	1	7/7/2004 3:57:00 PM
Surr: 1,2-Dichloroethane-d4	87.5	71-126		%REC	1	7/7/2004 3:57:00 PM
Surr: 4-Bromofluorobenzene	86.6	74-125		%REC	1	7/7/2004 3:57:00 PM
Surr: Dibromofluoromethane	91.1	73-126		%REC	1	7/7/2004 3:57:00 PM
Surr: Toluene-d8	89.8	75-125		%REC	1	7/7/2004 3:57:00 PM
ANIONS BY ION CHROMATOGRAPHY				E300	Analyst: MG	
Chloride	168	5.00		mg/L	10	7/9/2004 12:02:00 AM
Fluoride	0.570	0.100		mg/L	1	7/8/2004 11:33:00 PM
Sulfate	1,040	100		mg/L	100	7/9/2004 12:30:00 AM
Surr: Dichloroacetic acid (surr)	105	80-120		%REC	100	7/9/2004 12:30:00 AM
Surr: Dichloroacetic acid (surr)	104	80-120		%REC	1	7/8/2004 11:33:00 PM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	10	7/9/2004 12:02:00 AM
ALKALINITY				E310.1	Analyst: HDO	
Alkalinity, Bicarbonate (As CaCO3)	190	5.00		mg/L	1	6/30/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/30/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/30/2004
Alkalinity, Total (As CaCO3)	190	5.00		mg/L	1	6/30/2004
CYANIDE, TOTAL				E335.3	Analyst: HDO	
Cyanide	ND	0.0200		mg/L	1	7/2/2004

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 Analytical, Inc.

Date: Jul 14 2004

CLIENT: Navajo Refining Company
 Work Order: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-070604 Test Code: SW6020 Units: mg/L Analysis Date: 07/06/04 18:12
 Client ID: Run ID: ICP4500_040706A SeqNo: 503501 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.004982	0.010	0	0	0	0-0	0			J
Arsenic	ND	0.0050	0	0	0	0-0	0			
Barium	ND	0.0050	0	0	0	0-0	0			
Beryllium	ND	0.0020	0	0	0	0-0	0			
Boron	ND	0.020	0	0	0	0-0	0			
Cadmium	ND	0.0020	0	0	0	0-0	0			
Calcium	ND	0.50	0	0	0	0-0	0			
Chromium	ND	0.0050	0	0	0	0-0	0			
Cobalt	ND	0.0050	0	0	0	0-0	0			
Copper	ND	0.0050	0	0	0	0-0	0			
Iron	ND	0.20	0	0	0	0-0	0			
Lead	ND	0.0050	0	0	0	0-0	0			
Magnesium	ND	0.20	0	0	0	0-0	0			
Manganese	ND	0.0050	0	0	0	0-0	0			
Molybdenum	ND	0.0050	0	0	0	0-0	0			
Nickel	ND	0.0050	0	0	0	0-0	0			
Potassium	ND	0.20	0	0	0	0-0	0			
Selenium	ND	0.0050	0	0	0	0-0	0			
Silver	ND	0.0050	0	0	0	0-0	0			
Sodium	ND	0.20	0	0	0	0-0	0			
Vanadium	ND	0.0050	0	0	0	0-0	0			

MBLK Sample ID: MBLKW1-070604 Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 14:54
 Client ID: Run ID: ICP7500_040707A SeqNo: 504003 Prep Date: 7/6/2004 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

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

LCS Sample ID: MLCSW1-070604 Test Code: SW6020 Units: mg/L Analysis Date: 07/06/04 18:16

Client ID: Run ID: ICP4500_040706A SeqNo: 503502 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05499	0.010	0.05	0	110	79-126	0			
Arsenic	0.04975	0.0050	0.05	0	99.5	80-121	0			
Barium	0.04615	0.0050	0.05	0	92.3	79.8-119	0			
Beryllium	0.04678	0.0020	0.05	0	93.6	78.9-120	0			
Boron	0.5089	0.020	0.5	0	102	80-120	0			
Cadmium	0.04893	0.0020	0.05	0	97.9	79.1-119	0			
Calcium	4.818	0.50	5	0	96.4	80-121	0			
Chromium	0.04795	0.0050	0.05	0	95.9	79.3-121	0			
Cobalt	0.04711	0.0050	0.05	0	94.2	82-121	0			
Copper	0.04691	0.0050	0.05	0	93.8	83-121	0			
Iron	4.927	0.20	5	0	98.5	80-120	0			
Lead	0.04581	0.0050	0.05	0	91.6	80-118	0			
Magnesium	5.155	0.20	5	0	103	80-120	0			
Manganese	0.04745	0.0050	0.05	0	94.9	82-119	0			
Molybdenum	0.04589	0.0050	0.05	0	91.8	84.6-115	0			
Nickel	0.04747	0.0050	0.05	0	94.9	85-120	0			
Potassium	4.993	0.20	5	0	99.9	80-120	0			
Selenium	0.04934	0.0050	0.05	0	98.7	79.2-118	0			
Silver	0.04735	0.0050	0.05	0	94.7	83-117	0			
Sodium	4.985	0.20	5	0	99.7	82.4-120	0			
Vanadium	0.04767	0.0050	0.05	0	95.3	82.1-119	0			

LCS Sample ID: MLCSW1-070604 Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 14:48

Client ID: Run ID: ICP7500_040707A SeqNo: 504002 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	0.05871	0.0050	0.05	0	117	83-118	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

MS Sample ID: 0406337-01CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/06/04 19:16

Client ID: Run ID: ICP4500_040706A SeqNo: 503515 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1168	0.010	0.05	0.06849	96.6	79-126	0			
Arsenic	0.03283	0.0050	0.05	-0.003976	73.6	80-121	0			S
Beryllium	0.04505	0.0020	0.05	0.00004375	90	78.9-120	0			
Boron	1.933	0.020	0.5	1.416	103	80-120	0			E
Calcium	374.9	0.50	5	366.9	160	80-121	0			SEO
Chromium	0.04097	0.0050	0.05	0.0006952	80.5	79.3-121	0			
Cobalt	0.04167	0.0050	0.05	0.005062	73.2	82-121	0			S
Copper	0.04014	0.0050	0.05	0.009993	60.3	83-121	0			S
Iron	5.227	0.20	5	1.082	82.9	80-120	0			
Magnesium	334.8	0.20	5	317.4	348	80-120	0			SEO
Manganese	5.265	0.0050	0.05	5.298	-66	82-119	0			SEO
Molybdenum	0.05009	0.0050	0.05	0.001607	97	84.6-115	0			
Nickel	0.04036	0.0050	0.05	0.006796	67.1	85-120	0			S
Potassium	35.34	0.20	5	29.62	114	80-120	0			O
Selenium	0.01652	0.0050	0.05	-0.02699	87	79.2-118	0			
Sodium	2000	0.20	5	0	40000	82.4-120	0			SE
Vanadium	0.04551	0.0050	0.05	0.000656	89.7	82.1-119	0			
Zinc	0.05459	0.0050	0.05	0.03111	47	83-118	0			S

MS Sample ID: 0406337-01CMS Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 23:49

Client ID: Run ID: ICP4500_040707B SeqNo: 504597 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.07519	0.0050	0.05	0.02867	93	79.8-119	0			
Cadmium	0.03574	0.0020	0.05	0.00004986	71.4	79.1-119	0			S
Lead	0.05506	0.0050	0.05	0.0001852	110	80-118	0			
Silver	0.03177	0.0050	0.05	0.00009567	63.3	83-117	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

MSD Sample ID: 0406337-01CMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/06/04 19:21

Client ID: Run ID: ICP4500_040706A SeqNo: 503516 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.121	0.010	0.05	0.06849	105	79-126	0.1168	3.53	15	
Arsenic	0.03292	0.0050	0.05	-0.003976	73.8	80-121	0.03283	0.274	15	S
Beryllium	0.04522	0.0020	0.05	0.00004375	90.4	78.9-120	0.04505	0.377	15	
Boron	1.969	0.020	0.5	1.416	111	80-120	1.933	1.85	15	E
Calcium	376.3	0.50	5	366.9	188	80-121	374.9	0.373	15	SEO
Chromium	0.04129	0.0050	0.05	0.0006952	81.2	79.3-121	0.04097	0.778	15	
Cobalt	0.04127	0.0050	0.05	0.005062	72.4	82-121	0.04167	0.965	15	S
Copper	0.04005	0.0050	0.05	0.009993	60.1	83-121	0.04014	0.224	15	S
Iron	5.308	0.20	5	1.082	84.5	80-120	5.227	1.54	15	
Magnesium	342.1	0.20	5	317.4	494	80-120	334.8	2.16	15	SEO
Manganese	5.3	0.0050	0.05	5.298	4	82-119	5.265	0.663	15	SEO
Molybdenum	0.04983	0.0050	0.05	0.001607	96.4	84.6-115	0.05009	0.52	15	
Nickel	0.03939	0.0050	0.05	0.006796	65.2	85-120	0.04036	2.43	15	S
Potassium	35.6	0.20	5	29.62	120	80-120	35.34	0.733	15	O
Selenium	0.01657	0.0050	0.05	-0.02699	87.1	79.2-118	0.01652	0.302	15	
Sodium	ND	0.20	5	0	0	82.4-120	2000	0	15	S
Vanadium	0.04507	0.0050	0.05	0.000656	88.8	82.1-119	0.04551	0.972	15	
Zinc	0.05288	0.0050	0.05	0.03111	43.5	83-118	0.05459	3.18	15	S

MSD Sample ID: 0406337-01CMSD Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 23:54

Client ID: Run ID: ICP4500_040707B SeqNo: 504598 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.07585	0.0050	0.05	0.02867	94.4	79.8-119	0.07519	0.874	15	
Cadmium	0.03626	0.0020	0.05	0.00004986	72.4	79.1-119	0.03574	1.44	15	S
Lead	0.05553	0.0050	0.05	0.0001852	111	80-118	0.05506	0.85	15	
Silver	0.03278	0.0050	0.05	0.00009567	65.4	83-117	0.03177	3.13	15	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/06/04 19:11

Client ID: Run ID: ICP4500_040706A SeqNo: 503514 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.06909	0.010	0	0	0	0-0	0.06849	0.872	25	
Arsenic	ND	0.0050	0	0	0	0-0	-0.003976	0	25	
Beryllium	ND	0.0020	0	0	0	0-0	0.00004375	0	25	
Chromium	0.0005406	0.0050	0	0	0	0-0	0.0006952	0	25	J
Cobalt	0.005136	0.0050	0	0	0	0-0	0.005062	1.45	25	
Copper	0.01003	0.0050	0	0	0	0-0	0.009993	0.37	25	
Iron	1.169	0.20	0	0	0	0-0	1.082	7.73	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001607	0	25	
Nickel	0.006803	0.0050	0	0	0	0-0	0.006796	0.103	25	
Potassium	31.35	0.20	0	0	0	0-0	29.62	5.67	25	
Selenium	ND	0.0050	0	0	0	0-0	-0.02699	0	25	
Vanadium	0.0005084	0.0050	0	0	0	0-0	0.000656	0	25	J
Zinc	0.02778	0.0050	0	0	0	0-0	0.03111	11.3	25	

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 20:35

Client ID: Run ID: ICP4500_040707B SeqNo: 504579 Prep Date: 7/6/2004 DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	460.1	25	0	0	0	0-0	428.7	7.07	25	
Manganese	7.434	0.25	0	0	0	0-0	7.087	4.78	25	

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 20:44

Client ID: Run ID: ICP4500_040707B SeqNo: 504581 Prep Date: 7/6/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1.912	0.10	0	0	0	0-0	1.815	5.21	25	

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/07/04 23:44

Client ID: Run ID: ICP4500_040707B SeqNo: 504596 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	0.02877	0.0050	0	0	0	0-0	0.02867	0.348	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00004986	0	25	
Lead	ND	0.0050	0	0	0	0-0	0.0001852	0	25	
Silver	ND	0.0050	0	0	0	0-0	0.00009567	0	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: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: 9490 InstrumentID: ICP4500

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/09/04 14:04

Client ID: Run ID: ICP4500_040709A SeqNo: 505590 Prep Date: 7/6/2004 DF: 500

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	3543	100	0	0	0	0-0	3187	10.6	25	

DUP Sample ID: 0406337-01CDUP Test Code: SW6020 Units: mg/L Analysis Date: 07/09/04 14:13

Client ID: Run ID: ICP4500_040709A SeqNo: 505592 Prep Date: 7/6/2004 DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	384	10	0	0	0	0-0	382	0.522	25	

The following samples were analyzed in this batch:

0406330-01C 0406330-02C 0406330-03C

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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9504 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-070604 Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 12:54

Client ID: Run ID: MERCURY_040707B SeqNo: 503911 Prep Date: 7/6/2004 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: GLCSW2-070604 Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 12:56

Client ID: Run ID: MERCURY_040707B SeqNo: 503912 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00514	0.00020	0.005	0	103	83-115	0			

LCSD Sample ID: GLCSDW2-070604 Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 13:02

Client ID: Run ID: MERCURY_040707B SeqNo: 503913 Prep Date: 7/6/2004 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	0.00514	1.37	20	

MS Sample ID: 0407036-02AMS Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 13:11

Client ID: Run ID: MERCURY_040707B SeqNo: 503916 Prep Date: 7/6/2004 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	-0.000013	102	83-115	0			

MSD Sample ID: 0407036-02AMSD Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 13:12

Client ID: Run ID: MERCURY_040707B SeqNo: 503917 Prep Date: 7/6/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00518	0.00020	0.005	-0.000013	104	83-115	0.00508	1.95	20	

DUP Sample ID: 0407036-02ADUP Test Code: SW7470 Units: mg/L Analysis Date: 07/07/04 13:09

Client ID: Run ID: MERCURY_040707B SeqNo: 503915 Prep Date: 7/6/2004 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	-0.000013	0	20	

The following samples were analyzed in this batch:

0406330-01C 0406330-02C 0406330-03C

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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9473 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040701 Test Code: SW8270 Units: µg/L Analysis Date: 07/02/04 16:28

Client ID: Run ID: SV-3_040702B SeqNo: 503309 Prep Date: 7/1/2004 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	84.86	10	100	0	84.9	39-153	0			
Surr: 2-Fluorobiphenyl	73.99	10	100	0	74	40-147	0			
Surr: 2-Fluorophenol	40.53	10	100	0	40.5	21-110	0			
Surr: 4-Terphenyl-d14	77.16	10	100	0	77.2	39-141	0			
Surr: Nitrobenzene-d5	73.95	10	100	0	73.9	37-140	0			
Surr: Phenol-d6	24.97	10	100	0	25	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: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: **9473** InstrumentID: **SV-3**

LCS Sample ID: **SLCSW1-040701** Test Code: **SW8270** Units: **µg/L** Analysis Date: **07/02/04 16:54**

Client ID: Run ID: **SV-3_040702B** SeqNo: **503310** Prep Date: **7/1/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	37.31	10	50	0	74.6	50-115	0			
2,4,5-Trichlorophenol	84.54	10	100	0	84.5	68-128	0			
2,4,6-Trichlorophenol	84.31	10	100	0	84.3	66-125	0			
2-Methylnaphthalene	38.1	10	50	0	76.2	47-122	0			
2-Methylphenol	63.68	10	100	0	63.7	51-115	0			
2-Nitroaniline	46.4	10	50	0	92.8	64-128	0			
2-Nitrophenol	81.65	10	100	0	81.7	60-119	0			
3-Nitroaniline	41.02	10	50	0	82	61-118	0			
4-Methylphenol	87.56	10	150	0	58.4	44-115	0			
4-Nitroaniline	45.07	10	50	0	90.1	61-123	0			
4-Nitrophenol	32.25	10	100	0	32.3	17-100	0			
Acenaphthene	42.32	10	50	0	84.6	68-115	0			
Acenaphthylene	42.34	10	50	0	84.7	67-116	0			
Aniline	33.88	10	50	0	67.8	40-130	0			
Anthracene	45.21	10	50	0	90.4	70-129	0			
Benz(a)anthracene	42.65	10	50	0	85.3	55-131	0			
Benzidine	36.69	10	50	0	73.4	10-115	0			
Hexachloroethane	35.33	10	50	0	70.7	46-115	0			
Indeno(1,2,3-cd)pyrene	45.11	10	50	0	90.2	42-123	0			
Isophorone	43.11	10	50	0	86.2	63-117	0			
N-Nitrosodi-n-propylamine	44.76	10	50	0	89.5	67-115	0			
N-Nitrosodimethylamine	23.32	10	50	0	46.6	28-115	0			
N-Nitrosodiphenylamine	47.94	10	50	0	95.9	72-144	0			
Naphthalene	37.62	10	50	0	75.2	52-115	0			
Nitrobenzene	39.46	10	50	0	78.9	65-115	0			
Pentachlorophenol	82.46	10	100	0	82.5	65-123	0			
Phenanthrene	40.24	10	50	0	80.5	69-119	0			
Phenol	32.05	10	100	0	32	16-115	0			
Pyrene	41.47	10	50	0	82.9	51-130	0			
Surr: 2,4,6-Tribromophenol	88.93	10	100	0	88.9	39-153	0			
Surr: 2-Fluorobiphenyl	76.85	10	100	0	76.8	40-147	0			
Surr: 2-Fluorophenol	46.6	10	100	0	46.6	21-110	0			
Surr: 4-Terphenyl-d14	77.43	10	100	0	77.4	39-141	0			
Surr: Nitrobenzene-d5	77.08	10	100	0	77.1	37-140	0			
Surr: Phenol-d6	29.12	10	100	0	29.1	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: 9473 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040701 Test Code: SW8270 Units: µg/L Analysis Date: 07/02/04 17:21

Client ID: Run ID: SV-3_040702B SeqNo: 503311 Prep Date: 7/1/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	35.37	10	50	0	70.7	50-115	37.31	5.32	30	
2,4,5-Trichlorophenol	80.34	10	100	0	80.3	68-128	84.54	5.09	30	
2,4,6-Trichlorophenol	81.77	10	100	0	81.8	66-125	84.31	3.06	30	
2-Methylnaphthalene	37.43	10	50	0	74.9	47-122	38.1	1.77	30	
2-Methylphenol	61.52	10	100	0	61.5	51-115	63.68	3.45	30	
2-Nitroaniline	45.36	10	50	0	90.7	64-128	46.4	2.27	30	
2-Nitrophenol	77.47	10	100	0	77.5	60-119	81.65	5.26	30	
3-Nitroaniline	41.23	10	50	0	82.5	61-118	41.02	0.53	30	
4-Methylphenol	85.22	10	150	0	56.8	44-115	87.56	2.72	30	
4-Nitroaniline	44.31	10	50	0	88.6	61-123	45.07	1.7	30	
4-Nitrophenol	32.64	10	100	0	32.6	17-100	32.25	1.2	30	
Acenaphthene	40.94	10	50	0	81.9	68-115	42.32	3.31	30	
Acenaphthylene	40.52	10	50	0	81	67-116	42.34	4.41	30	
Aniline	31.37	10	50	0	62.7	40-130	33.88	7.69	30	
Anthracene	44.45	10	50	0	88.9	70-129	45.21	1.69	30	
Benz(a)anthracene	41.36	10	50	0	82.7	55-131	42.65	3.05	30	
Benzidine	33.37	10	50	0	66.7	10-115	36.69	9.5	30	
Hexachloroethane	33.75	10	50	0	67.5	46-115	35.33	4.56	30	
Indeno(1,2,3-cd)pyrene	44.44	10	50	0	88.9	42-123	45.11	1.51	30	
Isophorone	40.29	10	50	0	80.6	63-117	43.11	6.75	30	
N-Nitrosodi-n-propylamine	41.72	10	50	0	83.4	67-115	44.76	7.03	30	
N-Nitrosodimethylamine	23.5	10	50	0	47	28-115	23.32	0.761	30	
N-Nitrosodiphenylamine	47.04	10	50	0	94.1	72-144	47.94	1.9	30	
Naphthalene	36.48	10	50	0	73	52-115	37.62	3.08	30	
Nitrobenzene	37.92	10	50	0	75.8	65-115	39.46	4	30	
Pentachlorophenol	78.76	10	100	0	78.8	65-123	82.46	4.59	30	
Phenanthrene	40.42	10	50	0	80.8	69-119	40.24	0.437	30	
Phenol	31.48	10	100	0	31.5	16-115	32.05	1.78	30	
Pyrene	40.72	10	50	0	81.4	51-130	41.47	1.84	30	
Surr: 2,4,6-Tribromophenol	86.83	10	100	0	86.8	39-153	88.93	2.4	30	
Surr: 2-Fluorobiphenyl	76.16	10	100	0	76.2	40-147	76.85	0.904	30	
Surr: 2-Fluorophenol	45.95	10	100	0	45.9	21-110	46.6	1.41	30	
Surr: 4-Terphenyl-d14	77.7	10	100	0	77.7	39-141	77.43	0.35	30	
Surr: Nitrobenzene-d5	73.63	10	100	0	73.6	37-140	77.08	4.58	30	
Surr: Phenol-d6	29.02	10	100	0	29	11-100	29.12	0.361	30	

The following samples were analyzed in this batch:

0406330-01B 0406330-02B 0406330-03B

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: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: **R21572** InstrumentID: **VOA2**

MBLK Sample ID: **VBLKW-0707** Test Code: **SW8260** Units: **µg/L** Analysis Date: **07/07/04 11:16**

Client ID: Run ID: **VOA2_040707A** SeqNo: **503886** 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								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
o-Xylene	ND	5.0								
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	48.05	5.0	50	0	96.1	71-126		0		
Surr: 4-Bromofluorobenzene	43	5.0	50	0	86	74-125		0		
Surr: Dibromofluoromethane	50.44	5.0	50	0	101	73-126		0		
Surr: Toluene-d8	44.86	5.0	50	0	89.7	75-125		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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: R21572 InstrumentID: VOA2

LCS Sample ID: VLCSW-0707 Test Code: SW8260 Units: µg/L Analysis Date: 07/07/04 10:26

Client ID: Run ID: VOA2_040707A SeqNo: 503885 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	75.2-120	0			
1,1,2,2-Tetrachloroethane	47.07	5.0	50	0	94.1	72.4-121	0			
1,1,2-Trichloroethane	49.96	5.0	50	0	99.9	80-120	0			
1,1-Dichloroethane	50.66	5.0	50	0	101	76.9-120	0			
1,1-Dichloroethene	50.84	5.0	50	0	102	72.6-123	0			
1,2-Dichloroethane	50.86	5.0	50	0	102	80-120	0			
2-Butanone	99.27	10	100	0	99.3	69-131	0			
2-Chloroethyl vinyl ether	102.3	10	100	0	102	60-135	0			
2-Hexanone	99.26	10	100	0	99.3	55.6-126	0			
4-Methyl-2-pentanone	96.55	10	100	0	96.6	67.4-121	0			
Acetone	97.04	10	100	0	97	64.4-140	0			
Benzene	50.68	5.0	50	0	101	80-120	0			
Bromodichloromethane	50.48	5.0	50	0	101	80-120	0			
Bromoform	49.19	5.0	50	0	98.4	77.9-121	0			
Bromomethane	54.06	5.0	50	0	108	63.3-137	0			
Carbon disulfide	100.5	10	100	0	100	74.1-123	0			
Carbon tetrachloride	51.11	5.0	50	0	102	74.7-120	0			
Chlorobenzene	49.39	5.0	50	0	98.8	80-120	0			
Chloroethane	50.07	5.0	50	0	100	74.7-126	0			
Chloroform	50.47	5.0	50	0	101	80-120	0			
Chloromethane	44.3	5.0	50	0	88.6	64.5-132	0			
cis-1,3-Dichloropropene	52.06	5.0	50	0	104	80-120	0			
Dibromochloromethane	50.13	5.0	50	0	100	80-120	0			
Ethylbenzene	51.92	5.0	50	0	104	80-120	0			
m,p-Xylene	104.7	10	100	0	105	80-120	0			
Methyl tert-butyl ether	50.23	5.0	50	0	100	73.7-122	0			
Methylene chloride	49.28	10	50	0	98.6	76.2-120	0			
o-Xylene	52.27	5.0	50	0	105	80-120	0			
Styrene	51.84	5.0	50	0	104	80-120	0			
Tetrachloroethene	52.59	5.0	50	0	105	68.5-130	0			
Toluene	49.95	5.0	50	0	99.9	80-120	0			
trans-1,3-Dichloropropene	52.61	5.0	50	0	105	80-120	0			
Trichloroethene	51.09	5.0	50	0	102	78.9-120	0			
Vinyl acetate	102	10	100	0	102	62.4-133	0			
Vinyl chloride	50.95	2.0	50	0	102	72.7-128	0			
Xylenes, Total	157	15	150	0	105	80-120	0			
Surr: 1,2-Dichloroethane-d4	44	5.0	50	0	88	71-126	0			
Surr: 4-Bromofluorobenzene	45.94	5.0	50	0	91.9	74-125	0			
Surr: Dibromofluoromethane	45.26	5.0	50	0	90.5	73-126	0			
Surr: Toluene-d8	46.99	5.0	50	0	94	75-125	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: R21572 InstrumentID: VOA2

MS Sample ID: 0406330-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/07/04 14:15

Client ID: RA4798 Run ID: VOA2_040707A SeqNo: 504050 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	51.38	5.0	50	0	103	75.2-120	0			
1,1,2,2-Tetrachloroethane	46.46	5.0	50	0	92.9	72.4-121	0			
1,1,2-Trichloroethane	51.05	5.0	50	0	102	80-120	0			
1,1-Dichloroethane	51.3	5.0	50	0	103	76.9-120	0			
1,1-Dichloroethene	49.54	5.0	50	0	99.1	72.6-123	0			
1,2-Dichloroethane	52.73	5.0	50	1.402	103	80-120	0			
2-Butanone	91.7	10	100	0	91.7	69-131	0			
2-Chloroethyl vinyl ether	10.36	10	100	0	10.4	60-135	0			S
2-Hexanone	89.63	10	100	0	89.6	55.6-126	0			
4-Methyl-2-pentanone	95.16	10	100	0	95.2	67.4-121	0			
Acetone	75.56	10	100	0	75.6	64.4-140	0			
Benzene	50.84	5.0	50	0	102	80-120	0			
Bromodichloromethane	51.2	5.0	50	0	102	80-120	0			
Bromoform	49.3	5.0	50	0	98.6	77.9-121	0			
Bromomethane	52.9	5.0	50	0	106	63.3-137	0			
Carbon disulfide	103.5	10	100	0	103	74.1-123	0			
Carbon tetrachloride	49.69	5.0	50	0	99.4	74.7-120	0			
Chlorobenzene	48.79	5.0	50	0	97.6	80-120	0			
Chloroethane	52.21	5.0	50	0	104	74.7-126	0			
Chloroform	51.32	5.0	50	0	103	80-120	0			
Chloromethane	48.06	5.0	50	0	96.1	64.5-132	0			
cis-1,3-Dichloropropene	52.17	5.0	50	0	104	80-120	0			
Dibromochloromethane	50.12	5.0	50	0	100	80-120	0			
Ethylbenzene	50.59	5.0	50	0	101	80-120	0			
m,p-Xylene	102	10	100	0	102	80-120	0			
Methyl tert-butyl ether	55.06	5.0	50	5.185	99.8	73.7-122	0			
Methylene chloride	50.97	10	50	0	102	76.2-120	0			
o-Xylene	51.19	5.0	50	0	102	80-120	0			
Styrene	50.91	5.0	50	0	102	80-120	0			
Tetrachloroethene	50.98	5.0	50	0	102	68.5-130	0			
Toluene	49.95	5.0	50	0	99.9	80-120	0			
trans-1,3-Dichloropropene	52.22	5.0	50	0	104	80-120	0			
Trichloroethene	48.44	5.0	50	0	96.9	78.9-120	0			
Vinyl acetate	111.3	10	100	0	111	62.4-133	0			
Vinyl chloride	51.32	2.0	50	0	103	72.7-128	0			
Xylenes, Total	153.2	15	150	0	102	80-120	0			
Surr: 1,2-Dichloroethane-d4	43.58	5.0	50	0	87.2	71-126	0			
Surr: 4-Bromofluorobenzene	45.1	5.0	50	0	90.2	74-125	0			
Surr: Dibromofluoromethane	46.83	5.0	50	0	93.7	73-126	0			
Surr: Toluene-d8	45.68	5.0	50	0	91.4	75-125	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: R21572 InstrumentID: VOA2

MSD Sample ID: 0406330-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 07/07/04 15:32

Client ID: RA4798 Run ID: VOA2_040707A SeqNo: 504051 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	44.92	5.0	50	0	89.8	75.2-120	51.38	13.4	20	
1,1,2,2-Tetrachloroethane	50.85	5.0	50	0	102	72.4-121	46.46	9.02	20	
1,1,2-Trichloroethane	51.42	5.0	50	0	103	80-120	51.05	0.719	20	
1,1-Dichloroethane	48.49	5.0	50	0	97	76.9-120	51.3	5.64	20	
1,1-Dichloroethene	44.51	5.0	50	0	89	72.6-123	49.54	10.7	20	
1,2-Dichloroethane	52.87	5.0	50	1.402	103	80-120	52.73	0.251	20	
2-Butanone	102.1	10	100	0	102	69-131	91.7	10.7	20	
2-Chloroethyl vinyl ether	5.39	10	100	0	5.39	60-135	10.36	0	20	JS
2-Hexanone	98.67	10	100	0	98.7	55.6-126	89.63	9.6	20	
4-Methyl-2-pentanone	103	10	100	0	103	67.4-121	95.16	7.9	20	
Acetone	78.47	10	100	0	78.5	64.4-140	75.56	3.78	20	
Benzene	49.6	5.0	50	0	99.2	80-120	50.84	2.46	20	
Bromodichloromethane	49.73	5.0	50	0	99.5	80-120	51.2	2.91	20	
Bromoform	50.31	5.0	50	0	101	77.9-121	49.3	2.02	20	
Bromomethane	49.82	5.0	50	0	99.6	63.3-137	52.9	6.01	20	
Carbon disulfide	90.72	10	100	0	90.7	74.1-123	103.5	13.1	20	
Carbon tetrachloride	42.43	5.0	50	0	84.9	74.7-120	49.69	15.8	20	
Chlorobenzene	46.78	5.0	50	0	93.6	80-120	48.79	4.21	20	
Chloroethane	46.82	5.0	50	0	93.6	74.7-126	52.21	10.9	20	
Chloroform	50.05	5.0	50	0	100	80-120	51.32	2.51	20	
Chloromethane	42.44	5.0	50	0	84.9	64.5-132	48.06	12.4	20	
cis-1,3-Dichloropropene	51.17	5.0	50	0	102	80-120	52.17	1.94	20	
Dibromochloromethane	50.45	5.0	50	0	101	80-120	50.12	0.671	20	
Ethylbenzene	45.88	5.0	50	0	91.8	80-120	50.59	9.78	20	
m,p-Xylene	91.92	10	100	0	91.9	80-120	102	10.4	20	
Methyl tert-butyl ether	56.28	5.0	50	5.185	102	73.7-122	55.06	2.2	20	
Methylene chloride	47.9	10	50	0	95.8	76.2-120	50.97	6.22	20	
o-Xylene	48.08	5.0	50	0	96.2	80-120	51.19	6.27	20	
Styrene	48.36	5.0	50	0	96.7	80-120	50.91	5.14	20	
Tetrachloroethene	42.62	5.0	50	0	85.2	68.5-130	50.98	17.9	20	
Toluene	47.59	5.0	50	0	95.2	80-120	49.95	4.85	20	
trans-1,3-Dichloropropene	52.69	5.0	50	0	105	80-120	52.22	0.902	20	
Trichloroethene	45.88	5.0	50	0	91.8	78.9-120	48.44	5.42	20	
Vinyl acetate	113.7	10	100	0	114	62.4-133	111.3	2.08	20	
Vinyl chloride	44.89	2.0	50	0	89.8	72.7-128	51.32	13.4	20	
Xylenes, Total	140	15	150	0	93.3	80-120	153.2	9	20	
Surr: 1,2-Dichloroethane-d4	42.71	5.0	50	0	85.4	71-126	43.58	2.02	20	
Surr: 4-Bromofluorobenzene	45.43	5.0	50	0	90.9	74-125	45.1	0.743	20	
Surr: Dibromofluoromethane	44.13	5.0	50	0	88.3	73-126	46.83	5.93	20	
Surr: Toluene-d8	45.73	5.0	50	0	91.5	75-125	45.68	0.121	20	

The following samples were analyzed in this batch:

0406330-01A 0406330-02A 0406330-03A

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: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: **R21454** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-063004** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/30/04 0:00**

Client ID: Run ID: **WETCHEM_040630B** SeqNo: **501355** 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: **WLC SW1-063004** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/30/04 0:00**

Client ID: Run ID: **WETCHEM_040630B** SeqNo: **501356** 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: **0406328-03CDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/30/04 0:00**

Client ID: Run ID: **WETCHEM_040630B** SeqNo: **501364** 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)	350.1	5.0	0	0	0	0-0	350.1	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)	350.1	5.0	0	0	0	0-0	350.1	0	20	

The following samples were analyzed in this batch:

0406330-01D 0406330-02D 0406330-03D

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: 0406330
Project: Monthly

QC BATCH REPORT

Batch ID: R21501 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-070204 Test Code: E335.3 Units: mg/L Analysis Date: 07/02/04 0:00

Client ID: Run ID: UV-2101PC_040702A SeqNo: 502509 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: WLCSW1-070204 Test Code: E335.3 Units: mg/L Analysis Date: 07/02/04 0:00

Client ID: Run ID: UV-2101PC_040702A SeqNo: 502510 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2071	0.020	0.2	0	104	80-120	0			

MS Sample ID: 0406341-01BMS Test Code: E335.3 Units: mg/L Analysis Date: 07/02/04 0:00

Client ID: Run ID: UV-2101PC_040702A SeqNo: 502519 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.17	0.020	0.2	0.00073	84.6	75-125	0			

MSD Sample ID: 0406341-01BMSD Test Code: E335.3 Units: mg/L Analysis Date: 07/02/04 0:00

Client ID: Run ID: UV-2101PC_040702A SeqNo: 502529 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1697	0.020	0.2	0.00073	84.5	75-125	0.17	0.177	25	

DUP Sample ID: 0406341-01BDUP Test Code: E335.3 Units: mg/L Analysis Date: 07/02/04 0:00

Client ID: Run ID: UV-2101PC_040702A SeqNo: 502518 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	0.00073	0	20	

The following samples were analyzed in this batch:

0406330-01E 0406330-02E 0406330-03E

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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: R21613 InstrumentID: IC201

MBLK Sample ID: WBLKW1-070804 Test Code: E300 Units: mg/L Analysis Date: 07/08/04 16:25

Client ID: Run ID: IC201_040708A SeqNo: 505063 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								
Surr: Dichloroacetic acid (surr)	4.98	0.10	5	0	99.6	80-120		0		

LCS Sample ID: WLCSW1-070804 Test Code: E300 Units: mg/L Analysis Date: 07/08/04 16:54

Client ID: Run ID: IC201_040708A SeqNo: 505064 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		0		
Fluoride	2.09	0.10	2	0	104	80-120		0		
Sulfate	10.22	1.0	10	0	102	80-120		0		
Surr: Dichloroacetic acid (surr)	5.81	0.10	5	0	116	80-120		0		

LCSD Sample ID: WLCSDW1-07080 Test Code: E300 Units: mg/L Analysis Date: 07/08/04 17:22

Client ID: Run ID: IC201_040708A SeqNo: 505065 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.71	0.50	10	0	97.1	80-120	9.69	0.206	20	
Fluoride	2.05	0.10	2	0	102	80-120	2.09	1.93	20	
Sulfate	10.23	1.0	10	0	102	80-120	10.22	0.0978	20	
Surr: Dichloroacetic acid (surr)	5.82	0.10	5	0	116	80-120	5.81	0.172	20	

MS Sample ID: 0406344-01EMS Test Code: E300 Units: mg/L Analysis Date: 07/08/04 18:48

Client ID: Run ID: IC201_040708A SeqNo: 505068 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1364	25	500	832.5	106	75-125		0		
Fluoride	103.5	5.0	100	0	103	75-125		0		
Sulfate	566	50	500	86	96	75-125		0		
Surr: Dichloroacetic acid (surr)	272	5.0	250	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: 0406330
 Project: Monthly

QC BATCH REPORT

Batch ID: **R21613** InstrumentID: **IC201**

MSD Sample ID: **0406344-01EMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **07/08/04 19:16**

Client ID: Run ID: **IC201_040708A** SeqNo: **505069** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1334	25	500	832.5	100	75-125	1364	2.3	20	
Fluoride	100.5	5.0	100	0	100	75-125	103.5	2.94	20	
Sulfate	547.5	50	500	86	92.3	75-125	566	3.32	20	
Surr: Dichloroacetic acid (surr)	270	5.0	250	0	108	80-120	272	0.738	20	

DUP Sample ID: **0406344-01EDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **07/08/04 18:19**

Client ID: Run ID: **IC201_040708A** SeqNo: **505067** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	810	25	0	0	0	0-0	832.5	2.74	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	83.5	50	0	0	0	0-0	86	2.95	20	
Surr: Dichloroacetic acid (surr)	273.5	5.0	250	0	109	80-120	271.5	0.734	20	

DUP Sample ID: **0406330-01DDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **07/08/04 21:39**

Client ID: **RA4798** Run ID: **IC201_040708A** SeqNo: **505074** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	207	50	0	0	0	0-0	208	0.482	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1463	100	0	0	0	0-0	1471	0.545	20	
Surr: Dichloroacetic acid (surr)	582	10	500	0	116	80-120	531	9.16	20	

The following samples were analyzed in this batch:

0406330-01D 0406330-02D 0406330-03D

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



e-Lab Analytical, Inc.

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

July 08, 2004

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

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

Re: Monthly

Work Order : **0406294**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 6/24/2004 8:50:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 31.

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

Sincerely,

Jeffrey L Croston

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0406294

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0406294-01	Larve	Water		6/23/2004 10:00	6/24/2004 08:50	☐
0406294-02	RA1227	Water		6/23/2004 09:45	6/24/2004 08:50	☐

e-Lab Analytical, Inc.**Date:** *July 08, 2004***CLIENT:** Navajo Refining Company**Project:** Monthly**Work Order:** 0406294**Case Narrative**

Batch 9390 Metals MS/MSD was an unrelated sample

Batch 9395 Semivolatiles MS/MSD was an unrelated sample.

Batch R21580 Volatiles (sample RA1227) MS/MSD recoveries were outside of control limits for 1,1-Dichloroethane (126% and 121%) and 2-Chloroethyl vinyl ether (0% and 0%, degrades very quickly in an acidic matrix). Both compounds were within QC criteria in the LCS.

e-Lab Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-01

Client Sample ID: Larve
Collection Date: 6/23/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 6/29/2004 Analyst: JCJ 7/1/2004 2:34:23 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	ND	0.0200		mg/L	2	Prep Date: 6/28/2004 Analyst: ALR 7/6/2004 1:20:00 PM
Arsenic	ND	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Barium	0.00739	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Beryllium	ND	0.00400		mg/L	2	7/6/2004 1:20:00 PM
Boron	0.244	0.0400		mg/L	2	7/6/2004 1:20:00 PM
Cadmium	ND	0.00100		mg/L	1	6/29/2004 8:09:00 PM
Calcium	380	25.0		mg/L	50	6/30/2004 4:30:00 PM
Chromium	ND	0.00200		mg/L	1	6/29/2004 8:09:00 PM
Cobalt	ND	0.00200		mg/L	1	6/29/2004 8:09:00 PM
Copper	0.0120	0.00200		mg/L	1	6/29/2004 8:09:00 PM
Iron	0.829	0.200		mg/L	1	6/29/2004 8:09:00 PM
Lead	ND	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Magnesium	152	2.00		mg/L	10	6/30/2004 4:48:00 PM
Manganese	0.00918	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Molybdenum	ND	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Nickel	ND	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Potassium	1.16	0.200		mg/L	1	6/29/2004 8:09:00 PM
Selenium	0.00931	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Silver	ND	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Sodium	109	2.00		mg/L	10	6/30/2004 4:48:00 PM
Vanadium	0.00791	0.00500		mg/L	1	6/29/2004 8:09:00 PM
Zinc	0.0504	0.00500		mg/L	1	6/29/2004 8:09:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 6/28/2004 Analyst: HV 6/29/2004 5:41:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
2-Methylphenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
2-Nitroaniline	ND	10		µg/L	1	6/29/2004 5:41:00 PM
2-Nitrophenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
3-Nitroaniline	ND	10		µg/L	1	6/29/2004 5:41:00 PM
4-Methylphenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
4-Nitroaniline	ND	10		µg/L	1	6/29/2004 5:41:00 PM
4-Nitrophenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Acenaphthene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Acenaphthylene	ND	10		µg/L	1	6/29/2004 5:41:00 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 Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-01

Client Sample ID: Larve
Collection Date: 6/23/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Anthracene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Benz(a)anthracene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Benzidine	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Hexachloroethane	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Isophorone	ND	10		µg/L	1	6/29/2004 5:41:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/29/2004 5:41:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/29/2004 5:41:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Naphthalene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Nitrobenzene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Pentachlorophenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Phenanthrene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Phenol	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Pyrene	ND	10		µg/L	1	6/29/2004 5:41:00 PM
Surr: 2,4,6-Tribromophenol	90.8	39-153		%REC	1	6/29/2004 5:41:00 PM
Surr: 2-Fluorobiphenyl	75.5	40-147		%REC	1	6/29/2004 5:41:00 PM
Surr: 2-Fluorophenol	38.3	21-110		%REC	1	6/29/2004 5:41:00 PM
Surr: 4-Terphenyl-d14	76.6	39-141		%REC	1	6/29/2004 5:41:00 PM
Surr: Nitrobenzene-d5	74.9	37-140		%REC	1	6/29/2004 5:41:00 PM
Surr: Phenol-d6	24.7	11-100		%REC	1	6/29/2004 5:41:00 PM

VOLATILES BY GC/MS**SW8260**

Analyst: HLBW

1,1,1-Trichloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
2-Butanone	ND	10		µg/L	1	7/6/2004 9:08:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	7/6/2004 9:08:00 PM
2-Hexanone	ND	10		µg/L	1	7/6/2004 9:08:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Acetone	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Benzene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Bromoform	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Bromomethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Carbon disulfide	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	7/6/2004 9:08:00 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 Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-01

Client Sample ID: Larve
Collection Date: 6/23/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Chloroethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Chloroform	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Chloromethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
m,p-Xylene	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Methylene chloride	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Styrene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Toluene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Trichloroethene	ND	5.0		µg/L	1	7/6/2004 9:08:00 PM
Vinyl acetate	ND	10		µg/L	1	7/6/2004 9:08:00 PM
Vinyl chloride	ND	2.0		µg/L	1	7/6/2004 9:08:00 PM
Xylenes, Total	ND	15		µg/L	1	7/6/2004 9:08:00 PM
Surr: 1,2-Dichloroethane-d4	105	71-126		%REC	1	7/6/2004 9:08:00 PM
Surr: 4-Bromofluorobenzene	99.7	74-125		%REC	1	7/6/2004 9:08:00 PM
Surr: Dibromofluoromethane	109	73-126		%REC	1	7/6/2004 9:08:00 PM
Surr: Toluene-d8	103	75-125		%REC	1	7/6/2004 9:08:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	119	2.50		mg/L	5	7/7/2004 9:19:00 AM
Fluoride	0.670	0.100		mg/L	1	7/7/2004 8:51:00 AM
Sulfate	1,350	50.0		mg/L	50	7/7/2004 9:48:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	50	7/7/2004 9:48:00 AM
Surr: Dichloroacetic acid (surr)	108	80-120		%REC	1	7/7/2004 8:51:00 AM
Surr: Dichloroacetic acid (surr)	111	80-120		%REC	5	7/7/2004 9:19:00 AM
ALKALINITY		E310.1		Analyst: HDO		
Alkalinity, Bicarbonate (As CaCO3)	270	5.00		mg/L	1	6/28/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/28/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/28/2004
Alkalinity, Total (As CaCO3)	270	5.00		mg/L	1	6/28/2004
CYANIDE, TOTAL		E335.3		Analyst: HDO		
Cyanide	ND	0.0200		mg/L	1	6/26/2004

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 Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-02

Client Sample ID: RA1227
Collection Date: 6/23/2004 9:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		SW7470			Prep Date: 6/29/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	7/1/2004 2:35:55 PM
ICP METALS, TOTAL		SW6020			Prep Date: 6/28/2004	Analyst: ALR
Aluminum	ND	0.0200		mg/L	2	7/6/2004 1:25:00 PM
Arsenic	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Barium	0.00794	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Beryllium	ND	0.00400		mg/L	2	7/6/2004 1:25:00 PM
Boron	0.237	0.0400		mg/L	2	7/6/2004 1:25:00 PM
Cadmium	ND	0.00100		mg/L	1	6/29/2004 8:14:00 PM
Calcium	388	25.0		mg/L	50	6/30/2004 4:44:00 PM
Chromium	ND	0.00200		mg/L	1	6/29/2004 8:14:00 PM
Cobalt	ND	0.00200		mg/L	1	6/29/2004 8:14:00 PM
Copper	0.00891	0.00200		mg/L	1	6/29/2004 8:14:00 PM
Iron	0.516	0.200		mg/L	1	6/29/2004 8:14:00 PM
Lead	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Magnesium	159	2.00		mg/L	10	6/30/2004 4:53:00 PM
Manganese	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Molybdenum	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Nickel	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Potassium	1.04	0.200		mg/L	1	6/29/2004 8:14:00 PM
Selenium	0.00995	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Silver	ND	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Sodium	115	2.00		mg/L	10	6/30/2004 4:53:00 PM
Vanadium	0.00769	0.00500		mg/L	1	6/29/2004 8:14:00 PM
Zinc	0.0103	0.00500		mg/L	1	6/29/2004 8:14:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		SW8270			Prep Date: 6/28/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2-Methylphenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2-Nitroaniline	ND	10		µg/L	1	6/29/2004 6:08:00 PM
2-Nitrophenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
3-Nitroaniline	ND	10		µg/L	1	6/29/2004 6:08:00 PM
4-Methylphenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
4-Nitroaniline	ND	10		µg/L	1	6/29/2004 6:08:00 PM
4-Nitrophenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Acenaphthene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Acenaphthylene	ND	10		µg/L	1	6/29/2004 6:08:00 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 Analytical, Inc.
Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-02

Client Sample ID: RA1227
Collection Date: 6/23/2004 9:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Anthracene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Benz(a)anthracene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Benzidine	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Hexachloroethane	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Isophorone	ND	10		µg/L	1	6/29/2004 6:08:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/29/2004 6:08:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/29/2004 6:08:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Naphthalene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Nitrobenzene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Pentachlorophenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Phenanthrene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Phenol	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Pyrene	ND	10		µg/L	1	6/29/2004 6:08:00 PM
Surr: 2,4,6-Tribromophenol	90.4	39-153		%REC	1	6/29/2004 6:08:00 PM
Surr: 2-Fluorobiphenyl	75.3	40-147		%REC	1	6/29/2004 6:08:00 PM
Surr: 2-Fluorophenol	39.2	21-110		%REC	1	6/29/2004 6:08:00 PM
Surr: 4-Terphenyl-d14	76.0	39-141		%REC	1	6/29/2004 6:08:00 PM
Surr: Nitrobenzene-d5	73.3	37-140		%REC	1	6/29/2004 6:08:00 PM
Surr: Phenol-d6	24.3	11-100		%REC	1	6/29/2004 6:08:00 PM

VOLATILES BY GC/MS
SW8260
Analyst: HLBW

Benzene	ND	5.0		µg/L	1	7/6/2004 9:38:00 PM
Ethylbenzene	ND	5.0		µg/L	1	7/6/2004 9:38:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	7/6/2004 9:38:00 PM
Toluene	ND	5.0		µg/L	1	7/6/2004 9:38:00 PM
Xylenes, Total	ND	15		µg/L	1	7/6/2004 9:38:00 PM
Surr: 1,2-Dichloroethane-d4	107	71-126		%REC	1	7/6/2004 9:38:00 PM
Surr: 4-Bromofluorobenzene	100	74-125		%REC	1	7/6/2004 9:38:00 PM
Surr: Dibromofluoromethane	110	73-126		%REC	1	7/6/2004 9:38:00 PM
Surr: Toluene-d8	105	75-125		%REC	1	7/6/2004 9:38:00 PM

ANIONS BY ION CHROMATOGRAPHY
E300
Analyst: MG

Chloride	128	2.50		mg/L	5	7/7/2004 11:13:00 AM
Fluoride	0.660	0.100		mg/L	1	7/7/2004 10:45:00 AM
Sulfate	1,350	50.0		mg/L	50	7/7/2004 11:42:00 AM
Surr: Dichloroacetic acid (surr)	112	80-120		%REC	1	7/7/2004 10:45:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	50	7/7/2004 11:42:00 AM
Surr: Dichloroacetic acid (surr)	110	80-120		%REC	5	7/7/2004 11:13:00 AM

Qualifiers: ND - Not Detected at the Reporting Limit
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 Analytical, Inc.

Date: July 08, 2004

CLIENT: Navajo Refining Company
Work Order: 0406294
Project: Monthly
Lab ID: 0406294-02

Client Sample ID: RA1227
Collection Date: 6/23/2004 9:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
ALKALINITY						Analyst: HDO
		E310.1				
Alkalinity, Bicarbonate (As CaCO ₃)	290	5.00		mg/L	1	6/28/2004
Alkalinity, Carbonate (As CaCO ₃)	ND	5.00		mg/L	1	6/28/2004
Alkalinity, Hydroxide (As CaCO ₃)	ND	5.00		mg/L	1	6/28/2004
Alkalinity, Total (As CaCO ₃)	290	5.00		mg/L	1	6/28/2004
CYANIDE, TOTAL						Analyst: HDO
		E335.3				
Cyanide	ND	0.0200		mg/L	1	6/26/2004

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 Analytical, Inc.

Date: Jul 08 2004

CLIENT: Navajo Refining Company
 Work Order: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9390 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-062804 Test Code: SW6020 Units: mg/L Analysis Date: 06/29/04 17:22
 Client ID: Run ID: ICP4500_040629A SeqNo: 500814 Prep Date: 6/28/2004 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	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	0.0001076	0.0050								J
Copper	ND	0.0050								
Iron	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	0.002273	0.0050								J
Silver	ND	0.0050								
Sodium	0.1528	0.20								J
Vanadium	ND	0.0050								
Zinc	ND	0.0050								

MBLK Sample ID: MBLKW2-062804 Test Code: SW6020 Units: mg/L Analysis Date: 06/30/04 14:46
 Client ID: Run ID: ICP4500_040630A SeqNo: 501490 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Lead	ND	0.0050								
Magnesium	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: 0406294
Project: Monthly

QC BATCH REPORT

Batch ID: 9390 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-062804 Test Code: SW6020 Units: mg/L Analysis Date: 06/29/04 17:27

Client ID: Run ID: ICP4500_040629A SeqNo: 500815 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04691	0.0050	0.05	0	93.8	80-121	0			
Barium	0.04707	0.0050	0.05	0	94.1	79.8-119	0			
Cadmium	0.05019	0.0020	0.05	0	100	79.1-119	0			
Calcium	5.09	0.50	5	0	102	80-121	0			
Chromium	0.04828	0.0050	0.05	0	96.6	79.3-121	0			
Cobalt	0.04705	0.0050	0.05	0	94.1	82-121	0			
Copper	0.04645	0.0050	0.05	0	92.9	83-121	0			
Iron	5.04	0.20	5	0	101	80-120	0			
Manganese	0.04805	0.0050	0.05	0	96.1	82-119	0			
Molybdenum	0.04537	0.0050	0.05	0	90.7	84.6-115	0			
Nickel	0.04703	0.0050	0.05	0	94.1	85-120	0			
Potassium	5.245	0.20	5	0	105	80-120	0			
Selenium	0.04677	0.0050	0.05	0	93.5	79.2-118	0			
Silver	0.04834	0.0050	0.05	0	96.7	83-117	0			
Sodium	5.615	0.20	5	0	112	82.4-120	0			
Vanadium	0.04837	0.0050	0.05	0	96.7	82.1-119	0			
Zinc	0.04771	0.0050	0.05	0	95.4	83-118	0			

LCS Sample ID: MLCSW2-062804 Test Code: SW6020 Units: mg/L Analysis Date: 06/30/04 14:51

Client ID: Run ID: ICP4500_040630A SeqNo: 501491 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04633	0.010	0.05	0	92.7	79-126	0			
Beryllium	0.047	0.0020	0.05	0	94	78.9-120	0			
Boron	0.4897	0.020	0.5	0	97.9	80-120	0			
Lead	0.04646	0.0050	0.05	0	92.9	80-118	0			
Magnesium	4.948	0.20	5	0	99	80-120	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9390 InstrumentID: ICP4500

MS Sample ID: 0406251-01EMS Test Code: SW6020 Units: mg/L Analysis Date: 06/29/04 17:41

Client ID: Run ID: ICP4500_040629A SeqNo: 500818 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04554	0.0050	0.05	0	91.1	80-121	0			
Barium	0.1973	0.0050	0.05	0.1542	86.2	79.8-119	0			
Cadmium	0.04534	0.0020	0.05	0	90.7	79.1-119	0			
Calcium	128.1	0.50	5	116.7	228	80-121	0			SEO
Chromium	0.04935	0.0050	0.05	0.001183	96.3	79.3-121	0			
Cobalt	0.04703	0.0050	0.05	0.001388	91.3	82-121	0			
Copper	0.04287	0.0050	0.05	0.0008418	84.1	83-121	0			
Iron	5.146	0.20	5	0.23	98.3	80-120	0			
Manganese	0.2156	0.0050	0.05	0.1635	104	82-119	0			
Molybdenum	0.04656	0.0050	0.05	0	93.1	84.6-115	0			
Nickel	0.04665	0.0050	0.05	0.00259	88.1	85-120	0			
Potassium	5.838	0.20	5	0.3831	109	80-120	0			
Selenium	0.04416	0.0050	0.05	0.002243	83.8	79.2-118	0			
Silver	0.04332	0.0050	0.05	0	86.6	83-117	0			
Sodium	1000	0.20	5	172	16600	82.4-120	0			SEO
Vanadium	0.05167	0.0050	0.05	0.0021	99.1	82.1-119	0			
Zinc	0.04231	0.0050	0.05	0	84.6	83-118	0			

MS Sample ID: 0406251-01EMS Test Code: SW6020 Units: mg/L Analysis Date: 06/30/04 15:31

Client ID: Run ID: ICP4500_040630A SeqNo: 501498 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05312	0.010	0.05	0.007138	92	79-126	0			
Beryllium	0.04615	0.0020	0.05	0	92.3	78.9-120	0			
Boron	0.6297	0.020	0.5	0.1241	101	80-120	0			
Lead	0.04557	0.0050	0.05	0	91.1	80-118	0			
Magnesium	39.42	0.20	5	35.61	76.2	80-120	0			SO

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9390 InstrumentID: ICP4500

MSD		Sample ID: 0406251-01EMSD			Test Code: SW6020		Units: mg/L		Analysis Date: 06/29/04 17:45	
Client ID:		Run ID: ICP4500_040629A			SeqNo: 500819		Prep Date: 6/28/2004		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04602	0.0050	0.05	0.001453	89.1	80-121	0.04554	1.05	15	
Barium	0.2009	0.0050	0.05	0.1542	93.4	79.8-119	0.1973	1.81	15	
Cadmium	0.04611	0.0020	0.05	0.00002524	92.2	79.1-119	0.04534	1.68	15	
Calcium	127.5	0.50	5	116.7	216	80-121	128.1	0.469	15	SEO
Chromium	0.0494	0.0050	0.05	0.001183	96.4	79.3-121	0.04935	0.101	15	
Cobalt	0.04702	0.0050	0.05	0.001388	91.3	82-121	0.04703	0.0213	15	
Copper	0.04311	0.0050	0.05	0.0008418	84.5	83-121	0.04287	0.558	15	
Iron	5.161	0.20	5	0.23	98.6	80-120	5.146	0.291	15	
Manganese	0.2158	0.0050	0.05	0.1635	105	82-119	0.2156	0.0927	15	
Molybdenum	0.04732	0.0050	0.05	0.0008308	93	84.6-115	0.04656	1.62	15	
Nickel	0.04608	0.0050	0.05	0.00259	87	85-120	0.04665	1.23	15	
Potassium	5.812	0.20	5	0.3831	109	80-120	5.838	0.446	15	
Selenium	0.04357	0.0050	0.05	0.002243	82.7	79.2-118	0.04416	1.35	15	
Silver	0.04372	0.0050	0.05	0.00002005	87.4	83-117	0.04332	0.919	15	
Sodium	188.2	0.20	5	172	324	82.4-120	0	200	15	SREO
Vanadium	0.05189	0.0050	0.05	0.0021	99.6	82.1-119	0.05167	0.425	15	
Zinc	0.04269	0.0050	0.05	0.0009992	83.4	83-118	0.04231	0.894	15	

MSD		Sample ID: 0406251-01EMSD			Test Code: SW6020		Units: mg/L		Analysis Date: 06/30/04 15:35	
Client ID:		Run ID: ICP4500_040630A			SeqNo: 501499		Prep Date: 6/28/2004		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05584	0.010	0.05	0.007138	97.4	79-126	0.05312	4.99	15	
Beryllium	0.0462	0.0020	0.05	0	92.4	78.9-120	0.04615	0.108	15	
Boron	0.6377	0.020	0.5	0.1241	103	80-120	0.6297	1.26	15	
Lead	0.04659	0.0050	0.05	0	93.2	80-118	0.04557	2.21	15	
Magnesium	39.38	0.20	5	35.61	75.4	80-120	39.42	0.102	15	SO

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9390 InstrumentID: ICP4500

DUP Sample ID: 0406251-01EDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/29/04 17:36

Client ID: Run ID: ICP4500_040629A SeqNo: 500817 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.002562	0.0050	0	0	0	0-0	0.001453	0	25	J
Barium	0.1554	0.0050	0	0	0	0-0	0.1542	0.775	25	
Cadmium	ND	0.0020	0	0	0	0-0	0.00002524	0	25	
Chromium	0.001369	0.0050	0	0	0	0-0	0.001183	0	25	J
Cobalt	0.001401	0.0050	0	0	0	0-0	0.001388	0	25	J
Copper	0.000879	0.0050	0	0	0	0-0	0.0008418	0	25	J
Iron	0.2189	0.20	0	0	0	0-0	0.23	4.95	25	
Manganese	0.1674	0.0050	0	0	0	0-0	0.1635	2.36	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.0008308	0	25	
Nickel	0.002653	0.0050	0	0	0	0-0	0.00259	0	25	J
Potassium	0.3861	0.20	0	0	0	0-0	0.3831	0.78	25	
Selenium	0.004411	0.0050	0	0	0	0-0	0.002243	0	25	J
Silver	ND	0.0050	0	0	0	0-0	0.00002005	0	25	
Vanadium	0.001783	0.0050	0	0	0	0-0	0.0021	0	25	J
Zinc	ND	0.0050	0	0	0	0-0	0.0009992	0	25	

DUP Sample ID: 0406251-01EDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/30/04 15:03

Client ID: Run ID: ICP4500_040630A SeqNo: 501493 Prep Date: 6/28/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	106.5	5.0	0	0	0	0-0	108	1.4	25	
Magnesium	34.48	2.0	0	0	0	0-0	34.75	0.78	25	
Sodium	145.5	2.0	0	0	0	0-0	148.2	1.84	25	

DUP Sample ID: 0406251-01EDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/30/04 15:26

Client ID: Run ID: ICP4500_040630A SeqNo: 501497 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.008939	0.010	0	0	0	0-0	0.007138	0	25	J
Beryllium	ND	0.0020	0	0	0	0-0	0.00009767	0	25	
Boron	0.1184	0.020	0	0	0	0-0	0.1241	4.7	25	
Lead	ND	0.0050	0	0	0	0-0	0.00006626	0	25	

The following samples were analyzed in this batch:

0406294-01C 0406294-02C

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: 0406294
Project: Monthly

QC BATCH REPORT

Batch ID: 9458 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-062904 Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:14

Client ID: Run ID: MERCURY_040701D SeqNo: 502099 Prep Date: 6/29/2004 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: GLCSW2-062904 Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:15

Client ID: Run ID: MERCURY_040701D SeqNo: 502100 Prep Date: 6/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00522	0.00020	0.005	0	104	83-115	0			

LCSD Sample ID: GLCSDW2-062904 Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:17

Client ID: Run ID: MERCURY_040701D SeqNo: 502101 Prep Date: 6/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00517	0.00020	0.005	0	103	83-115	0.00522	0.962	20	

MS Sample ID: 0406290-05DMS Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:22

Client ID: Run ID: MERCURY_040701D SeqNo: 502104 Prep Date: 6/29/2004 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	0.000035	102	83-115	0			

MSD Sample ID: 0406290-05DMSD Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:23

Client ID: Run ID: MERCURY_040701D SeqNo: 502105 Prep Date: 6/29/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00503	0.00020	0.005	0.000035	99.9	83-115	0.00516	2.55	20	

DUP Sample ID: 0406290-05DDUP Test Code: SW7470 Units: mg/L Analysis Date: 07/01/04 14:20

Client ID: Run ID: MERCURY_040701D SeqNo: 502103 Prep Date: 6/29/2004 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	0.000035	0	20	

The following samples were analyzed in this batch:

0406294-01C 0406294-02C

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9395 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040628 Test Code: SW8270 Units: µg/L Analysis Date: 06/29/04 12:00

Client ID: Run ID: SV-3_040628A SeqNo: 502167 Prep Date: 6/28/2004 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	92.9	10	100	0	92.9	39-153	0			
Surr: 2-Fluorobiphenyl	73.09	10	100	0	73.1	40-147	0			
Surr: 2-Fluorophenol	40.34	10	100	0	40.3	21-110	0			
Surr: 4-Terphenyl-d14	78.73	10	100	0	78.7	39-141	0			
Surr: Nitrobenzene-d5	76.02	10	100	0	76	37-140	0			
Surr: Phenol-d6	26.81	10	100	0	26.8	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9395 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040628 Test Code: SW8270 Units: µg/L Analysis Date: 06/29/04 12:26

Client ID: Run ID: SV-3_040628A SeqNo: 502168 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	34.84	10	50	0	69.7	50-115	0			
2,4,5-Trichlorophenol	87.13	10	100	0	87.1	68-128	0			
2,4,6-Trichlorophenol	87.36	10	100	0	87.4	66-125	0			
2-Methylnaphthalene	37.57	10	50	0	75.1	47-122	0			
2-Methylphenol	69.68	10	100	0	69.7	51-115	0			
2-Nitroaniline	49.88	10	50	0	99.8	64-128	0			
2-Nitrophenol	87.16	10	100	0	87.2	60-119	0			
3-Nitroaniline	42.19	10	50	0	84.4	61-118	0			
4-Methylphenol	95.67	10	150	0	63.8	44-115	0			
4-Nitroaniline	48.23	10	50	0	96.5	61-123	0			
4-Nitrophenol	36.63	10	100	0	36.6	17-100	0			
Acenaphthene	43.26	10	50	0	86.5	68-115	0			
Acenaphthylene	43.79	10	50	0	87.6	67-116	0			
Aniline	36.76	10	50	0	73.5	40-130	0			
Anthracene	47.06	10	50	0	94.1	70-129	0			
Benz(a)anthracene	48.37	10	50	0	96.7	55-131	0			
Benzidine	44.26	10	50	0	88.5	10-115	0			
Hexachloroethane	29.06	10	50	0	58.1	46-115	0			
Indeno(1,2,3-cd)pyrene	57.07	10	50	0	114	42-123	0			
Isophorone	44.74	10	50	0	89.5	63-117	0			
N-Nitrosodi-n-propylamine	47.48	10	50	0	95	67-115	0			
N-Nitrosodimethylamine	25.06	10	50	0	50.1	28-115	0			
N-Nitrosodiphenylamine	50.77	10	50	0	102	72-144	0			
Naphthalene	37.11	10	50	0	74.2	52-115	0			
Nitrobenzene	42.28	10	50	0	84.6	65-115	0			
Pentachlorophenol	87.42	10	100	0	87.4	65-123	0			
Phenanthrene	40.68	10	50	0	81.4	69-119	0			
Phenol	36.51	10	100	0	36.5	16-115	0			
Pyrene	44.97	10	50	0	89.9	51-130	0			
Surr: 2,4,6-Tribromophenol	95.21	10	100	0	95.2	39-153	0			
Surr: 2-Fluorobiphenyl	78.25	10	100	0	78.3	40-147	0			
Surr: 2-Fluorophenol	54.51	10	100	0	54.5	21-110	0			
Surr: 4-Terphenyl-d14	84.4	10	100	0	84.4	39-141	0			
Surr: Nitrobenzene-d5	82.02	10	100	0	82	37-140	0			
Surr: Phenol-d6	34.99	10	100	0	35	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9395 InstrumentID: SV-3

MS Sample ID: 0406285-09EMS Test Code: SW8270 Units: µg/L Analysis Date: 06/29/04 16:49

Client ID: Run ID: SV-3_040628A SeqNo: 502170 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	39.74	10	50	0	79.5	50-115	0			
2,4,5-Trichlorophenol	77.6	10	100	0	77.6	68-128	0			
2,4,6-Trichlorophenol	78.49	10	100	0	78.5	66-125	0			
2-Methylnaphthalene	41.61	10	50	1.129	81	47-122	0			
2-Methylphenol	60.85	10	100	0	60.8	51-115	0			
2-Nitroaniline	44.6	10	50	0	89.2	64-128	0			
2-Nitrophenol	85.34	10	100	0	85.3	60-119	0			
3-Nitroaniline	31.11	10	50	0	62.2	61-118	0			
4-Methylphenol	86.45	10	150	0	57.6	44-115	0			
4-Nitroaniline	40.88	10	50	0	81.8	61-123	0			
4-Nitrophenol	30.79	10	100	0	30.8	17-100	0			
Acenaphthene	37.97	10	50	2.566	70.8	68-115	0			
Acenaphthylene	40.94	10	50	0	81.9	67-116	0			
Aniline	20.21	10	50	0	40.4	40-130	0			
Anthracene	47.65	10	50	0	95.3	70-129	0			
Benz(a)anthracene	49.88	10	50	0	99.8	55-131	0			
Benzidine	3.292	10	50	0	6.58	10-115	0			JS
Hexachloroethane	36.84	10	50	0	73.7	46-115	0			
Indeno(1,2,3-cd)pyrene	61.98	10	50	0	124	42-123	0			S
Isophorone	45.09	10	50	0	90.2	63-117	0			
N-Nitrosodi-n-propylamine	45.02	10	50	0	90	67-115	0			
N-Nitrosodimethylamine	18.43	10	50	0	36.9	28-115	0			
N-Nitrosodiphenylamine	51.81	10	50	0	104	72-144	0			
Naphthalene	40.89	10	50	1.119	79.5	52-115	0			
Nitrobenzene	42.24	10	50	0	84.5	65-115	0			
Pentachlorophenol	96.56	10	100	0	96.6	65-123	0			
Phenanthrene	42.38	10	50	1.608	81.5	69-119	0			
Phenol	30.56	10	100	0	30.6	16-115	0			
Pyrene	43.36	10	50	0	86.7	51-130	0			
Surr: 2,4,6-Tribromophenol	89.88	10	100	0	89.9	39-153	0			
Surr: 2-Fluorobiphenyl	73.69	10	100	0	73.7	40-147	0			
Surr: 2-Fluorophenol	45.43	10	100	0	45.4	21-110	0			
Surr: 4-Terphenyl-d14	80.09	10	100	0	80.1	39-141	0			
Surr: Nitrobenzene-d5	80.28	10	100	0	80.3	37-140	0			
Surr: Phenol-d6	29.61	10	100	0	29.6	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: 9395 InstrumentID: SV-3

MSD Sample ID: 0406285-09EMSD Test Code: SW8270 Units: µg/L Analysis Date: 06/29/04 17:15

Client ID: Run ID: SV-3_040628A SeqNo: 502171 Prep Date: 6/28/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	40.23	10	50	0	80.5	50-115	39.74	1.22	30	
2,4,5-Trichlorophenol	85.49	10	100	0	85.5	68-128	77.6	9.68	30	
2,4,6-Trichlorophenol	84.89	10	100	0	84.9	66-125	78.49	7.84	30	
2-Methylnaphthalene	41.6	10	50	1.129	80.9	47-122	41.61	0.0299	30	
2-Methylphenol	60.23	10	100	0	60.2	51-115	60.85	1.02	30	
2-Nitroaniline	50.84	10	50	0	102	64-128	44.6	13.1	30	
2-Nitrophenol	88.03	10	100	0	88	60-119	85.34	3.1	30	
3-Nitroaniline	32.29	10	50	0	64.6	61-118	31.11	3.72	30	
4-Methylphenol	85.3	10	150	0	56.9	44-115	86.45	1.33	30	
4-Nitroaniline	43.75	10	50	0	87.5	61-123	40.88	6.78	30	
4-Nitrophenol	33.03	10	100	0	33	17-100	30.79	7	30	
Acenaphthene	36.94	10	50	2.566	68.8	68-115	37.97	2.74	30	
Acenaphthylene	44.51	10	50	0	89	67-116	40.94	8.35	30	
Aniline	21.55	10	50	0	43.1	40-130	20.21	6.41	30	
Anthracene	50.07	10	50	0	100	70-129	47.65	4.95	30	
Benz(a)anthracene	49.48	10	50	0	99	55-131	49.88	0.802	30	
Benzidine	3.173	10	50	0	6.35	10-115	3.292	0	30	JS
Hexachloroethane	36.22	10	50	0	72.4	46-115	36.84	1.67	30	
Indeno(1,2,3-cd)pyrene	61.76	10	50	0	124	42-123	61.98	0.342	30	S
Isophorone	46.78	10	50	0	93.6	63-117	45.09	3.66	30	
N-Nitrosodi-n-propylamine	46.12	10	50	0	92.2	67-115	45.02	2.41	30	
N-Nitrosodimethylamine	18.75	10	50	0	37.5	28-115	18.43	1.71	30	
N-Nitrosodiphenylamine	55.2	10	50	0	110	72-144	51.81	6.34	30	
Naphthalene	41.24	10	50	1.119	80.2	52-115	40.89	0.852	30	
Nitrobenzene	43.5	10	50	0	87	65-115	42.24	2.95	30	
Pentachlorophenol	97.62	10	100	0	97.6	65-123	96.56	1.09	30	
Phenanthrene	43.42	10	50	1.608	83.6	69-119	42.38	2.42	30	
Phenol	31.26	10	100	0	31.3	16-115	30.56	2.26	30	
Pyrene	45.66	10	50	0	91.3	51-130	43.36	5.17	30	
Surr: 2,4,6-Tribromophenol	91.22	10	100	0	91.2	39-153	89.88	1.49	30	
Surr: 2-Fluorobiphenyl	77.2	10	100	0	77.2	40-147	73.69	4.66	30	
Surr: 2-Fluorophenol	46.16	10	100	0	46.2	21-110	45.43	1.59	30	
Surr: 4-Terphenyl-d14	82.41	10	100	0	82.4	39-141	80.09	2.86	30	
Surr: Nitrobenzene-d5	81.39	10	100	0	81.4	37-140	80.28	1.38	30	
Surr: Phenol-d6	29.41	10	100	0	29.4	11-100	29.61	0.654	30	

The following samples were analyzed in this batch:

0406294-01B 0406294-02B

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21580 InstrumentID: VOA3

MBLK Sample ID: VBLKW-0706 Test Code: SW8260 Units: µg/L Analysis Date: 07/06/04 19:09

Client ID: Run ID: VOA3_040707A SeqNo: 504021 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								
Methyl tert-butyl ether	ND	5.0								
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	50.53	5.0	50	0	101	71-126	0			
Surr: 4-Bromofluorobenzene	50.18	5.0	50	0	100	74-125	0			
Surr: Dibromofluoromethane	52.66	5.0	50	0	105	73-126	0			
Surr: Toluene-d8	52.47	5.0	50	0	105	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21580 InstrumentID: VOA3

LCS Sample ID: VLCSW-0706 Test Code: SW8260 Units: µg/L Analysis Date: 07/06/04 18:09

Client ID: Run ID: VOA3_040707A SeqNo: 504020 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	50.98	5.0	50	0	102	75.2-120	0			
1,1,2,2-Tetrachloroethane	49.2	5.0	50	0	98.4	72.4-121	0			
1,1,2-Trichloroethane	50.72	5.0	50	0	101	80-120	0			
1,1-Dichloroethane	57.28	5.0	50	0	115	76.9-120	0			
1,1-Dichloroethene	51.36	5.0	50	0	103	72.6-123	0			
1,2-Dichloroethane	50.45	5.0	50	0	101	80-120	0			
2-Butanone	81.25	10	100	0	81.2	69-131	0			
2-Chloroethyl vinyl ether	100.6	10	100	0	101	60-135	0			
2-Hexanone	94.73	10	100	0	94.7	55.6-126	0			
4-Methyl-2-pentanone	96.8	10	100	0	96.8	67.4-121	0			
Acetone	89.47	10	100	0	89.5	64.4-140	0			
Benzene	50.71	5.0	50	0	101	80-120	0			
Bromodichloromethane	50.78	5.0	50	0	102	80-120	0			
Bromoform	49.52	5.0	50	0	99	77.9-121	0			
Bromomethane	55.97	5.0	50	0	112	63.3-137	0			
Carbon disulfide	106.9	10	100	0	107	74.1-123	0			
Carbon tetrachloride	50.71	5.0	50	0	101	74.7-120	0			
Chlorobenzene	50.66	5.0	50	0	101	80-120	0			
Chloroethane	52.33	5.0	50	0	105	74.7-126	0			
Chloroform	50.98	5.0	50	0	102	80-120	0			
Chloromethane	52.5	5.0	50	0	105	64.5-132	0			
cis-1,3-Dichloropropene	52.56	5.0	50	0	105	80-120	0			
Dibromochloromethane	50.87	5.0	50	0	102	80-120	0			
Ethylbenzene	51.35	5.0	50	0	103	80-120	0			
m,p-Xylene	102.6	10	100	0	103	80-120	0			
Methyl tert-butyl ether	49.05	5.0	50	0	98.1	73.7-122	0			
Methylene chloride	48.63	10	50	0	97.3	76.2-120	0			
Styrene	52.19	5.0	50	0	104	80-120	0			
Tetrachloroethene	49.34	5.0	50	0	98.7	68.5-130	0			
Toluene	51.94	5.0	50	0	104	80-120	0			
trans-1,3-Dichloropropene	49.72	5.0	50	0	99.4	80-120	0			
Trichloroethene	49.34	5.0	50	0	98.7	78.9-120	0			
Vinyl acetate	93.69	10	100	0	93.7	62.4-133	0			
Vinyl chloride	49.97	2.0	50	0	99.9	72.7-128	0			
Xylenes, Total	154.4	15	150	0	103	80-120	0			
Surr: 1,2-Dichloroethane-d4	49.46	5.0	50	0	98.9	71-126	0			
Surr: 4-Bromofluorobenzene	52.56	5.0	50	0	105	74-125	0			
Surr: Dibromofluoromethane	52.32	5.0	50	0	105	73-126	0			
Surr: Toluene-d8	52.22	5.0	50	0	104	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21580 InstrumentID: VOA3

MS Sample ID: 0406294-02AMS Test Code: SW8260 Units: µg/L Analysis Date: 07/06/04 22:08

Client ID: RA1227 Run ID: VOA3_040707A SeqNo: 504024 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	59.4	5.0	50	0	119	75.2-120	0			
1,1,2,2-Tetrachloroethane	48.67	5.0	50	0	97.3	72.4-121	0			
1,1,2-Trichloroethane	51.64	5.0	50	0	103	80-120	0			
1,1-Dichloroethane	63.1	5.0	50	0	126	76.9-120	0			S
1,1-Dichloroethene	59.24	5.0	50	0	118	72.6-123	0			
1,2-Dichloroethane	55.62	5.0	50	0	111	80-120	0			
2-Butanone	70.37	10	100	0	70.4	69-131	0			
2-Chloroethyl vinyl ether	ND	10	100	0	0	60-135	0			S
2-Hexanone	91.27	10	100	0	91.3	55.6-126	0			
4-Methyl-2-pentanone	85.98	10	100	0	86	67.4-121	0			
Acetone	72.01	10	100	0	72	64.4-140	0			
Benzene	54.74	5.0	50	0	109	80-120	0			
Bromodichloromethane	55.27	5.0	50	0	111	80-120	0			
Bromoform	48.7	5.0	50	0	97.4	77.9-121	0			
Bromomethane	56.36	5.0	50	0	113	63.3-137	0			
Carbon disulfide	117.4	10	100	0	117	74.1-123	0			
Carbon tetrachloride	56.76	5.0	50	0	114	74.7-120	0			
Chlorobenzene	54.28	5.0	50	0	109	80-120	0			
Chloroethane	58.45	5.0	50	0	117	74.7-126	0			
Chloroform	57.18	5.0	50	0	114	80-120	0			
Chloromethane	54.28	5.0	50	0	109	64.5-132	0			
cis-1,3-Dichloropropene	53.98	5.0	50	0	108	80-120	0			
Dibromochloromethane	52.3	5.0	50	0	105	80-120	0			
Ethylbenzene	54.77	5.0	50	0	110	80-120	0			
m,p-Xylene	109.9	10	100	0	110	80-120	0			
Methyl tert-butyl ether	52.37	5.0	50	0	105	73.7-122	0			
Methylene chloride	52.53	10	50	0	105	76.2-120	0			
Styrene	53.71	5.0	50	0	107	80-120	0			
Tetrachloroethene	52.85	5.0	50	0	106	68.5-130	0			
Toluene	55.99	5.0	50	0	112	80-120	0			
trans-1,3-Dichloropropene	53.7	5.0	50	0	107	80-120	0			
Trichloroethene	53.38	5.0	50	0	107	78.9-120	0			
Vinyl acetate	101.1	10	100	0	101	62.4-133	0			
Vinyl chloride	53.67	2.0	50	0	107	72.7-128	0			
Xylenes, Total	165.7	15	150	0	110	80-120	0			
Surr: 1,2-Dichloroethane-d4	53.03	5.0	50	0	106	71-126	0			
Surr: 4-Bromofluorobenzene	51.57	5.0	50	0	103	74-125	0			
Surr: Dibromofluoromethane	55.36	5.0	50	0	111	73-126	0			
Surr: Toluene-d8	52.94	5.0	50	0	106	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21580 InstrumentID: VOA3

MSD Sample ID: 0406294-02AMSD Test Code: SW8260 Units: µg/L Analysis Date: 07/06/04 22:38

Client ID: RA1227 Run ID: VOA3_040707A SeqNo: 504025 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	58.56	5.0	50	0	117	75.2-120	59.4	1.43	20	
1,1,2,2-Tetrachloroethane	51.78	5.0	50	0	104	72.4-121	48.67	6.19	20	
1,1,2-Trichloroethane	53.71	5.0	50	0	107	80-120	51.64	3.94	20	
1,1-Dichloroethane	60.3	5.0	50	0	121	76.9-120	63.1	4.53	20	S
1,1-Dichloroethene	58.05	5.0	50	0	116	72.6-123	59.24	2.03	20	
1,2-Dichloroethane	55.21	5.0	50	0	110	80-120	55.62	0.729	20	
2-Butanone	76.5	10	100	0	76.5	69-131	70.37	8.35	20	
2-Chloroethyl vinyl ether	ND	10	100	0	0	60-135	0	0	20	S
2-Hexanone	99.39	10	100	0	99.4	55.6-126	91.27	8.52	20	
4-Methyl-2-pentanone	97.42	10	100	0	97.4	67.4-121	85.98	12.5	20	
Acetone	77.46	10	100	0	77.5	64.4-140	72.01	7.29	20	
Benzene	54.7	5.0	50	0	109	80-120	54.74	0.0786	20	
Bromodichloromethane	55.23	5.0	50	0	110	80-120	55.27	0.0787	20	
Bromoform	50.47	5.0	50	0	101	77.9-121	48.7	3.57	20	
Bromomethane	59.18	5.0	50	0	118	63.3-137	56.36	4.88	20	
Carbon disulfide	116.4	10	100	0	116	74.1-123	117.4	0.806	20	
Carbon tetrachloride	57.72	5.0	50	0	115	74.7-120	56.76	1.68	20	
Chlorobenzene	53.82	5.0	50	0	108	80-120	54.28	0.845	20	
Chloroethane	56.9	5.0	50	0	114	74.7-126	58.45	2.68	20	
Chloroform	56.38	5.0	50	0	113	80-120	57.18	1.41	20	
Chloromethane	54.87	5.0	50	0	110	64.5-132	54.28	1.09	20	
cis-1,3-Dichloropropene	53.86	5.0	50	0	108	80-120	53.98	0.228	20	
Dibromochloromethane	51.92	5.0	50	0	104	80-120	52.3	0.733	20	
Ethylbenzene	55.1	5.0	50	0	110	80-120	54.77	0.613	20	
m,p-Xylene	108.9	10	100	0	109	80-120	109.9	0.843	20	
Methyl tert-butyl ether	52.04	5.0	50	0	104	73.7-122	52.37	0.645	20	
Methylene chloride	51.06	10	50	0	102	76.2-120	52.53	2.84	20	
Styrene	52.86	5.0	50	0	106	80-120	53.71	1.59	20	
Tetrachloroethene	52.69	5.0	50	0	105	68.5-130	52.85	0.304	20	
Toluene	55.33	5.0	50	0	111	80-120	55.99	1.18	20	
trans-1,3-Dichloropropene	53.19	5.0	50	0	106	80-120	53.7	0.946	20	
Trichloroethene	54.01	5.0	50	0	108	78.9-120	53.38	1.19	20	
Vinyl acetate	99.95	10	100	0	100	62.4-133	101.1	1.18	20	
Vinyl chloride	54.78	2.0	50	0	110	72.7-128	53.67	2.05	20	
Xylenes, Total	163.9	15	150	0	109	80-120	165.7	1.12	20	
Surr: 1,2-Dichloroethane-d4	51.9	5.0	50	0	104	71-126	53.03	2.15	20	
Surr: 4-Bromofluorobenzene	51.93	5.0	50	0	104	74-125	51.57	0.705	20	
Surr: Dibromofluoromethane	53.65	5.0	50	0	107	73-126	55.36	3.15	20	
Surr: Toluene-d8	52.48	5.0	50	0	105	75-125	52.94	0.873	20	

The following samples were analyzed in this batch:

0406294-01A 0406294-02A

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21306 InstrumentID: UV-2101PC

MBLK Sample ID: WBLKW1-062604 Test Code: E335.3 Units: mg/L Analysis Date: 06/26/04 0:00

Client ID: Run ID: UV-2101PC_040626A SeqNo: 491088 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: WLCSW1-062604 Test Code: E335.3 Units: mg/L Analysis Date: 06/26/04 0:00

Client ID: Run ID: UV-2101PC_040626A SeqNo: 491089 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.234	0.020	0.2	0	117	80-120	0			

MS Sample ID: 0406250-01IMS Test Code: E335.3 Units: mg/L Analysis Date: 06/26/04 0:00

Client ID: Run ID: UV-2101PC_040626A SeqNo: 491098 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2121	0.020	0.2	0.0047	104	75-125	0			

MSD Sample ID: 0406250-01IMSD Test Code: E335.3 Units: mg/L Analysis Date: 06/26/04 0:00

Client ID: Run ID: UV-2101PC_040626A SeqNo: 491099 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2213	0.020	0.2	0.0047	108	75-125	0.2121	4.25	25	

DUP Sample ID: 0406250-01IDUP Test Code: E335.3 Units: mg/L Analysis Date: 06/26/04 0:00

Client ID: Run ID: UV-2101PC_040626A SeqNo: 491097 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0057	0.020	0	0	0	0-0	0.0047	0	20	J

The following samples were analyzed in this batch:

0406294-01E 0406294-02E

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: 0406294
Project: Monthly

QC BATCH REPORT

Batch ID: **R21332** InstrumentID: **WetChem**

MBLK Sample ID: **WBLKW1-062804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/28/04 0:00**

Client ID: Run ID: **WETCHEM_040628B** SeqNo: **491686** 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: **WLCSW1-062804** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/28/04 0:00**

Client ID: Run ID: **WETCHEM_040628B** SeqNo: **491687** 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: **0406251-01CDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **06/28/04 0:00**

Client ID: Run ID: **WETCHEM_040628B** SeqNo: **491706** 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)	640.2	5.0	0	0	0	0-0	640.2	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)	640.2	5.0	0	0	0	0-0	640.2	0	20	

The following samples were analyzed in this batch:

0406294-01D 0406294-02D

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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: **R21570** InstrumentID: **IC201**

MBLK Sample ID: **WBLKW1-070604** Test Code: **E300** Units: **mg/L** Analysis Date: **07/06/04 16:13**

Client ID: Run ID: **IC201_040706A** SeqNo: **503838** 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								
Surr: Dichloroacetic acid (surr)	5.18	0.10	5	0	104	80-120		0		

LCS Sample ID: **WLCSW1-070604** Test Code: **E300** Units: **mg/L** Analysis Date: **07/06/04 16:41**

Client ID: Run ID: **IC201_040706A** SeqNo: **503839** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.21	0.50	10	0	92.1	80-120		0		
Fluoride	1.96	0.10	2	0	98	80-120		0		
Sulfate	9.71	1.0	10	0	97.1	80-120		0		
Surr: Dichloroacetic acid (surr)	5.47	0.10	5	0	109	80-120		0		

LCSD Sample ID: **WLCSDW1-07060** Test Code: **E300** Units: **mg/L** Analysis Date: **07/06/04 17:10**

Client ID: Run ID: **IC201_040706A** SeqNo: **503840** 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	9.21	0.217	20	
Fluoride	1.95	0.10	2	0	97.5	80-120	1.96	0.512	20	
Sulfate	9.79	1.0	10	0	97.9	80-120	9.71	0.821	20	
Surr: Dichloroacetic acid (surr)	5.51	0.10	5	0	110	80-120	5.47	0.729	20	

MS Sample ID: **0406290-06CMS** Test Code: **E300** Units: **mg/L** Analysis Date: **07/06/04 19:04**

Client ID: Run ID: **IC201_040706A** SeqNo: **503844** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	50.58	0.50	10	39.3	113	75-125		0		E
Fluoride	2.68	0.10	2	0.73	97.5	75-125		0		
Sulfate	14.8	1.0	10	5.2	96	75-125		0		
Surr: Dichloroacetic acid (surr)	5.29	0.10	5	0	106	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: 0406294
 Project: Monthly

QC BATCH REPORT

Batch ID: R21570 InstrumentID: IC201

MSD Sample ID: 0406290-06CMSD Test Code: E300 Units: mg/L Analysis Date: 07/06/04 19:32

Client ID: Run ID: IC201_040706A SeqNo: 503845 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	50.71	0.50	10	39.3	114	75-125	50.58	0.257	20	E
Fluoride	2.66	0.10	2	0.73	96.5	75-125	2.68	0.749	20	
Sulfate	14.69	1.0	10	5.2	94.9	75-125	14.8	0.746	20	
Surr: Dichloroacetic acid (surr)	5.18	0.10	5	0	104	80-120	5.29	2.1	20	

DUP Sample ID: 0406290-06CDUP Test Code: E300 Units: mg/L Analysis Date: 07/06/04 18:35

Client ID: Run ID: IC201_040706A SeqNo: 503843 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	39.39	0.50	0	0	0	0-0	39.3	0.229	20	
Fluoride	0.75	0.10	0	0	0	0-0	0.73	2.7	20	
Sulfate	5.16	1.0	0	0	0	0-0	5.2	0.772	20	
Surr: Dichloroacetic acid (surr)	5.38	0.10	5	0	108	80-120	5.31	1.31	20	

DUP Sample ID: 0406290-07CDUP Test Code: E300 Units: mg/L Analysis Date: 07/06/04 21:26

Client ID: Run ID: IC201_040706A SeqNo: 503849 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	40.06	0.50	0	0	0	0-0	39.85	0.526	20	
Fluoride	0.76	0.10	0	0	0	0-0	0.75	1.32	20	
Sulfate	5.29	1.0	0	0	0	0-0	5.27	0.379	20	
Surr: Dichloroacetic acid (surr)	5.33	0.10	5	0	107	80-120	5.38	0.934	20	

DUP Sample ID: 0406294-01DDUP Test Code: E300 Units: mg/L Analysis Date: 07/07/04 10:16

Client ID: Larve Run ID: IC201_040706A SeqNo: 503859 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	137.5	25	0	0	0	0-0	138.5	0.725	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	1351	50	0	0	0	0-0	1346	0.371	20	
Surr: Dichloroacetic acid (surr)	287.5	5.0	250	0	115	80-120	278	3.36	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: 0406294
Project: Monthly

QC BATCH REPORT

Batch ID: R21570 InstrumentID: IC201

DUP Sample ID: 0406304-02ADUP Test Code: E300 Units: mg/L Analysis Date: 07/07/04 3:37

Client ID: Run ID: IC201_040706A SeqNo: 503869 Prep Date: DF: 50

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1411	25	0	0	0	0-0	1408	0.213	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	396.5	50	0	0	0	0-0	395.5	0.253	20	
Surr: Dichloroacetic acid (surr)	273.5	5.0	250	0	109	80-120	280	2.35	20	

The following samples were analyzed in this batch:

0406294-01D 0406294-02D

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

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

Company Name:

Company Name: Navajo
Address: (Street, City, Zip)

Contact Person:

Contact Person: Jeff Byrd

invoice to:
if different from above)

Project #:

Project Name:

Monthly

Project Location:

Sampler Signature:

Signature: 

[illegible]

Relinquished by;

Date: _____ Time: _____

Received by:

Date: _____

Time:

Relinquished by: 10/10/11

Date: 10/15/2015 Time: 10:15

Received by:

Date: _____

Time:

Relinquished by:

Date: _____ Time: _____

Received at Laboratory of...

Data:

Time:

elinquished by:

Date: _____ Time: _____

Received at Laboratory by:

Date: _____

Time:

Temp

Temp _____

Check If Special Reporting:

Limits Are Needed

Limits Are Needed :

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



e-Lab Analytical, Inc.

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

June 22, 2004

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

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

Re: Monthly

Work Order : **0406077**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 3 samples on 6/9/2004 8:55:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 31.

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

Sincerely,

Electronically approved by: Patrina A. Dalhorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0406077

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0406077-01	RA313	Water		6/7/2004 09:00	6/9/2004 08:55	☐
0406077-02	RA314	Water		6/7/2004 10:00	6/9/2004 08:55	☐
0406077-03	RA304	Water		6/8/2004 14:30	6/9/2004 08:55	☐

e-Lab Analytical, Inc.**Date:** June 22, 2004**CLIENT:** Navajo Refining Company**Project:** Monthly**Work Order:** 0406077**Case Narrative**

Batch 9231 Metals (sample RA304) MS/MSD recoveries were outside of control limits for several compounds. The MS/MSD recoveries confirm a matrix interference.

Batch 9231 Metals (sample RA304) MS/MSD RPD recoveries were outside of control limits for Barium (30.9%). The recovery should not be evaluated because the background concentration is not >50 times the MDL.

Batch R20987 Volatile MS/MSD was an unrelated sample.

Batch R21177 Anions MS was an unrelated sample.

e-Lab Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-01

Client Sample ID: RA313
Collection Date: 6/7/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	6/18/2004 1:02:56 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	0.0340	0.0100		mg/L	1	6/16/2004 11:12:00 PM
Arsenic	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Barium	0.0234	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Beryllium	ND	0.00200		mg/L	1	6/11/2004 6:54:00 PM
Boron	0.0426	0.0200		mg/L	1	6/11/2004 6:54:00 PM
Cadmium	ND	0.00100		mg/L	1	6/14/2004 5:32:00 PM
Calcium	222	25.0		mg/L	50	6/11/2004 4:34:00 PM
Chromium	ND	0.00200		mg/L	1	6/14/2004 5:32:00 PM
Cobalt	ND	0.00200		mg/L	1	6/14/2004 5:32:00 PM
Copper	ND	0.00200		mg/L	1	6/14/2004 5:32:00 PM
Iron	0.345	0.200		mg/L	1	6/14/2004 5:32:00 PM
Lead	ND	0.00500		mg/L	1	6/11/2004 6:54:00 PM
Magnesium	44.0	2.00		mg/L	10	6/11/2004 5:15:00 PM
Manganese	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Molybdenum	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Nickel	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Potassium	1.15	0.200		mg/L	1	6/14/2004 5:32:00 PM
Selenium	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Silver	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Sodium	7.42	2.00		mg/L	10	6/11/2004 5:15:00 PM
Vanadium	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
Zinc	ND	0.00500		mg/L	1	6/14/2004 5:32:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2-Methylphenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2-Nitroaniline	ND	10		µg/L	1	6/10/2004 3:39:00 PM
2-Nitrophenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
3-Nitroaniline	ND	10		µg/L	1	6/10/2004 3:39:00 PM
4-Methylphenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
4-Nitroaniline	ND	10		µg/L	1	6/10/2004 3:39:00 PM
4-Nitrophenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Acenaphthene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Acenaphthylene	ND	10		µg/L	1	6/10/2004 3:39:00 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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-01

Client Sample ID: RA313
Collection Date: 6/7/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Anthracene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Benz(a)anthracene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Benzidine	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Hexachloroethane	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Isophorone	ND	10		µg/L	1	6/10/2004 3:39:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2004 3:39:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2004 3:39:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Naphthalene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Nitrobenzene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Pentachlorophenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Phenanthrene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Phenol	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Pyrene	ND	10		µg/L	1	6/10/2004 3:39:00 PM
Surr: 2,4,6-Tribromophenol	88.8	39-153		%REC	1	6/10/2004 3:39:00 PM
Surr: 2-Fluorobiphenyl	82.3	40-147		%REC	1	6/10/2004 3:39:00 PM
Surr: 2-Fluorophenol	35.0	21-110		%REC	1	6/10/2004 3:39:00 PM
Surr: 4-Terphenyl-d14	95.3	39-141		%REC	1	6/10/2004 3:39:00 PM
Surr: Nitrobenzene-d5	85.2	37-140		%REC	1	6/10/2004 3:39:00 PM
Surr: Phenol-d6	22.2	11-100		%REC	1	6/10/2004 3:39:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
2-Butanone	ND	10		µg/L	1	6/9/2004 10:35:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	6/9/2004 10:35:00 PM
2-Hexanone	ND	10		µg/L	1	6/9/2004 10:35:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Acetone	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Benzene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Bromoform	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Bromomethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Carbon disulfide	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/9/2004 10:35:00 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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-01

Client Sample ID: RA313
Collection Date: 6/7/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Chloroethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Chloroform	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Chloromethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
m,p-Xylene	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Methylene chloride	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Styrene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Toluene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/9/2004 10:35:00 PM
Vinyl acetate	ND	10		µg/L	1	6/9/2004 10:35:00 PM
Vinyl chloride	ND	2.0		µg/L	1	6/9/2004 10:35:00 PM
Xylenes, Total	ND	15		µg/L	1	6/9/2004 10:35:00 PM
Surr: 1,2-Dichloroethane-d4	103	71-126		%REC	1	6/9/2004 10:35:00 PM
Surr: 4-Bromofluorobenzene	81.2	74-125		%REC	1	6/9/2004 10:35:00 PM
Surr: Dibromofluoromethane	104	73-126		%REC	1	6/9/2004 10:35:00 PM
Surr: Toluene-d8	83.6	75-125		%REC	1	6/9/2004 10:35:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	16.5	0.500		mg/L	1	6/18/2004 8:40:00 PM
Fluoride	1.02	0.100		mg/L	1	6/18/2004 8:40:00 PM
Sulfate	534	100		mg/L	100	6/18/2004 9:37:00 PM
Surr: Dichloroacetic acid (surr)	96.4	80-120		%REC	1	6/18/2004 8:40:00 PM
Surr: Dichloroacetic acid (surr)	95.6	80-120		%REC	100	6/18/2004 9:37:00 PM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	188	5.00		mg/L	1	6/10/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Total (As CaCO3)	188	5.00		mg/L	1	6/10/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	6/12/2004

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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-02

Client Sample ID: RA314
Collection Date: 6/7/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	6/18/2004 1:04:27 PM
ICP METALS, TOTAL						
Aluminum	ND	0.0100		mg/L	1	6/14/2004 5:36:00 PM
Arsenic	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Barium	0.0201	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Beryllium	ND	0.00200		mg/L	1	6/11/2004 6:59:00 PM
Boron	0.0458	0.0200		mg/L	1	6/11/2004 6:59:00 PM
Cadmium	ND	0.00100		mg/L	1	6/14/2004 5:36:00 PM
Calcium	241	25.0		mg/L	50	6/11/2004 4:39:00 PM
Chromium	ND	0.00200		mg/L	1	6/14/2004 5:36:00 PM
Cobalt	ND	0.00200		mg/L	1	6/14/2004 5:36:00 PM
Copper	0.00452	0.00200		mg/L	1	6/14/2004 5:36:00 PM
Iron	0.413	0.200		mg/L	1	6/14/2004 5:36:00 PM
Lead	ND	0.00500		mg/L	1	6/11/2004 6:59:00 PM
Magnesium	76.6	2.00		mg/L	10	6/11/2004 5:19:00 PM
Manganese	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Molybdenum	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Nickel	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Potassium	1.67	0.200		mg/L	1	6/14/2004 5:36:00 PM
Selenium	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Silver	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Sodium	124	2.00		mg/L	10	6/11/2004 5:19:00 PM
Vanadium	ND	0.00500		mg/L	1	6/14/2004 5:36:00 PM
Zinc	0.0292	0.00500		mg/L	1	6/14/2004 5:36:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2,4,5-Trichlorophenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2,4,6-Trichlorophenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2-Methylnaphthalene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2-Methylphenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2-Nitroaniline	ND	11		µg/L	1	6/10/2004 4:04:00 PM
2-Nitrophenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
3-Nitroaniline	ND	11		µg/L	1	6/10/2004 4:04:00 PM
4-Methylphenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
4-Nitroaniline	ND	11		µg/L	1	6/10/2004 4:04:00 PM
4-Nitrophenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Acenaphthene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Acenaphthylene	ND	11		µg/L	1	6/10/2004 4:04:00 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

AR Page 4 of 9

e-Lab Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-02

Client Sample ID: RA314
Collection Date: 6/7/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Anthracene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Benz(a)anthracene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Benzidine	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Hexachloroethane	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Isophorone	ND	11		µg/L	1	6/10/2004 4:04:00 PM
N-Nitrosodi-n-propylamine	ND	11		µg/L	1	6/10/2004 4:04:00 PM
N-Nitrosodimethylamine	ND	11		µg/L	1	6/10/2004 4:04:00 PM
N-Nitrosodiphenylamine	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Naphthalene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Nitrobenzene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Pentachlorophenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Phenanthrene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Phenol	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Pyrene	ND	11		µg/L	1	6/10/2004 4:04:00 PM
Surr: 2,4,6-Tribromophenol	91.0	39-153		%REC	1	6/10/2004 4:04:00 PM
Surr: 2-Fluorobiphenyl	81.4	40-147		%REC	1	6/10/2004 4:04:00 PM
Surr: 2-Fluorophenol	37.6	21-110		%REC	1	6/10/2004 4:04:00 PM
Surr: 4-Terphenyl-d14	94.0	39-141		%REC	1	6/10/2004 4:04:00 PM
Surr: Nitrobenzene-d5	82.4	37-140		%REC	1	6/10/2004 4:04:00 PM
Surr: Phenol-d6	25.2	11-100		%REC	1	6/10/2004 4:04:00 PM

VOLATILES BY GC/MS**SW8260****Analyst: PC**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
2-Butanone	ND	10		µg/L	1	6/9/2004 11:03:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	6/9/2004 11:03:00 PM
2-Hexanone	ND	10		µg/L	1	6/9/2004 11:03:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Acetone	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Benzene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Bromoform	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Bromomethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Carbon disulfide	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/9/2004 11:03:00 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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-02

Client Sample ID: RA314
Collection Date: 6/7/2004 10:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Chloroethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Chloroform	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Chloromethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
m,p-Xylene	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Methylene chloride	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Styrene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Toluene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/9/2004 11:03:00 PM
Vinyl acetate	ND	10		µg/L	1	6/9/2004 11:03:00 PM
Vinyl chloride	ND	2.0		µg/L	1	6/9/2004 11:03:00 PM
Xylenes, Total	ND	15		µg/L	1	6/9/2004 11:03:00 PM
Surr: 1,2-Dichloroethane-d4	98.5	71-126		%REC	1	6/9/2004 11:03:00 PM
Surr: 4-Bromofluorobenzene	80.1	74-125		%REC	1	6/9/2004 11:03:00 PM
Surr: Dibromofluoromethane	101	73-126		%REC	1	6/9/2004 11:03:00 PM
Surr: Toluene-d8	82.6	75-125		%REC	1	6/9/2004 11:03:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300	Analyst: MG			
Chloride	238	5.00		mg/L	10	6/18/2004 11:32:00 PM
Fluoride	0.960	0.100		mg/L	1	6/18/2004 11:03:00 PM
Sulfate	687	100		mg/L	100	6/19/2004
Surr: Dichloroacetic acid (surr)	95.0	80-120		%REC	1	6/18/2004 11:03:00 PM
Surr: Dichloroacetic acid (surr)	98.6	80-120		%REC	10	6/18/2004 11:32:00 PM
Surr: Dichloroacetic acid (surr)	95.0	80-120		%REC	100	6/19/2004
ALKALINITY		E310.1	Analyst: LMD			
Alkalinity, Bicarbonate (As CaCO3)	183	5.00		mg/L	1	6/10/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Total (As CaCO3)	183	5.00		mg/L	1	6/10/2004
CYANIDE, TOTAL		E335.3	Analyst: LMD			
Cyanide	ND	0.0200		mg/L	1	6/12/2004

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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-03

Client Sample ID: RA304
Collection Date: 6/8/2004 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470				
Mercury	ND	0.000200		mg/L	1	Prep Date: 6/17/2004 Analyst: JCJ 6/18/2004 1:05:58 PM
ICP METALS, TOTAL						
		SW6020				
Aluminum	0.0557	0.0100		mg/L	1	Prep Date: 6/10/2004 Analyst: ALR 6/16/2004 11:17:00 PM
Arsenic	ND	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Barium	0.0104	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Beryllium	ND	0.00200		mg/L	1	6/11/2004 7:04:00 PM
Boron	0.0844	0.0200		mg/L	1	6/11/2004 7:04:00 PM
Cadmium	ND	0.00100		mg/L	1	6/14/2004 5:41:00 PM
Calcium	391	25.0		mg/L	50	6/11/2004 4:43:00 PM
Chromium	ND	0.00200		mg/L	1	6/14/2004 5:41:00 PM
Cobalt	ND	0.00200		mg/L	1	6/14/2004 5:41:00 PM
Copper	0.0149	0.00200		mg/L	1	6/14/2004 5:41:00 PM
Iron	0.828	0.200		mg/L	1	6/14/2004 5:41:00 PM
Lead	ND	0.00500		mg/L	1	6/11/2004 7:04:00 PM
Magnesium	112	2.00		mg/L	10	6/11/2004 5:24:00 PM
Manganese	0.0216	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Molybdenum	ND	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Nickel	ND	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Potassium	1.98	0.200		mg/L	1	6/14/2004 5:41:00 PM
Selenium	0.00881	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Silver	ND	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Sodium	112	2.00		mg/L	10	6/11/2004 5:24:00 PM
Vanadium	0.00699	0.00500		mg/L	1	6/14/2004 5:41:00 PM
Zinc	0.0323	0.00500		mg/L	1	6/14/2004 5:41:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270				
1,2,4-Trichlorobenzene	ND	10		µg/L	1	Prep Date: 6/10/2004 Analyst: HV 6/10/2004 4:30:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
2-Methylphenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
2-Nitroaniline	ND	10		µg/L	1	6/10/2004 4:30:00 PM
2-Nitrophenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
3-Nitroaniline	ND	10		µg/L	1	6/10/2004 4:30:00 PM
4-Methylphenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
4-Nitroaniline	ND	10		µg/L	1	6/10/2004 4:30:00 PM
4-Nitrophenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Acenaphthene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Acenaphthylene	ND	10		µg/L	1	6/10/2004 4:30:00 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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-03

Client Sample ID: RA304
Collection Date: 6/8/2004 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Anthracene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Benz(a)anthracene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Benzidine	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Hexachloroethane	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Isophorone	ND	10		µg/L	1	6/10/2004 4:30:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2004 4:30:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2004 4:30:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Naphthalene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Nitrobenzene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Pentachlorophenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Phenanthrene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Phenol	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Pyrene	ND	10		µg/L	1	6/10/2004 4:30:00 PM
Surr: 2,4,6-Tribromophenol	89.1	39-153		%REC	1	6/10/2004 4:30:00 PM
Surr: 2-Fluorobiphenyl	79.7	40-147		%REC	1	6/10/2004 4:30:00 PM
Surr: 2-Fluorophenol	33.4	21-110		%REC	1	6/10/2004 4:30:00 PM
Surr: 4-Terphenyl-d14	90.8	39-141		%REC	1	6/10/2004 4:30:00 PM
Surr: Nitrobenzene-d5	80.9	37-140		%REC	1	6/10/2004 4:30:00 PM
Surr: Phenol-d6	21.6	11-100		%REC	1	6/10/2004 4:30:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
2-Butanone	ND	10		µg/L	1	6/9/2004 11:31:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	6/9/2004 11:31:00 PM
2-Hexanone	ND	10		µg/L	1	6/9/2004 11:31:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Acetone	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Benzene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Bromoform	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Bromomethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Carbon disulfide	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/9/2004 11:31:00 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 Analytical, Inc.

Date: June 22, 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly
Lab ID: 0406077-03

Client Sample ID: RA304
Collection Date: 6/8/2004 2:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Chloroethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Chloroform	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Chloromethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
m,p-Xylene	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Methylene chloride	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Styrene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Toluene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/9/2004 11:31:00 PM
Vinyl acetate	ND	10		µg/L	1	6/9/2004 11:31:00 PM
Vinyl chloride	ND	2.0		µg/L	1	6/9/2004 11:31:00 PM
Xylenes, Total	ND	15		µg/L	1	6/9/2004 11:31:00 PM
Surr: 1,2-Dichloroethane-d4	106	71-126		%REC	1	6/9/2004 11:31:00 PM
Surr: 4-Bromofluorobenzene	80.2	74-125		%REC	1	6/9/2004 11:31:00 PM
Surr: Dibromofluoromethane	109	73-126		%REC	1	6/9/2004 11:31:00 PM
Surr: Toluene-d8	84.1	75-125		%REC	1	6/9/2004 11:31:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	222	5.00		mg/L	10	6/19/2004 12:57:00 AM
Fluoride	0.720	0.100		mg/L	1	6/19/2004 12:29:00 AM
Sulfate	1,110	100		mg/L	100	6/19/2004 1:26:00 AM
Surr: Dichloroacetic acid (surr)	93.2	80-120		%REC	1	6/19/2004 12:29:00 AM
Surr: Dichloroacetic acid (surr)	95.6	80-120		%REC	10	6/19/2004 12:57:00 AM
Surr: Dichloroacetic acid (surr)	95.0	80-120		%REC	100	6/19/2004 1:26:00 AM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	173	5.00		mg/L	1	6/10/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/10/2004
Alkalinity, Total (As CaCO3)	173	5.00		mg/L	1	6/10/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	6/12/2004

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 Analytical, Inc.

Date: Jun 22 2004

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly

QC BATCH REPORT

Batch ID: 9231 InstrumentID: ICP4500

MBLK Sample ID: MBLKW1-061004 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 16:20
Client ID: Run ID: ICP4500_040611A SeqNo: 484499 Prep Date: 6/10/2004 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								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Lead	ND	0.0050								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9231 InstrumentID: ICP4500

LCS Sample ID: MLCSW1-061004 Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 16:25

Client ID: Run ID: ICP4500_040611A SeqNo: 484500 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04877	0.010	0.05	0	97.5	79-126	0			
Arsenic	0.04817	0.0050	0.05	0	96.3	80-121	0			
Barium	0.04597	0.0050	0.05	0	91.9	79.8-119	0			
Beryllium	0.05026	0.0020	0.05	0	101	78.9-120	0			
Boron	0.5248	0.020	0.5	0	105	80-120	0			
Cadmium	0.05007	0.0020	0.05	0	100	79.1-119	0			
Calcium	4.903	0.50	5	0	98.1	80-121	0			
Chromium	0.04593	0.0050	0.05	0	91.9	79.3-121	0			
Cobalt	0.0466	0.0050	0.05	0	93.2	82-121	0			
Copper	0.04551	0.0050	0.05	0	91	83-121	0			
Iron	4.882	0.20	5	0	97.6	80-120	0			
Lead	0.04618	0.0050	0.05	0	92.4	80-118	0			
Magnesium	5.063	0.20	5	0	101	80-120	0			
Manganese	0.04668	0.0050	0.05	0	93.4	82-119	0			
Molybdenum	0.04396	0.0050	0.05	0	87.9	84.6-115	0			
Nickel	0.04659	0.0050	0.05	0	93.2	85-120	0			
Potassium	4.912	0.20	5	0	98.2	80-120	0			
Selenium	0.04756	0.0050	0.05	0	95.1	79.2-118	0			
Silver	0.04426	0.0050	0.05	0	88.5	83-117	0			
Sodium	4.919	0.20	5	0	98.4	82.4-120	0			
Vanadium	0.0457	0.0050	0.05	0	91.4	82.1-119	0			
Zinc	0.04931	0.0050	0.05	0	98.6	83-118	0			

MS Sample ID: 0406077-03DMS Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 19:14

Client ID: RA304 Run ID: ICP4500_040611A SeqNo: 484629 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.04198	0.0020	0.05	-5.03E-07	84	78.9-120	0			
Boron	0.5703	0.020	0.5	0.08442	97.2	80-120	0			
Lead	0.0523	0.0050	0.05	0.0012	102	80-118	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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9231 InstrumentID: ICP4500

MS Sample ID: 0406077-03DMS Test Code: SW6020 Units: mg/L Analysis Date: 06/14/04 18:05

Client ID: RA304 Run ID: ICP4500_040615A SeqNo: 485259 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1062	0.010	0.05	0.03361	145	79-126	0			S
Arsenic	0.0486	0.0050	0.05	0.001849	93.5	80-121	0			
Barium	0.05791	0.0050	0.05	0.0104	95	79.8-119	0			
Cadmium	0.04334	0.0020	0.05	-0.00005586	86.8	79.1-119	0			
Calcium	389.2	0.50	5	384.6	92	80-121	0			EO
Chromium	0.04498	0.0050	0.05	0.001055	87.8	79.3-121	0			
Cobalt	0.04262	0.0050	0.05	0.000161	84.9	82-121	0			
Copper	0.05385	0.0050	0.05	0.01494	77.8	83-121	0			S
Iron	5.658	0.20	5	0.8278	96.6	80-120	0			
Magnesium	98.71	0.20	5	94.39	86.4	80-120	0			EO
Manganese	0.06572	0.0050	0.05	0.02156	88.3	82-119	0			
Molybdenum	0.04681	0.0050	0.05	0.001036	91.5	84.6-115	0			
Nickel	0.04326	0.0050	0.05	0.002957	80.6	85-120	0			S
Potassium	6.713	0.20	5	1.975	94.8	80-120	0			
Selenium	0.05063	0.0050	0.05	0.008808	83.6	79.2-118	0			
Silver	0.03655	0.0050	0.05	-0.00006701	73.2	83-117	0			S
Sodium	103	0.20	5	97.72	106	82.4-120	0			EO
Vanadium	0.05306	0.0050	0.05	0.006987	92.1	82.1-119	0			
Zinc	0.07294	0.0050	0.05	0.0323	81.3	83-118	0			S

MSD Sample ID: 0406077-03DMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 19:18

Client ID: RA304 Run ID: ICP4500_040611A SeqNo: 484630 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	0.04255	0.0020	0.05	-5.03E-07	85.1	78.9-120	0.04198	1.35	15	
Boron	0.5606	0.020	0.5	0.08442	95.2	80-120	0.5703	1.72	15	
Lead	0.04941	0.0050	0.05	0.0012	96.4	80-118	0.0523	5.68	15	

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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9231 InstrumentID: ICP4500

MSD	Sample ID: 0406077-03DMSD			Test Code: SW6020		Units: mg/L		Analysis Date: 06/14/04 18:10		
Client ID: RA304	Run ID: ICP4500_040615A			SeqNo: 485260		Prep Date: 6/10/2004		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09204	0.010	0.05	0.03361	117	79-126	0.1062	14.3	15	
Arsenic	0.04805	0.0050	0.05	0.001849	92.4	80-121	0.0486	1.14	15	
Barium	0.06144	0.0050	0.05	0.0104	102	79.8-119	0.05791	5.92	15	
Cadmium	0.04345	0.0020	0.05	-0.00005586	87	79.1-119	0.04334	0.253	15	
Calcium	416.7	0.50	5	384.6	642	80-121	389.2	6.82	15	SEO
Chromium	0.04687	0.0050	0.05	0.001055	91.6	79.3-121	0.04498	4.12	15	
Cobalt	0.04493	0.0050	0.05	0.000161	89.5	82-121	0.04262	5.28	15	
Copper	0.05444	0.0050	0.05	0.01494	79	83-121	0.05385	1.09	15	S
Iron	5.837	0.20	5	0.8278	100	80-120	5.658	3.11	15	
Magnesium	113.4	0.20	5	94.39	380	80-120	98.71	13.9	15	SEO
Manganese	0.0684	0.0050	0.05	0.02156	93.7	82-119	0.06572	4	15	
Molybdenum	0.0469	0.0050	0.05	0.001036	91.7	84.6-115	0.04681	0.192	15	
Nickel	0.04427	0.0050	0.05	0.002957	82.6	85-120	0.04326	2.31	15	S
Potassium	7.296	0.20	5	1.975	106	80-120	6.713	8.32	15	
Selenium	0.0527	0.0050	0.05	0.008808	87.8	79.2-118	0.05063	4.01	15	
Silver	0.03643	0.0050	0.05	-0.00006701	73	83-117	0.03655	0.329	15	S
Sodium	118.5	0.20	5	97.72	416	82.4-120	103	14	15	SEO
Vanadium	0.05594	0.0050	0.05	0.006987	97.9	82.1-119	0.05306	5.28	15	
Zinc	0.07273	0.0050	0.05	0.0323	80.9	83-118	0.07294	0.288	15	S

DUP	Sample ID: 0406077-03DDUP			Test Code: SW6020		Units: mg/L		Analysis Date: 06/11/04 16:48		
Client ID: RA304	Run ID: ICP4500_040611A			SeqNo: 484609		Prep Date: 6/10/2004		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	379.9	25	0	0	0	0-0	391.2	2.93	25	

DUP	Sample ID: 0406077-03DDUP			Test Code: SW6020		Units: mg/L		Analysis Date: 06/11/04 17:28		
Client ID: RA304	Run ID: ICP4500_040611A			SeqNo: 484617		Prep Date: 6/10/2004		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	106.6	2.0	0	0	0	0-0	112.4	5.3	25	
Sodium	105	2.0	0	0	0	0-0	112.4	6.81	25	

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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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9231 InstrumentID: ICP4500

DUP Sample ID: 0406077-03DDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/11/04 19:09

Client ID: RA304 Run ID: ICP4500_040611A SeqNo: 484628 Prep Date: 6/10/2004 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	-5.03E-07	0	25	
Boron	0.07803	0.020	0	0	0	0-0	0.08442	7.87	25	
Lead	0.001326	0.0050	0	0	0	0-0	0.0012	0	25	J

DUP Sample ID: 0406077-03DDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/14/04 17:46

Client ID: RA304 Run ID: ICP4500_040615A SeqNo: 485256 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050	0	0	0	0-0	0.001849	0	25	
Barium	0.0142	0.0050	0	0	0	0-0	0.0104	30.9	25	R
Cadmium	ND	0.0020	0	0	0	0-0	-0.00005586	0	25	
Chromium	0.0009498	0.0050	0	0	0	0-0	0.001055	0	25	J
Cobalt	0.0001623	0.0050	0	0	0	0-0	0.000161	0	25	J
Copper	0.01454	0.0050	0	0	0	0-0	0.01494	2.71	25	
Iron	0.8851	0.20	0	0	0	0-0	0.8278	6.69	25	
Manganese	0.02538	0.0050	0	0	0	0-0	0.02156	16.3	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.001036	0	25	
Nickel	0.00293	0.0050	0	0	0	0-0	0.002957	0	25	J
Potassium	2.01	0.20	0	0	0	0-0	1.975	1.76	25	
Selenium	0.007	0.0050	0	0	0	0-0	0.008808	22.9	25	
Silver	ND	0.0050	0	0	0	0-0	-0.00006701	0	25	
Vanadium	0.006811	0.0050	0	0	0	0-0	0.006987	2.55	25	
Zinc	0.03225	0.0050	0	0	0	0-0	0.0323	0.155	25	

DUP Sample ID: 0406077-03DDUP Test Code: SW6020 Units: mg/L Analysis Date: 06/16/04 23:22

Client ID: RA304 Run ID: ICP4500_040616A SeqNo: 486600 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.0571	0.010	0	0	0	0-0	0.05571	2.46	25	

The following samples were analyzed in this batch:

0406077-01D 0406077-02D 0406077-03D

ND - Not Detected at the Reporting Limit

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E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly

QC BATCH REPORT

Batch ID: 9294 InstrumentID: Mercury

MBLK Sample ID: GBLKW1-061704 Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:36

Client ID: Run ID: MERCURY_040618A SeqNo: 487536 Prep Date: 6/17/2004 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: GLCSW1-061704 Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:37

Client ID: Run ID: MERCURY_040618A SeqNo: 487537 Prep Date: 6/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00476	0.00020	0.005	0	95.2	83-115	0			

LCSD Sample ID: GLCSDW1-061704 Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:42

Client ID: Run ID: MERCURY_040618A SeqNo: 487538 Prep Date: 6/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00477	0.00020	0.005	0	95.4	83-115	0.00476	0.21	20	

MS Sample ID: 0406100-03EMS Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:46

Client ID: Run ID: MERCURY_040618A SeqNo: 487541 Prep Date: 6/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00539	0.00020	0.005	0.000001	108	83-115	0			

MSD Sample ID: 0406100-03EMSD Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:50

Client ID: Run ID: MERCURY_040618A SeqNo: 487542 Prep Date: 6/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00553	0.00020	0.005	0.000001	111	83-115	0.00539	2.56	20	

DUP Sample ID: 0406100-03EDUP Test Code: SW7470 Units: mg/L Analysis Date: 06/18/04 12:45

Client ID: Run ID: MERCURY_040618A SeqNo: 487540 Prep Date: 6/17/2004 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	0.000001	0	20	

The following samples were analyzed in this batch:

0406077-01D 0406077-02D 0406077-03D

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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9232 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040610 Test Code: SW8270 Units: µg/L Analysis Date: 06/10/04 14:02
 Client ID: Run ID: SV-3_040610A SeqNo: 485118 Prep Date: 6/10/2004 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	83.43	10	100	0	83.4	39-153	0			
Surr: 2-Fluorobiphenyl	80.29	10	100	0	80.3	40-147	0			
Surr: 2-Fluorophenol	55.02	10	100	0	55	21-110	0			
Surr: 4-Terphenyl-d14	94.15	10	100	0	94.1	39-141	0			
Surr: Nitrobenzene-d5	82.4	10	100	0	82.4	37-140	0			
Surr: Phenol-d6	36.47	10	100	0	36.5	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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9232 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040610 Test Code: SW8270 Units: µg/L Analysis Date: 06/10/04 14:27

Client ID: Run ID: SV-3_040610A SeqNo: 485119 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.22	10	50	0	86.4	50-115	0			
2,4,5-Trichlorophenol	92.67	10	100	0	92.7	68-128	0			
2,4,6-Trichlorophenol	89.63	10	100	0	89.6	66-125	0			
2-Methylnaphthalene	42.46	10	50	0	84.9	47-122	0			
2-Methylphenol	79.16	10	100	0	79.2	51-115	0			
2-Nitroaniline	44.54	10	50	0	89.1	64-128	0			
2-Nitrophenol	85.77	10	100	0	85.8	60-119	0			
3-Nitroaniline	45.13	10	50	0	90.3	61-118	0			
4-Methylphenol	112.6	10	150	0	75.1	44-115	0			
4-Nitroaniline	44.42	10	50	0	88.8	61-123	0			
4-Nitrophenol	54.8	10	100	0	54.8	17-100	0			
Acenaphthene	44.62	10	50	0	89.2	68-115	0			
Acenaphthylene	43.26	10	50	0	86.5	67-116	0			
Aniline	30.21	10	50	0	60.4	40-130	0			
Anthracene	46.36	10	50	0	92.7	70-129	0			
Benz(a)anthracene	43.06	10	50	0	86.1	55-131	0			
Benzidine	39.08	10	50	0	78.2	10-115	0			
Hexachloroethane	41.92	10	50	0	83.8	46-115	0			
Indeno(1,2,3-cd)pyrene	43.31	10	50	0	86.6	42-123	0			
Isophorone	44.72	10	50	0	89.4	63-117	0			
N-Nitrosodi-n-propylamine	42.92	10	50	0	85.8	67-115	0			
N-Nitrosodimethylamine	25.54	10	50	0	51.1	28-115	0			
N-Nitrosodiphenylamine	49.93	10	50	0	99.9	72-144	0			
Naphthalene	43.44	10	50	0	86.9	52-115	0			
Nitrobenzene	48.7	10	50	0	97.4	65-115	0			
Pentachlorophenol	88.21	10	100	0	88.2	65-123	0			
Phenanthrene	45.9	10	50	0	91.8	69-119	0			
Phenol	46.25	10	100	0	46.2	16-115	0			
Pyrene	48.01	10	50	0	96	51-130	0			
Surr: 2,4,6-Tribromophenol	90.12	10	100	0	90.1	39-153	0			
Surr: 2-Fluorobiphenyl	86.43	10	100	0	86.4	40-147	0			
Surr: 2-Fluorophenol	65.01	10	100	0	65	21-110	0			
Surr: 4-Terphenyl-d14	94.91	10	100	0	94.9	39-141	0			
Surr: Nitrobenzene-d5	85.4	10	100	0	85.4	37-140	0			
Surr: Phenol-d6	42.31	10	100	0	42.3	11-100	0			

ND - Not Detected at the Reporting Limit

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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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: 9232 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040610 Test Code: SW8270 Units: µg/L Analysis Date: 06/10/04 14:52

Client ID: Run ID: SV-3_040610A SeqNo: 485120 Prep Date: 6/10/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	43.4	10	50	0	86.8	50-115	43.22	0.422	30	
2,4,5-Trichlorophenol	88.94	10	100	0	88.9	68-128	92.67	4.11	30	
2,4,6-Trichlorophenol	86.66	10	100	0	86.7	66-125	89.63	3.37	30	
2-Methylnaphthalene	41.4	10	50	0	82.8	47-122	42.46	2.52	30	
2-Methylphenol	78.92	10	100	0	78.9	51-115	79.16	0.3	30	
2-Nitroaniline	44.93	10	50	0	89.9	64-128	44.54	0.888	30	
2-Nitrophenol	84.08	10	100	0	84.1	60-119	85.77	1.99	30	
3-Nitroaniline	42.44	10	50	0	84.9	61-118	45.13	6.14	30	
4-Methylphenol	110.7	10	150	0	73.8	44-115	112.6	1.68	30	
4-Nitroaniline	43.16	10	50	0	86.3	61-123	44.42	2.88	30	
4-Nitrophenol	51.05	10	100	0	51.1	17-100	54.8	7.07	30	
Acenaphthene	44.15	10	50	0	88.3	68-115	44.62	1.08	30	
Acenaphthylene	41.59	10	50	0	83.2	67-116	43.26	3.94	30	
Aniline	29.35	10	50	0	58.7	40-130	30.21	2.89	30	
Anthracene	44.64	10	50	0	89.3	70-129	46.36	3.78	30	
Benz(a)anthracene	47.6	10	50	0	95.2	55-131	43.06	10	30	
Benzidine	34.42	10	50	0	68.8	10-115	39.08	12.7	30	
Hexachloroethane	43.17	10	50	0	86.3	46-115	41.92	2.94	30	
Indeno(1,2,3-cd)pyrene	43.86	10	50	0	87.7	42-123	43.31	1.28	30	
Isophorone	43.54	10	50	0	87.1	63-117	44.72	2.66	30	
N-Nitrosodi-n-propylamine	42.66	10	50	0	85.3	67-115	42.92	0.616	30	
N-Nitrosodimethylamine	26.48	10	50	0	53	28-115	25.54	3.62	30	
N-Nitrosodiphenylamine	46.98	10	50	0	94	72-144	49.93	6.08	30	
Naphthalene	43.2	10	50	0	86.4	52-115	43.44	0.566	30	
Nitrobenzene	50.57	10	50	0	101	65-115	48.7	3.76	30	
Pentachlorophenol	87.65	10	100	0	87.6	65-123	88.21	0.637	30	
Phenanthrene	44.84	10	50	0	89.7	69-119	45.9	2.32	30	
Phenol	46.03	10	100	0	46	16-115	46.25	0.479	30	
Pyrene	46.78	10	50	0	93.6	51-130	48.01	2.59	30	
Surr: 2,4,6-Tribromophenol	88.68	10	100	0	88.7	39-153	90.12	1.61	30	
Surr: 2-Fluorobiphenyl	84.28	10	100	0	84.3	40-147	86.43	2.52	30	
Surr: 2-Fluorophenol	65.32	10	100	0	65.3	21-110	65.01	0.483	30	
Surr: 4-Terphenyl-d14	94.52	10	100	0	94.5	39-141	94.91	0.412	30	
Surr: Nitrobenzene-d5	86.05	10	100	0	86.1	37-140	85.4	0.767	30	
Surr: Phenol-d6	40.78	10	100	0	40.8	11-100	42.31	3.68	30	

The following samples were analyzed in this batch:

0406077-01E 0406077-02E 0406077-03E

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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R20987 InstrumentID: VOA1

MBLK Sample ID: VBLKW-0609 Test Code: SW8260 Units: µg/L Analysis Date: 06/09/04 16:56

Client ID: Run ID: VOA1_040609A SeqNo: 483958 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								
Methyl tert-butyl ether	ND	5.0								
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	44.66	5.0	50	0	89.3	71-126		0		
Surr: 4-Bromofluorobenzene	39.68	5.0	50	0	79.4	74-125		0		
Surr: Dibromofluoromethane	47.06	5.0	50	0	94.1	73-126		0		
Surr: Toluene-d8	41.33	5.0	50	0	82.7	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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R20987 InstrumentID: VOA1

LCS Sample ID: VLCSW-0609 Test Code: SW8260 Units: µg/L Analysis Date: 06/09/04 16:28

Client ID: Run ID: VOA1_040609A SeqNo: 483957 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	44.58	5.0	50	0	89.2	75.2-120	0			
1,1,2,2-Tetrachloroethane	48.68	5.0	50	0	97.4	72.4-121	0			
1,1,2-Trichloroethane	46.97	5.0	50	0	93.9	80-120	0			
1,1-Dichloroethane	43.79	5.0	50	0	87.6	76.9-120	0			
1,1-Dichloroethene	40.47	5.0	50	0	80.9	72.6-123	0			
1,2-Dichloroethane	44.49	5.0	50	0	89	80-120	0			
2-Butanone	95.78	10	100	0	95.8	69-131	0			
2-Chloroethyl vinyl ether	97.45	10	100	0	97.4	60-135	0			
2-Hexanone	96.55	10	100	0	96.5	55.6-126	0			
4-Methyl-2-pentanone	92.8	10	100	0	92.8	67.4-121	0			
Acetone	91.53	10	100	0	91.5	64.4-140	0			
Benzene	47.9	5.0	50	0	95.8	80-120	0			
Bromodichloromethane	42.98	5.0	50	0	86	80-120	0			
Bromoform	49	5.0	50	0	98	77.9-121	0			
Bromomethane	45.42	5.0	50	0	90.8	63.3-137	0			
Carbon disulfide	101.7	10	100	0	102	74.1-123	0			
Carbon tetrachloride	42.93	5.0	50	0	85.9	74.7-120	0			
Chlorobenzene	48.35	5.0	50	0	96.7	80-120	0			
Chloroethane	52.84	5.0	50	0	106	74.7-126	0			
Chloroform	46.71	5.0	50	0	93.4	80-120	0			
Chloromethane	56.19	5.0	50	0	112	64.5-132	0			
cis-1,3-Dichloropropene	45.87	5.0	50	0	91.7	80-120	0			
Dibromochloromethane	46.22	5.0	50	0	92.4	80-120	0			
Ethylbenzene	47.87	5.0	50	0	95.7	80-120	0			
m,p-Xylene	102.2	10	100	0	102	80-120	0			
Methyl tert-butyl ether	48.91	5.0	50	0	97.8	73.7-122	0			
Methylene chloride	53.12	10	50	0	106	76.2-120	0			
Styrene	52.64	5.0	50	0	105	80-120	0			
Tetrachloroethene	44.34	5.0	50	0	88.7	68.5-130	0			
Toluene	46.79	5.0	50	0	93.6	80-120	0			
trans-1,3-Dichloropropene	45.68	5.0	50	0	91.4	80-120	0			
Trichloroethene	43.14	5.0	50	0	86.3	78.9-120	0			
Vinyl acetate	113.7	10	100	0	114	62.4-133	0			
Vinyl chloride	48.44	2.0	50	0	96.9	72.7-128	0			
Xylenes, Total	152.7	15	150	0	102	80-120	0			
Surr: 1,2-Dichloroethane-d4	37.61	5.0	50	0	75.2	71-126	0			
Surr: 4-Bromofluorobenzene	46.23	5.0	50	0	92.5	74-125	0			
Surr: Dibromofluoromethane	39.57	5.0	50	0	79.1	73-126	0			
Surr: Toluene-d8	45.07	5.0	50	0	90.1	75-125	0			

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R - RPD outside accepted recovery limits

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R20987 InstrumentID: VOA1

MS		Sample ID: 0405316-08AMS		Test Code: SW8260		Units: µg/L		Analysis Date: 06/09/04 20:43		
Client ID:		Run ID: VOA1_040609A		SeqNo: 483960		Prep Date:		DF: 1000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57340	5,000	50000	0	115	75.2-120	0			
1,1,2,2-Tetrachloroethane	53310	5,000	50000	0	107	72.4-121	0			
1,1,2-Trichloroethane	50230	5,000	50000	0	100	80-120	0			
1,1-Dichloroethane	50200	5,000	50000	0	100	76.9-120	0			
1,1-Dichloroethene	46800	5,000	50000	0	93.6	72.6-123	0			
1,2-Dichloroethane	50840	5,000	50000	0	102	80-120	0			
2-Butanone	92110	10,000	100000	0	92.1	69-131	0			
2-Chloroethyl vinyl ether	100000	10,000	100000	0	100	60-135	0			
2-Hexanone	91430	10,000	100000	0	91.4	55.6-126	0			
4-Methyl-2-pentanone	90290	10,000	100000	0	90.3	67.4-121	0			
Acetone	86690	10,000	100000	0	86.7	64.4-140	0			
Benzene	54000	5,000	50000	0	108	80-120	0			
Bromodichloromethane	51470	5,000	50000	0	103	80-120	0			
Bromoform	49320	5,000	50000	0	98.6	77.9-121	0			
Bromomethane	56780	5,000	50000	0	114	63.3-137	0			
Carbon disulfide	113600	10,000	100000	0	114	74.1-123	0			
Carbon tetrachloride	202000	5,000	50000	162100	79.9	74.7-120	0			E
Chlorobenzene	52290	5,000	50000	0	105	80-120	0			
Chloroethane	57960	5,000	50000	0	116	74.7-126	0			
Chloroform	68330	5,000	50000	6497	124	80-120	0			S
Chloromethane	63250	5,000	50000	0	127	64.5-132	0			
cis-1,3-Dichloropropene	51150	5,000	50000	0	102	80-120	0			
Dibromochloromethane	50680	5,000	50000	0	101	80-120	0			
Ethylbenzene	50210	5,000	50000	0	100	80-120	0			
m,p-Xylene	116800	10,000	100000	0	117	80-120	0			
Methyl tert-butyl ether	52420	5,000	50000	0	105	73.7-122	0			
Methylene chloride	57140	10,000	50000	0	114	76.2-120	0			
Styrene	57120	5,000	50000	0	114	80-120	0			
Tetrachloroethene	47280	5,000	50000	0	94.6	68.5-130	0			
Toluene	49060	5,000	50000	0	98.1	80-120	0			
trans-1,3-Dichloropropene	51440	5,000	50000	0	103	80-120	0			
Trichloroethene	48260	5,000	50000	0	96.5	78.9-120	0			
Vinyl acetate	136200	10,000	100000	0	136	62.4-133	0			S
Vinyl chloride	53840	2,000	50000	0	108	72.7-128	0			
Xylenes, Total	171800	15,000	150000	0	115	80-120	0			
Surr: 1,2-Dichloroethane-d4	42290	5,000	50000	0	84.6	71-126	0			
Surr: 4-Bromofluorobenzene	46850	5,000	50000	0	93.7	74-125	0			
Surr: Dibromofluoromethane	42960	5,000	50000	0	85.9	73-126	0			
Surr: Toluene-d8	45590	5,000	50000	0	91.2	75-125	0			

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R20987 InstrumentID: VOA1

MSD	Sample ID: 0405316-08AMSD			Test Code: SW8260		Units: µg/L		Analysis Date: 06/09/04 21:11		
Client ID:	Run ID: VOA1_040609A			SeqNo: 483961		Prep Date:		DF: 1000		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54730	5,000	50000	0	109	75.2-120	57340	4.66	20	
1,1,2,2-Tetrachloroethane	50890	5,000	50000	0	102	72.4-121	53310	4.64	20	
1,1,2-Trichloroethane	50700	5,000	50000	0	101	80-120	50230	0.929	20	
1,1-Dichloroethane	49410	5,000	50000	0	98.8	76.9-120	50200	1.59	20	
1,1-Dichloroethene	46000	5,000	50000	0	92	72.6-123	46800	1.74	20	
1,2-Dichloroethane	50120	5,000	50000	0	100	80-120	50840	1.41	20	
2-Butanone	91210	10,000	100000	0	91.2	69-131	92110	0.978	20	
2-Chloroethyl vinyl ether	97540	10,000	100000	0	97.5	60-135	100000	2.52	20	
2-Hexanone	92970	10,000	100000	0	93	55.6-126	91430	1.67	20	
4-Methyl-2-pentanone	93440	10,000	100000	0	93.4	67.4-121	90290	3.43	20	
Acetone	87730	10,000	100000	0	87.7	64.4-140	86690	1.19	20	
Benzene	55250	5,000	50000	0	110	80-120	54000	2.27	20	
Bromodichloromethane	48570	5,000	50000	0	97.1	80-120	51470	5.81	20	
Bromoform	51440	5,000	50000	0	103	77.9-121	49320	4.21	20	
Bromomethane	54310	5,000	50000	0	109	63.3-137	56780	4.45	20	
Carbon disulfide	108500	10,000	100000	0	109	74.1-123	113600	4.58	20	
Carbon tetrachloride	192200	5,000	50000	162100	60.2	74.7-120	202000	4.99	20	S
Chlorobenzene	53290	5,000	50000	0	107	80-120	52290	1.88	20	
Chloroethane	57120	5,000	50000	0	114	74.7-126	57960	1.46	20	
Chloroform	62420	5,000	50000	6497	112	80-120	68330	9.03	20	
Chloromethane	61800	5,000	50000	0	124	64.5-132	63250	2.32	20	
cis-1,3-Dichloropropene	50250	5,000	50000	0	101	80-120	51150	1.77	20	
Dibromochloromethane	50020	5,000	50000	0	100	80-120	50680	1.3	20	
Ethylbenzene	51430	5,000	50000	0	103	80-120	50210	2.4	20	
m,p-Xylene	120400	10,000	100000	0	120	80-120	116800	2.98	20	S
Methyl tert-butyl ether	50910	5,000	50000	0	102	73.7-122	52420	2.93	20	
Methylene chloride	53420	10,000	50000	0	107	76.2-120	57140	6.72	20	
Styrene	57880	5,000	50000	0	116	80-120	57120	1.33	20	
Tetrachloroethene	48870	5,000	50000	0	97.7	68.5-130	47280	3.3	20	
Toluene	52020	5,000	50000	0	104	80-120	49060	5.85	20	
trans-1,3-Dichloropropene	51250	5,000	50000	0	103	80-120	51440	0.367	20	
Trichloroethene	48420	5,000	50000	0	96.8	78.9-120	48260	0.329	20	
Vinyl acetate	131400	10,000	100000	0	131	62.4-133	136200	3.59	20	
Vinyl chloride	53140	2,000	50000	0	106	72.7-128	53840	1.32	20	
Xylenes, Total	176400	15,000	150000	0	118	80-120	171800	2.63	20	
Surr: 1,2-Dichloroethane-d4	39830	5,000	50000	0	79.7	71-126	42290	5.98	20	
Surr: 4-Bromofluorobenzene	47490	5,000	50000	0	95	74-125	46850	1.35	20	
Surr: Dibromofluoromethane	40810	5,000	50000	0	81.6	73-126	42960	5.14	20	
Surr: Toluene-d8	46750	5,000	50000	0	93.5	75-125	45590	2.51	20	

The following samples were analyzed in this batch:

0406077-01A 0406077-02A 0406077-03A

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

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CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly

QC BATCH REPORT

Batch ID: R20994 InstrumentID: WetChem

MBLK Sample ID: WMBW1-061004 Test Code: E310.1 Units: mg/L Analysis Date: 06/10/04 0:00

Client ID: Run ID: WETCHEM_040610A SeqNo: 484119 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: WLCBW1-061004 Test Code: E310.1 Units: mg/L Analysis Date: 06/10/04 0:00

Client ID: Run ID: WETCHEM_040610A SeqNo: 484120 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)	1010	5.0	1000	0	101	80-120	0			

DUP Sample ID: 0406071-03DDUP Test Code: E310.1 Units: mg/L Analysis Date: 06/10/04 0:00

Client ID: Run ID: WETCHEM_040610A SeqNo: 484128 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)	428	5.0	0	0	0	0-0	428	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)	428	5.0	0	0	0	0-0	428	0	20	

The following samples were analyzed in this batch:

0406077-01C 0406077-02C 0406077-03C

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%

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U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0406077
Project: Monthly

QC BATCH REPORT

Batch ID: R21021 InstrumentID: UV-2101PC

MBLK	Sample ID: WMBW1-061204			Test Code: E335.3		Units: mg/L		Analysis Date: 06/12/04 0:00		
Client ID:	Run ID: UV-2101PC_040612A			SeqNo: 484565		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: WLCSW1-061204			Test Code: E335.3		Units: mg/L		Analysis Date: 06/12/04 0:00		
Client ID:	Run ID: UV-2101PC_040612A			SeqNo: 484566		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1984	0.020	0.2	0	99.2	80-120	0			

MS	Sample ID: 0406063-01CMS			Test Code: E335.3		Units: mg/L		Analysis Date: 06/12/04 0:00		
Client ID:	Run ID: UV-2101PC_040612A			SeqNo: 484576		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.207	0.020	0.2	0.0067	100	75-125	0			

MSD	Sample ID: 0406063-01CMSD			Test Code: E335.3		Units: mg/L		Analysis Date: 06/12/04 0:00		
Client ID:	Run ID: UV-2101PC_040612A			SeqNo: 484577		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2107	0.020	0.2	0.0067	102	75-125	0.207	1.77	25	

DUP	Sample ID: 0406063-01CDUP			Test Code: E335.3		Units: mg/L		Analysis Date: 06/12/04 0:00		
Client ID:	Run ID: UV-2101PC_040612A			SeqNo: 484575		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0062	0.020	0	0	0	0-0	0.0067	0	20	J

The following samples were analyzed in this batch:

0406077-01B 0406077-02B 0406077-03B

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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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R21177 InstrumentID: IC201

MBLK Sample ID: WBLKW1-061804 Test Code: E300 Units: mg/L Analysis Date: 06/18/04 12:36

Client ID: Run ID: IC201_040618A SeqNo: 488082 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								
Surr: Dichloroacetic acid (surr)	4.72	0.10	5	0	94.4	80-120	0			

LCS Sample ID: WLCSW1-061804 Test Code: E300 Units: mg/L Analysis Date: 06/18/04 13:04

Client ID: Run ID: IC201_040618A SeqNo: 488083 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.13	0.50	10	0	91.3	80-120	0			
Fluoride	1.91	0.10	2	0	95.5	80-120	0			
Sulfate	9.94	1.0	10	0	99.4	80-120	0			
Surr: Dichloroacetic acid (surr)	4.66	0.10	5	0	93.2	80-120	0			

LCSD Sample ID: WLCSDW1-06180 Test Code: E300 Units: mg/L Analysis Date: 06/18/04 13:33

Client ID: Run ID: IC201_040618A SeqNo: 488084 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.18	0.50	10	0	91.8	80-120	9.13	0.546	20	
Fluoride	1.98	0.10	2	0	99	80-120	1.91	3.6	20	
Sulfate	9.97	1.0	10	0	99.7	80-120	9.94	0.301	20	
Surr: Dichloroacetic acid (surr)	4.72	0.10	5	0	94.4	80-120	4.66	1.28	20	

MS Sample ID: 0406189-05EMS Test Code: E300 Units: mg/L Analysis Date: 06/18/04 19:15

Client ID: Run ID: IC201_040618A SeqNo: 488096 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	491	5.0	100	363.7	127	75-125	0			S
Fluoride	20.3	1.0	20	3.6	83.5	75-125	0			
Sulfate	525.1	10	100	411.7	113	75-125	0			EO
Surr: Dichloroacetic acid (surr)	46.3	1.0	50	0	92.6	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: 0406077
 Project: Monthly

QC BATCH REPORT

Batch ID: R21177 InstrumentID: IC201

MSD Sample ID: 0406189-05EMSD Test Code: E300 Units: mg/L Analysis Date: 06/18/04 19:43

Client ID: Run ID: IC201_040618A SeqNo: 488097 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	478	5.0	100	363.7	114	75-125	491	2.68	20	
Fluoride	20.5	1.0	20	3.6	84.5	75-125	20.3	0.98	20	
Sulfate	506.2	10	100	411.7	94.5	75-125	525.1	3.67	20	EO
Surr: Dichloroacetic acid (surr)	46.1	1.0	50	0	92.2	80-120	46.3	0.433	20	

DUP Sample ID: 0406189-05EDUP Test Code: E300 Units: mg/L Analysis Date: 06/18/04 18:46

Client ID: Run ID: IC201_040618A SeqNo: 488095 Prep Date: DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	367.8	5.0	0	0	0	0-0	363.7	1.12	20	
Fluoride	3.2	1.0	0	0	0	0-0	3.6	11.8	20	
Sulfate	402.1	10	0	0	0	0-0	411.7	2.36	20	
Surr: Dichloroacetic acid (surr)	45.7	1.0	50	0	91.4	80-120	45.8	0.219	20	

DUP Sample ID: 0406110-01BDUP Test Code: E300 Units: mg/L Analysis Date: 06/19/04 3:20

Client ID: Run ID: IC201_040618A SeqNo: 488112 Prep Date: DF: 100

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	383	50	0	0	0	0-0	384	0.261	20	
Fluoride	ND	10	0	0	0	0-0	0	0	20	
Sulfate	1324	100	0	0	0	0-0	1318	0.454	20	
Surr: Dichloroacetic acid (surr)	505	10	500	0	101	80-120	467	7.82	20	

The following samples were analyzed in this batch:

0406077-01C 0406077-02C 0406077-03C

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

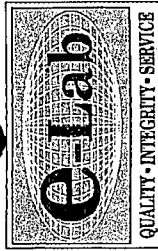
R - RPD outside accepted recovery limits

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



☐ e-Lab, Inc.
10450 Stanciliff 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

Customer Information				Project Information				e-Lab Work Order # <u>0406077</u>											
Purchase Order				Project Name				Parameter/Method Request for Analysis											
Work Order				Project Number				VOC (Select) 8260											
Company Name				Bill To Company				SVOC 8270 (Select)											
Send Report To				Invoice Attn				Tot Metals WQCC + Cations (80207000)											
Address				P.O. Box 159				Anions: Cl, F, SO ₄ , NO ₃ , NO ₂											
City/State/Zip				Artesia, New Mexico 88211				Alkalinity											
Phone				(505) 746-3311				Total Cyanide (9012)											
Fax				(505) 746-5421				Monthly											
e-Mail Address				e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	RA313	6/7/04	0900	L	9	10							X						
2	RA314	6/7/04	1000	L	9	10							X						
3	RA304	6/8/04	1430	L		10							X						
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sample(s) Please Print & Sign		Shipment Method		Required Turnaround Time (Check Box)		Results Due Date	
Relinquished by: <i>[Signature]</i>	Time: <u>10:15</u>	Method: <u>FedEx</u>	Required: ☐ STD 10 WK Days ☐ 5 WK Days ☐ 24 Hour	Other: ☐ Other			
Relinquished by: <i>[Signature]</i>	Time: <u>08:55</u>	Method: <u>5-Na₂SO₃</u>	Other: ☐ Other				
Logged by (Laboratory):	Time: <u>08:55</u>	Method: <u>4-NaOH</u>	Other: ☐ Other				
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄	Time: <u>08:55</u>	Method: <u>5-Na₂SO₃</u>	Other: ☐ Other				

Notes:	
e-Lab Cooler (D)	
Cooler Temp	
OC Package: (Check One Box Below)	
☒ Level II Std QC	☐ TRRP Checklist
☐ Level III Std QC Raw Data	☐ TRRP Level IV
☐ Level IV SW/846/CLP	☐ Other

Note: 1. 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 Analytical, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 6/9/2004 8:55:00 AM

Work Order Number 0406077

Received by: FSM

Checklist completed by

Signature

Date

Reviewed by

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):

3.1C

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 Analytical, Inc.

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

June 10, 2004

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

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

Re: Monthly

Work Order : **0405258**

Dear Jeff Byrd,

e-Lab Analytical, Inc. received 2 samples on 5/26/2004 9:10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab Analytical, 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 Analytical, Inc. The total number of pages in this report is 28.

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

Sincerely,

Electronically approved by: Patrina A. Dathorne

Jeffrey L Croston

e-Lab Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company

Project: Monthly

Work Order: 0405258

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0405258-01	RA 3156	Water		5/24/2004 09:00	5/26/2004 09:10	☐
0405258-02	RA 3356	Water		5/24/2004 08:45	5/26/2004 09:10	☐

e-Lab Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Project: Monthly
Work Order: 0405258

Case Narrative

Batch 9100 Metals MS/MSD was an unrelated sample.

Batch R20923 Volatiles MS/MSD/RPD was an unrelated sample.

Batch R20863 Anions MS/MSD was an unrelated sample.

e-Lab Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-01

Client Sample ID: RA 3156
Collection Date: 5/24/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
		SW7470			Prep Date: 6/3/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	6/4/2004 1:07:56 PM
ICP METALS, TOTAL						
		SW6020			Prep Date: 5/27/2004	Analyst: SA
Aluminum	0.0214	0.0100		mg/L	1	5/27/2004 8:55:00 PM
Arsenic	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Barium	0.00896	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Beryllium	ND	0.00200		mg/L	1	5/27/2004 8:55:00 PM
Boron	0.111	0.0200		mg/L	1	5/28/2004 2:39:00 PM
Cadmium	ND	0.00100		mg/L	1	5/27/2004 8:55:00 PM
Calcium	397	5.00		mg/L	10	5/27/2004 7:04:00 PM
Chromium	ND	0.00200		mg/L	1	5/27/2004 8:55:00 PM
Cobalt	ND	0.00200		mg/L	1	5/27/2004 8:55:00 PM
Copper	ND	0.00200		mg/L	1	5/27/2004 8:55:00 PM
Iron	ND	0.200		mg/L	1	5/27/2004 8:55:00 PM
Lead	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Magnesium	126	2.00		mg/L	10	5/27/2004 7:04:00 PM
Manganese	0.0294	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Molybdenum	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Nickel	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Potassium	2.12	0.200		mg/L	1	5/27/2004 8:55:00 PM
Selenium	0.0108	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Silver	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Sodium	115	2.00		mg/L	10	5/27/2004 7:04:00 PM
Vanadium	ND	0.00500		mg/L	1	5/27/2004 8:55:00 PM
Zinc	0.355	0.00500		mg/L	1	5/27/2004 8:55:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
		SW8270			Prep Date: 5/27/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2-Methylphenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:26:00 PM
2-Nitrophenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
3-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:26:00 PM
4-Methylphenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
4-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:26:00 PM
4-Nitrophenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Acenaphthene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Acenaphthylene	ND	10		µg/L	1	5/28/2004 9:26:00 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 Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-01

Client Sample ID: RA 3156
Collection Date: 5/24/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Anthracene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Benzidine	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Hexachloroethane	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Isophorone	ND	10		µg/L	1	5/28/2004 9:26:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	5/28/2004 9:26:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	5/28/2004 9:26:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Naphthalene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Nitrobenzene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Pentachlorophenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Phenanthrene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Phenol	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Pyrene	ND	10		µg/L	1	5/28/2004 9:26:00 PM
Surr: 2,4,6-Tribromophenol	98.9	39-153		%REC	1	5/28/2004 9:26:00 PM
Surr: 2-Fluorobiphenyl	82.8	40-147		%REC	1	5/28/2004 9:26:00 PM
Surr: 2-Fluorophenol	38.0	21-110		%REC	1	5/28/2004 9:26:00 PM
Surr: 4-Terphenyl-d14	96.2	39-141		%REC	1	5/28/2004 9:26:00 PM
Surr: Nitrobenzene-d5	77.6	37-140		%REC	1	5/28/2004 9:26:00 PM
Surr: Phenol-d6	22.9	11-100		%REC	1	5/28/2004 9:26:00 PM

VOLATILES BY GC/MS
SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
2-Butanone	ND	10		µg/L	1	6/7/2004 4:30:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	6/7/2004 4:30:00 PM
2-Hexanone	ND	10		µg/L	1	6/7/2004 4:30:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Acetone	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Benzene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Bromoform	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Bromomethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Carbon disulfide	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/7/2004 4:30:00 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 Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-01

Client Sample ID: RA 3156
Collection Date: 5/24/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Chloroethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Chloroform	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Chloromethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
m,p-Xylene	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Methylene chloride	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Styrene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Toluene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/7/2004 4:30:00 PM
Vinyl acetate	ND	10		µg/L	1	6/7/2004 4:30:00 PM
Vinyl chloride	ND	2.0		µg/L	1	6/7/2004 4:30:00 PM
Xylenes, Total	ND	15		µg/L	1	6/7/2004 4:30:00 PM
Surr: 1,2-Dichloroethane-d4	86.2	71-126		%REC	1	6/7/2004 4:30:00 PM
Surr: 4-Bromofluorobenzene	85.9	74-125		%REC	1	6/7/2004 4:30:00 PM
Surr: Dibromofluoromethane	85.1	73-126		%REC	1	6/7/2004 4:30:00 PM
Surr: Toluene-d8	90.8	75-125		%REC	1	6/7/2004 4:30:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300			Analyst: MG	
Chloride	166	5.00		mg/L	10	6/2/2004 10:47:00 PM
Fluoride	0.600	0.100		mg/L	1	6/2/2004 10:18:00 PM
Sulfate	1,080	100		mg/L	100	6/2/2004 11:16:00 PM
Surr: Dichloroacetic acid (surr)	98.6	80-120		%REC	1	6/2/2004 10:18:00 PM
Surr: Dichloroacetic acid (surr)	88.0	80-120		%REC	10	6/2/2004 10:47:00 PM
Surr: Dichloroacetic acid (surr)	85.8	80-120		%REC	100	6/2/2004 11:16:00 PM
ALKALINITY		E310.1			Analyst: LMD	
Alkalinity, Bicarbonate (As CaCO3)	177	5.00		mg/L	1	6/1/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/1/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/1/2004
Alkalinity, Total (As CaCO3)	177	5.00		mg/L	1	6/1/2004
CYANIDE, TOTAL		E335.3			Analyst: LMD	
Cyanide	ND	0.0200		mg/L	1	5/30/2004

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 Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-02

Client Sample ID: RA 3356
Collection Date: 5/24/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL		SW7470			Prep Date: 6/3/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	6/4/2004 1:09:29 PM
ICP METALS, TOTAL		SW6020			Prep Date: 5/27/2004	Analyst: SA
Aluminum	ND	0.0100		mg/L	1	5/27/2004 9:07:00 PM
Arsenic	ND	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Barium	0.00938	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Beryllium	ND	0.00200		mg/L	1	5/27/2004 9:07:00 PM
Boron	0.201	0.0200		mg/L	1	5/28/2004 2:45:00 PM
Cadmium	ND	0.00100		mg/L	1	5/27/2004 9:07:00 PM
Calcium	519	5.00		mg/L	10	5/27/2004 7:09:00 PM
Chromium	ND	0.00200		mg/L	1	5/27/2004 9:07:00 PM
Cobalt	ND	0.00200		mg/L	1	5/27/2004 9:07:00 PM
Copper	0.00209	0.00200		mg/L	1	5/27/2004 9:07:00 PM
Iron	1.60	0.200		mg/L	1	5/27/2004 9:07:00 PM
Lead	ND	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Magnesium	174	2.00		mg/L	10	5/27/2004 7:09:00 PM
Manganese	0.0170	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Molybdenum	ND	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Nickel	ND	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Potassium	2.82	0.200		mg/L	1	5/27/2004 9:07:00 PM
Selenium	0.0128	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Silver	ND	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Sodium	206	2.00		mg/L	10	5/27/2004 7:09:00 PM
Vanadium	0.00896	0.00500		mg/L	1	5/27/2004 9:07:00 PM
Zinc	0.0611	0.00500		mg/L	1	5/27/2004 9:07:00 PM
SEMIVOLATILE ORGANICS BY GC/MS		SW8270			Prep Date: 5/27/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2-Methylphenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:52:00 PM
2-Nitrophenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
3-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:52:00 PM
4-Methylphenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
4-Nitroaniline	ND	10		µg/L	1	5/28/2004 9:52:00 PM
4-Nitrophenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Acenaphthene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Acenaphthylene	ND	10		µg/L	1	5/28/2004 9:52:00 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 Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-02

Client Sample ID: RA 3356
Collection Date: 5/24/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Anthracene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Benzidine	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Hexachloroethane	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Isophorone	ND	10		µg/L	1	5/28/2004 9:52:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	5/28/2004 9:52:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	5/28/2004 9:52:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Naphthalene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Nitrobenzene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Pentachlorophenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Phenanthrene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Phenol	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Pyrene	ND	10		µg/L	1	5/28/2004 9:52:00 PM
Surr: 2,4,6-Tribromophenol	97.5	39-153		%REC	1	5/28/2004 9:52:00 PM
Surr: 2-Fluorobiphenyl	86.6	40-147		%REC	1	5/28/2004 9:52:00 PM
Surr: 2-Fluorophenol	40.0	21-110		%REC	1	5/28/2004 9:52:00 PM
Surr: 4-Terphenyl-d14	96.3	39-141		%REC	1	5/28/2004 9:52:00 PM
Surr: Nitrobenzene-d5	88.6	37-140		%REC	1	5/28/2004 9:52:00 PM
Surr: Phenol-d6	22.9	11-100		%REC	1	5/28/2004 9:52:00 PM

VOLATILES BY GC/MS

SW8260

Analyst: PC

1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
2-Butanone	ND	10		µg/L	1	6/7/2004 4:55:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	6/7/2004 4:55:00 PM
2-Hexanone	ND	10		µg/L	1	6/7/2004 4:55:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Acetone	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Benzene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Bromoform	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Bromomethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Carbon disulfide	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/7/2004 4:55:00 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

AR Page 5 of 6

e-Lab Analytical, Inc.

Date: June 10, 2004

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly
Lab ID: 0405258-02

Client Sample ID: RA 3356
Collection Date: 5/24/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Chloroethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Chloroform	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Chloromethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
m,p-Xylene	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Methylene chloride	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Styrene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Toluene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/7/2004 4:55:00 PM
Vinyl acetate	ND	10		µg/L	1	6/7/2004 4:55:00 PM
Vinyl chloride	ND	2.0		µg/L	1	6/7/2004 4:55:00 PM
Xylenes, Total	ND	15		µg/L	1	6/7/2004 4:55:00 PM
Surr: 1,2-Dichloroethane-d4	87.7	71-126		%REC	1	6/7/2004 4:55:00 PM
Surr: 4-Bromofluorobenzene	86.3	74-125		%REC	1	6/7/2004 4:55:00 PM
Surr: Dibromofluoromethane	85.3	73-126		%REC	1	6/7/2004 4:55:00 PM
Surr: Toluene-d8	91.4	75-125		%REC	1	6/7/2004 4:55:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	216	5.00		mg/L	10	6/3/2004 12:13:00 AM
Fluoride	0.530	0.100		mg/L	1	6/2/2004 11:44:00 PM
Sulfate	1,420	100		mg/L	100	6/3/2004 12:41:00 AM
Surr: Dichloroacetic acid (surr)	106	80-120		%REC	1	6/2/2004 11:44:00 PM
Surr: Dichloroacetic acid (surr)	95.0	80-120		%REC	10	6/3/2004 12:13:00 AM
Surr: Dichloroacetic acid (surr)	96.4	80-120		%REC	100	6/3/2004 12:41:00 AM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	235	5.00		mg/L	1	6/1/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	6/1/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	6/1/2004
Alkalinity, Total (As CaCO3)	235	5.00		mg/L	1	6/1/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	5/30/2004

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 Analytical, Inc.

Date: Jun 10 2004

CLIENT: Navajo Refining Company
 Work Order: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9100 InstrumentID: ICP7500

MBLK Sample ID: MBLKW2-052704 Test Code: SW6020 Units: mg/L Analysis Date: 05/27/04 17:00
 Client ID: Run ID: ICP7500_040527A SeqNo: 478114 Prep Date: 5/27/2004 DF: 1

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

MBLK Sample ID: MBLKW2-052704 Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 15:06
 Client ID: Run ID: ICP4500_040608A SeqNo: 482573 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	ND	0.010								
Barium	ND	0.0050								
Beryllium	ND	0.0020								
Boron	ND	0.020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Iron	ND	0.20								
Magnesium	ND	0.20								
Manganese	ND	0.0050								
Molybdenum	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	0.001774	0.0050								J
Silver	ND	0.0050								
Sodium	ND	0.20								
Vanadium	ND	0.0050								
Zinc	0.001698	0.0050								J

LCS Sample ID: MLCSW2-052704 Test Code: SW6020 Units: mg/L Analysis Date: 05/27/04 17:06
 Client ID: Run ID: ICP7500_040527A SeqNo: 478115 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.04546	0.0050	0.05	0	90.9	80-121	0			
Chromium	0.04624	0.0050	0.05	0	92.5	79.3-121	0			
Lead	0.04413	0.0050	0.05	0	88.3	80-118	0			

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in assoc. Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

U - Analyzed for but not detected

O - Referenced analyte value is > 4 times amount spiked

P - Dual Column results percent difference > 40%

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0405258
Project: Monthly

QC BATCH REPORT

Batch ID: 9100 InstrumentID: ICP7500

LCS Sample ID: **MLCSW2-052704** Test Code: **SW6020** Units: **mg/L** Analysis Date: **06/08/04 15:10**

Client ID: Run ID: **ICP4500_040608A** SeqNo: **482574** Prep Date: **5/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.04669	0.010	0.05	0	93.4	79-126	0			
Barium	0.04491	0.0050	0.05	0	89.8	79.8-119	0			
Beryllium	0.04971	0.0020	0.05	0	99.4	78.9-120	0			
Boron	0.5259	0.020	0.5	0	105	80-120	0			
Cadmium	0.04799	0.0020	0.05	0	96	79.1-119	0			
Calcium	4.971	0.50	5	0	99.4	80-121	0			
Cobalt	0.04923	0.0050	0.05	0	98.5	82-121	0			
Copper	0.04663	0.0050	0.05	0	93.3	83-121	0			
Iron	5.045	0.20	5	0	101	80-120	0			
Magnesium	5.005	0.20	5	0	100	80-120	0			
Manganese	0.04958	0.0050	0.05	0	99.2	82-119	0			
Molybdenum	0.04384	0.0050	0.05	0	87.7	84.6-115	0			
Nickel	0.0485	0.0050	0.05	0	97	85-120	0			
Potassium	4.97	0.20	5	0	99.4	80-120	0			
Selenium	0.04744	0.0050	0.05	0	94.9	79.2-118	0			
Silver	0.04604	0.0050	0.05	0	92.1	83-117	0			
Sodium	5.013	0.20	5	0	100	82.4-120	0			
Vanadium	0.0483	0.0050	0.05	0	96.6	82.1-119	0			
Zinc	0.04858	0.0050	0.05	0	97.2	83-118	0			

MS Sample ID: **0405276-03AMS** Test Code: **SW6020** Units: **mg/L** Analysis Date: **05/27/04 18:17**

Client ID: Run ID: **ICP7500_040527A** SeqNo: **478127** Prep Date: **5/27/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.06034	0.0050	0.05	0.01434	92	80-121	0			
Chromium	0.05816	0.0050	0.05	0.00896	98.4	79.3-121	0			
Lead	0.1617	0.0050	0.05	0.1116	100	80-118	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9100 InstrumentID: ICP7500

MS Sample ID: 0405276-03AMS Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 15:37

Client ID: Run ID: ICP4500_040608A SeqNo: 482643 Prep Date: 5/27/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.6662	0.050	0.05	0.6211	90.2	79-126	0			O
Barium	0.07666	0.025	0.05	0.02706	99.2	79.8-119	0			
Beryllium	0.04449	0.010	0.05	0.0001362	88.7	78.9-120	0			
Boron	6.016	0.10	0.5	5.468	110	80-120	0			EO
Cadmium	0.04087	0.010	0.05	0.001115	79.5	79.1-119	0			
Calcium	19.86	2.5	5	14.88	99.6	80-121	0			
Cobalt	0.0491	0.025	0.05	0.004214	89.8	82-121	0			
Copper	0.2004	0.025	0.05	0.1669	67	83-121	0			S
Iron	5.689	1.0	5	1.016	93.5	80-120	0			
Magnesium	9.161	1.0	5	2.609	131	80-120	0			S
Manganese	0.08946	0.025	0.05	0.04093	97.1	82-119	0			
Molybdenum	1.483	0.025	0.05	1.45	66	84.6-115	0			SO
Nickel	0.1181	0.025	0.05	0.07632	83.6	85-120	0			S
Potassium	ND	1.0	5	0	0	80-120	0			S
Selenium	ND	0.025	0.05	-0.1597	319	79.2-118	0			S
Silver	0.03736	0.025	0.05	0.0003791	74	83-117	0			S
Sodium	ND	1.0	5	0	0	82.4-120	0			S
Vanadium	0.05482	0.025	0.05	0.001997	106	82.1-119	0			
Zinc	0.13	0.025	0.05	0.09955	60.9	83-118	0			S

MSD Sample ID: 0405276-03AMSD Test Code: SW6020 Units: mg/L Analysis Date: 05/27/04 18:28

Client ID: Run ID: ICP7500_040527A SeqNo: 478129 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.05402	0.0050	0.05	0.01434	79.4	80-121	0.06034	11.1	15	S
Chromium	0.05256	0.0050	0.05	0.00896	87.2	79.3-121	0.05816	10.1	15	
Lead	0.1459	0.0050	0.05	0.1116	68.6	80-118	0.1617	10.3	15	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9100 InstrumentID: ICP7500

MSD Sample ID: 0405276-03AMSD Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 15:42

Client ID: Run ID: ICP4500_040608A SeqNo: 482644 Prep Date: 5/27/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.6279	0.050	0.05	0.6211	13.6	79-126	0.6662	5.92	15	SO
Barium	0.07374	0.025	0.05	0.02706	93.4	79.8-119	0.07666	3.88	15	
Beryllium	0.04352	0.010	0.05	0.0001362	86.8	78.9-120	0.04449	2.2	15	
Boron	6.048	0.10	0.5	5.468	116	80-120	6.016	0.531	15	EO
Cadmium	0.03907	0.010	0.05	0.001115	75.9	79.1-119	0.04087	4.5	15	S
Calcium	18.97	2.5	5	14.88	81.8	80-121	19.86	4.58	15	
Cobalt	0.0485	0.025	0.05	0.004214	88.6	82-121	0.0491	1.23	15	
Copper	0.1881	0.025	0.05	0.1669	42.4	83-121	0.2004	6.33	15	S
Iron	5.552	1.0	5	1.016	90.7	80-120	5.689	2.44	15	
Magnesium	8.782	1.0	5	2.609	123	80-120	9.161	4.22	15	S
Manganese	0.08649	0.025	0.05	0.04093	91.1	82-119	0.08946	3.38	15	
Molybdenum	1.42	0.025	0.05	1.45	-60	84.6-115	1.483	4.34	15	SO
Nickel	0.1115	0.025	0.05	0.07632	70.4	85-120	0.1181	5.75	15	S
Potassium	ND	1.0	5	0	0	80-120	0	0	15	S
Selenium	ND	0.025	0.05	-0.1597	319	79.2-118	-0.1754	0	15	S
Silver	0.03668	0.025	0.05	0.0003791	72.6	83-117	0.03736	1.84	15	S
Sodium	ND	1.0	5	0	0	82.4-120	0	0	15	S
Vanadium	0.05215	0.025	0.05	0.001997	100	82.1-119	0.05482	4.99	15	
Zinc	0.1226	0.025	0.05	0.09955	46.1	83-118	0.13	5.86	15	S

DUP Sample ID: 0405276-03ADUP Test Code: SW6020 Units: mg/L Analysis Date: 05/27/04 17:41

Client ID: Run ID: ICP7500_040527A SeqNo: 478121 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.01406	0.0050	0	0	0	0-0	0.01434	1.97	25	
Chromium	0.008589	0.0050	0	0	0	0-0	0.00896	4.23	25	
Lead	0.1095	0.0050	0	0	0	0-0	0.1116	1.9	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9100 InstrumentID: ICP7500

DUP Sample ID: 0405276-03ADUP Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 15:33

Client ID: Run ID: ICP4500_040608A SeqNo: 482642 Prep Date: 5/27/2004 DF: 5

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.634	0.050	0	0	0	0-0	0.6211	2.06	25	
Barium	0.02735	0.025	0	0	0	0-0	0.02706	1.07	25	
Beryllium	ND	0.010	0	0	0	0-0	0.0001362	0	25	
Cadmium	0.001128	0.010	0	0	0	0-0	0.001115	0	25	J
Calcium	14.71	2.5	0	0	0	0-0	14.88	1.15	25	
Cobalt	0.00398	0.025	0	0	0	0-0	0.004214	0	25	J
Copper	0.1637	0.025	0	0	0	0-0	0.1669	1.94	25	
Iron	1.012	1.0	0	0	0	0-0	1.016	0.394	25	
Magnesium	2.603	1.0	0	0	0	0-0	2.609	0.23	25	
Manganese	0.04149	0.025	0	0	0	0-0	0.04093	1.36	25	
Molybdenum	1.466	0.025	0	0	0	0-0	1.45	1.1	25	
Nickel	0.07523	0.025	0	0	0	0-0	0.07632	1.44	25	
Selenium	ND	0.025	0	0	0	0-0	-0.1597	0	25	
Silver	ND	0.025	0	0	0	0-0	0.0003791	0	25	
Vanadium	0.002373	0.025	0	0	0	0-0	0.001997	0	25	J
Zinc	0.09766	0.025	0	0	0	0-0	0.09955	1.92	25	

DUP Sample ID: 0405276-03ADUP Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 17:08

Client ID: Run ID: ICP4500_040608A SeqNo: 482807 Prep Date: 5/27/2004 DF: 200

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	1383	40	0	0	0	0-0	1385	0.145	25	
Sodium	9867	40	0	0	0	0-0	9496	3.83	25	

DUP Sample ID: 0405276-03ADUP Test Code: SW6020 Units: mg/L Analysis Date: 06/08/04 17:26

Client ID: Run ID: ICP4500_040608A SeqNo: 482811 Prep Date: 5/27/2004 DF: 20

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	5.934	0.40	0	0	0	0-0	5.63	5.26	25	

The following samples were analyzed in this batch:

0405258-01C 0405258-02C

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: 0405258
Project: Monthly

QC BATCH REPORT

Batch ID: 9172 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-060304 Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 12:48

Client ID: Run ID: MERCURY_040604C SeqNo: 481050 Prep Date: 6/3/2004 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: GLCSW2-060304 Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 12:50

Client ID: Run ID: MERCURY_040604C SeqNo: 481051 Prep Date: 6/3/2004 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	101	83-115	0			

LCSD Sample ID: GLCSDW2-060304 Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 12:51

Client ID: Run ID: MERCURY_040604C SeqNo: 481052 Prep Date: 6/3/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00497	0.00020	0.005	0	99.4	83-115	0.00504	1.4	20	

MS Sample ID: 0405182-01CMS Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 13:40

Client ID: Run ID: MERCURY_040604C SeqNo: 481061 Prep Date: 6/3/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00469	0.0020	0.005	-0.00011	96	83-115	0			

MSD Sample ID: 0405182-01CMSD Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 13:42

Client ID: Run ID: MERCURY_040604C SeqNo: 481062 Prep Date: 6/3/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0048	0.0020	0.005	-0.00011	98.2	83-115	0.00469	2.32	20	

DUP Sample ID: 0405182-01CDUP Test Code: SW7470 Units: mg/L Analysis Date: 06/04/04 13:48

Client ID: Run ID: MERCURY_040604C SeqNo: 481064 Prep Date: 6/3/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0	-0.00011	0	20	

The following samples were analyzed in this batch:

0405258-01C 0405258-02C

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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9104 InstrumentID: SV-3

MBLK Sample ID: SBLKW2-040527 Test Code: SW8270 Units: µg/L Analysis Date: 05/27/04 14:33

Client ID: Run ID: SV-3_040527B SeqNo: 479161 Prep Date: 5/27/2004 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	91.41	10	100	0	91.4	39-153		0		
Surr: 2-Fluorobiphenyl	81.04	10	100	0	81	40-147		0		
Surr: 2-Fluorophenol	44.99	10	100	0	45	21-110		0		
Surr: 4-Terphenyl-d14	92.56	10	100	0	92.6	39-141		0		
Surr: Nitrobenzene-d5	85.9	10	100	0	85.9	37-140		0		
Surr: Phenol-d6	27.1	10	100	0	27.1	11-100		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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9104 InstrumentID: SV-3

LCS Sample ID: SLCSW2-040527 Test Code: SW8270 Units: µg/L Analysis Date: 05/27/04 15:00

Client ID: Run ID: SV-3_040527B SeqNo: 479162 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	38.07	10	50	0	76.1	50-115	0			
2,4,5-Trichlorophenol	94.59	10	100	0	94.6	68-128	0			
2,4,6-Trichlorophenol	94.48	10	100	0	94.5	66-125	0			
2-Methylnaphthalene	49.51	10	50	0	99	47-122	0			
2-Methylphenol	73.28	10	100	0	73.3	51-115	0			
2-Nitroaniline	48.45	10	50	0	96.9	64-128	0			
2-Nitrophenol	87.16	10	100	0	87.2	60-119	0			
3-Nitroaniline	46.23	10	50	0	92.5	61-118	0			
4-Methylphenol	100.1	10	150	0	66.7	44-115	0			
4-Nitroaniline	46.67	10	50	0	93.3	61-123	0			
4-Nitrophenol	44.35	10	100	0	44.4	17-100	0			
Acenaphthene	46.03	10	50	0	92.1	68-115	0			
Acenaphthylene	46.43	10	50	0	92.9	67-116	0			
Aniline	25.68	10	50	0	51.4	40-130	0			
Anthracene	47.82	10	50	0	95.6	70-129	0			
Benz(a)anthracene	46.9	10	50	0	93.8	55-131	0			
Benzidine	35.37	10	50	0	70.7	10-115	0			
Hexachloroethane	36.12	10	50	0	72.2	46-115	0			
Indeno(1,2,3-cd)pyrene	44.59	10	50	0	89.2	42-123	0			
Isophorone	46.6	10	50	0	93.2	63-117	0			
N-Nitrosodi-n-propylamine	45.56	10	50	0	91.1	67-115	0			
N-Nitrosodimethylamine	26.22	10	50	0	52.4	28-115	0			
N-Nitrosodiphenylamine	51.88	10	50	0	104	72-144	0			
Naphthalene	40.69	10	50	0	81.4	52-115	0			
Nitrobenzene	43.95	10	50	0	87.9	65-115	0			
Pentachlorophenol	93.83	10	100	0	93.8	65-123	0			
Phenanthrene	47.82	10	50	0	95.6	69-119	0			
Phenol	34.06	10	100	0	34.1	16-115	0			
Pyrene	45.28	10	50	0	90.6	51-130	0			
Surr: 2,4,6-Tribromophenol	95.5	10	100	0	95.5	39-153	0			
Surr: 2-Fluorobiphenyl	88.13	10	100	0	88.1	40-147	0			
Surr: 2-Fluorophenol	48.91	10	100	0	48.9	21-110	0			
Surr: 4-Terphenyl-d14	94.05	10	100	0	94.1	39-141	0			
Surr: Nitrobenzene-d5	83.94	10	100	0	83.9	37-140	0			
Surr: Phenol-d6	30.73	10	100	0	30.7	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: 9104 InstrumentID: SV-3

LCSD Sample ID: SLCSDW2-040527 Test Code: SW8270 Units: µg/L Analysis Date: 05/27/04 15:26

Client ID: Run ID: SV-3_040527B SeqNo: 479163 Prep Date: 5/27/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.39	10	50	0	82.8	50-115	38.07	8.38	30	
2,4,5-Trichlorophenol	91.75	10	100	0	91.7	68-128	94.59	3.05	30	
2,4,6-Trichlorophenol	93.34	10	100	0	93.3	66-125	94.48	1.21	30	
2-Methylnaphthalene	50.68	10	50	0	101	47-122	49.51	2.32	30	
2-Methylphenol	68.98	10	100	0	69	51-115	73.28	6.04	30	
2-Nitroaniline	49.78	10	50	0	99.6	64-128	48.45	2.7	30	
2-Nitrophenol	88.93	10	100	0	88.9	60-119	87.16	2.02	30	
3-Nitroaniline	47.73	10	50	0	95.5	61-118	46.23	3.19	30	
4-Methylphenol	94.7	10	150	0	63.1	44-115	100.1	5.57	30	
4-Nitroaniline	46.38	10	50	0	92.8	61-123	46.67	0.63	30	
4-Nitrophenol	41.08	10	100	0	41.1	17-100	44.35	7.65	30	
Acenaphthene	45.99	10	50	0	92	68-115	46.03	0.0865	30	
Acenaphthylene	46.64	10	50	0	93.3	67-116	46.43	0.458	30	
Aniline	24.03	10	50	0	48.1	40-130	25.68	6.67	30	
Anthracene	47.14	10	50	0	94.3	70-129	47.82	1.44	30	
Benz(a)anthracene	46.14	10	50	0	92.3	55-131	46.9	1.64	30	
Benzidine	26.37	10	50	0	52.7	10-115	35.37	29.1	30	
Hexachloroethane	39.42	10	50	0	78.8	46-115	36.12	8.73	30	
Indeno(1,2,3-cd)pyrene	43.52	10	50	0	87	42-123	44.59	2.43	30	
Isophorone	45.83	10	50	0	91.7	63-117	46.6	1.66	30	
N-Nitrosodi-n-propylamine	44.31	10	50	0	88.6	67-115	45.56	2.78	30	
N-Nitrosodimethylamine	25.44	10	50	0	50.9	28-115	26.22	3.04	30	
N-Nitrosodiphenylamine	50.59	10	50	0	101	72-144	51.88	2.53	30	
Naphthalene	41.52	10	50	0	83	52-115	40.69	2.03	30	
Nitrobenzene	44.52	10	50	0	89	65-115	43.95	1.27	30	
Pentachlorophenol	92.32	10	100	0	92.3	65-123	93.83	1.61	30	
Phenanthrene	47.02	10	50	0	94	69-119	47.82	1.69	30	
Phenol	31.74	10	100	0	31.7	16-115	34.06	7.07	30	
Pyrene	45.63	10	50	0	91.3	51-130	45.28	0.779	30	
Surr: 2,4,6-Tribromophenol	93.45	10	100	0	93.5	39-153	95.5	2.16	30	
Surr: 2-Fluorobiphenyl	88.12	10	100	0	88.1	40-147	88.13	0.0105	30	
Surr: 2-Fluorophenol	48.31	10	100	0	48.3	21-110	48.91	1.23	30	
Surr: 4-Terphenyl-d14	93.53	10	100	0	93.5	39-141	94.05	0.563	30	
Surr: Nitrobenzene-d5	86.7	10	100	0	86.7	37-140	83.94	3.24	30	
Surr: Phenol-d6	28.84	10	100	0	28.8	11-100	30.73	6.34	30	

The following samples were analyzed in this batch:

0405258-01D 0405258-02D

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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20923 InstrumentID: VOA2

MBLK Sample ID: VBLKW-0607 Test Code: SW8260 Units: µg/L Analysis Date: 06/07/04 16:04

Client ID: Run ID: VOA2_040607A SeqNo: 482380 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								
Methyl tert-butyl ether	ND	5.0								
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	42.81	5.0	50	0	85.6	71-126	0			
Surr: 4-Bromofluorobenzene	43.47	5.0	50	0	86.9	74-125	0			
Surr: Dibromofluoromethane	41.99	5.0	50	0	84	73-126	0			
Surr: Toluene-d8	45.92	5.0	50	0	91.8	75-125	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20923 InstrumentID: VOA2

LCS Sample ID: VLCSW-0607 Test Code: SW8260 Units: µg/L Analysis Date: 06/07/04 15:39

Client ID: Run ID: VOA2_040607A SeqNo: 482379 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	48.53	5.0	50	0	97.1	75.2-120	0			
1,1,2,2-Tetrachloroethane	49.07	5.0	50	0	98.1	72.4-121	0			
1,1,2-Trichloroethane	49.83	5.0	50	0	99.7	80-120	0			
1,1-Dichloroethane	48.4	5.0	50	0	96.8	76.9-120	0			
1,1-Dichloroethene	49.06	5.0	50	0	98.1	72.6-123	0			
1,2-Dichloroethane	49.51	5.0	50	0	99	80-120	0			
2-Butanone	105.5	10	100	0	106	69-131	0			
2-Chloroethyl vinyl ether	104.1	10	100	0	104	60-135	0			
2-Hexanone	105.5	10	100	0	105	55.6-126	0			
4-Methyl-2-pentanone	103.8	10	100	0	104	67.4-121	0			
Acetone	96.31	10	100	0	96.3	64.4-140	0			
Benzene	48.84	5.0	50	0	97.7	80-120	0			
Bromodichloromethane	49.21	5.0	50	0	98.4	80-120	0			
Bromoform	50.72	5.0	50	0	101	77.9-121	0			
Bromomethane	45.12	5.0	50	0	90.2	63.3-137	0			
Carbon disulfide	96.1	10	100	0	96.1	74.1-123	0			
Carbon tetrachloride	47.56	5.0	50	0	95.1	74.7-120	0			
Chlorobenzene	49.21	5.0	50	0	98.4	80-120	0			
Chloroethane	47.61	5.0	50	0	95.2	74.7-126	0			
Chloroform	48.2	5.0	50	0	96.4	80-120	0			
Chloromethane	47.07	5.0	50	0	94.1	64.5-132	0			
cis-1,3-Dichloropropene	50.72	5.0	50	0	101	80-120	0			
Dibromochloromethane	50.97	5.0	50	0	102	80-120	0			
Ethylbenzene	50.15	5.0	50	0	100	80-120	0			
m,p-Xylene	100	10	100	0	100	80-120	0			
Methyl tert-butyl ether	52.83	5.0	50	0	106	73.7-122	0			
Methylene chloride	45.03	10	50	0	90.1	76.2-120	0			
Styrene	50.79	5.0	50	0	102	80-120	0			
Tetrachloroethene	48.39	5.0	50	0	96.8	68.5-130	0			
Toluene	50.05	5.0	50	0	100	80-120	0			
trans-1,3-Dichloropropene	50.24	5.0	50	0	100	80-120	0			
Trichloroethene	48.18	5.0	50	0	96.4	78.9-120	0			
Vinyl acetate	105.7	10	100	0	106	62.4-133	0			
Vinyl chloride	47.68	2.0	50	0	95.4	72.7-128	0			
Xylenes, Total	151.1	15	150	0	101	80-120	0			
Surr: 1,2-Dichloroethane-d4	42.4	5.0	50	0	84.8	71-126	0			
Surr: 4-Bromofluorobenzene	45.44	5.0	50	0	90.9	74-125	0			
Surr: Dibromofluoromethane	43.73	5.0	50	0	87.5	73-126	0			
Surr: Toluene-d8	46.17	5.0	50	0	92.3	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20923 InstrumentID: VOA2

MS Sample ID: 0405315-06AMS Test Code: SW8260 Units: µg/L Analysis Date: 06/07/04 18:11

Client ID: Run ID: VOA2_040607A SeqNo: 482384 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	43.86	5.0	50	0	87.7	75.2-120	0			
1,1,2,2-Tetrachloroethane	49.2	5.0	50	0	98.4	72.4-121	0			
1,1,2-Trichloroethane	48.92	5.0	50	0	97.8	80-120	0			
1,1-Dichloroethane	47.41	5.0	50	0	94.8	76.9-120	0			
1,1-Dichloroethene	43.48	5.0	50	0	87	72.6-123	0			
1,2-Dichloroethane	48.84	5.0	50	0	97.7	80-120	0			
2-Butanone	99.15	10	100	0	99.1	69-131	0			
2-Chloroethyl vinyl ether	51.67	10	100	0	51.7	60-135	0			S
2-Hexanone	101.3	10	100	0	101	55.6-126	0			
4-Methyl-2-pentanone	103.3	10	100	0	103	67.4-121	0			
Acetone	88.92	10	100	0	88.9	64.4-140	0			
Benzene	47.65	5.0	50	0	95.3	80-120	0			
Bromodichloromethane	47.73	5.0	50	0	95.5	80-120	0			
Bromoform	49.09	5.0	50	0	98.2	77.9-121	0			
Bromomethane	43.18	5.0	50	0	86.4	63.3-137	0			
Carbon disulfide	89.63	10	100	0	89.6	74.1-123	0			
Carbon tetrachloride	42.28	5.0	50	0	84.6	74.7-120	0			
Chlorobenzene	48.52	5.0	50	0	97	80-120	0			
Chloroethane	44.7	5.0	50	0	89.4	74.7-126	0			
Chloroform	53.36	5.0	50	5.579	95.6	80-120	0			
Chloromethane	44.82	5.0	50	0	89.6	64.5-132	0			
cis-1,3-Dichloropropene	49.61	5.0	50	0	99.2	80-120	0			
Dibromochloromethane	49.26	5.0	50	0	98.5	80-120	0			
Ethylbenzene	46.97	5.0	50	0	93.9	80-120	0			
m,p-Xylene	94.49	10	100	0	94.5	80-120	0			
Methyl tert-butyl ether	49.97	5.0	50	0	99.9	73.7-122	0			
Methylene chloride	44.86	10	50	0	89.7	76.2-120	0			
Styrene	49.07	5.0	50	0	98.1	80-120	0			
Tetrachloroethene	42.48	5.0	50	0	85	68.5-130	0			
Toluene	47.37	5.0	50	0	94.7	80-120	0			
trans-1,3-Dichloropropene	49.37	5.0	50	0	98.7	80-120	0			
Trichloroethene	44.24	5.0	50	0	88.5	78.9-120	0			
Vinyl acetate	115.3	10	100	0	115	62.4-133	0			
Vinyl chloride	43.56	2.0	50	0	87.1	72.7-128	0			
Xylenes, Total	143.8	15	150	0	95.8	80-120	0			
Surr: 1,2-Dichloroethane-d4	43.07	5.0	50	0	86.1	71-126	0			
Surr: 4-Bromofluorobenzene	44.26	5.0	50	0	88.5	74-125	0			
Surr: Dibromofluoromethane	43.19	5.0	50	0	86.4	73-126	0			
Surr: Toluene-d8	46.06	5.0	50	0	92.1	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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20923 InstrumentID: VOA2

MSD Sample ID: 0405315-06AMSD Test Code: SW8260 Units: µg/L Analysis Date: 06/07/04 18:37

Client ID: Run ID: VOA2_040607A SeqNo: 482385 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	40.2	5.0	50	0	80.4	75.2-120	43.86	8.71	20	
1,1,2,2-Tetrachloroethane	49.4	5.0	50	0	98.8	72.4-121	49.2	0.405	20	
1,1,2-Trichloroethane	49.58	5.0	50	0	99.2	80-120	48.92	1.34	20	
1,1-Dichloroethane	46.57	5.0	50	0	93.1	76.9-120	47.41	1.78	20	
1,1-Dichloroethene	39.98	5.0	50	0	80	72.6-123	43.48	8.38	20	
1,2-Dichloroethane	48.81	5.0	50	0	97.6	80-120	48.84	0.05	20	
2-Butanone	99.53	10	100	0	99.5	69-131	99.15	0.381	20	
2-Chloroethyl vinyl ether	13.57	10	100	0	13.6	60-135	51.67	117	20	SR
2-Hexanone	100.9	10	100	0	101	55.6-126	101.3	0.464	20	
4-Methyl-2-pentanone	103.2	10	100	0	103	67.4-121	103.3	0.0865	20	
Acetone	89.18	10	100	0	89.2	64.4-140	88.92	0.284	20	
Benzene	46.66	5.0	50	0	93.3	80-120	47.65	2.1	20	
Bromodichloromethane	48.91	5.0	50	0	97.8	80-120	47.73	2.44	20	
Bromoform	48.98	5.0	50	0	98	77.9-121	49.09	0.218	20	
Bromomethane	44.91	5.0	50	0	89.8	63.3-137	43.18	3.92	20	
Carbon disulfide	84.22	10	100	0	84.2	74.1-123	89.63	6.22	20	
Carbon tetrachloride	37.34	5.0	50	0	74.7	74.7-120	42.28	12.4	20	S
Chlorobenzene	47.17	5.0	50	0	94.3	80-120	48.52	2.83	20	
Chloroethane	43.58	5.0	50	0	87.2	74.7-126	44.7	2.53	20	
Chloroform	52.95	5.0	50	5.579	94.7	80-120	53.36	0.773	20	
Chloromethane	44.75	5.0	50	0	89.5	64.5-132	44.82	0.161	20	
cis-1,3-Dichloropropene	50.53	5.0	50	0	101	80-120	49.61	1.84	20	
Dibromochloromethane	49.98	5.0	50	0	100	80-120	49.26	1.46	20	
Ethylbenzene	43.62	5.0	50	0	87.2	80-120	46.97	7.39	20	
m,p-Xylene	87.46	10	100	0	87.5	80-120	94.49	7.72	20	
Methyl tert-butyl ether	51.25	5.0	50	0	102	73.7-122	49.97	2.52	20	
Methylene chloride	45.72	10	50	0	91.4	76.2-120	44.86	1.89	20	
Styrene	47.45	5.0	50	0	94.9	80-120	49.07	3.36	20	
Tetrachloroethene	37.58	5.0	50	0	75.2	68.5-130	42.48	12.3	20	
Toluene	45.5	5.0	50	0	91	80-120	47.37	4.03	20	
trans-1,3-Dichloropropene	49.91	5.0	50	0	99.8	80-120	49.37	1.07	20	
Trichloroethene	42.28	5.0	50	0	84.6	78.9-120	44.24	4.54	20	
Vinyl acetate	116.3	10	100	0	116	62.4-133	115.3	0.904	20	
Vinyl chloride	41.11	2.0	50	0	82.2	72.7-128	43.56	5.79	20	
Xylenes, Total	133.7	15	150	0	89.1	80-120	143.8	7.24	20	
Surr: 1,2-Dichloroethane-d4	42.44	5.0	50	0	84.9	71-126	43.07	1.49	20	
Surr: 4-Bromofluorobenzene	44.35	5.0	50	0	88.7	74-125	44.26	0.215	20	
Surr: Dibromofluoromethane	42.84	5.0	50	0	85.7	73-126	43.19	0.826	20	
Surr: Toluene-d8	45.3	5.0	50	0	90.6	75-125	46.06	1.66	20	

The following samples were analyzed in this batch:

0405258-01A 0405258-02A

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: 0405258
Project: Monthly

QC BATCH REPORT

Batch ID: **R20766** InstrumentID: **UV-2101PC**

MBLK Sample ID: **WMBW1-053004** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/30/04 0:00**

Client ID: Run ID: **UV-2101PC_040530A** SeqNo: **478504** 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: **WLCSW1-053004** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/30/04 0:00**

Client ID: Run ID: **UV-2101PC_040530A** SeqNo: **478505** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2098	0.020	0.2	0	105	80-120	0			

MS Sample ID: **0405244-01CMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/30/04 0:00**

Client ID: Run ID: **UV-2101PC_040530A** SeqNo: **478514** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1976	0.020	0.2	0.00013	98.7	75-125	0			

MSD Sample ID: **0405244-01CMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/30/04 0:00**

Client ID: Run ID: **UV-2101PC_040530A** SeqNo: **478515** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2005	0.020	0.2	0.00013	100	75-125	0.1976	1.46	25	

DUP Sample ID: **0405244-01CDUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/30/04 0:00**

Client ID: Run ID: **UV-2101PC_040530A** SeqNo: **478513** 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	0.00013	0	20	

The following samples were analyzed in this batch:

0405258-01E 0405258-02E

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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20805 InstrumentID: WetChem

MBLK Sample ID: WMBW1-060104 Test Code: E310.1 Units: mg/L Analysis Date: 06/01/04 0:00

Client ID: Run ID: WETCHEM_040601C SeqNo: 479387 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: WLCSW1-060104 Test Code: E310.1 Units: mg/L Analysis Date: 06/01/04 0:00

Client ID: Run ID: WETCHEM_040601C SeqNo: 479388 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)	980.6	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: 0405309-04EDUP Test Code: E310.1 Units: mg/L Analysis Date: 06/01/04 0:00

Client ID: Run ID: WETCHEM_040601C SeqNo: 479408 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)	323.6	5.0	0	0	0	0-0	328.5	1.51	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)	323.6	5.0	0	0	0	0-0	328.5	1.51	20	

The following samples were analyzed in this batch:

0405258-01B 0405258-02B

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: 0405258
 Project: Monthly

QC BATCH REPORT

Batch ID: R20863 InstrumentID: IC201

MBLK Sample ID: WBLKW1-060204 Test Code: E300 Units: mg/L Analysis Date: 06/02/04 16:08

Client ID: Run ID: IC201_040602A SeqNo: 480784 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								
Surr: Dichloroacetic acid (surr)	4.31	0.10	5	0	86.2	80-120	0			

LCS Sample ID: WLC SW1-060204 Test Code: E300 Units: mg/L Analysis Date: 06/02/04 16:36

Client ID: Run ID: IC201_040602A SeqNo: 480785 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.92	0.50	10	0	89.2	80-120	0			
Fluoride	1.95	0.10	2	0	97.5	80-120	0			
Sulfate	9.5	1.0	10	0	95	80-120	0			
Surr: Dichloroacetic acid (surr)	4.75	0.10	5	0	95	80-120	0			

LCSD Sample ID: WLCSDW1-06020 Test Code: E300 Units: mg/L Analysis Date: 06/02/04 17:05

Client ID: Run ID: IC201_040602A SeqNo: 480786 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	8.9	0.50	10	0	89	80-120	8.92	0.224	20	
Fluoride	1.94	0.10	2	0	97	80-120	1.95	0.514	20	
Sulfate	9.41	1.0	10	0	94.1	80-120	9.5	0.952	20	
Surr: Dichloroacetic acid (surr)	4.65	0.10	5	0	93	80-120	4.75	2.13	20	

MS Sample ID: 0406009-04CMS Test Code: E300 Units: mg/L Analysis Date: 06/02/04 18:30

Client ID: Run ID: IC201_040602A SeqNo: 480789 Prep Date: DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	515.9	0.50	10	510.4	55.1	75-125	0			SEO
Fluoride	2.53	0.10	2	0.81	86	75-125	0			
Sulfate	9.46	1.0	10	0	94.6	75-125	0			
Surr: Dichloroacetic acid (surr)	4.12	0.10	5	0	82.4	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: 0405258
Project: Monthly

QC BATCH REPORT

Batch ID: **R20863** InstrumentID: **IC201**

MSD Sample ID: **0406009-04CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **06/02/04 18:59**

Client ID: Run ID: **IC201_040602A** SeqNo: **480790** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	515.8	0.50	10	510.4	54.1	75-125	515.9	0.0194	20	SEO
Fluoride	2.42	0.10	2	0.81	80.5	75-125	2.53	4.44	20	
Sulfate	9	1.0	10	0	90	75-125	9.46	4.98	20	
Surr: Dichloroacetic acid (surr)	4.79	0.10	5	0	95.8	80-120	4.12	15	20	

DUP Sample ID: **0406009-04CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **06/02/04 18:02**

Client ID: Run ID: **IC201_040602A** SeqNo: **480788** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	510.8	0.50	0	0	0	0-0	510.4	0.094	20	E
Fluoride	0.76	0.10	0	0	0	0-0	0.81	6.37	20	
Sulfate	ND	1.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	4.35	0.10	5	0	87	80-120	4.85	10.9	20	

The following samples were analyzed in this batch:

0405258-01B 0405258-02B

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



Chain of Custody Form

Page 1 of 1

☐ e-Lab, Inc.
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☐ e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
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Customer Information				Project Information				Parameter/Method Request for Analysis											
Purchase Order				Project Name				A											
Work Order				Project Number				B											
Company Name				Bill To Company				C											
Send Report To				Invoice Attn.				D											
Address				Address				E											
City/State/Zip				City/State/Zip				F											
Phone				Phone				G											
Fax				Fax				H											
e-Mail Address				e-Mail Address				I											
e-Mail Address				e-Mail Address				J											
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	RA 3156	5/24/04	0900	L	128	10	X												
2	RA 3358	5/24/04	0845	L	11	10	X												
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Shipment Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
☐ 10 Wk Days	☐ 5 Wk Days	☐ 3 Wk Days	☐ 2 Wk Days	☐ 24 Hour	

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

Relinquished by:		Received by (Laboratory):		Checked by (Laboratory):	
Date:	Time:	Date:	Time:	Date:	Time:

Preservative Key:		QC Package: (Check Box Below)	
1-HCl	2-HNO ₃	Level II: Standard QC	Level III: Raw Data
3-H ₂ SO ₄	4-NaOH	Level IV: SW846 Methods/CLP like	Other:

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

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 5/26/2004 9:10:00 AM

Work Order Number 0405258

Received by: RSZ

Checklist completed by

RICHARD SANCHEZ 5-26-04

Signature

Date

Reviewed by

JS
Initials

5/27/04
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):

2.9c

002

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: All vials have excessive headspace.

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

May 28, 2004

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

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

Re: Monthly Offsite

Work Order : **0405137**

Dear Jeff Byrd,

e-Lab, Inc. received 3 samples on 5/13/2004 8:25:00 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 34.

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

Sincerely,

Electronically approved by: Patricia A. Dathorne

Jeffrey L Croston

e-Lab, Inc.

Date: May 28, 2004

CLIENT: Navajo Refining Company
Project: Monthly Offsite
Work Order: 0405137

Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0405137-01	RA307	Water		5/12/2004 08:45	5/13/2004 08:25	☐
0405137-02	RA4798	Water		5/12/2004 09:00	5/13/2004 08:25	☐
0405137-03	RA4196	Water		5/12/2004 13:30	5/13/2004 08:25	☐

e-Lab, Inc.

Date: *May 28, 2004*

CLIENT: Navajo Refining Company

Project: Monthly Offsite

Work Order: 0405137

Case Narrative

Batch 9008 Metals MSD was an unrelated sample.

Batch Metals MS/MSD/Duplicate was an unrelated sample.

e-Lab, Inc.

Date: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-01

Client Sample ID: RA307
Collection Date: 5/12/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL			SW7470		Prep Date: 5/13/2004	Analyst: JCJ
Mercury	ND	0.000200		mg/L	1	5/13/2004 6:28:16 PM
ICP METALS, TOTAL			SW6020		Prep Date: 5/17/2004	Analyst: ALR
Aluminum	ND	0.0100		mg/L	1	5/20/2004 9:30:00 PM
Arsenic	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Barium	0.0119	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Beryllium	ND	0.00200		mg/L	1	5/20/2004 9:30:00 PM
Boron	0.0795	0.0200		mg/L	1	5/20/2004 9:30:00 PM
Cadmium	ND	0.00100		mg/L	1	5/20/2004 9:30:00 PM
Calcium	388	5.00		mg/L	10	5/20/2004 8:35:00 PM
Chromium	ND	0.00200		mg/L	1	5/20/2004 9:30:00 PM
Cobalt	ND	0.00200		mg/L	1	5/20/2004 9:30:00 PM
Copper	0.00376	0.00200		mg/L	1	5/20/2004 9:30:00 PM
Iron	0.934	0.200		mg/L	1	5/20/2004 9:30:00 PM
Lead	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Magnesium	133	2.00		mg/L	10	5/20/2004 8:35:00 PM
Manganese	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Molybdenum	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Nickel	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Potassium	2.67	0.200		mg/L	1	5/20/2004 9:30:00 PM
Selenium	0.00520	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Silver	ND	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Sodium	361	2.00		mg/L	10	5/20/2004 8:35:00 PM
Vanadium	0.00552	0.00500		mg/L	1	5/20/2004 9:30:00 PM
Zinc	ND	0.00500		mg/L	1	5/21/2004 5:59:00 PM
SEMIVOLATILE ORGANICS BY GC/MS			SW8270		Prep Date: 5/17/2004	Analyst: HV
1,2,4-Trichlorobenzene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2-Methylphenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:20:00 PM
2-Nitrophenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
3-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:20:00 PM
4-Methylphenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
4-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:20:00 PM
4-Nitrophenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Acenaphthene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Acenaphthylene	ND	10		µg/L	1	5/18/2004 5:20:00 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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-01

Client Sample ID: RA307
Collection Date: 5/12/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Anthracene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Benzidine	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Hexachloroethane	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Isophorone	ND	10		µg/L	1	5/18/2004 5:20:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	5/18/2004 5:20:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	5/18/2004 5:20:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Naphthalene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Nitrobenzene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Pentachlorophenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Phenanthrene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Phenol	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Pyrene	ND	10		µg/L	1	5/18/2004 5:20:00 PM
Surr: 2,4,6-Tribromophenol	89.5	39-153		%REC	1	5/18/2004 5:20:00 PM
Surr: 2-Fluorobiphenyl	73.1	40-147		%REC	1	5/18/2004 5:20:00 PM
Surr: 2-Fluorophenol	33.9	21-110		%REC	1	5/18/2004 5:20:00 PM
Surr: 4-Terphenyl-d14	74.6	39-141		%REC	1	5/18/2004 5:20:00 PM
Surr: Nitrobenzene-d5	68.3	37-140		%REC	1	5/18/2004 5:20:00 PM
Surr: Phenol-d6	19.4	11-100		%REC	1	5/18/2004 5:20:00 PM
VOLATILES BY GC/MS		SW8260			Analyst: HLBW	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
2-Butanone	ND	10		µg/L	1	5/25/2004 2:57:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	5/25/2004 2:57:00 PM
2-Hexanone	ND	10		µg/L	1	5/25/2004 2:57:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/25/2004 2:57:00 PM
Acetone	ND	10		µg/L	1	5/25/2004 2:57:00 PM
Benzene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Bromoform	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Bromomethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Carbon disulfide	ND	10		µg/L	1	5/25/2004 2:57:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	5/25/2004 2:57:00 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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-01

Client Sample ID: RA307
Collection Date: 5/12/2004 8:45:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Chloroethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Chloroform	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Chloromethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Ethylbenzene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
m,p-Xylene	ND	10		µg/L	1	5/25/2004 2:57:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Methylene chloride	ND	10		µg/L	1	5/25/2004 2:57:00 PM
o-Xylene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Styrene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Toluene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Trichloroethene	ND	5.0		µg/L	1	5/25/2004 2:57:00 PM
Vinyl acetate	ND	10		µg/L	1	5/25/2004 2:57:00 PM
Vinyl chloride	ND	2.0		µg/L	1	5/25/2004 2:57:00 PM
Xylenes, Total	ND	15		µg/L	1	5/25/2004 2:57:00 PM
Surr: 1,2-Dichloroethane-d4	95.8	71-126		%REC	1	5/25/2004 2:57:00 PM
Surr: 4-Bromofluorobenzene	77.4	74-125		%REC	1	5/25/2004 2:57:00 PM
Surr: Dibromofluoromethane	103	73-126		%REC	1	5/25/2004 2:57:00 PM
Surr: Toluene-d8	86.4	75-125		%REC	1	5/25/2004 2:57:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	661	50.0		mg/L	100	5/13/2004 8:10:00 PM
Fluoride	0.790	0.100		mg/L	1	5/13/2004 7:13:00 PM
Sulfate	1,180	100		mg/L	100	5/13/2004 8:10:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	5/13/2004 7:13:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	100	5/13/2004 8:10:00 PM
Surr: Dichloroacetic acid (surr)	99.2	80-120		%REC	1	5/13/2004 7:13:00 PM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	172	5.00		mg/L	1	5/13/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Total (As CaCO3)	172	5.00		mg/L	1	5/13/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	5/17/2004

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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-02

Client Sample ID: RA4798
Collection Date: 5/12/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	5/13/2004 6:29:48 PM
ICP METALS, TOTAL						
Aluminum	0.212	0.100		mg/L	10	5/20/2004 8:39:00 PM
Arsenic	ND	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Barium	0.0202	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Beryllium	ND	0.00200		mg/L	1	5/20/2004 9:35:00 PM
Boron	0.0844	0.0200		mg/L	1	5/20/2004 9:35:00 PM
Cadmium	ND	0.00100		mg/L	1	5/20/2004 9:35:00 PM
Calcium	393	5.00		mg/L	10	5/20/2004 8:39:00 PM
Chromium	ND	0.00200		mg/L	1	5/20/2004 9:35:00 PM
Cobalt	ND	0.00200		mg/L	1	5/20/2004 9:35:00 PM
Copper	0.0330	0.00200		mg/L	1	5/20/2004 9:35:00 PM
Iron	3.54	0.200		mg/L	1	5/20/2004 9:35:00 PM
Lead	0.00766	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Magnesium	131	2.00		mg/L	10	5/20/2004 8:39:00 PM
Manganese	0.0441	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Molybdenum	ND	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Nickel	0.00703	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Potassium	2.69	0.200		mg/L	1	5/20/2004 9:35:00 PM
Selenium	0.00605	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Silver	ND	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Sodium	314	2.00		mg/L	10	5/20/2004 8:39:00 PM
Vanadium	ND	0.00500		mg/L	1	5/20/2004 9:35:00 PM
Zinc	0.486	0.00500		mg/L	1	5/21/2004 6:04:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2-Methylphenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:46:00 PM
2-Nitrophenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
3-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:46:00 PM
4-Methylphenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
4-Nitroaniline	ND	10		µg/L	1	5/18/2004 5:46:00 PM
4-Nitrophenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Acenaphthene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Acenaphthylene	ND	10		µg/L	1	5/18/2004 5:46:00 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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-02

Client Sample ID: RA4798
Collection Date: 5/12/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Anthracene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Benzidine	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Hexachloroethane	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Isophorone	ND	10		µg/L	1	5/18/2004 5:46:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	5/18/2004 5:46:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	5/18/2004 5:46:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Naphthalene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Nitrobenzene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Pentachlorophenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Phenanthrene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Phenol	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Pyrene	ND	10		µg/L	1	5/18/2004 5:46:00 PM
Surr: 2,4,6-Tribromophenol	95.1	39-153		%REC	1	5/18/2004 5:46:00 PM
Surr: 2-Fluorobiphenyl	74.0	40-147		%REC	1	5/18/2004 5:46:00 PM
Surr: 2-Fluorophenol	34.5	21-110		%REC	1	5/18/2004 5:46:00 PM
Surr: 4-Terphenyl-d14	72.8	39-141		%REC	1	5/18/2004 5:46:00 PM
Surr: Nitrobenzene-d5	69.0	37-140		%REC	1	5/18/2004 5:46:00 PM
Surr: Phenol-d6	19.1	11-100		%REC	1	5/18/2004 5:46:00 PM

VOLATILES BY GC/MS**SW8260**Analyst: **HLBW**

1,1,1-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
2-Butanone	ND	10		µg/L	1	5/25/2004 3:25:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	5/25/2004 3:25:00 PM
2-Hexanone	ND	10		µg/L	1	5/25/2004 3:25:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/25/2004 3:25:00 PM
Acetone	ND	10		µg/L	1	5/25/2004 3:25:00 PM
Benzene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Bromoform	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Bromomethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Carbon disulfide	ND	10		µg/L	1	5/25/2004 3:25:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	5/25/2004 3:25:00 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

AR Page 5 of 9

e-Lab, Inc.

Date: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-02

Client Sample ID: RA4798
Collection Date: 5/12/2004 9:00:00 AM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Chloroethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Chloroform	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Chloromethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Ethylbenzene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
m,p-Xylene	ND	10		µg/L	1	5/25/2004 3:25:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Methylene chloride	ND	10		µg/L	1	5/25/2004 3:25:00 PM
o-Xylene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Styrene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Toluene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Trichloroethene	ND	5.0		µg/L	1	5/25/2004 3:25:00 PM
Vinyl acetate	ND	10		µg/L	1	5/25/2004 3:25:00 PM
Vinyl chloride	ND	2.0		µg/L	1	5/25/2004 3:25:00 PM
Xylenes, Total	ND	15		µg/L	1	5/25/2004 3:25:00 PM
Surr: 1,2-Dichloroethane-d4	97.0	71-126		%REC	1	5/25/2004 3:25:00 PM
Surr: 4-Bromofluorobenzene	78.0	74-125		%REC	1	5/25/2004 3:25:00 PM
Surr: Dibromofluoromethane	106	73-126		%REC	1	5/25/2004 3:25:00 PM
Surr: Toluene-d8	86.4	75-125		%REC	1	5/25/2004 3:25:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	653	50.0		mg/L	100	5/13/2004 10:04:00 PM
Fluoride	0.700	0.100		mg/L	1	5/13/2004 8:39:00 PM
Sulfate	1,380	100		mg/L	100	5/13/2004 10:04:00 PM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	5/13/2004 8:39:00 PM
Surr: Dichloroacetic acid (surr)	99.8	80-120		%REC	100	5/13/2004 10:04:00 PM
Surr: Dichloroacetic acid (surr)	93.6	80-120		%REC	1	5/13/2004 8:39:00 PM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	186	5.00		mg/L	1	5/13/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Total (As CaCO3)	186	5.00		mg/L	1	5/13/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	5/17/2004

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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-03

Client Sample ID: RA4196
Collection Date: 5/12/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
MERCURY, TOTAL						
Mercury	ND	0.000200		mg/L	1	5/13/2004 6:31:22 PM
					Prep Date: 5/13/2004	Analyst: JCJ
ICP METALS, TOTAL						
Aluminum	0.0324	0.0100		mg/L	1	5/20/2004 9:40:00 PM
Arsenic	ND	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Barium	0.00746	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Beryllium	ND	0.00200		mg/L	1	5/20/2004 9:40:00 PM
Boron	0.199	0.0200		mg/L	1	5/20/2004 9:40:00 PM
Cadmium	ND	0.00100		mg/L	1	5/20/2004 9:40:00 PM
Calcium	427	5.00		mg/L	10	5/20/2004 8:44:00 PM
Chromium	ND	0.00200		mg/L	1	5/20/2004 9:40:00 PM
Cobalt	ND	0.00200		mg/L	1	5/20/2004 9:40:00 PM
Copper	0.0735	0.00200		mg/L	1	5/20/2004 9:40:00 PM
Iron	1.59	0.200		mg/L	1	5/20/2004 9:40:00 PM
Lead	0.00820	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Magnesium	145	2.00		mg/L	10	5/20/2004 8:44:00 PM
Manganese	ND	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Molybdenum	ND	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Nickel	ND	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Potassium	2.17	0.200		mg/L	1	5/20/2004 9:40:00 PM
Selenium	0.0159	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Silver	ND	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Sodium	107	2.00		mg/L	10	5/20/2004 8:44:00 PM
Vanadium	0.00619	0.00500		mg/L	1	5/20/2004 9:40:00 PM
Zinc	0.645	0.0500		mg/L	10	5/23/2004 6:13:00 PM
SEMIVOLATILE ORGANICS BY GC/MS						
1,2,4-Trichlorobenzene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2-Methylphenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2-Nitroaniline	ND	10		µg/L	1	5/18/2004 6:12:00 PM
2-Nitrophenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
3-Nitroaniline	ND	10		µg/L	1	5/18/2004 6:12:00 PM
4-Methylphenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
4-Nitroaniline	ND	10		µg/L	1	5/18/2004 6:12:00 PM
4-Nitrophenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Acenaphthene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Acenaphthylene	ND	10		µg/L	1	5/18/2004 6:12:00 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: May 28, 2004

CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite
 Lab ID: 0405137-03

Client Sample ID: RA4196
 Collection Date: 5/12/2004 1:30:00 PM
 Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Aniline	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Anthracene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Benz(a)anthracene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Benzidine	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Hexachloroethane	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Isophorone	ND	10		µg/L	1	5/18/2004 6:12:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	5/18/2004 6:12:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	5/18/2004 6:12:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Naphthalene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Nitrobenzene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Pentachlorophenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Phenanthrene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Phenol	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Pyrene	ND	10		µg/L	1	5/18/2004 6:12:00 PM
Surr: 2,4,6-Tribromophenol	90.6	39-153		%REC	1	5/18/2004 6:12:00 PM
Surr: 2-Fluorobiphenyl	71.1	40-147		%REC	1	5/18/2004 6:12:00 PM
Surr: 2-Fluorophenol	32.9	21-110		%REC	1	5/18/2004 6:12:00 PM
Surr: 4-Terphenyl-d14	69.7	39-141		%REC	1	5/18/2004 6:12:00 PM
Surr: Nitrobenzene-d5	67.1	37-140		%REC	1	5/18/2004 6:12:00 PM
Surr: Phenol-d6	18.6	11-100		%REC	1	5/18/2004 6:12:00 PM
VOLATILES BY GC/MS		SW8260			Analyst: HLBW	
1,1,1-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
2-Butanone	ND	10		µg/L	1	5/25/2004 3:53:00 PM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	5/25/2004 3:53:00 PM
2-Hexanone	ND	10		µg/L	1	5/25/2004 3:53:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/25/2004 3:53:00 PM
Acetone	ND	10		µg/L	1	5/25/2004 3:53:00 PM
Benzene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Bromoform	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Bromomethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Carbon disulfide	ND	10		µg/L	1	5/25/2004 3:53:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	5/25/2004 3:53:00 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: May 28, 2004

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite
Lab ID: 0405137-03

Client Sample ID: RA4196
Collection Date: 5/12/2004 1:30:00 PM
Matrix: WATER

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Chlorobenzene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Chloroethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Chloroform	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Chloromethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Ethylbenzene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
m,p-Xylene	ND	10		µg/L	1	5/25/2004 3:53:00 PM
Methyl tert-butyl ether	5.0	5.0		µg/L	1	5/25/2004 3:53:00 PM
Methylene chloride	ND	10		µg/L	1	5/25/2004 3:53:00 PM
o-Xylene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Styrene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Toluene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Trichloroethene	ND	5.0		µg/L	1	5/25/2004 3:53:00 PM
Vinyl acetate	ND	10		µg/L	1	5/25/2004 3:53:00 PM
Vinyl chloride	ND	2.0		µg/L	1	5/25/2004 3:53:00 PM
Xylenes, Total	ND	15		µg/L	1	5/25/2004 3:53:00 PM
Surr: 1,2-Dichloroethane-d4	99.1	71-126		%REC	1	5/25/2004 3:53:00 PM
Surr: 4-Bromofluorobenzene	78.4	74-125		%REC	1	5/25/2004 3:53:00 PM
Surr: Dibromofluoromethane	109	73-126		%REC	1	5/25/2004 3:53:00 PM
Surr: Toluene-d8	84.6	75-125		%REC	1	5/25/2004 3:53:00 PM
ANIONS BY ION CHROMATOGRAPHY		E300		Analyst: MG		
Chloride	130	5.00		mg/L	10	5/13/2004 11:58:00 PM
Fluoride	0.550	0.100		mg/L	1	5/13/2004 11:30:00 PM
Sulfate	1,480	100		mg/L	100	5/14/2004 12:27:00 AM
Nitrate/Nitrite (as N)	ND	0.100		mg/L	1	5/13/2004 11:30:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	100	5/14/2004 12:27:00 AM
Surr: Dichloroacetic acid (surr)	97.0	80-120		%REC	10	5/13/2004 11:58:00 PM
Surr: Dichloroacetic acid (surr)	102	80-120		%REC	1	5/13/2004 11:30:00 PM
ALKALINITY		E310.1		Analyst: LMD		
Alkalinity, Bicarbonate (As CaCO3)	245	5.00		mg/L	1	5/13/2004
Alkalinity, Carbonate (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Hydroxide (As CaCO3)	ND	5.00		mg/L	1	5/13/2004
Alkalinity, Total (As CaCO3)	245	5.00		mg/L	1	5/13/2004
CYANIDE, TOTAL		E335.3		Analyst: LMD		
Cyanide	ND	0.0200		mg/L	1	5/17/2004

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: May 28 2004

CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 8974 InstrumentID: Mercury

MBLK Sample ID: GBLKW2-051304 Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:03
 Client ID: Run ID: MERCURY_040513B SeqNo: 471692 Prep Date: 5/13/2004 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: GLCSW2-051304 Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:04
 Client ID: Run ID: MERCURY_040513B SeqNo: 471693 Prep Date: 5/13/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00495	0.00020	0.005	0	99	83-115	0			

LCSD Sample ID: GLCSDW2-051304 Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:06
 Client ID: Run ID: MERCURY_040513B SeqNo: 471694 Prep Date: 5/13/2004 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	0.00495	6.83	20	

MS Sample ID: 0405124-02CMS Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:11
 Client ID: Run ID: MERCURY_040513B SeqNo: 471698 Prep Date: 5/13/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00482	0.00020	0.005	-0.000009	96.6	83-115	0			

MSD Sample ID: 0405124-02CMSD Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:15
 Client ID: Run ID: MERCURY_040513B SeqNo: 471699 Prep Date: 5/13/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00505	0.00020	0.005	-0.000009	101	83-115	0.00482	4.66	20	

DUP Sample ID: 0405124-02CDUP Test Code: SW7470 Units: mg/L Analysis Date: 05/13/04 18:09
 Client ID: Run ID: MERCURY_040513B SeqNo: 471697 Prep Date: 5/13/2004 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	-0.000009	0	20	

The following samples were analyzed in this batch:

0405137-01B 0405137-02B 0405137-03B

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: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9008 InstrumentID: ICP4500

MBLK Sample ID: MBLKW2-051704 Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 4:43

Client ID: Run ID: ICP4500_040519A SeqNo: 474630 Prep Date: 5/17/2004 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								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	0.0001085	0.0050								J
Copper	ND	0.0050								
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								

MBLK Sample ID: MBLKW2-051704 Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 19:26

Client ID: Run ID: ICP4500_040520A SeqNo: 475270 Prep Date: 5/17/2004 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								
Molybdenum	ND	0.0050								
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: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9008 InstrumentID: ICP4500

LCS Sample ID: MLCSW2-051704 Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 4:47

Client ID: Run ID: ICP4500_040519A SeqNo: 474631 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05177	0.010	0.05	0	104	79-126	0			
Arsenic	0.04889	0.0050	0.05	0	97.8	80-121	0			
Barium	0.04585	0.0050	0.05	0	91.7	79.8-119	0			
Beryllium	0.0483	0.0020	0.05	0	96.6	78.9-120	0			
Cadmium	0.04936	0.0020	0.05	0	98.7	79.1-119	0			
Calcium	5.167	0.50	5	0	103	80-121	0			
Chromium	0.04804	0.0050	0.05	0	96.1	79.3-121	0			
Cobalt	0.04822	0.0050	0.05	0	96.4	82-121	0			
Copper	0.04635	0.0050	0.05	0	92.7	83-121	0			
Iron	5.111	0.20	5	0	102	80-120	0			
Lead	0.04697	0.0050	0.05	0	93.9	80-118	0			
Manganese	0.04897	0.0050	0.05	0	97.9	82-119	0			
Nickel	0.04851	0.0050	0.05	0	97	85-120	0			
Selenium	0.04918	0.0050	0.05	0	98.4	79.2-118	0			
Silver	0.0481	0.0050	0.05	0	96.2	83-117	0			
Vanadium	0.04814	0.0050	0.05	0	96.3	82.1-119	0			

LCS Sample ID: MLCSW2-051704 Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 19:30

Client ID: Run ID: ICP4500_040520A SeqNo: 475271 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5148	0.020	0.5	0	103	80-120	0			
Magnesium	5.097	0.20	5	0	102	80-120	0			
Molybdenum	0.04536	0.0050	0.05	0	90.7	84.6-115	0			
Potassium	5.15	0.20	5	0	103	80-120	0			
Sodium	4.977	0.20	5	0	99.5	82.4-120	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: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9008 InstrumentID: ICP4500

MS Sample ID: 0405131-45CMS Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 5:02

Client ID: Run ID: ICP4500_040519A SeqNo: 474634 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.07928	0.010	0.05	0.03117	96.2	79-126	0			
Arsenic	0.04894	0.0050	0.05	0.001781	94.3	80-121	0			
Barium	0.05984	0.0050	0.05	0.01201	95.7	79.8-119	0			
Beryllium	0.05235	0.0020	0.05	0.001664	101	78.9-120	0			
Cadmium	0.04876	0.0020	0.05	0.0006719	96.2	79.1-119	0			
Calcium	25.07	0.50	5	19.17	118	80-121	0			
Chromium	0.04866	0.0050	0.05	0.0003697	96.6	79.3-121	0			
Cobalt	0.08254	0.0050	0.05	0.03567	93.7	82-121	0			
Copper	0.04505	0.0050	0.05	0.0007114	88.7	83-121	0			
Iron	5.174	0.20	5	0.1302	101	80-120	0			
Lead	0.04798	0.0050	0.05	0.0002189	95.5	80-118	0			
Manganese	0.6501	0.0050	0.05	0.6049	90.4	82-119	0			EO
Nickel	0.06328	0.0050	0.05	0.01534	95.9	85-120	0			
Selenium	0.04921	0.0050	0.05	0.004311	89.8	79.2-118	0			
Silver	0.04644	0.0050	0.05	-3.514E-06	92.9	83-117	0			
Vanadium	0.05041	0.0050	0.05	0.0002245	100	82.1-119	0			

MS Sample ID: 0405131-45CMS Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 19:44

Client ID: Run ID: ICP4500_040520A SeqNo: 475274 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6509	0.020	0.5	0.1621	97.8	80-120	0			
Magnesium	9.334	0.20	5	4.409	98.5	80-120	0			
Molybdenum	0.04725	0.0050	0.05	0	94.5	84.6-115	0			
Potassium	6.783	0.20	5	1.754	101	80-120	0			
Sodium	82.51	0.20	5	78.25	85.2	82.4-120	0			EO

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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9008 InstrumentID: ICP4500

MSD Sample ID: 0405131-45CMSD Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 5:06

Client ID: Run ID: ICP4500_040519A SeqNo: 474635 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.07929	0.010	0.05	0.03117	96.2	79-126	0.07928	0.0126	15	
Arsenic	0.04887	0.0050	0.05	0.001781	94.2	80-121	0.04894	0.143	15	
Barium	0.06068	0.0050	0.05	0.01201	97.3	79.8-119	0.05984	1.39	15	
Beryllium	0.05115	0.0020	0.05	0.001664	99	78.9-120	0.05235	2.32	15	
Cadmium	0.04893	0.0020	0.05	0.0006719	96.5	79.1-119	0.04876	0.348	15	
Calcium	24.76	0.50	5	19.17	112	80-121	25.07	1.24	15	
Chromium	0.04748	0.0050	0.05	0.0003697	94.2	79.3-121	0.04866	2.45	15	
Cobalt	0.08286	0.0050	0.05	0.03567	94.4	82-121	0.08254	0.387	15	
Copper	0.04481	0.0050	0.05	0.0007114	88.2	83-121	0.04505	0.534	15	
Iron	5.172	0.20	5	0.1302	101	80-120	5.174	0.0387	15	
Lead	0.04762	0.0050	0.05	0.0002189	94.8	80-118	0.04798	0.753	15	
Manganese	0.6493	0.0050	0.05	0.6049	88.8	82-119	0.6501	0.123	15	EO
Nickel	0.06125	0.0050	0.05	0.01534	91.8	85-120	0.06328	3.26	15	
Selenium	0.04908	0.0050	0.05	0.004311	89.5	79.2-118	0.04921	0.265	15	
Silver	0.04635	0.0050	0.05	-3.514E-06	92.7	83-117	0.04644	0.194	15	
Vanadium	0.04917	0.0050	0.05	0.0002245	97.9	82.1-119	0.05041	2.49	15	

MSD Sample ID: 0405131-45CMSD Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 19:49

Client ID: Run ID: ICP4500_040520A SeqNo: 475275 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6761	0.020	0.5	0.1621	103	80-120	0.6509	3.8	15	
Magnesium	9.127	0.20	5	4.409	94.4	80-120	9.334	2.24	15	
Molybdenum	0.04625	0.0050	0.05	0	92.5	84.6-115	0.04725	2.14	15	
Potassium	6.702	0.20	5	1.754	99	80-120	6.783	1.2	15	
Sodium	80.18	0.20	5	78.25	38.6	82.4-120	82.51	2.86	15	SEO

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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9008 InstrumentID: ICP4500

DUP Sample ID: 0405131-45CDUP Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 4:57

Client ID: Run ID: ICP4500_040519A SeqNo: 474633 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.03176	0.010	0	0	0	0-0	0.03117	1.88	25	
Arsenic	0.002213	0.0050	0	0	0	0-0	0.001781	0	25	J
Barium	0.0121	0.0050	0	0	0	0-0	0.01201	0.747	25	
Beryllium	0.001599	0.0020	0	0	0	0-0	0.001664	0	25	J
Cadmium	0.0006138	0.0020	0	0	0	0-0	0.0006719	0	25	J
Calcium	19.45	0.50	0	0	0	0-0	19.17	1.45	25	
Chromium	ND	0.0050	0	0	0	0-0	0.0003697	0	25	
Cobalt	0.036	0.0050	0	0	0	0-0	0.03567	0.921	25	
Copper	0.0005492	0.0050	0	0	0	0-0	0.0007114	0	25	J
Iron	0.1275	0.20	0	0	0	0-0	0.1302	0	25	J
Lead	ND	0.0050	0	0	0	0-0	0.0002189	0	25	
Nickel	0.01522	0.0050	0	0	0	0-0	0.01534	0.785	25	
Selenium	0.004622	0.0050	0	0	0	0-0	0.004311	0	25	J
Silver	ND	0.0050	0	0	0	0-0	-3.514E-06	0	25	
Vanadium	ND	0.0050	0	0	0	0-0	0.0002245	0	25	

DUP Sample ID: 0405131-45CDUP Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 19:40

Client ID: Run ID: ICP4500_040520A SeqNo: 475273 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	4.484	0.20	0	0	0	0-0	4.409	1.69	25	
Molybdenum	ND	0.0050	0	0	0	0-0	0.00033	0	25	
Potassium	1.767	0.20	0	0	0	0-0	1.754	0.738	25	

DUP Sample ID: 0405131-45CDUP Test Code: SW6020 Units: mg/L Analysis Date: 05/20/04 20:17

Client ID: Run ID: ICP4500_040520A SeqNo: 475281 Prep Date: 5/17/2004 DF: 10

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.253	0.20	0	0	0	0-0	0.2161	15.7	25	
Manganese	0.5747	0.050	0	0	0	0-0	0.5773	0.451	25	
Sodium	78.7	2.0	0	0	0	0-0	76.81	2.43	25	

The following samples were analyzed in this batch:

0405137-01B 0405137-02B 0405137-03B

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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9043 InstrumentID: ICP7500

MBLK Sample ID: MBLKW1-052004 Test Code: SW6020 Units: mg/L Analysis Date: 05/21/04 12:59

Client ID: Run ID: ICP7500_040521A SeqNo: 475785 Prep Date: 5/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.009133	0.010								J
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Calcium	ND	0.50								
Chromium	ND	0.0050								
Cobalt	ND	0.0050								
Copper	ND	0.0050								
Lead	0.0006338	0.0050								J
Manganese	ND	0.0050								
Nickel	ND	0.0050								
Potassium	ND	0.20								
Selenium	ND	0.0050								
Silver	ND	0.0050								
Vanadium	ND	0.0050								
Zinc	0.002135	0.0050								J

LCS Sample ID: MLCSW1-052004 Test Code: SW6020 Units: mg/L Analysis Date: 05/21/04 13:05

Client ID: Run ID: ICP7500_040521A SeqNo: 475786 Prep Date: 5/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.05488	0.010	0.05	0	110	79-126	0			
Arsenic	0.04274	0.0050	0.05	0	85.5	80-121	0			
Barium	0.04839	0.0050	0.05	0	96.8	79.8-119	0			
Cadmium	0.04867	0.0020	0.05	0	97.3	79.1-119	0			
Calcium	4.199	0.50	5	0	84	80-121	0			
Chromium	0.04018	0.0050	0.05	0	80.4	79.3-121	0			
Cobalt	0.04846	0.0050	0.05	0	96.9	82-121	0			
Copper	0.04626	0.0050	0.05	0	92.5	83-121	0			
Lead	0.04417	0.0050	0.05	0	88.3	80-118	0			
Manganese	0.04779	0.0050	0.05	0	95.6	82-119	0			
Nickel	0.0481	0.0050	0.05	0	96.2	85-120	0			
Potassium	5.118	0.20	5	0	102	80-120	0			
Selenium	0.04689	0.0050	0.05	0	93.8	79.2-118	0			
Silver	0.04601	0.0050	0.05	0	92	83-117	0			
Vanadium	0.04633	0.0050	0.05	0	92.7	82.1-119	0			
Zinc	0.05539	0.0050	0.05	0	111	83-118	0			

ND - Not Detected at the Reporting Limit

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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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9043 InstrumentID: ICP7500

MS Sample ID: 0405195-02CMS Test Code: SW6020 Units: mg/L Analysis Date: 05/21/04 13:41

Client ID: Run ID: ICP7500_040521A SeqNo: 475792 Prep Date: 5/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.8647	0.010	0.05	0.8839	-38.4	79-126	0			SO
Arsenic	0.05357	0.0050	0.05	0.004851	97.4	80-121	0			
Barium	0.1181	0.0050	0.05	0.07622	83.8	79.8-119	0			
Cadmium	0.0456	0.0020	0.05	0.0001267	90.9	79.1-119	0			
Calcium	101.5	0.50	5	98.7	56	80-121	0			SEO
Chromium	0.05526	0.0050	0.05	0.007498	95.5	79.3-121	0			
Cobalt	0.04686	0.0050	0.05	0.001359	91	82-121	0			
Copper	0.04532	0.0050	0.05	0.003298	84	83-121	0			
Lead	0.04501	0.0050	0.05	0.001013	88	80-118	0			
Manganese	1.294	0.0050	0.05	1.244	100	82-119	0			EO
Nickel	0.04774	0.0050	0.05	0.003516	88.4	85-120	0			
Potassium	7.589	0.20	5	2.806	95.7	80-120	0			
Selenium	0.05034	0.0050	0.05	0.008203	84.3	79.2-118	0			
Silver	0.04551	0.0050	0.05	0.00001893	91	83-117	0			
Vanadium	0.05992	0.0050	0.05	0.01124	97.4	82.1-119	0			
Zinc	0.06034	0.0050	0.05	0.01679	87.1	83-118	0			

MSD Sample ID: 0405195-02CMSD Test Code: SW6020 Units: mg/L Analysis Date: 05/21/04 13:47

Client ID: Run ID: ICP7500_040521A SeqNo: 475793 Prep Date: 5/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.9178	0.010	0.05	0.8839	67.8	79-126	0.8647	5.96	15	SO
Arsenic	0.05387	0.0050	0.05	0.004851	98	80-121	0.05357	0.558	15	
Barium	0.1194	0.0050	0.05	0.07622	86.4	79.8-119	0.1181	1.09	15	
Cadmium	0.04399	0.0020	0.05	0.0001267	87.7	79.1-119	0.0456	3.59	15	
Calcium	102	0.50	5	98.7	66	80-121	101.5	0.491	15	SEO
Chromium	0.05233	0.0050	0.05	0.007498	89.7	79.3-121	0.05526	5.45	15	
Cobalt	0.04698	0.0050	0.05	0.001359	91.2	82-121	0.04686	0.256	15	
Copper	0.04676	0.0050	0.05	0.003298	86.9	83-121	0.04532	3.13	15	
Lead	0.04649	0.0050	0.05	0.001013	91	80-118	0.04501	3.23	15	
Manganese	1.3	0.0050	0.05	1.244	112	82-119	1.294	0.463	15	EO
Nickel	0.04815	0.0050	0.05	0.003516	89.3	85-120	0.04774	0.855	15	
Potassium	7.63	0.20	5	2.806	96.5	80-120	7.589	0.539	15	
Selenium	0.05281	0.0050	0.05	0.008203	89.2	79.2-118	0.05034	4.79	15	
Silver	0.04658	0.0050	0.05	0.00001893	93.1	83-117	0.04551	2.32	15	
Vanadium	0.05899	0.0050	0.05	0.01124	95.5	82.1-119	0.05992	1.56	15	
Zinc	0.07184	0.0050	0.05	0.01679	110	83-118	0.06034	17.4	15	R

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: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9043 InstrumentID: ICP7500

DUP Sample ID: 0405195-02CDUP Test Code: SW6020 Units: mg/L Analysis Date: 05/21/04 13:35
Client ID: Run ID: ICP7500_040521A SeqNo: 475791 Prep Date: 5/20/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.8714	0.010	0	0	0	0-0	0.8839	1.42	25	
Arsenic	0.005173	0.0050	0	0	0	0-0	0.004851	6.42	25	
Barium	0.07247	0.0050	0	0	0	0-0	0.07622	5.04	25	
Cadmium	ND	0.0020	0	0	0	0-0	0	0	25	
Calcium	97.19	0.50	0	0	0	0-0	98.7	1.54	25	
Chromium	0.0107	0.0050	0	0	0	0-0	0.007498	35.2	25	R
Cobalt	0.00136	0.0050	0	0	0	0-0	0.001359	0	25	J
Copper	0.003474	0.0050	0	0	0	0-0	0.003298	0	25	J
Lead	0.0009845	0.0050	0	0	0	0-0	0.001013	0	25	J
Manganese	1.238	0.0050	0	0	0	0-0	1.244	0.483	25	E
Nickel	0.003645	0.0050	0	0	0	0-0	0.003516	0	25	J
Potassium	2.772	0.20	0	0	0	0-0	2.806	1.22	25	
Selenium	0.005861	0.0050	0	0	0	0-0	0.008203	33.3	25	R
Silver	ND	0.0050	0	0	0	0-0	0	0	25	
Vanadium	0.01192	0.0050	0	0	0	0-0	0.01124	5.87	25	
Zinc	0.01921	0.0050	0	0	0	0-0	0.01679	13.4	25	

The following samples were analyzed in this batch:

0405137-01B 0405137-02B 0405137-03B

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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9003 InstrumentID: SV-3

MBLK Sample ID: SBLKW1-040517 Test Code: SW8270 Units: µg/L Analysis Date: 05/18/04 16:01
 Client ID: Run ID: SV-3_040518A SeqNo: 474307 Prep Date: 5/17/2004 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	101.3	0	100	0	101	39-153		0		
Surr: 2-Fluorobiphenyl	74.42	0	100	0	74.4	40-147		0		
Surr: 2-Fluorophenol	42.09	0	100	0	42.1	21-110		0		
Surr: 4-Terphenyl-d14	77.16	0	100	0	77.2	39-141		0		
Surr: Nitrobenzene-d5	71.44	0	100	0	71.4	37-140		0		
Surr: Phenol-d6	25.82	0	100	0	25.8	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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9003 InstrumentID: SV-3

LCS Sample ID: SLCSW1-040517 Test Code: SW8270 Units: µg/L Analysis Date: 05/18/04 16:27

Client ID: Run ID: SV-3_040518A SeqNo: 474308 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.57	10	50	0	83.1	50-115	0			
2,4,5-Trichlorophenol	86.86	10	100	0	86.9	68-128	0			
2,4,6-Trichlorophenol	81.75	10	100	0	81.7	66-125	0			
2-Methylnaphthalene	39.07	10	50	0	78.1	47-122	0			
2-Methylphenol	60.68	10	100	0	60.7	51-115	0			
2-Nitroaniline	36.53	10	50	0	73.1	64-128	0			
2-Nitrophenol	81.75	10	100	0	81.7	60-119	0			
3-Nitroaniline	34.02	10	50	0	68	61-118	0			
4-Methylphenol	83.34	10	150	0	55.6	44-115	0			
4-Nitroaniline	39.33	10	50	0	78.7	61-123	0			
4-Nitrophenol	30.79	10	100	0	30.8	17-100	0			
Acenaphthene	40.31	10	50	0	80.6	68-115	0			
Acenaphthylene	40.59	10	50	0	81.2	67-116	0			
Aniline	20.83	10	50	0	41.7	40-130	0			
Anthracene	41.96	10	50	0	83.9	70-129	0			
Benz(a)anthracene	40.44	10	50	0	80.9	55-131	0			
Benzidine	19.68	10	50	0	39.4	10-115	0			
Hexachloroethane	35.18	10	50	0	70.4	46-115	0			
Indeno(1,2,3-cd)pyrene	47.34	10	50	0	94.7	42-123	0			
Isophorone	38.17	10	50	0	76.3	63-117	0			
N-Nitrosodi-n-propylamine	37.33	10	50	0	74.7	67-115	0			
N-Nitrosodimethylamine	18.6	10	50	0	37.2	28-115	0			
N-Nitrosodiphenylamine	45.75	10	50	0	91.5	72-144	0			
Naphthalene	39.16	10	50	0	78.3	52-115	0			
Nitrobenzene	37.89	10	50	0	75.8	65-115	0			
Pentachlorophenol	86.46	10	100	0	86.5	65-123	0			
Phenanthrene	41.89	10	50	0	83.8	69-119	0			
Phenol	28.42	10	100	0	28.4	16-115	0			
Pyrene	37.03	10	50	0	74.1	51-130	0			
Surr: 2,4,6-Tribromophenol	91.58	0	100	0	91.6	39-153	0			
Surr: 2-Fluorobiphenyl	75.15	0	100	0	75.1	40-147	0			
Surr: 2-Fluorophenol	44.29	0	100	0	44.3	21-110	0			
Surr: 4-Terphenyl-d14	75.5	0	100	0	75.5	39-141	0			
Surr: Nitrobenzene-d5	70.54	0	100	0	70.5	37-140	0			
Surr: Phenol-d6	25.76	0	100	0	25.8	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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: 9003 InstrumentID: SV-3

LCSD Sample ID: SLCSDW1-040517 Test Code: SW8270 Units: µg/L Analysis Date: 05/18/04 16:54

Client ID: Run ID: SV-3_040518A SeqNo: 474309 Prep Date: 5/17/2004 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	41.75	10	50	0	83.5	50-115	41.57	0.425	30	
2,4,5-Trichlorophenol	88.66	10	100	0	88.7	68-128	86.86	2.05	30	
2,4,6-Trichlorophenol	83.51	10	100	0	83.5	66-125	81.75	2.14	30	
2-Methylnaphthalene	39.47	10	50	0	78.9	47-122	39.07	1.02	30	
2-Methylphenol	60.53	10	100	0	60.5	51-115	60.68	0.249	30	
2-Nitroaniline	37.74	10	50	0	75.5	64-128	36.53	3.26	30	
2-Nitrophenol	81.55	10	100	0	81.6	60-119	81.75	0.243	30	
3-Nitroaniline	33.31	10	50	0	66.6	61-118	34.02	2.09	30	
4-Methylphenol	82.34	10	150	0	54.9	44-115	83.34	1.21	30	
4-Nitroaniline	40.33	10	50	0	80.7	61-123	39.33	2.52	30	
4-Nitrophenol	31.68	10	100	0	31.7	17-100	30.79	2.84	30	
Acenaphthene	41.26	10	50	0	82.5	68-115	40.31	2.34	30	
Acenaphthylene	40.96	10	50	0	81.9	67-116	40.59	0.916	30	
Aniline	20.59	10	50	0	41.2	40-130	20.83	1.13	30	
Anthracene	42.3	10	50	0	84.6	70-129	41.96	0.814	30	
Benz(a)anthracene	39.21	10	50	0	78.4	55-131	40.44	3.08	30	
Benzidine	20.11	10	50	0	40.2	10-115	19.68	2.13	30	
Hexachloroethane	36.38	10	50	0	72.8	46-115	35.18	3.35	30	
Indeno(1,2,3-cd)pyrene	49.63	10	50	0	99.3	42-123	47.34	4.73	30	
Isophorone	38.84	10	50	0	77.7	63-117	38.17	1.74	30	
N-Nitrosodi-n-propylamine	38.21	10	50	0	76.4	67-115	37.33	2.34	30	
N-Nitrosodimethylamine	19.64	10	50	0	39.3	28-115	18.6	5.45	30	
N-Nitrosodiphenylamine	46.87	10	50	0	93.7	72-144	45.75	2.42	30	
Naphthalene	39.4	10	50	0	78.8	52-115	39.16	0.589	30	
Nitrobenzene	38.25	10	50	0	76.5	65-115	37.89	0.956	30	
Pentachlorophenol	87.81	10	100	0	87.8	65-123	86.46	1.55	30	
Phenanthrene	42.09	10	50	0	84.2	69-119	41.89	0.477	30	
Phenol	28.46	10	100	0	28.5	16-115	28.42	0.115	30	
Pyrene	37.24	10	50	0	74.5	51-130	37.03	0.551	30	
Surr: 2,4,6-Tribromophenol	92.34	0	100	0	92.3	39-153	91.58	0.833	30	
Surr: 2-Fluorobiphenyl	74.13	0	100	0	74.1	40-147	75.15	1.37	30	
Surr: 2-Fluorophenol	43.46	0	100	0	43.5	21-110	44.29	1.9	30	
Surr: 4-Terphenyl-d14	74.95	0	100	0	75	39-141	75.5	0.731	30	
Surr: Nitrobenzene-d5	69.94	0	100	0	69.9	37-140	70.54	0.858	30	
Surr: Phenol-d6	25.34	0	100	0	25.3	11-100	25.76	1.63	30	

The following samples were analyzed in this batch:

0405137-01E 0405137-02E 0405137-03E

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%

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U - Analyzed for but not detected

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CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: R20687 InstrumentID: VOA_I

MBLK Sample ID: VBLKW1-0525 Test Code: SW8260 Units: µg/L Analysis Date: 05/25/04 11:48

Client ID: Run ID: VOA_I_040525A SeqNo: 477027 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	3.002	10								J
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								
Methyl tert-butyl ether	ND	5.0								
Methylene chloride	ND	10								
o-Xylene	ND	5.0								
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	45.58	5.0	50	0	91.2	71-126		0		
Surr: 4-Bromofluorobenzene	39.77	5.0	50	0	79.5	74-125		0		
Surr: Dibromofluoromethane	49.42	5.0	50	0	98.8	73-126		0		
Surr: Toluene-d8	41.15	5.0	50	0	82.3	75-125		0		

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CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: R20687 InstrumentID: VOA_I

LCS Sample ID: VLCSW1-0525 Test Code: SW8260 Units: µg/L Analysis Date: 05/25/04 10:54

Client ID: Run ID: VOA_I_040525A SeqNo: 476933 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	43.82	5.0	50	0	87.6	75.2-120	0			
1,1,2,2-Tetrachloroethane	47.95	5.0	50	0	95.9	72.4-121	0			
1,1,2-Trichloroethane	45.32	5.0	50	0	90.6	80-120	0			
1,1-Dichloroethane	42.2	5.0	50	0	84.4	76.9-120	0			
1,1-Dichloroethene	41.12	5.0	50	0	82.2	72.6-123	0			
1,2-Dichloroethane	44.62	5.0	50	0	89.2	80-120	0			
2-Butanone	89.59	10	100	0	89.6	69-131	0			
2-Chloroethyl vinyl ether	90.21	10	100	0	90.2	60-135	0			
2-Hexanone	90.19	10	100	0	90.2	55.6-126	0			
4-Methyl-2-pentanone	84.35	10	100	0	84.3	67.4-121	0			
Acetone	83.3	10	100	0	83.3	64.4-140	0			
Benzene	50.84	5.0	50	0	102	80-120	0			
Bromodichloromethane	47.69	5.0	50	0	95.4	80-120	0			
Bromoform	47.21	5.0	50	0	94.4	77.9-121	0			
Bromomethane	52.97	5.0	50	0	106	63.3-137	0			
Carbon disulfide	90.11	10	100	0	90.1	74.1-123	0			
Carbon tetrachloride	46.76	5.0	50	0	93.5	74.7-120	0			
Chlorobenzene	48.77	5.0	50	0	97.5	80-120	0			
Chloroethane	47.4	5.0	50	0	94.8	74.7-126	0			
Chloroform	43.15	5.0	50	0	86.3	80-120	0			
Chloromethane	50.42	5.0	50	0	101	64.5-132	0			
cis-1,3-Dichloropropene	44.68	5.0	50	0	89.4	80-120	0			
Dibromochloromethane	46.81	5.0	50	0	93.6	80-120	0			
Ethylbenzene	47.49	5.0	50	0	95	80-120	0			
m,p-Xylene	95.48	10	100	0	95.5	80-120	0			
Methyl tert-butyl ether	41.58	5.0	50	0	83.2	73.7-122	0			
Methylene chloride	45.47	10	50	0	90.9	76.2-120	0			
o-Xylene	45.8	5.0	50	0	91.6	80-120	0			
Styrene	46.16	5.0	50	0	92.3	80-120	0			
Tetrachloroethene	46.14	5.0	50	0	92.3	68.5-130	0			
Toluene	45.43	5.0	50	0	90.9	80-120	0			
trans-1,3-Dichloropropene	46.14	5.0	50	0	92.3	80-120	0			
Trichloroethene	44.06	5.0	50	0	88.1	78.9-120	0			
Vinyl acetate	97.29	10	100	0	97.3	62.4-133	0			
Vinyl chloride	47.55	2.0	50	0	95.1	72.7-128	0			
Xylenes, Total	141.3	15	150	0	94.2	80-120	0			
Surr: 1,2-Dichloroethane-d4	38.06	5.0	50	0	76.1	71-126	0			
Surr: 4-Bromofluorobenzene	47.35	5.0	50	0	94.7	74-125	0			
Surr: Dibromofluoromethane	41.07	5.0	50	0	82.1	73-126	0			
Surr: Toluene-d8	44.16	5.0	50	0	88.3	75-125	0			

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: R20687 InstrumentID: VOA_I

MS Sample ID: 0405243-01AMS Test Code: SW8260 Units: µg/L Analysis Date: 05/25/04 12:44

Client ID: Run ID: VOA_I_040525A SeqNo: 477028 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	50.55	5.0	50	0	101	75.2-120	0			
1,1,2,2-Tetrachloroethane	50.77	5.0	50	0	102	72.4-121	0			
1,1,2-Trichloroethane	49.91	5.0	50	0	99.8	80-120	0			
1,1-Dichloroethane	44.88	5.0	50	0	89.8	76.9-120	0			
1,1-Dichloroethene	44.63	5.0	50	0	89.3	72.6-123	0			
1,2-Dichloroethane	50.5	5.0	50	0	101	80-120	0			
2-Butanone	84	10	100	0	84	69-131	0			
2-Chloroethyl vinyl ether	88.5	10	100	0	88.5	60-135	0			
2-Hexanone	87.15	10	100	0	87.2	55.6-126	0			
4-Methyl-2-pentanone	86.93	10	100	0	86.9	67.4-121	0			
Acetone	72.88	10	100	0	72.9	64.4-140	0			
Benzene	55.3	5.0	50	0	111	80-120	0			
Bromodichloromethane	51.13	5.0	50	0	102	80-120	0			
Bromoform	51.56	5.0	50	0	103	77.9-121	0			
Bromomethane	50.26	5.0	50	0	101	63.3-137	0			
Carbon disulfide	96.03	10	100	0	96	74.1-123	0			
Carbon tetrachloride	53.81	5.0	50	0	108	74.7-120	0			
Chlorobenzene	51.55	5.0	50	0	103	80-120	0			
Chloroethane	46.39	5.0	50	0	92.8	74.7-126	0			
Chloroform	47.64	5.0	50	0	95.3	80-120	0			
Chloromethane	48.59	5.0	50	0	97.2	64.5-132	0			
cis-1,3-Dichloropropene	47.28	5.0	50	0	94.6	80-120	0			
Dibromochloromethane	51.09	5.0	50	0	102	80-120	0			
Ethylbenzene	50.94	5.0	50	0	102	80-120	0			
m,p-Xylene	101.1	10	100	0	101	80-120	0			
Methyl tert-butyl ether	45.26	5.0	50	0	90.5	73.7-122	0			
Methylene chloride	44.66	10	50	0	89.3	76.2-120	0			
o-Xylene	47.86	5.0	50	0	95.7	80-120	0			
Styrene	48.2	5.0	50	0	96.4	80-120	0			
Tetrachloroethene	49.79	5.0	50	0	99.6	68.5-130	0			
Toluene	47.68	5.0	50	2.893	89.6	80-120	0			
trans-1,3-Dichloropropene	48.77	5.0	50	0	97.5	80-120	0			
Trichloroethene	141.3	5.0	50	88.85	105	78.9-120	0			
Vinyl acetate	106.9	10	100	0	107	62.4-133	0			
Vinyl chloride	48.97	2.0	50	0	97.9	72.7-128	0			
Xylenes, Total	148.9	15	150	0	99.3	80-120	0			
Surr: 1,2-Dichloroethane-d4	41.9	5.0	50	0	83.8	71-126	0			
Surr: 4-Bromofluorobenzene	47.8	5.0	50	0	95.6	74-125	0			
Surr: Dibromofluoromethane	43.04	5.0	50	0	86.1	73-126	0			
Surr: Toluene-d8	43.75	5.0	50	0	87.5	75-125	0			

ND - Not Detected at the Reporting Limit

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CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: R20687 InstrumentID: VOA_I

MSD Sample ID: 0405243-01AMSD Test Code: SW8260 Units: µg/L Analysis Date: 05/25/04 13:11

Client ID: Run ID: VOA_I_040525A SeqNo: 477029 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	46.66	5.0	50	0	93.3	75.2-120	50.55	8.01	20	
1,1,2,2-Tetrachloroethane	49.27	5.0	50	0	98.5	72.4-121	50.77	2.99	20	
1,1,2-Trichloroethane	45.87	5.0	50	0	91.7	80-120	49.91	8.45	20	
1,1-Dichloroethane	43.66	5.0	50	0	87.3	76.9-120	44.88	2.75	20	
1,1-Dichloroethene	41.98	5.0	50	0	84	72.6-123	44.63	6.12	20	
1,2-Dichloroethane	46.63	5.0	50	0	93.3	80-120	50.5	7.98	20	
2-Butanone	88.63	10	100	0	88.6	69-131	84	5.37	20	
2-Chloroethyl vinyl ether	87.22	10	100	0	87.2	60-135	88.5	1.45	20	
2-Hexanone	84.86	10	100	0	84.9	55.6-126	87.15	2.66	20	
4-Methyl-2-pentanone	87.09	10	100	0	87.1	67.4-121	86.93	0.19	20	
Acetone	66.99	10	100	0	67	64.4-140	72.88	8.43	20	
Benzene	50.73	5.0	50	0	101	80-120	55.3	8.62	20	
Bromodichloromethane	46.82	5.0	50	0	93.6	80-120	51.13	8.8	20	
Bromoform	45.91	5.0	50	0	91.8	77.9-121	51.56	11.6	20	
Bromomethane	50.73	5.0	50	0	101	63.3-137	50.26	0.934	20	
Carbon disulfide	92.32	10	100	0	92.3	74.1-123	96.03	3.95	20	
Carbon tetrachloride	49.06	5.0	50	0	98.1	74.7-120	53.81	9.23	20	
Chlorobenzene	48.19	5.0	50	0	96.4	80-120	51.55	6.74	20	
Chloroethane	45.77	5.0	50	0	91.5	74.7-126	46.39	1.36	20	
Chloroform	43.41	5.0	50	0	86.8	80-120	47.64	9.3	20	
Chloromethane	48.96	5.0	50	0	97.9	64.5-132	48.59	0.752	20	
cis-1,3-Dichloropropene	44.1	5.0	50	0	88.2	80-120	47.28	6.96	20	
Dibromochloromethane	46.67	5.0	50	0	93.3	80-120	51.09	9.03	20	
Ethylbenzene	46.54	5.0	50	0	93.1	80-120	50.94	9.03	20	
m,p-Xylene	91.4	10	100	0	91.4	80-120	101.1	10	20	
Methyl tert-butyl ether	45.18	5.0	50	0	90.4	73.7-122	45.26	0.169	20	
Methylene chloride	43.35	10	50	0	86.7	76.2-120	44.66	2.97	20	
o-Xylene	44.73	5.0	50	0	89.5	80-120	47.86	6.78	20	
Styrene	44.79	5.0	50	0	89.6	80-120	48.2	7.33	20	
Tetrachloroethene	46.69	5.0	50	0	93.4	68.5-130	49.79	6.43	20	
Toluene	44.47	5.0	50	2.893	83.1	80-120	47.68	6.96	20	
trans-1,3-Dichloropropene	45.49	5.0	50	0	91	80-120	48.77	6.96	20	
Trichloroethene	133.3	5.0	50	88.85	88.9	78.9-120	141.3	5.78	20	
Vinyl acetate	104.2	10	100	0	104	62.4-133	106.9	2.59	20	
Vinyl chloride	48.15	2.0	50	0	96.3	72.7-128	48.97	1.68	20	
Xylenes, Total	136.1	15	150	0	90.8	80-120	148.9	8.98	20	
Surr: 1,2-Dichloroethane-d4	39.73	5.0	50	0	79.5	71-126	41.9	5.31	20	
Surr: 4-Bromofluorobenzene	46.63	5.0	50	0	93.3	74-125	47.8	2.48	20	
Surr: Dibromofluoromethane	42.92	5.0	50	0	85.8	73-126	43.04	0.272	20	
Surr: Toluene-d8	43.66	5.0	50	0	87.3	75-125	43.75	0.2	20	

The following samples were analyzed in this batch:

0405137-01A 0405137-02A 0405137-03A

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: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: **R20475** InstrumentID: **Wet Chemistry**

MBLK Sample ID: **WMBW1-051304** Test Code: **E310.1** Units: **mg/L** Analysis Date: **05/13/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **471504** 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: **WLCSW1-051304** Test Code: **E310.1** Units: **mg/L** Analysis Date: **05/13/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **471505** 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)	980.6	5.0	1000	0	98.1	80-120	0			

DUP Sample ID: **0405124-01DDUP** Test Code: **E310.1** Units: **mg/L** Analysis Date: **05/13/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **471509** 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)	186.3	5.0	0	0	0	0-0	186.3	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)	186.3	5.0	0	0	0	0-0	186.3	0	20	

The following samples were analyzed in this batch:

0405137-01C 0405137-02C 0405137-03C

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%

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E - Value above quantitation range

CLIENT: Navajo Refining Company
 Work Order: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: R20525 InstrumentID: IC201

MBLK	Sample ID: WBLKW1-051304			Test Code: E300		Units: mg/L		Analysis Date: 05/13/04 17:48		
Client ID:	Run ID: IC201_040513A			SeqNo: 472767		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)	5.03	0.10	5	0	101	80-120	0			

LCS	Sample ID: WLC SW1-051304			Test Code: E300		Units: mg/L		Analysis Date: 05/13/04 18:16		
Client ID:	Run ID: IC201_040513A			SeqNo: 472768		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.04	0.50	10	0	90.4	80-120	0			
Fluoride	1.84	0.10	2	0	92	80-120	0			
Sulfate	9.69	1.0	10	0	96.9	80-120	0			
Surr: Dichloroacetic acid (surr)	4.83	0.10	5	0	96.6	80-120	0			

LCSD	Sample ID: WLCSDW1-05130				Test Code: E300		Units: mg/L		Analysis Date: 05/13/04 18:45		
Client ID:	Run ID: IC201_040513A			SeqNo: 472769		Prep Date:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	9.01	0.50	10	0	90.1	80-120	9.04	0.332	20		
Fluoride	1.94	0.10	2	0	97	80-120	1.84	5.29	20		
Sulfate	9.64	1.0	10	0	96.4	80-120	9.69	0.517	20		
Surr: Dichloroacetic acid (surr)	5.18	0.10	5	0	104	80-120	4.83	6.99	20		

MS	Sample ID: 0405109-10CMS			Test Code: E300		Units: mg/L		Analysis Date: 05/14/04 1:52		
Client ID:	Run ID: IC201_040513A			SeqNo: 472782		Prep Date:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2096	25	500	1548	110	75-125	0			
Fluoride	100	5.0	100	0	100	75-125	0			
Sulfate	944.5	50	500	459.5	97	75-125	0			
Nitrate/Nitrite (as N)	199.5	5.0	200	0	99.8	75-125	0			
Surr: Dichloroacetic acid (surr)	257	5.0	250	0	103	80-120	0			

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R - RPD outside accepted recovery limits

P - Dual Column results percent difference > 40%

BD - Analyte detected in assoc. Method Blank

U - Analyzed for but not detected

E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0405137
Project: Monthly Offsite

QC BATCH REPORT

Batch ID: **R20525** InstrumentID: **IC201**

MSD Sample ID: **0405109-10CMSD** Test Code: **E300** Units: **mg/L** Analysis Date: **05/14/04 2:21**

Client ID: Run ID: **IC201_040513A** SeqNo: **472787** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2087	25	500	1548	108	75-125	2096	0.454	20	
Fluoride	100.5	5.0	100	0	100	75-125	100	0.499	20	
Sulfate	939.5	50	500	459.5	96	75-125	944.5	0.531	20	
Nitrate/Nitrite (as N)	198	5.0	200	0	99	75-125	199.5	0.755	20	
Surr: Dichloroacetic acid (surr)	258.5	5.0	250	0	103	80-120	257	0.582	20	

DUP Sample ID: **0405109-10CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **05/14/04 1:24**

Client ID: Run ID: **IC201_040513A** SeqNo: **472781** Prep Date: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1558	25	0	0	0	0-0	1548	0.676	20	
Fluoride	ND	5.0	0	0	0	0-0	0	0	20	
Sulfate	462	50	0	0	0	0-0	459.5	0.543	20	
Nitrate/Nitrite (as N)	ND	5.0	0	0	0	0-0	0	0	20	
Surr: Dichloroacetic acid (surr)	256	5.0	250	0	102	80-120	257	0.39	20	

DUP Sample ID: **0405100-13CDUP** Test Code: **E300** Units: **mg/L** Analysis Date: **05/14/04 10:54**

Client ID: Run ID: **IC201_040513A** SeqNo: **472784** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	1.16	0.50	0	0	0	0-0	1.16	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)	4.77	0.10	5	0	95.4	80-120	4.41	7.84	20	

The following samples were analyzed in this batch:

0405137-01C 0405137-02C 0405137-03C

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation 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: 0405137
 Project: Monthly Offsite

QC BATCH REPORT

Batch ID: **R20534** InstrumentID: **Wet Chemistry**

MBLK Sample ID: **WMBW1-051704** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/17/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **473001** 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: **WLCSW1-051704** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/17/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **473002** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.2009	0.020	0.2	0	100	80-120	0			

MS Sample ID: **0405124-01EMS** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/17/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **473013** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1914	0.020	0.2	0.0041	93.6	75-125	0			

MSD Sample ID: **0405124-01EMSD** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/17/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **473014** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.1933	0.020	0.2	0.0041	94.6	75-125	0.1914	0.988	25	

DUP Sample ID: **0405124-01EDUP** Test Code: **E335.3** Units: **mg/L** Analysis Date: **05/17/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0405** SeqNo: **473012** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide	0.0037	0.020	0	0	0	0-0	0.0041	0	20	J

The following samples were analyzed in this batch:

0405137-01D 0405137-02D 0405137-03D

ND - Not Detected at the Reporting Limit

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E - Value above quantitation range



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

Chain of Custody Form

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

Page 1 of 1

Customer Information				Project Information				e-Lab Project Manager: <u>MOORE Monthly Offsite</u>												e-Lab Work Order # <u>NO5137</u>											
Project Information				Parameter/Method Request for Analysis																											
Purchase Order	Project Name	Project Number	Bill To Company	Invoice Attn	Address	City/State/Zip	Phone	Fax	e-Mail Address	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold						
Work Order	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421		5/12/04	0845	✓	✓	8																	
Company Name	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421		1	0900	1	1	1																	
Send Report To	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421			1330																				
Address	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421																							
City/State/Zip	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421																							
Phone	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421																							
Fax	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421																							
e-Mail Address	Navajo Refining Company		Navajo Refining Company	Jeff Byrd	P.O. Box 159	Artesia, New Mexico 88211	(505) 748-3311	(505) 746-5421																							
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold														
1	RA 307	5/12/04	0845	✓	✓	8																									
2	RA 4798	1	0900	1	1	1																									
3	RA 4196		1330																												
4																															
5																															
6																															
7																															
8																															
9																															
10																															
Sampler(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:																			
J Byrd				Fed Ex				5 WK/10 WK/30 Days				5 WK/10 WK/30 Days																			
Relinquished by:				Received by:				Time:				Time:																			
J Byrd				J Byrd				5/12/04				5/12/04																			
Relinquished by:				Checked by (Laboratory):				Time:				Time:																			
J Byrd				J Byrd				5/12/04				5/12/04																			
Logged by (Laboratory):				Time:				Time:				Time:																			
J Byrd				J Byrd				5/12/04				5/12/04																			
Preservative Key:				1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₃ 7-Other				8-4°C																							

Note: 1. 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: 5/13/2004 8:25:00 AM

Work Order Number 0405137

Received by: RSZ

Checklist completed by

RICHARD SANCHEZ 5-13-04

Signature

Date

Reviewed by

Initials

Date

5/14/04

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):

2.9c

002

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