

GW - 71-0

MONITORING REPORTS

DATE:

2004



Enterprise Products

T. Helfgott, Ph.D., P. E.
Vice President, Environmental Administration

P.O. Box 4324 Houston, Texas 77210-4324 713.880.6500
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28 March 2005

Return Receipt Requested
7003 1680 0005 0234 4650

Mr. Ed Martin, Environmental Bureau
New Mexico Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 S. Saint Francis
Santa Fe, NM 87505

**Subject: Enterprise Field Services, LLC Chaco Gas Plant
 NMOCD Discharge Plan Number GW-071
 Groundwater Monitoring Well Annual Testing Report**

Dear Mr. Martin:

Please find enclosed reports on the following monitoring wells and waste water streams at the Enterprise Field Services, LLC (EFS) Chaco Plant. These results are summarized on the attached tables.

Semi-Annual analyses for monitoring wells 1 and 8.
Quarterly analyses for monitoring wells 9 and 10.

If you need additional information, please call Mr. Doug Jordan, our area environmental manager, at (713) 880-6629, or me directly at (713) 880-6768.

Yours truly,


T. Helfgott

/sjn

copy to: Denny Foust - New Mexico Oil Conservation Division - Aztec
 Randy Randall - Enterprise - Farmington
 Troy Chamberlain - Enterprise - Farmington
 Chaco Regulatory File

Chaco Plant Groundwater Monitoring Well Results 2004

All Results Expressed as Micrograms/Liter (ppb)

Monitoring Well 1 (semi-annual)	3/30/04		8/18/04	
Benzene	ND		ND	
Toluene	ND		ND	
Ethyl Benzene	ND		ND	
Xylenes	ND		ND	
Cadmium	ND		ND	
Chromium	0.0064		ND	
Mercury	ND		ND	
Total Naphthalenes	ND		ND	
Total Benzopyrenes	ND		ND	
Monitoring Well 8 (semi-annual)	3/30/04		8/18/04	
Benzene	ND		ND	
Toluene	ND		ND	
Ethyl Benzene	ND		ND	
Xylenes	ND		ND	
Cadmium	ND		ND	
Chromium	ND		ND	
Mercury	ND		ND	
Total Naphthalenes	ND		ND	
Total Benzopyrenes	ND		ND	
Monitoring Well 9 (quarterly)	3/30/04	6/10/04	8/18/04	12/15/2004
Benzene	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND
Xylenes	ND	ND	ND	ND
Monitoring Well 10 (quarterly)	3/30/04	6/10/04	8/18/04	12/15/2004
Benzene	ND	ND	2.0	ND
Toluene	ND	ND	ND	ND
Ethyl Benzene	20	14	19	22
Xylenes	67	33	42	54

ND = None Detected

Chaco Plant Groundwater Monitoring Well Results 2004

All Results Expressed as Milligrams/Liter (ppm)

pH Expressed in Standard Units (0 - 14 Scale)

Conductivity Expressed as Micromhos/Centimeter

All samples listed on this table were collected on 8/18/2004

Test	Well 2	Well 3	Well 4	Well 5	Well 6	Well 7
pH	8.13	7.38	8.04	8.05	8.42	8.13
Alkalinity - CO ₃	ND	ND	ND	ND	16	ND
Alkalinity - HCO ₃	270	740	380	160	640	550
Calcium	130	940	420	500	140	330
Magnesium	30	86	58	72	18	50
Total Hardness	510	2700	1300	1600	480	1000
Chloride	47	41	150	160	150	120
Sulfate as SO ₄	1000	880	2200	2500	1400	1600
Fluoride	2.2	0.68	1.6	0.52	5.4	2.8
Nitrate as NO ₃	ND	ND	ND	ND	ND	ND
Nitrate as NO ₂	ND	ND	ND	ND	ND	ND
Ammonium as N	ND	ND	ND	ND	ND	0.56
Phosphate	ND	ND	ND	ND	ND	ND
Potassium	ND	5.4	7.5	6.2	3.6	4.4
Sodium	440	260	690	660	890	550
TDS	1800	1600	3800	4200	2800	2900
Conductivity	2200	1800	4100	4200	3600	3300
Cadmium	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	0.037	0.021	0.015
Mercury	ND	0.00024	ND	ND	0.00041	0.00024

ND = None Detected

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: EL PASO FIELD SERVICES	PINNACLE ID	: 403138
PROJECT #	: 69047003	DATE RECEIVED	: 03/31/04
PROJECT NAME	: CHACO PLANT GW MONITORING	REPORT DATE	: 04/24/04

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
403138 - 01	MW #1	AQUEOUS	03/30/04
403138 - 02	MW #8	AQUEOUS	03/30/04
403138 - 03	MW #9	AQUEOUS	03/30/04
403138 - 04	MW #10	AQUEOUS	03/30/04
403138 - 05	TRIP BLANK	AQUEOUS	03/04/04

PINNACLE
LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021B MODIFIED
CLIENT : EL PASO FIELD SERVICES
PROJECT # : 69047003
PROJECT NAME : CHACO PLANT GW MONITORING

PINNACLE I.D. : 403138
ANALYST : BP

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	MW #1	AQUEOUS	03/30/04	NA	03/31/04	1
02	MW #8	AQUEOUS	03/30/04	NA	03/31/04	1
03	MW #9	AQUEOUS	03/30/04	NA	03/31/04	1

PARAMETER	DET. LIMIT	UNITS	MW #1	MW #8	MW #9
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOTAL XYLENES	1.0	UG/L	< 1.0	< 1.0	< 1.0

SURROGATE:
BROMOFLUOROBENZENE (%) 98 97 94
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A

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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021B MODIFIED
CLIENT : EL PASO FIELD SERVICES
PROJECT # : 69047003
PROJECT NAME : CHACO PLANT GW MONITORING

PINNACLE I.D. : 403138
ANALYST : BP

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	MW #10	AQUEOUS	03/30/04	NA	04/01/04	5 D1
05	TRIP BLANK	AQUEOUS	03/04/04 T1	NA	03/31/04	1

PARAMETER	DET. LIMIT	UNITS	MW #10	TRIP BLANK
BENZENE	0.5	UG/L	< 2.5	< 0.5
TOLUENE	0.5	UG/L	< 2.5	< 0.5
ETHYLBENZENE	0.5	UG/L	20	< 0.5
TOTAL XYLENES	1.0	UG/L	67	< 1.0

SURROGATE:
BROMOFLUOROBENZENE (%) 98 96
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

D1 = Dilution due to matrix interference.

T1 = Trip Blank was received past 14 day hold time.

PINNACLE
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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021B MODIFIED	PINNACLE I.D.	: 403138
BLANK I. D.	: 033104	DATE EXTRACTED	: N/A
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 03/31/04
PROJECT #	: 69047003	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: CHACO PLANT GW MONITORING	ANALYST	: BP

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<1.0

SURROGATE:

BROMOFLUOROBENZENE (%)

97

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A

PINNACLE
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GAS CHROMATOGRAPHY QUALITY CONTROL
LCS/LCSD

TEST	: EPA 8021B MODIFIED	PINNACLE I.D.	: 403138
BATCH #	: 033104	DATE EXTRACTED	: N/A
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 03/31/04
PROJECT #	: 69047003	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: CHACO PLANT GW MONITORING	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.8	99	20.3	102	2	(80 - 120)	20
TOLUENE	<0.5	20.0	19.5	98	19.9	100	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.9	100	20.4	102	2	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	58.7	98	60.2	100	3	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

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GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

TEST	: EPA 8021B MODIFIED	PINNACLE I.D.	: 403138
MSMSD #	: 403138-02	DATE EXTRACTED	: N/A
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 04/01/04
PROJECT #	: 69047003	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: CHACO PLANT GW MONITORING	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.0	100	20.4	102	2	(80 - 120)	20
TOLUENE	<0.5	20.0	19.6	98	19.9	100	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.9	100	20.3	102	2	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	58.6	98	59.8	100	2	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Environmental Services Laboratory, Inc. E S L

17400 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520

April 16, 2004

Jacinta A. Tenorio
Pinnacle Laboratories
2709-D Pan American Fwy NE
Albuquerque, NM 87107

TEL: 505 344-3777

FAX (505) 344-4413

RE: 403138/TERR

Order No.: 0404001

Dear Jacinta A. Tenorio:

Environmental Services Laboratory received 2 samples on 3/30/04 for the analyses presented in the following report.

There were no analytical problems encountered and all analytical data met requirements established under NELAC protocol or laboratory specifications except where noted in a Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval of the laboratory. The following checked data sections are included in this report.

☒ Base Sample Report ☒ Method Blank Report ☒ Sample Duplicate Report ☒ Matrix Spike/Matrix Spike Duplicate Report ☒ Laboratory Control Spike/Spike Duplicate Report
☒ Continuing Calibration Verification Report ☒ Initial Calibration Verification Report

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

Project Manager

Keith Hunter
Technical Review

Environmental Services Laboratory

Date: 16-Apr-04

CLIENT: Pinnacle Laboratories
Lab Order: 0404001
Project: 403138/TERR
Lab ID: 0404001-01A

Client Sample ID: MW#1/403138-01
Tag Number:
Collection Date: 3/30/04
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY		EPA 7470A		(3005A)		Analyst: mal
Mercury	ND	0.00013		mg/L	1	4/12/04
ICP METALS		EPA 6010B		(3005A)		Analyst: mal
Cadmium	ND	0.0010		mg/L	1	4/7/04
Chromium	0.0064	0.0010		mg/L	1	4/7/04
PAH BY SIM, AQUEOUS		8270-SIM		(3510C)		Analyst: rlr
1-Methylnaphthalene	ND	0.40		µg/L	4	4/6/04
2-Methylnaphthalene	ND	0.40		µg/L	4	4/6/04
Acenaphthene	ND	0.40		µg/L	4	4/6/04
Acenaphthylene	ND	0.40		µg/L	4	4/6/04
Anthracene	ND	0.40		µg/L	4	4/6/04
Benz(a)anthracene	ND	0.40		µg/L	4	4/6/04
Benzo(a)pyrene	ND	0.40		µg/L	4	4/6/04
Benzo(b)fluoranthene	ND	0.40		µg/L	4	4/6/04
Benzo(g,h,i)perylene	ND	0.40		µg/L	4	4/6/04
Benzo(k)fluoranthene	ND	0.40		µg/L	4	4/6/04
Chrysene	ND	0.40		µg/L	4	4/6/04
Dibenz(a,h)anthracene	ND	0.40		µg/L	4	4/6/04
Fluoranthene	ND	0.40		µg/L	4	4/6/04
Fluorene	ND	0.40		µg/L	4	4/6/04
Indeno(1,2,3-cd)pyrene	ND	0.40		µg/L	4	4/6/04
Naphthalene	ND	0.40		µg/L	4	4/6/04
Phenanthrene	ND	0.40		µg/L	4	4/6/04
Pyrene	ND	0.40		µg/L	4	4/6/04
Surr: 2-Fluorobiphenyl	39.0	43-116	S, MI	%REC	4	4/6/04
Surr: 4-Terphenyl-d14	48.0	33-141		%REC	4	4/6/04
Surr: Nitrobenzene-d5	44.0	35-114		%REC	4	4/6/04

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

Environmental Services Laboratory

Date: 16-Apr-04

CLIENT: Pinnacle Laboratories
Lab Order: 0404001
Project: 403138/TERR
Lab ID: 0404001-02A

Client Sample ID: MW#8/403138-02
Tag Number:
Collection Date: 3/30/04
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY		EPA 7470A		(3005A)		Analyst: mal
Mercury	ND	0.00013		mg/L	1	4/12/04
ICP METALS		EPA 6010B		(3005A)		Analyst: mal
Cadmium	ND	0.0010		mg/L	1	4/7/04
Chromium	ND	0.0010		mg/L	1	4/7/04
PAH BY SIM, AQUEOUS		8270-SIM		(3510C)		Analyst: rlr
1-Methylnaphthalene	ND	0.40		µg/L	4	4/6/04
2-Methylnaphthalene	ND	0.40		µg/L	4	4/6/04
Acenaphthene	ND	0.40		µg/L	4	4/6/04
Acenaphthylene	ND	0.40		µg/L	4	4/6/04
Anthracene	ND	0.40		µg/L	4	4/6/04
Benz(a)anthracene	ND	0.40		µg/L	4	4/6/04
Benzo(a)pyrene	ND	0.40		µg/L	4	4/6/04
Benzo(b)fluoranthene	ND	0.40		µg/L	4	4/6/04
Benzo(g,h,i)perylene	ND	0.40		µg/L	4	4/6/04
Benzo(k)fluoranthene	ND	0.40		µg/L	4	4/6/04
Chrysene	ND	0.40		µg/L	4	4/6/04
Dibenz(a,h)anthracene	ND	0.40		µg/L	4	4/6/04
Fluoranthene	ND	0.40		µg/L	4	4/6/04
Fluorene	0.80	0.40		µg/L	4	4/6/04
Indeno(1,2,3-cd)pyrene	ND	0.40		µg/L	4	4/6/04
Naphthalene	ND	0.40		µg/L	4	4/6/04
Phenanthrene	ND	0.40		µg/L	4	4/6/04
Pyrene	ND	0.40		µg/L	4	4/6/04
Surr: 2-Fluorobiphenyl	40.0	43-116	S, MI	%REC	4	4/6/04
Surr: 4-Terphenyl-d14	54.0	33-141		%REC	4	4/6/04
Surr: Nitrobenzene-d5	52.0	35-114		%REC	4	4/6/04

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

Environmental Services Laboratory

Date: 16-Apr-04

CLIENT: Pinnacle Laboratories

Work Order: 0404001

Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 HG A

Sample ID: MB-6987	SampType: MBLK	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A
Client ID: ZZZZZ	Batch ID: 6987	TestNo: EPA 7470A (3005A)		Analysis Date: 4/12/04	SeqNo: 202074
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.00013			

Sample ID: LCS-6987	SampType: LCS	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A
Client ID: ZZZZZ	Batch ID: 6987	TestNo: EPA 7470A (3005A)		Analysis Date: 4/12/04	SeqNo: 202075
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.001	0.00013	0.001	0	100 80 120 0 0

Sample ID: 0404001-01A MS	SampType: MS	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A
Client ID: MW#1/403138-01	Batch ID: 6987	TestNo: EPA 7470A (3005A)		Analysis Date: 4/12/04	SeqNo: 202077
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.00213	0.00013	0.002	0	106 75 125 0 0

Sample ID: 0404001-01A MSD	SampType: MSD	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A
Client ID: MW#1/403138-01	Batch ID: 6987	TestNo: EPA 7470A (3005A)		Analysis Date: 4/12/04	SeqNo: 202078
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.00207	0.00013	0.002	0	104 75 125 0.00213 2.86 20

Sample ID: 0404001-02A DUP	SampType: DUP	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A
Client ID: MW#8/403138-02	Batch ID: 6987	TestNo: EPA 7470A (3005A)		Analysis Date: 4/12/04	SeqNo: 202080
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.00013	0	0	0 0 0 0 20

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 0404001
Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 HG A

Sample ID: CCV	SampType: CCV	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A					
Client ID: ZZZZZ	Batch ID: 6987	TestNo: EPA 7470A		Analysis Date: 4/12/04	SeqNo: 202083					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00201	0.00013	0.002	101	90	110	0	0		

Sample ID: ICV	SampType: ICV	TestCode: 02 HG A	Units: mg/L	Prep Date: 4/12/04	Run ID: MERC_040412A					
Client ID: ZZZZZ	Batch ID: 6987	TestNo: EPA 7470A		Analysis Date: 4/12/04	SeqNo: 202073					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00201	0.00013	0.002	101	90	110	0	0	0	

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 ICPA

Sample ID: MB-6970	Sample Type: MBLK	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B	(3005A)	Analysis Date: 4/7/04	SeqNo: 201623						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.010									
Barium	ND	0.0010									
Cadmium	ND	0.0010									
Chromium	ND	0.0010									
Copper	ND	0.0030									
Lead	ND	0.0060									
Nickel	ND	0.0050									
Selenium	ND	0.015									
Silver	ND	0.0030									
Zinc	ND	0.020									

Sample ID: LCS-6970	SampType: LCS	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B	(3005A)	Analysis Date: 4/7/04	SeqNo: 201624						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.443	0.010	0.5	0	88.6	80	120	0	0		
Barium	0.501	0.0010	0.5	0	100	80	120	0	0		
Cadmium	0.51	0.0010	0.5	0	102	80	120	0	0		
Chromium	0.494	0.0010	0.5	0	98.8	80	120	0	0		
Copper	0.482	0.0030	0.5	0	96.4	80	120	0	0		
Lead	0.502	0.0060	0.5	0	100	80	120	0	0		
Nickel	0.522	0.0050	0.5	0	104	80	120	0	0		
Selenium	0.528	0.015	0.5	0	106	80	120	0	0		
Silver	0.492	0.0030	0.5	0	98.4	80	120	0	0		
Zinc	0.513	0.020	0.5	0	103	80	120	0	0		

Sample ID: 0404003-01A MS	SampType: MS	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B	(3005A)	Analysis Date: 4/7/04	SeqNo: 201626						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic, TCLP	0.519	0.010	0.5	0.0198	99.8	75	125	0	0		
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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 ICPA

Sample ID: 0404003-01A MS	SampType: MS	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B (3005A)		Analysis Date: 4/7/04	SeqNo: 201626						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Barium, TCLP	1.32	0.0010	0.5	0.806	103	75	125	0	0		
Cadmium, TCLP	0.501	0.0010	0.5	0.0086	98.5	75	125	0	0		
Chromium, TCLP	0.47	0.0010	0.5	0	94	75	125	0	0		
Copper, TCLP	0.543	0.0030	0.5	0	109	75	125	0	0		
Lead, TCLP	0.517	0.0060	0.5	0.0337	96.7	75	125	0	0		
Nickel, TCLP	1.02	0.0050	0.5	0.512	102	75	125	0	0		
Selenium, TCLP	0.591	0.015	0.5	0.0673	105	75	125	0	0		
Silver, TCLP	0.544	0.0030	0.5	0	109	75	125	0	0		
Zinc, TCLP	209	2.0	0.5	209	0	75	125	0	0		S,M

Sample ID: 0404003-01A MSD	SampType: MSD	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B (3005A)		Analysis Date: 4/7/04	SeqNo: 201627						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic, TCLP	0.503	0.010	0.5	0.0198	96.6	75	125	0.519	3.13	20	
Barium, TCLP	1.33	0.0010	0.5	0.806	105	75	125	1.32	0.755	20	
Cadmium, TCLP	0.501	0.0010	0.5	0.0086	98.5	75	125	0.501	0	20	
Chromium, TCLP	0.47	0.0010	0.5	0	94	75	125	0.47	0	20	
Copper, TCLP	0.548	0.0030	0.5	0	110	75	125	0.543	0.917	20	
Lead, TCLP	0.52	0.0060	0.5	0.0337	97.3	75	125	0.517	0.579	20	
Nickel, TCLP	1.02	0.0050	0.5	0.512	102	75	125	1.02	0	20	
Selenium, TCLP	0.552	0.015	0.5	0.0673	96.9	75	125	0.591	6.82	20	
Silver, TCLP	0.546	0.0030	0.5	0	109	75	125	0.544	0.367	20	
Zinc, TCLP	205	2.0	0.5	209	-800	75	125	209	1.93	20	S,M

Sample ID: 0403284-02A DUP	SampType: DUP	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B (3005A)		Analysis Date: 4/7/04	SeqNo: 201629						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.0147	0.010	0	0	0	0	0	0.0126	15.4	20	
Barium	0.0216	0.0010	0	0	0	0	0	0.0244	12.2	20	

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 ICPA

Sample ID: 0403284-02A DUP		SampType: DUP		TestCode: 02 ICPA		Units: mg/L		Prep Date: 4/6/04		Run ID: ICP_040407A	
Client ID: ZZZZZ		Batch ID: 6970		TestNo: EPA 6010B		(3005A)		Analysis Date: 4/7/04		SeqNo: 201629	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.0010	0	0	0	0	0	0.0013	0	20	
Chromium	0.0024	0.0010	0	0	0	0	0	0.0032	28.6	20	R,T
Copper	ND	0.0030	0	0	0	0	0	0	0	20	
Lead	ND	0.0060	0	0	0	0	0	0	0	20	
Nickel	ND	0.0050	0	0	0	0	0	0.007	0	20	
Selenium	ND	0.015	0	0	0	0	0	0	0	20	
Silver	ND	0.0030	0	0	0	0	0	0	0	20	
Zinc	0.0547	0.020	0	0	0	0	0	0.298	138	20	R,Q

Sample ID: CCV	SampleType: CCV	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B		Analysis Date: 4/7/04	SeqNo: 201638						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.514	0.010	0.5	0	103	90	110	0	0		
Barium	0.509	0.0010	0.5	0	102	90	110	0	0		
Cadmium	0.494	0.0010	0.5	0	98.8	90	110	0	0		
Chromium	0.49	0.0010	0.5	0	98	90	110	0	0		
Copper	0.491	0.0030	0.5	0	98.2	90	110	0	0		
Lead	0.489	0.0060	0.5	0	97.8	90	110	0	0		
Nickel	0.499	0.0050	0.5	0	99.8	90	110	0	0		
Selenium	0.516	0.015	0.5	0	103	90	110	0	0		
Silver	0.5	0.0030	0.5	0	100	90	110	0	0		
Zinc	0.496	0.020	0.5	0	99.2	90	110	0	0		

Sample ID: ICVLOW	SampleType: ICV	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B		Analysis Date: 4/7/04	SeqNo: 201622						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.504	0.010	0.5	0	101	90	110	0	0		
Barium	0.501	0.0010	0.5	0	100	90	110	0	0		
Cadmium	0.502	0.0010	0.5	0	100	90	110	0	0		

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories

Work Order: 0404001

Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 02 ICPA

Sample ID: ICVLOW	SampleType: ICV	TestCode: 02 ICPA	Units: mg/L	Prep Date: 4/6/04	Run ID: ICP_040407A						
Client ID: ZZZZZ	Batch ID: 6970	TestNo: EPA 6010B		Analysis Date: 4/7/04	SeqNo: 201622						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.502	0.0010	0.5	0	100	90	110	0	0		
Copper	0.494	0.0030	0.5	0	98.8	90	110	0	0		
Lead	0.499	0.0060	0.5	0	99.8	90	110	0	0		
Nickel	0.501	0.0050	0.5	0	100	90	110	0	0		
Selenium	0.502	0.015	0.5	0	100	90	110	0	0		
Silver	0.5	0.0030	0.5	0	100	90	110	0	0		
Zinc	0.502	0.020	0.5	0	100	90	110	0	0		

Qualifiers:

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 06 PAH A

Sample ID: MB-6954	SampType: MBLK	TestCode: 06 PAH A	Units: µg/L	Prep Date: 4/1/04	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: 6954	TestNo: 8270-SIM	(3510C)	Analysis Date: 4/1/04	SeqNo: 201317						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	ND	0.10									
Acenaphthylene	ND	0.10									
Anthracene	ND	0.10									
Benz(a)anthracene	ND	0.10									
Benzo(a)pyrene	ND	0.10									
Benzo(b)fluoranthene	ND	0.10									
Benzo(g,h,i)perylene	ND	0.10									
Benzo(k)fluoranthene	ND	0.10									
Chrysene	ND	0.10									
Dibenz(a,h)anthracene	ND	0.10									
Fluoranthene	ND	0.10									
Fluorene	ND	0.10									
Indeno(1,2,3-cd)pyrene	ND	0.10									
Naphthalene	ND	0.10									
Phenanthrene	ND	0.10									
Pyrene	ND	0.10									
Surr: 2-Fluorobiphenyl	0.71	0	1	0	71	43	116	0	0		
Surr: 4-Terphenyl-d14	0.96	0	1	0	96	33	141	0	0		
Surr: Nitrobenzene-d5	0.48	0	1	0	48	35	114	0	0		

Sample ID: LCS-6954	SampType: LCS	TestCode: 06 PAH A	Units: µg/L	Prep Date: 4/1/04	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: 6954	TestNo: 8270-SIM	(3510C)	Analysis Date: 4/1/04	SeqNo: 201318						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	0.72	0.10	1	0	72	47	145	0	0		
Acenaphthylene	0.78	0.10	1	0	78	33	145	0	0		
Anthracene	0.95	0.10	1	0	95	27	133	0	0		
Benz(a)anthracene	0.7	0.10	1	0	70	33	143	0	0		
Benzo(a)pyrene	0.76	0.10	1	0	76	17	163	0	0		
Benzo(b)fluoranthene	0.48	0.10	1	0	48	24	159	0	0		
Benzo(g,h,i)perylene	0.57	0.10	1	0	57	1	219	0	0		

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 06 PAH A

Sample ID: LCS-6954	SampType: LCS	TestCode: 06 PAH A	Units: µg/L	Prep Date: 4/1/04	Run ID: HEISENBURG_040401A					
Client ID: ZZZZZ	Batch ID: 6954	TestNo: 8270-SIM	(3510C)	Analysis Date: 4/1/04	SeqNo: 201318					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzo(k)fluoranthene	0.99	0.10	1	0	99	11	162	0	0		
Chrysene	1	0.10	1	0	100	17	168	0	0		
Dibenz(a,h)anthracene	0.58	0.10	1	0	58	1	227	0	0		
Fluoranthene	0.95	0.10	1	0	95	26	137	0	0		
Fluorene	0.88	0.10	1	0	88	59	121	0	0		
Indeno(1,2,3-cd)pyrene	0.57	0.10	1	0	57	1	171	0	0		
Naphthalene	0.75	0.10	1	0	75	21	133	0	0		
Phenanthrene	0.57	0.10	1	0	57	54	120	0	0		
Pyrene	0.88	0.10	1	0	88	52	115	0	0		
Surr: 2-Fluorobiphenyl	0.8	0	1	0	80	43	116	0	0		
Surr: 4-Terphenyl-d14	0.87	0	1	0	87	33	141	0	0		
Surr: Nitrobenzene-d5	0.59	0	1	0	59	35	114	0	0		

Sample ID: LCSD-6954	SampType: LCSD	TestCode: 06 PAH A	Units: µg/L	Prep Date: 4/1/04	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: 6954	TestNo: 8270-SIM	(3510C)	Analysis Date: 4/1/04	SeqNo: 201319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	0.66	0.10	1	0	66	47	145	0.72	8.70	30	
Acenaphthylene	0.76	0.10	1	0	76	33	145	0.78	2.60	30	
Anthracene	0.91	0.10	1	0	91	27	133	0.95	4.30	30	
Benzo(a)anthracene	0.67	0.10	1	0	67	33	143	0.7	4.38	30	
Benzo(a)pyrene	0.71	0.10	1	0	71	17	163	0.76	6.80	30	
Benzo(b)fluoranthene	0.47	0.10	1	0	47	24	159	0.48	2.11	30	
Benzo(g,h,i)perylene	0.51	0.10	1	0	51	1	219	0.57	11.1	30	
Benzo(k)fluoranthene	0.93	0.10	1	0	93	11	162	0.99	6.25	30	
Chrysene	1.13	0.10	1	0	113	17	168	1	12.2	30	
Dibenz(a,h)anthracene	0.56	0.10	1	0	56	1	227	0.58	3.51	30	
Fluoranthene	0.9	0.10	1	0	90	26	137	0.95	5.41	30	
Fluorene	0.81	0.10	1	0	81	59	121	0.88	8.28	30	
Indeno(1,2,3-cd)pyrene	0.51	0.10	1	0	51	1	171	0.57	11.1	30	
Naphthalene	0.6	0.10	1	0	60	21	133	0.75	22.2	30	

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 06 PAH A

Sample ID: LCSD-6954	SampType: LCSD	TestCode: 06 PAH A	Units: µg/L	Prep Date: 4/1/04	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: 6954	TestNo: 8270-SIM	(3510C)	Analysis Date: 4/1/04	SeqNo: 201319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenanthrene	0.54	0.10	1	0	54	54	120	0.57	5.41	30	
Pyrene	0.93	0.10	1	0	93	93	115	0.88	5.52	30	
Surr: 2-Fluorobiphenyl	0.67	0	1	0	67	67	116	0	0	30	
Surr: 4-Terphenyl-d14	0.78	0	1	0	78	78	141	0	0	30	
Surr: Nitrobenzene-d5	0.41	0	1	0	41	41	114	0	0	30	

Sample ID: CCV	SampType: CCV	TestCode: 06 PAH A	Units: µg/L	Prep Date:	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: R16558	TestNo: 8270-SIM		Analysis Date: 4/1/04	SeqNo: 201316						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	2.32	0.10	2.5	0	92.8	80	120	0	0		
Acenaphthylene	2.57	0.10	2.5	0	103	80	120	0	0		
Anthracene	2.3	0.10	2.5	0	92	80	120	0	0		
Benz(a)anthracene	2.46	0.10	2.5	0	98.4	80	120	0	0		
Benzo(a)pyrene	2.62	0.10	2.5	0	105	80	120	0	0		
Benzo(b)fluoranthene	2.57	0.10	2.5	0	103	80	120	0	0		
Benzo(g,h,i)perylene	2.25	0.10	2.5	0	90	80	120	0	0		
Benzo(k)fluoranthene	2.75	0.10	2.5	0	110	80	120	0	0		
Chrysene	2.73	0.10	2.5	0	109	80	120	0	0		
Dibenz(a,h)anthracene	2.2	0.10	2.5	0	88	80	120	0	0		
Fluoranthene	2.74	0.10	2.5	0	110	80	120	0	0		
Fluorene	2.76	0.10	2.5	0	110	80	120	0	0		
Indeno(1,2,3-cd)pyrene	2.16	0.10	2.5	0	86.4	80	120	0	0		
Naphthalene	2.5	0.10	2.5	0	100	80	120	0	0		
Phenanthrene	2.21	0.10	2.5	0	88.4	80	120	0	0		
Pyrene	2.71	0.10	2.5	0	108	80	120	0	0		
Surr: 2-Fluorobiphenyl	2.72	0	2.5	0	109	43	116	0	0		
Surr: 4-Terphenyl-d14	2.81	0	2.5	0	112	33	141	0	0		
Surr: Nitrobenzene-d5	2.65	0	2.5	0	106	35	114	0	0		

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

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

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0404001
 Project: 403138/TERR

ANALYTICAL QC SUMMARY REPORT

TestCode: 06 PAH A

Sample ID: CCV	SampType: CCV	TestCode: 06 PAH A	Units: µg/L	Prep Date:	Run ID: HEISENBURG_040401A						
Client ID: ZZZZZ	Batch ID: R16558	TestNo: 8270-SIM		Analysis Date: 4/6/04	SeqNo: 201566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	0.98	0.10	1	0	98	80	120	0	0		
2-Methylnaphthalene	0.93	0.10	1	0	93	80	120	0	0		
Acenaphthene	1.06	0.10	1	0	106	80	120	0	0		
Acenaphthylene	1.07	0.10	1	0	107	80	120	0	0		
Anthracene	1.15	0.10	1	0	115	80	120	0	0		
Benz(a)anthracene	1.02	0.10	1	0	102	80	120	0	0		
Benzo(a)pyrene	0.88	0.10	1	0	88	80	120	0	0		
Benzo(b)fluoranthene	0.89	0.10	1	0	89	80	120	0	0		
Benzo(g,h,i)perylene	0.88	0.10	1	0	88	80	120	0	0		
Benzo(k)fluoranthene	0.96	0.10	1	0	96	80	120	0	0		
Chrysene	1.12	0.10	1	0	112	80	120	0	0		
Dibenz(a,h)anthracene	1.11	0.10	1	0	111	80	120	0	0		
Fluoranthene	1.04	0.10	1	0	104	80	120	0	0		
Fluorene	0.87	0.10	1	0	87	80	120	0	0		
Indeno(1,2,3-cd)pyrene	0.88	0.10	1	0	88	80	120	0	0		
Naphthalene	0.93	0.10	1	0	93	80	120	0	0		
Phenanthrene	1.03	0.10	1	0	103	80	120	0	0		
Pyrene	0.98	0.10	1	0	98	80	120	0	0		
Surr: 2-Fluorobiphenyl	0.99	0	1	0	99	43	116	0	0		
Surr: 4-Terphenyl-d14	0.96	0	1	0	96	33	141	0	0		
Surr: Nitrobenzene-d5	0.38	0	1	0	38	35	114	0	0		

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

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

B - Analyte detected in the associated Method Blank
 Page 10 of 10

ENVIRONMENTAL SERVICES LABORATORY – GLOSSARY OF FLAGS

<u>QUALIFIER</u>	<u>DESCRIPTION</u>
AA	This sample was analyzed after the holding time had expired.
AB	The hydrocarbon pattern in this sample is not typical of gasoline.
AC	The hydrocarbon pattern in this sample is not typical of diesel.
AD	The hydrocarbon pattern in this sample is not typical of oil.
AE	The hydrocarbon pattern in this sample extends into the gasoline range.
AF	The hydrocarbon pattern in this sample extends into the diesel range.
AG	The hydrocarbon pattern in this sample extends into the oil range.
A	This analysis was performed on a VOA sample containing headspace.
B	Analyte detected in the Method Blank above the reporting level.
C	The Relative Percent Difference (RPD) for the primary result and confirmation result was greater than 40%. The higher result was reported.
D	The sample was supplied in an inappropriate container according to method criteria.
E	This value is above the quantitation limit. It is considered an estimate.
H	The Matrix Spike/Matrix Spike Duplicate (MS/MSD) result was outside control limits. The Laboratory Control Standard/Duplicate (LCS/LCSD) result was in control validating the batch.
J	The result is above the Method Detection Limit (MDL) and below the Reporting level (RL). It is considered an estimate.
M	The MS/MSD recoveries are not calculable due to a high amount of analyte in sample.
MI	This indicates a high level of matrix interference affecting the spike or surrogate recovery.
N	See case narrative.
O	Detection Limits are elevated due to sample dilution. See case narrative.
Q	Further inspection of the sample confirms a non-homogenous sample matrix affecting RPD result.
R	The RPD result is outside method control limits. See other qualifiers or case narrative.
S	The spike recovery is outside method control limits. See other qualifiers or case narrative.
T	The RPD between the sample result and duplicate result was greater than 20%. The original result was less than three times the reporting level, therefore the RPD is not applicable.
X	Unable to quantitate surrogate recovery due to sample dilution.

ANALYSIS REQUEST

(505) 344-3777 Fax (505) 344-4413

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
MW#1 / 403138-01	3/30/04	6:30	ACQ	01
MW#8 / 403138-02	✓	4:23	✓	02

[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		1. RELINQUISHED BY:	
PROJECT #:	403138	Total Number of Containers		PENSACOLA - STL-FL		Signature:	Time:	Signature:	
PROJ. NAME:	TERE	Chain of Custody Seals		ESL - OR		<i>[Signature]</i>	<i>1700</i>	Signature:	
QC LEVEL:	STD IV	Received Intact?		ATEL - AZ		Printed Name:	Date:	Printed Name:	
QC REQUIRED:	MS MSD BLANK	Received Good Cond./Cold		ATEL - MARION		<i>Francine Tarrico</i>	<i>3/31/04</i>	Date:	
STAT:	STANDARD RUSH!!	LAB NUMBER:		ATEL - MELMORE		Company		Company	
				EHL		RECEIVED BY:		1. RECEIVED BY:	
DUE DATE:		COMMENTS:		GEL		Signature:	Time:	Signature:	
RUSH SURCHARGE:				U OF MIAMI		<i>[Signature]</i>	<i>10:30</i>	Time:	
CLIENT DISCOUNT:				WCAS		Printed Name:	Date:	Printed Name:	
SPECIAL CERTIFICATION				WOHL		<i>Jan Pickett</i>	<i>4/1/04</i>	Date:	
REQUIRED: YES (NO)						Company		Company	
						<i>ESL</i>		Company	

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Lab Order: 0406108
Project: Chaco Plant GW Monitoring
Lab ID: 0406108-01

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	7.6	1.0		mg/L	20	6/16/2004 3:38:24 PM
Surr: BFB	95.9	74-118		%REC	20	6/16/2004 3:38:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	6/16/2004 3:38:24 PM
Benzene	ND	10		µg/L	20	6/16/2004 3:38:24 PM
Toluene	ND	10		µg/L	20	6/16/2004 3:38:24 PM
Ethylbenzene	14	10		µg/L	20	6/16/2004 3:38:24 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	20	6/16/2004 3:38:24 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	20	6/16/2004 3:38:24 PM
Xylenes, Total	33	10		µg/L	20	6/16/2004 3:38:24 PM
Surr: 4-Bromofluorobenzene	98.9	74-118		%REC	20	6/16/2004 3:38:24 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon

Client Sample ID: MW-9

Lab Order: 0406108

Collection Date: 6/10/2004 10:45:00 AM

Project: Chaco Plant GW Monitoring

Lab ID: 0406108-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/16/2004 3:06:49 PM
Surr: BFB	90.6	74-118		%REC	1	6/16/2004 3:06:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/16/2004 3:06:49 PM
Benzene	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
Toluene	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
Ethylbenzene	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
Xylenes, Total	ND	0.50		µg/L	1	6/16/2004 3:06:49 PM
Surr: 4-Bromofluorobenzene	106	74-118		%REC	1	6/16/2004 3:06:49 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 2 / 15

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Lab Order: 0406108
Project: Chaco Plant GW Monitoring
Lab ID: 0406108-03

Client Sample ID: MW-2
Collection Date: 6/10/2004 11:30:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/11/2004 3:20:25 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	6/11/2004 3:20:25 PM
Sulfate	930	10		mg/L	20	6/14/2004 1:29:30 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	290	2.0		mg/L CaCO3	1	6/15/2004
Carbonate	ND	2.0		mg/L CaCO3	1	6/15/2004
Bicarbonate	290	2.0		mg/L CaCO3	1	6/15/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	2500	0.010		µmhos/cm	1	6/15/2004
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	6/30/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	6/18/2004 8:28:51 AM
Chromium	ND	0.0060		mg/L	1	6/18/2004 8:28:51 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1800	50		mg/L	1	6/18/2004

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

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

* - Value exceeds Maximum Contaminant Level 3 / 15

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon

Client Sample ID: MW-7

Lab Order: 0406108

Collection Date: 6/10/2004 12:26:00 PM

Project: Chaco Plant GW Monitoring

Lab ID: 0406108-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/11/2004 3:37:12 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	6/11/2004 3:37:12 PM
Sulfate	1500	10		mg/L	20	6/14/2004 1:46:19 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	400	2.0		mg/L CaCO ₃	1	6/15/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	6/15/2004
Bicarbonate	400	2.0		mg/L CaCO ₃	1	6/15/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	3900	0.010		µmhos/cm	1	6/15/2004
EPA METHOD 7470: MERCURY						Analyst: IC
Mercury	ND	0.00020		mg/L	1	6/30/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	6/18/2004 8:32:16 AM
Chromium	ND	0.0060		mg/L	1	6/18/2004 8:32:16 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	3000	50		mg/L	1	6/18/2004

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

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

* - Value exceeds Maximum Contaminant Level 4 / 15

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Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Lab Order: 0406108
Project: Chaco Plant GW Monitoring
Lab ID: 0406108-05

Client Sample ID: Trip Blank**Collection Date:****Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/16/2004 1:24:17 AM
Benzene	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
Toluene	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
Ethylbenzene	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
Xylenes, Total	ND	0.50		µg/L	1	6/16/2004 1:24:17 AM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	1	6/16/2004 1:24:17 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT

Method Blank

Sample ID: MBLK **Batch ID:** R12151 **Test Code:** E300 **Units:** mg/L **Analysis Date:** 6/11/2004 12:02:56 PM **Prep Date:**
Client ID: LC_040611A **Run ID:** LC_040611A **SeqNo:** 279669

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Sulfate	ND	0.5									

Sample ID: MBLK **Batch ID:** R12158 **Test Code:** E300 **Units:** mg/L **Analysis Date:** 6/14/2004 10:24:52 AM **Prep Date:**
Client ID: LC_040614A **Run ID:** LC_040614A **SeqNo:** 279889

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Sulfate	ND	0.5									

Sample ID: MBLK **Batch ID:** R12172 **Test Code:** E310.1 **Units:** mg/L CaCO3 **Analysis Date:** 6/15/2004 **Prep Date:**
Client ID: WC_040615D **Run ID:** WC_040615D **SeqNo:** 280191

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2									
Carbonate	ND	2									
Bicarbonate	ND	2									

Sample ID: Reagent Blank 5m **Batch ID:** R12171 **Test Code:** SW8015 **Units:** mg/L **Analysis Date:** 6/15/2004 9:28:53 AM **Prep Date:**
Client ID: PIDFID_040615A **Run ID:** PIDFID_040615A **SeqNo:** 280172

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	19.53	0	20	0	97.6	74	118	0			

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

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

B - Analyte detected in the associated Method Blank

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CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R12182	Test Code: SW8015	Units: mg/L	Analysis Date	6/16/2004 9:18:23 AM	Prep Date					
Client ID:			Run ID: PIDFID_040616A		SeqNo:	280462						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.05									
Surr: BFB		19.03	0	20	0	95.2	74	118	0			

Sample ID	Reagent Blank 5m	Batch ID: R12171	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2004 9:28:53 AM	Prep Date					
Client ID:			Run ID: PIDFID_040615A		SeqNo:	280171						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		ND	2.5									
Benzene		ND	0.5									
Toluene		ND	0.5									
Ethylbenzene		ND	0.5									
1,2,4-Trimethylbenzene		ND	0.5									
1,3,5-Trimethylbenzene		ND	0.5									
Xylenes, Total		ND	0.5									
Surr: 4-Bromofluorobenzene		20.69	0	20	0	103	74	118	0			

Sample ID	Reagent Blank 5m	Batch ID: R12171	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2004 5:11:21 PM	Prep Date					
Client ID:			Run ID: PIDFID_040615A		SeqNo:	280272						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		ND	2.5									
Benzene		ND	0.5									
Toluene		ND	0.5									
Ethylbenzene		ND	0.5									
1,2,4-Trimethylbenzene		ND	0.5									
1,3,5-Trimethylbenzene		ND	0.5									
Xylenes, Total		ND	0.5									
Surr: 4-Bromofluorobenzene		20.92	0	20	0	105	74	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
 Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R12182	Test Code: SW8021	Units: µg/L	Analysis Date 6/16/2004 9:18:23 AM		Prep Date				
Client ID:			Run ID: PIDFID_040616A		SeqNo: 280461						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
1,2,4-Trimethylbenzene	ND	0.5									
1,3,5-Trimethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.79	0	20	0	104	74	118	0			

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Sample ID	MB-6043	Batch ID: 6043	Test Code: SW7470	Units: mg/L	Analysis Date 6/30/2004	Prep Date 6/30/2004					
Client ID:			Run ID: MI-LA254_040630A		SeqNo: 283479						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

Sample ID	MB-5988	Batch ID: 5988	Test Code: E160.1	Units: mg/L	Analysis Date	6/18/2004	Prep Date	6/17/2004			
Client ID:			Run ID: WC_040618A		SeqNo:	281038					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
Sample Duplicate

Sample ID	0406108-03A dup	Batch ID	5988	Test Code	E160.1	Units	mg/L	Analysis Date	6/18/2004	Prep Date	6/17/2004
Client ID	MW-2	Run ID	WC_040618A	SeqNo	281041						
Analyte		Result		PQL	50	SPK value	0	%REC	0	LowLimit	0
			1749	SPK Ref Val	0	RPD Ref Val	1767	%RPD	1.02	RPDLimit	20
Total Dissolved Solids											

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

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

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0406108-03A ms	Batch ID	5988	Test Code	E160.1	Units	mg/L	Analysis Date	6/18/2004	Prep Date	6/17/2004
Client ID	MW-2	Run ID		WC	040618A			SeqNo	281042		
Analyte		Result	2822	PQL	50	SPK value	1000	%REC	106	LowLimit	80
						SPK Ref Val	1767	HighLimit	120	RPD Ref Val	0
Total Dissolved Solids										%RPD	RPDLimit
											Qual

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Date: 01-Jul-04

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS ST300-03040	Batch ID:	R12151	Test Code:	E300	Units:	mg/L	Analysis Date	6/11/2004 12:19:45 PM	Prep Date	
Client ID:		Run ID:	LC_040611A	PQL		SPK value		SeqNo:	279670		
Analyte		Result						LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Nitrite (As N)		1.054	0.1		1	0		90	110	0	
Nitrogen, Nitrate (As N)		2.506	0.1		2.5	0		90	110	0	
Sulfate		9.657	0.5		10	0		90	110	0	

Sample ID	LCS ST300-03040	Batch ID:	R12158	Test Code:	E300	Units:	mg/L	Analysis Date	6/14/2004 10:41:38 AM	Prep Date	
Client ID:		Run ID:	LC_040614A	PQL		SPK value		SeqNo:	279890		
Analyte		Result						LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Nitrogen, Nitrite (As N)		1.02	0.1		1	0		90	110	0	
Nitrogen, Nitrate (As N)		2.482	0.1		2.5	0		90	110	0	
Sulfate		9.396	0.5		10	0		90	110	0	

Sample ID	GRO std 2.5ug	Batch ID:	R12171	Test Code:	SW8015	Units:	mg/L	Analysis Date	6/16/2004 1:54:37 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040615A	PQL		SPK value		SeqNo:	280274		
Analyte		Result						LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		0.486	0.05		0.5	0		80.3	116	0	

Sample ID	GRO std 2.5ug	Batch ID:	R12171	Test Code:	SW8015	Units:	mg/L	Analysis Date	6/16/2004 2:24:58 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040615A	PQL		SPK value		SeqNo:	280275		
Analyte		Result						LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		0.4748	0.05		0.5	0		80.3	116	0.486	2.33 8.39

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Terracon
 Work Order: 0406108
 Project: Chaco Plant GW Monitoring

Sample ID	GRO std 2.5ug	Batch ID: R12182	Test Code: SW8015	Units: mg/L	Analysis Date	6/16/2004 9:52:52 PM	Prep Date					
Client ID:		Run ID: PIDFID_040616A			SeqNo:	280499						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.4906	0.05	0.5	0	98.1	80.3	116	0			

Sample ID	GRO std 2.5ug	Batch ID: R12182	Test Code: SW8015	Units: mg/L	Analysis Date	6/16/2004 10:23:30 PM	Prep Date					
Client ID:		Run ID: PIDFID_040616A			SeqNo:	280500						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.4788	0.05	0.5	0	95.8	80.3	116	0.4906	2.43	8.39	

Sample ID	BTEX std 100ng	Batch ID: R12171	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2004 7:47:47 PM	Prep Date				
Client ID:		Run ID:	PIDFID_040615A		SeqNo:	280267					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.38	2.5	40	0	108	54.9	142	0			
Benzene	19.68	0.5	20	0	98.4	81.3	121	0			
Toluene	20.22	0.5	20	0	101	84.9	118	0			
Ethylbenzene	19.87	0.5	20	0	99.3	53.8	149	0			
1,1,2,4-Trimethylbenzene	20.47	0.5	20	0	102	79.7	123	0			
1,1,3,5-Trimethylbenzene	19.71	0.5	20	0	98.6	82.4	123	0			
Xylenes, Total	61.62	0.5	60	0	103	83.1	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	BTEX std 100ng	Batch ID: R12171	Test Code: SW8021	Units: µg/L	Analysis Date	6/15/2004 7:47:47 PM	Prep Date				
Client ID:		Run ID:	PIDFID_040615A		SeqNo:	280308					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.38	2.5	40	0	108	54.9	142	0			
Benzene	19.68	0.5	20	0	98.4	81.3	121	0			
Toluene	20.22	0.5	20	0	101	84.9	118	0			
Ethylbenzene	19.87	0.5	20	0	99.3	53.8	149	0			
1,2,4-Trimethylbenzene	20.47	0.5	20	0	102	79.7	123	0			
1,3,5-Trimethylbenzene	19.71	0.5	20	0	98.6	82.4	123	0			
Xylenes, Total	61.62	0.5	60	0	103	83.1	122	0			

Sample ID	BTEX std 100ng	Batch ID: R12182	Test Code: SW8021	Units: µg/L	Analysis Date	6/16/2004 8:20:24 PM	Prep Date				
Client ID:		Run ID:	PIDFID_040616A		SeqNo:	280495					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	36.53	2.5	40	0	91.3	54.9	142	0			
Benzene	18.68	0.5	20	0	93.4	81.3	121	0			
Toluene	19.01	0.5	20	0	95.0	84.9	118	0			
Ethylbenzene	18.93	0.5	20	0	94.6	53.8	149	0			
1,2,4-Trimethylbenzene	18.98	0.5	20	0	94.9	79.7	123	0			
1,3,5-Trimethylbenzene	18.28	0.5	20	0	91.4	82.4	123	0			
Xylenes, Total	57.96	0.5	60	0	96.6	83.1	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Terracon
Work Order: 0406108
Project: Chaco Plant GW Monitoring

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	BTEX std 100ng	Batch ID: R12182	Test Code: SW8021	Units: µg/L	Analysis Date 6/17/2004 3:56:39 AM	Prep Date					
Client ID:			Run ID: PIDFID_040616A		SeqNo: 280496						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	36.03	2.5	40	0	90.1	54.9	142	36.53	1.38	28	
Benzene	18.85	0.5	20	0	94.3	81.3	121	18.68	0.935	27	
Toluene	18.87	0.5	20	0	94.3	84.9	118	19.01	0.733	19	
Ethylbenzene	18.61	0.5	20	0	93.0	53.8	149	18.93	1.71	10	
1,2,4-Trimethylbenzene	18.8	0.5	20	0	94.0	79.7	123	18.98	0.945	21	
1,3,5-Trimethylbenzene	18.16	0.5	20	0	90.8	82.4	123	18.28	0.646	10	
Xylenes, Total	56.76	0.5	60	0	94.6	83.1	122	57.96	2.09	13	

Sample ID	LCS-6043	Batch ID: 6043	Test Code: SW7470	Units: mg/L	Analysis Date 6/30/2004	Prep Date 6/30/2004					
Client ID:			Run ID: MI-LA254_040630A		SeqNo: 283482						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004963	0.0002	0.005	0	99.3	75.2	134	0			

Sample ID	LCSD-6043	Batch ID: 6043	Test Code: SW7470	Units: mg/L	Analysis Date 6/30/2004	Prep Date 6/30/2004					
Client ID:			Run ID: MI-LA254_040630A		SeqNo: 283484						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004613	0.0002	0.005	0	92.3	75.2	134	0.004963	7.31	0	

Sample ID	LCS-5988	Batch ID: 5988	Test Code: E160.1	Units: mg/L	Analysis Date	6/18/2004	Prep Date	6/17/2004			
Client ID:			Run ID: WC_040618A		SeqNo:	281039					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1032	50	1000	0	103	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name EL PASO FSVS

Date and Time Received:

6/11/2004

Work Order Number 0406108

Received by

AMF

Checklist completed by

Signature

Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☒	
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 ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

1°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

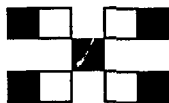
Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY

**4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com**



8270 (Semi-VOA)	General Chem
8260B (VOA)	8260B (VOA)
8081 Pesticides / PCB's (8082)	8081 Pesticides / PCB's (8082)
Anions (F, Cl, NO ₂ , PO ₄ , SO ₄)	Anions (F, Cl, NO ₂ , PO ₄ , SO ₄)
RCRA 8 Metals	RCRA 8 Metals
8310 (PNA or PAH)	8310 (PNA or PAH)
EDC (Method 8021)	EDC (Method 8021)
EDB (Method 504.1)	EDB (Method 504.1)
TPH (Method 418.1)	TPH (Method 418.1)
TPH Method 8015B (Gas/Diesel)	TPH Method 8015B (Gas/Diesel)
BTEX + MTBE + TPH (Gasoline Or	BTEX + MTBE + TPH (Gasoline Or
BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TMB's (8021)

CHAIN-OF-CUSTODY RECORD					Accreditation Applied:	
					NELAC ☐	USACE ☐
Client: El Paso Field Services					Other: _____	
Address: 610 Riely					Project Name: _____	
Farmingington, NM					Chaco Plant Groundwater Monitor	
Attn: David Bays					Project #: 69047003	
Phone #: 599-2756					Project Manager: Melissa Housey	
Fax #: _____					Sampler: J. Tanner	
					Sample Temperature: 10°C	
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative HgCl ₂ HNO ₃	HEAL No.
6-10-04	10:15	H ₂ O	MW10	2 voc	X	0406108-1
6-10-04	10:45	H ₂ O	MW9	2 voc	X	-2
6-10-04	11:30	H ₂ O	MW2	3 pbstic	X	-3
6-10-04	12:26	H ₂ O	MW7	3 pbstic	X	-4
			Trip Blank			-5
Date: 6-10-04	Time: 15:25	Relinquished By: (Signature)	Received By: (Signature)	6/11/04		
Date: 6-10-04	Time: 15:25	Relinquished By: (Signature)	Received By: (Signature)	11:00		

Hall Environmental Analysis Laboratory

Date: 08-Sep-04

CLIENT: El Paso Field Services
Project: Chaco 1/4 GW Monitoring
Lab Order: 0408174

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX_W, SAMPLE 0408174-10a: Elevated surrogate due to matrix interference.

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-01

Client Sample ID: MW-1
Collection Date: 8/18/2004 1:59:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2004 2:56:39 AM
Benzene	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
Toluene	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
Ethylbenzene	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
Xylenes, Total	ND	0.50		µg/L	1	8/25/2004 2:56:39 AM
Surr: 4-Bromofluorobenzene	99.4	74-118		%REC	1	8/25/2004 2:56:39 AM
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	ND	2.5		µg/L	1	9/2/2004 1:14:41 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	9/2/2004 1:14:41 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	9/2/2004 1:14:41 AM
Acenaphthylene	ND	2.5		µg/L	1	9/2/2004 1:14:41 AM
Acenaphthene	ND	2.5		µg/L	1	9/2/2004 1:14:41 AM
Fluorene	ND	0.80		µg/L	1	9/2/2004 1:14:41 AM
Phenanthrene	ND	0.60		µg/L	1	9/2/2004 1:14:41 AM
Anthracene	ND	0.60		µg/L	1	9/2/2004 1:14:41 AM
Fluoranthene	ND	0.30		µg/L	1	9/2/2004 1:14:41 AM
Pyrene	ND	0.30		µg/L	1	9/2/2004 1:14:41 AM
Benz(a)anthracene	ND	0.020		µg/L	1	9/2/2004 1:14:41 AM
Chrysene	ND	0.20		µg/L	1	9/2/2004 1:14:41 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	9/2/2004 1:14:41 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	9/2/2004 1:14:41 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	9/2/2004 1:14:41 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	9/2/2004 1:14:41 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	9/2/2004 1:14:41 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	9/2/2004 1:14:41 AM
Surr: Benzo(e)pyrene	87.8	54-102		%REC	1	9/2/2004 1:14:41 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00025	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	9/1/2004 9:25:37 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 9:25:37 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services

Client Sample ID: MW-2

Lab Order: 0408174

Collection Date: 8/18/2004 3:18:00 PM

Project: Chaco 1/4 GW Monitoring

Lab ID: 0408174-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	2.2	0.10		mg/L	1	8/20/2004 12:35:04 AM
Chloride	47	1.0		mg/L	10	8/20/2004 3:50:55 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 12:35:04 AM
Bromide	0.19	0.10		mg/L	1	8/20/2004 12:35:04 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/20/2004 12:35:04 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 12:35:04 AM
Sulfate	1000	10		mg/L	20	8/20/2004 10:00:34 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	270	2.0		mg/L CaCO ₃	1	8/30/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/30/2004
Bicarbonate	270	2.0		mg/L CaCO ₃	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2200	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO ₃)	510	10		mg/L	10	9/1/2004 10:46:27 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	8/31/2004 3:57:06 PM
Calcium	130	1.0		mg/L	1	8/31/2004 3:57:06 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 3:57:06 PM
Magnesium	30	1.0		mg/L	1	8/31/2004 3:57:06 PM
Potassium	ND	1.0		mg/L	1	8/31/2004 3:57:06 PM
Sodium	440	10		mg/L	10	9/1/2004 10:46:27 AM
EPA METHOD 350.2: NH3						Analyst: CMC
Nitrogen, Ammonia	ND	0.50		mg/L	1	9/8/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.13	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1800	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-03

Client Sample ID: MW-3
Collection Date: 8/18/2004 2:47:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.68	0.10		mg/L	1	8/20/2004 12:51:53 AM
Chloride	41	1.0		mg/L	10	8/20/2004 4:07:41 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 12:51:53 AM
Bromide	4.7	0.10		mg/L	1	8/20/2004 12:51:53 AM
Nitrogen, Nitrate (As N)	0.46	0.10		mg/L	1	8/20/2004 12:51:53 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 12:51:53 AM
Sulfate	880	10		mg/L	20	8/20/2004 10:17:24 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	740	2.0		mg/L CaCO3	1	8/30/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/30/2004
Bicarbonate	740	2.0		mg/L CaCO3	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	1800	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO3)	2700	5.0		mg/L	5	9/1/2004 10:43:45 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00024	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.010		mg/L	5	9/1/2004 10:43:45 AM
Calcium	940	5.0		mg/L	5	9/1/2004 10:43:45 AM
Chromium	ND	0.030		mg/L	5	9/1/2004 10:43:45 AM
Magnesium	86	5.0		mg/L	5	9/1/2004 10:43:45 AM
Potassium	5.4	5.0		mg/L	5	9/1/2004 10:43:45 AM
Sodium	260	5.0		mg/L	5	9/1/2004 10:43:45 AM
EPA METHOD 350.2: NH3						Analyst: CMC
Nitrogen, Ammonia	ND	10		mg/L	20	9/9/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	7.38	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1600	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
 Lab Order: 0408174
 Project: Chaco 1/4 GW Monitoring
 Lab ID: 0408174-04

Client Sample ID: MW-4
 Collection Date: 8/18/2004 3:50:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	1.6	0.10		mg/L	1	8/20/2004 1:42:19 AM
Chloride	150	2.0		mg/L	20	8/20/2004 4:24:30 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 1:42:19 AM
Bromide	0.68	0.10		mg/L	1	8/20/2004 1:42:19 AM
Nitrogen, Nitrate (As N)	0.44	0.10		mg/L	1	8/20/2004 1:42:19 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 1:42:19 AM
Sulfate	2200	25		mg/L	50	8/20/2004 10:34:12 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	380	2.0		mg/L CaCO ₃	1	8/30/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/30/2004
Bicarbonate	380	2.0		mg/L CaCO ₃	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	4100	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO ₃)	1300	10		mg/L	10	9/1/2004 10:49:18 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	8/31/2004 4:10:05 PM
Calcium	420	10		mg/L	10	9/1/2004 10:49:18 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 4:10:05 PM
Magnesium	58	1.0		mg/L	1	8/31/2004 4:10:05 PM
Potassium	7.5	1.0		mg/L	1	8/31/2004 4:10:05 PM
Sodium	690	10		mg/L	10	9/1/2004 10:49:18 AM
EPA METHOD 350.2: NH₃						Analyst: CMC
Nitrogen, Ammonia	ND	0.50		mg/L	1	9/9/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.04	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	3800	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-05

Client Sample ID: MW-5
Collection Date: 8/18/2004 3:57:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.52	0.10		mg/L	1	8/20/2004 1:59:08 AM
Chloride	160	2.0		mg/L	20	8/20/2004 4:41:20 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 1:59:08 AM
Bromide	1.3	0.10		mg/L	1	8/20/2004 1:59:08 AM
Nitrogen, Nitrate (As N)	0.45	0.10		mg/L	1	8/20/2004 1:59:08 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 1:59:08 AM
Sulfate	2500	25		mg/L	50	8/20/2004 10:51:01 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	160	2.0		mg/L CaCO ₃	1	8/30/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/30/2004
Bicarbonate	160	2.0		mg/L CaCO ₃	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	4200	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO ₃)	1600	10		mg/L	10	9/1/2004 10:52:15 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	8/31/2004 4:14:34 PM
Calcium	500	10		mg/L	10	9/1/2004 10:52:15 AM
Chromium	0.037	0.0060		mg/L	1	8/31/2004 4:14:34 PM
Magnesium	72	1.0		mg/L	1	8/31/2004 4:14:34 PM
Potassium	6.2	1.0		mg/L	1	8/31/2004 4:14:34 PM
Sodium	660	10		mg/L	10	9/1/2004 10:52:15 AM
EPA METHOD 350.2: NH₃						Analyst: CMC
Nitrogen, Ammonia	ND	0.50		mg/L	1	9/9/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.05	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	4200	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-06

Client Sample ID: MW-6
Collection Date: 8/18/2004 5:12:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	5.4	1.0		mg/L	10	8/20/2004 4:58:08 PM
Chloride	150	1.0		mg/L	10	8/20/2004 4:58:08 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 2:15:56 AM
Bromide	0.80	0.10		mg/L	1	8/20/2004 2:15:56 AM
Nitrogen, Nitrate (As N)	4.0	0.10		mg/L	1	8/20/2004 2:15:56 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 2:15:56 AM
Sulfate	1400	10		mg/L	20	8/20/2004 11:07:50 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	660	2.0		mg/L CaCO ₃	1	8/30/2004
Carbonate	16	2.0		mg/L CaCO ₃	1	8/30/2004
Bicarbonate	640	2.0		mg/L CaCO ₃	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	3600	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO ₃)	480	10		mg/L	10	9/1/2004 10:55:12 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00041	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	8/31/2004 4:19:13 PM
Calcium	140	1.0		mg/L	1	8/31/2004 4:19:13 PM
Chromium	0.021	0.0060		mg/L	1	8/31/2004 4:19:13 PM
Magnesium	18	10		mg/L	10	9/1/2004 10:55:12 AM
Potassium	3.6	1.0		mg/L	1	8/31/2004 4:19:13 PM
Sodium	890	10		mg/L	10	9/1/2004 10:55:12 AM
EPA METHOD 350.2: NH3						Analyst: CMC
Nitrogen, Ammonia	ND	0.50		mg/L	1	9/9/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.42	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	2800	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-07

Client Sample ID: MW-7
Collection Date: 8/18/2004 4:43:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	2.8	0.10		mg/L	1	8/20/2004 2:32:46 AM
Chloride	120	2.0		mg/L	20	8/20/2004 5:14:53 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/20/2004 2:32:46 AM
Bromide	0.51	0.10		mg/L	1	8/20/2004 2:32:46 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/20/2004 2:32:46 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/20/2004 2:32:46 AM
Sulfate	1600	25		mg/L	50	8/20/2004 1:24:39 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	550	2.0		mg/L CaCO ₃	1	8/30/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/30/2004
Bicarbonate	550	2.0		mg/L CaCO ₃	1	8/30/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	3300	0.010		µmhos/cm	1	8/20/2004
EPA 6010C: HARDNESS CALCULATION						Analyst: NMO
Hardness (As CaCO ₃)	1000	10		mg/L	10	9/1/2004 10:59:41 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00024	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	9/1/2004 8:31:52 AM
Calcium	330	10		mg/L	10	9/1/2004 10:59:41 AM
Chromium	0.015	0.0060		mg/L	1	9/1/2004 8:31:52 AM
Magnesium	50	10		mg/L	10	9/1/2004 10:59:41 AM
Potassium	4.4	1.0		mg/L	1	9/1/2004 8:31:52 AM
Sodium	550	10		mg/L	10	9/1/2004 10:59:41 AM
EPA METHOD 350.2: NH₃						Analyst: CMC
Nitrogen, Ammonia	0.56	0.50		mg/L	1	9/9/2004
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.13	0.010		pH units	1	8/30/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	2900	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-08

Client Sample ID: MW-8
Collection Date: 8/18/2004 1:27:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2004 12:21:09 PM
Benzene	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
Toluene	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
Ethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
Xylenes, Total	ND	0.50		µg/L	1	8/25/2004 12:21:09 PM
Surr: 4-Bromofluorobenzene	100	74-118		%REC	1	8/25/2004 12:21:09 PM
EPA METHOD 8310: PAHS						Analyst: BL
Naphthalene	ND	2.5		µg/L	1	9/2/2004 2:02:41 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	9/2/2004 2:02:41 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	9/2/2004 2:02:41 AM
Acenaphthylene	ND	2.5		µg/L	1	9/2/2004 2:02:41 AM
Acenaphthene	ND	2.5		µg/L	1	9/2/2004 2:02:41 AM
Fluorene	ND	0.80		µg/L	1	9/2/2004 2:02:41 AM
Phenanthrene	ND	0.60		µg/L	1	9/2/2004 2:02:41 AM
Anthracene	ND	0.60		µg/L	1	9/2/2004 2:02:41 AM
Fluoranthene	ND	0.30		µg/L	1	9/2/2004 2:02:41 AM
Pyrene	ND	0.30		µg/L	1	9/2/2004 2:02:41 AM
Benz(a)anthracene	ND	0.020		µg/L	1	9/2/2004 2:02:41 AM
Chrysene	ND	0.20		µg/L	1	9/2/2004 2:02:41 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	9/2/2004 2:02:41 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	9/2/2004 2:02:41 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	9/2/2004 2:02:41 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	9/2/2004 2:02:41 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	9/2/2004 2:02:41 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	9/2/2004 2:02:41 AM
Surr: Benzo(e)pyrene	88.7	54-102		%REC	1	9/2/2004 2:02:41 AM
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Cadmium	ND	0.0020		mg/L	1	9/1/2004 8:36:42 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 8:36:42 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-09

Client Sample ID: MW-9
Collection Date: 8/18/2004 12:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2004 12:51:26 PM
Benzene	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
Toluene	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
Ethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
Xylenes, Total	ND	0.50		µg/L	1	8/25/2004 12:51:26 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	8/25/2004 12:51:26 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-10

Client Sample ID: MW-10
Collection Date: 8/19/2004 12:22:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2004 1:21:45 PM
Benzene	2.0	0.50		µg/L	1	8/25/2004 1:21:45 PM
Toluene	ND	0.50		µg/L	1	8/25/2004 1:21:45 PM
Ethylbenzene	19	0.50		µg/L	1	8/25/2004 1:21:45 PM
1,2,4-Trimethylbenzene	15	0.50		µg/L	1	8/25/2004 1:21:45 PM
1,3,5-Trimethylbenzene	4.3	0.50		µg/L	1	8/25/2004 1:21:45 PM
Xylenes, Total	42	0.50		µg/L	1	8/25/2004 1:21:45 PM
Surr: 4-Bromofluorobenzene	125	74-118	S	%REC	1	8/25/2004 1:21:45 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Lab Order: 0408174
Project: Chaco 1/4 GW Monitoring
Lab ID: 0408174-11

Client Sample ID: Trip Blank
Collection Date:

Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2004 4:57:19 AM
Benzene	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
Toluene	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
Ethylbenzene	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
Xylenes, Total	ND	0.50		µg/L	1	8/25/2004 4:57:19 AM
Surr. 4-Bromofluorobenzene	100	74-118		%REC	1	8/25/2004 4:57:19 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 09-Sep-04

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date 8/19/2004 11:34:57 AM	Prep Date					
Client ID:		Run ID: LC_040819A			SeqNo: 297905						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date 8/19/2004 6:25:10 PM	Prep Date					
Client ID:		Run ID: LC_040819A			SeqNo: 297929						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 11:36:03 AM	Prep Date				
Client ID:			Run ID: LC_040820A		SeqNo: 298287						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 6:22:07 PM	Prep Date				
Client ID:			Run ID: LC_040820A		SeqNo:	298308					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

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

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

B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT
 Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R12868	Test Code: SW8021	Units: µg/L	Analysis Date	8/24/2004 9:14:46 AM	Prep Date				
Client ID:			Run ID: PIDFID_040824A		SeqNo: 298954						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
1,2,4-Trimethylbenzene	ND	0.5									
1,3,5-Trimethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	21.2	0	20	0	106	74	118	0			

Sample ID	Reagent Blank 5m	Batch ID: R12885	Test Code: SW8021	Units: µg/L	Analysis Date	8/25/2004 9:47:57 AM	Prep Date				
Client ID:			Run ID: PIDFID_040825A		SeqNo: 299334						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
1,2,4-Trimethylbenzene	ND	0.5									
1,3,5-Trimethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20	0	20	0	100	74	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Method Blank

CLIENT: El Paso Field Services
 Work Order: 0408174
 Project: Chaco 1/4 GW Monitoring

Sample ID	MB-6376	Batch ID:	6376	Test Code:	SW8310	Units:	µg/L	Analysis Date	9/1/2004 10:02:41 PM	Prep Date	8/25/2004
Client ID:				Run ID:	HUGO_040901A			SeqNo:	301810		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.92	0	10	0	79.2	54	102	0			

Sample ID	MB-6359	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date	8/20/2004	Prep Date	8/20/2004
Client ID:			Run ID: MI-LA254_040820B		SeqNo:	298062		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Mercury	ND	0.0002						
							%RPD	RPDLimit
								Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-6387	Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 3:41:57 PM	Prep Date	8/27/2004				
Client ID:		Run ID: ICP_040831G			SeqNo:	301334						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium		ND		0.002								
Calcium		ND		1								
Chromium		ND		0.006								
Magnesium		ND		1								
Potassium		ND		1								
Sodium		ND		1								

Sample ID	MB	Batch ID: R13053	Test Code: E350.2	Units: mg/L	Analysis Date	9/8/2004	Prep Date					
Client ID:		Run ID: WC_040908D			SeqNo:	303631						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia		ND		0.5								

Sample ID	MB	Batch ID: R13054	Test Code: E350.2	Units: mg/L	Analysis Date	9/9/2004	Prep Date					
Client ID:		Run ID: WC_040909A			SeqNo:	303633						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia		ND		0.5								

Sample ID	MB-6379	Batch ID: 6379	Test Code: E160.1	Units: mg/L	Analysis Date	8/25/2004	Prep Date	8/25/2004				
Client ID:		Run ID: WC_040825F			SeqNo:	300629						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND		50								

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits
 R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 08-Sep-04

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0408174-04A DUP	Batch ID: R12942	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 8/30/2004	Prep Date					
Client ID: MW-4			Run ID: WC_040830D		SeqNo: 300647						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	366	2	0	0	0	0	0	376	2.70	15	
Carbonate	ND	2	0	0	0	0	0	0	0	15	
Bicarbonate	366	2	0	0	0	0	0	376	2.70	15	

Sample ID	0408174-02A DUP	Batch ID: R12844	Test Code: E120.1	Units: µmhos/cm	Analysis Date	8/20/2004	Prep Date				
Client ID:	MW-2		Run ID: WC_040820D		SeqNo:	298140					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	2280	0.01	0	0	0	0	0	2230	2.22	20	

Sample ID	0408174-01C DUP	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date	8/20/2004	Prep Date	8/20/2004			
Client ID:	MW-1		Run ID: MI-LA254_040820B		SeqNo:	298075					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0002247	0.0002	0	0	0	0	0	0.000249	10.3	20	

Sample ID	0408174-01C DUP	Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date 9/1/2004 9:29:56 AM	Prep Date 8/27/2004					
Client ID: MW-1			Run ID: ICP_040831G		SeqNo: 301373						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	0.002	0	0	0	0	0	0	0	30	
Chromium	0.002777	0.006	0	0	0	0	0	0.002682	0	30	J

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

/

QC SUMMARY REPORT

Sample Duplicate

CLIENT: El Paso Field Services
 Work Order: 0408174
 Project: Chaco 1/4 GW Monitoring

Sample ID	0408174-04A DUP	Batch ID: R12943	Test Code: E150.1	Units: pH units	Analysis Date	8/30/2004	Prep Date					
Client ID:	MW-4		Run ID: WC_040830E		SeqNo:	300655						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH		8.01	0.01	0	0	0	0	0	0			

Sample ID	0408174-07A DUP	Batch ID: 6379	Test Code: E160.1	Units: mg/L	Analysis Date	8/25/2004	Prep Date	8/25/2004				
Client ID:	MW-7		Run ID: WC_040825F		SeqNo:	300638						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		2985	50	0	0	0	0	0	2878	3.65	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 08-Sep-04

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0408174-01a ms	Batch ID: R12868	Test Code: SW8021	Units: µg/L	Analysis Date	8/25/2004 5:27:25 AM	Prep Date				
Client ID:	MW-1		Run ID: PIDFID_040824A		SeqNo: 298963						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	40.04	2.5	40	0	100	65	132	0			
Benzene	19.69	0.5	20	0	98.5	77	122	0			
Toluene	20.47	0.5	20	0	102	81	115	0			
Ethylbenzene	20.61	0.5	20	0	103	84	117	0			
1,2,4-Trimethylbenzene	20.59	0.5	20	0	103	83	120	0			
1,3,5-Trimethylbenzene	20.78	0.5	20	0	104	85	115	0			
Xylenes, Total	62.58	0.5	60	0	104	84	116	0			
Surr: 4-Bromofluorobenzene	23.52	0	24	0	98.0	74	118	0			

Sample ID	0408174-01a msd	Batch ID: R12868	Test Code: SW8021	Units: µg/L	Analysis Date	8/25/2004 5:57:29 AM	Prep Date				
Client ID:	MW-1		PIDFID_040824A		SeqNo:	298964					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	42.15	2.5	40	0	105	65	132	40.04	5.14	28	
Benzene	19.43	0.5	20	0	97.1	77	122	19.69	1.36	27	
Toluene	20.25	0.5	20	0	101	81	115	20.47	1.08	19	
Ethylbenzene	20.13	0.5	20	0	101	84	117	20.61	2.35	10	
1,2,4-Trimethylbenzene	18.99	0.5	20	0	95.0	83	120	20.59	8.08	21	
1,3,5-Trimethylbenzene	19.75	0.5	20	0	98.7	85	115	20.78	5.12	10	
Xylenes, Total	61.63	0.5	60	0	103	84	116	62.58	1.52	13	
Surr: 4-Bromofluorobenzene	23.54	0	24	0	98.1	74	118	23.52	0.104	0	

Sample ID	0408174-01C MS	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date	8/20/2004	Prep Date	8/20/2004			
Client ID:	MW-1		Run ID: MI-LA254_040820B		SeqNo:	298076					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005649	0.0002	0.005	0.000249	108	75.2	134	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID 0408174-01C MSD		Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date 8/20/2004		SeqNo: 298077	Prep Date 8/20/2004	
Client ID: MW-1	Run ID: MI-LA254_040820B	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Analyte	Result							%RPD	Qual
Mercury	0.005448	0.0002	0.005	0.000249	104	75.2	134	0.005649	3.62 20
Sample ID 0408174-01C MS		Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date 9/1/2004 9:32:59 AM		SeqNo: 301374	Prep Date 8/27/2004	
Client ID: MW-1	Run ID: ICP_040831G	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Analyte	Result							%RPD	Qual
Cadmium	0.4898	0.002	0.5	0	98.0	75	125	0	
Chromium	0.4801	0.006	0.5	0.002682	95.5	75	125	0	
Sample ID 0408174-01C MSD		Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date 9/1/2004 9:37:35 AM		SeqNo: 301375	Prep Date 8/27/2004	
Client ID: MW-1	Run ID: ICP_040831G	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Analyte	Result							%RPD	Qual
Cadmium	0.5066	0.002	0.5	0	101	75	125	0.4898	3.39 20
Chromium	0.5009	0.006	0.5	0.002682	99.6	75	125	0.4801	4.25 20
Sample ID 0408174-07A MS		Batch ID: 6379	Test Code: E160.1	Units: mg/L	Analysis Date 8/25/2004		SeqNo: 300639	Prep Date 8/25/2004	
Client ID: MW-7	Run ID: WC_040825F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Analyte	Result							%RPD	Qual
Total Dissolved Solids	3823	50	1000	2878	94.5	80	120	0	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 08-Sep-04

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date	8/19/2004 11:51:46 AM	Prep Date				
Client ID:		Run ID: LC_040819A	SeqNo: 297906								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4515	0.1	0.5	0	90.3	90	110	0			
Chloride	4.828	0.1	5	0	96.6	90	110	0			
Nitrogen, Nitrite (As N)	0.9201	0.1	1	0	92.0	90	110	0			
Nitrogen, Nitrate (As N)	2.378	0.1	2.5	0	95.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.533	0.5	5	0	90.7	90	110	0			
Sulfate	9.677	0.5	10	0	96.8	90	110	0			

Sample ID	LCS	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date	8/19/2004 6:41:58 PM	Prep Date				
Client ID:		Run ID: LC_040819A	SeqNo: 297930								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4622	0.1	0.5	0	92.4	90	110	0			
Chloride	4.856	0.1	5	0	97.1	90	110	0			
Nitrogen, Nitrite (As N)	0.922	0.1	1	0	92.2	90	110	0			
Nitrogen, Nitrate (As N)	2.395	0.1	2.5	0	95.8	90	110	0			
Phosphorus, Orthophosphate (As P)	4.786	0.5	5	0	95.7	90	110	0			
Sulfate	9.811	0.5	10	0	98.1	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 11:52:52 AM	Prep Date				
Client ID:		Run ID:	LC_040820A		SeqNo:	298288					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4527	0.1	0.5	0	90.5	90	110	0			
Chloride	4.862	0.1	5	0	97.2	90	110	0			
Nitrogen, Nitrite (As N)	0.9548	0.1	1	0	95.5	90	110	0			
Nitrogen, Nitrate (As N)	2.368	0.1	2.5	0	94.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.505	0.5	5	0	90.1	90	110	0			
Sulfate	9.669	0.5	10	0	96.7	90	110	0			

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 6:38:56 PM	Prep Date				
Client ID:		Run ID: LC_040820A	SeqNo: 298309								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4668	0.1	0.5	0	93.4	90	110	0			
Chloride	4.906	0.1	5	0	98.1	90	110	0			
Nitrogen, Nitrite (As N)	0.9447	0.1	1	0	94.5	90	110	0			
Nitrogen, Nitrate (As N)	2.388	0.1	2.5	0	95.5	90	110	0			
Phosphorus, Orthophosphate (As P)	4.651	0.5	5	0	93.0	90	110	0			
Sulfate	9.78	0.5	10	0	97.8	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: El Paso Field Services

Work Order: 0408174

Project: Chaco 1/4 GW Monitoring

Sample ID	BTEX std 100ng	Batch ID: R12868	Test Code: SW8021	Units: µg/L	Analysis Date	8/25/2004 6:27:36 AM	Prep Date				
Client ID:			Run ID: PIDFID_040824A		SeqNo: 298965						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	40.43	2.5	40	0	101	54.9	142	0			
Benzene	19.41	0.5	20	0	97.0	81.3	121	0			
Toluene	20.39	0.5	20	0	102	84.9	118	0			
Ethylbenzene	19.7	0.5	20	0	98.5	53.8	149	0			
1,2,4-Trimethylbenzene	19.31	0.5	20	0	96.5	79.7	123	0			
1,3,5-Trimethylbenzene	19.66	0.5	20	0	98.3	82.4	123	0			
Xylenes, Total	59.65	0.5	60	0	99.4	83.1	122	0			

Sample ID	BTEX std 100ng	Batch ID: R12865	Test Code: SW8021	Units: µg/L	Analysis Date	8/26/2004 4:31:11 AM	Prep Date				
Client ID:			Run ID: PIDFID_040825A		SeqNo: 299368						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	44.18	2.5	40	0	110	54.9	142	0			
Benzene	20.81	0.5	20	0	104	81.3	121	0			
Toluene	21.7	0.5	20	0	108	84.9	118	0			
Ethylbenzene	21.45	0.5	20	0	107	53.8	149	0			
1,2,4-Trimethylbenzene	20.32	0.5	20	0	102	79.7	123	0			
1,3,5-Trimethylbenzene	20.27	0.5	20	0	101	82.4	123	0			
Xylenes, Total	62.11	0.5	60	0	104	83.1	122	0			

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

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

B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: El Paso Field Services

Work Order: 0408174

Project: Chaco 1/4 GW Monitoring

Sample ID	LCS-6376	Batch ID: 6376	Test Code: SW8310	Units: µg/L	Analysis Date	9/1/2004 10:50:41 PM	Prep Date	8/25/2004			
Client ID:		Run ID:	HUGO_040901A		SeqNo:	301811					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	31.88	2.5	40	0	79.7	20.939	111.211	0			
1-Methylnaphthalene	31.04	2.5	40.1	0	77.4	22.016	110.385	0			
2-Methylnaphthalene	31.57	2.5	40	0	78.9	21.098	111.261	0			
Acenaphthylene	31.81	2.5	40.1	0	79.3	23.852	116.857	0			
Acenaphthene	32.55	2.5	40	0	81.4	27.524	111.73	0			
Fluorene	3.12	0.8	4.01	0	77.8	31.046	113.32	0			
Phenanthrene	1.77	0.6	2.01	0	88.1	42.279	115.749	0			
Anthracene	1.69	0.6	2.01	0	84.1	43.767	118.693	0			
Fluoranthene	3.54	0.3	4.01	0	88.3	55.334	117.461	0			
Pyrene	3.64	0.3	4.01	0	90.8	57.722	120.832	0			
Benz(a)anthracene	0.35	0.02	0.401	0	87.3	70.18	113.452	0			
Chrysene	1.78	0.2	2.01	0	88.6	43.942	141.404	0			
Benzo(b)fluoranthene	0.32	0.05	0.38	0	84.2	71.192	103.368	0			
Benzo(k)fluoranthene	0.22	0.02	0.25	0	88.0	75.336	107.209	0			
Benzo(a)pyrene	0.22	0.02	0.251	0	87.6	74.556	100.742	0			
Dibenz(a,h)anthracene	0.44	0.04	0.501	0	87.8	80.693	106.931	0			
Benzo(g,h,i)perylene	0.45	0.03	0.5	0	90.0	55.168	135.014	0			
Indeno(1,2,3-cd)pyrene	0.852	0.08	1.002	0	85.0	79.328	104.794	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-6376	Batch ID: 6376	Test Code: SW8310	Units: µg/L	Analysis Date	9/2/2004 12:26:42 AM	Prep Date	8/25/2004			
Client ID:		Run ID:	HUGO_040901A		SeqNo:	301813					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	36.41	2.5	40	0	91.0	20.939	111.211	31.88	13.3	32.1	
1-Methylnaphthalene	35.17	2.5	40.1	0	87.7	22.016	110.385	31.04	12.5	32.7	
2-Methylnaphthalene	35.55	2.5	40	0	88.9	21.098	111.261	31.57	11.9	34	
Acenaphthylene	34.17	2.5	40.1	0	85.2	23.852	116.857	31.81	7.15	38.8	
Acenaphthene	35.21	2.5	40	0	88.0	27.524	111.73	32.55	7.85	38.6	
Fluorene	3.41	0.8	4.01	0	85.0	31.046	113.32	3.12	8.88	39.3	
Phenanthrene	1.88	0.6	2.01	0	93.5	42.279	115.749	1.77	6.03	25	
Anthracene	1.82	0.6	2.01	0	90.5	43.767	118.693	1.69	7.41	23.9	
Fluoranthene	3.7	0.3	4.01	0	92.3	55.334	117.461	3.54	4.42	15.7	
Pyrene	3.8	0.3	4.01	0	94.8	57.722	120.832	3.64	4.30	15.3	
Benz(a)anthracene	0.36	0.02	0.38	0	94.7	70.18	113.452	0.35	2.82	119	
Chrysene	1.89	0.2	2.01	0	94.0	43.942	141.404	1.78	5.99	16.6	
Benzo(b)fluoranthene	0.35	0.05	0.38	0	92.1	71.192	103.368	0.32	8.96	21.7	
Benzo(k)fluoranthene	0.23	0.02	0.25	0	92.0	75.336	107.209	0.22	4.44	19.4	
Benzo(a)pyrene	0.24	0.02	0.251	0	95.6	74.556	100.742	0.22	8.70	16.7	
Dibenz(a,h)anthracene	0.47	0.04	0.501	0	93.8	80.693	106.931	0.44	6.59	17.3	
Benzo(g,h,i)perylene	0.48	0.03	0.5	0	96.0	55.168	135.014	0.45	6.45	118	
Indeno(1,2,3-cd)pyrene	0.867	0.08	1.002	0	86.5	79.328	104.794	0.852	1.75	17.7	

Sample ID	LCS-6359	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date	8/20/2004	Prep Date	8/20/2004			
Client ID:		Run ID:	MI-LA254_040820B		SeqNo:	298063					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005405	0.0002	0.005	0	108	75.2	134	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-6359	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date	8/20/2004	Prep Date	8/20/2004				
Client ID:			Run ID: MI-LA254_040820B		SeqNo:	298085						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.005314	0.0002	0.005	0	106	75.2	134	0.005405	1.70	0	

Sample ID	LCS-6387	Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 3:44:51 PM	Prep Date	8/27/2004			
Client ID:			Run ID: ICP_040831G		SeqNo:	301335					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.4881	0.002	0.5	0	97.6	80	120	0			
Calcium	45.29	1	50	0	90.6	80	120	0			
Chromium	0.4882	0.006	0.5	0	97.6	80	120	0			
Magnesium	46.8	1	50	0	93.6	80	120	0			
Potassium	47.74	1	50	0	95.5	80	120	0			
Sodium	52	1	50	0	104	80	120	0			

Sample ID	LCSD-6387	Batch ID: 6387	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 3:48:06 PM	Prep Date	8/27/2004			
Client ID:			Run ID: ICP_040831G		SeqNo:	301336					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.5221	0.002	0.5	0	104	80	120	0.4881	6.72	20	
Calcium	48.06	1	50	0	96.1	80	120	45.29	5.93	20	
Chromium	0.5232	0.006	0.5	0	105	80	120	0.4882	6.91	20	
Magnesium	49.66	1	50	0	99.3	80	120	46.8	5.95	20	
Potassium	50.74	1	50	0	101	80	120	47.74	6.10	20	
Sodium	55.2	1	50	0	110	80	120	52	5.97	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: El Paso Field Services
Work Order: 0408174
Project: Chaco 1/4 GW Monitoring

Sample ID	LCS-6379	Batch ID	6379	Test Code	E160.1	Units	mg/L	Analysis Date	8/25/2004	Prep Date	8/25/2004		
Client ID:		Run ID:	WC_040825F					SeqNo:	300630				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		1051		50	1000	0	105	80	120	0			

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name EL PASO FSVS

Date and Time Received:

8/19/2004

Work Order Number 0408174

Received by AT

Checklist completed by

Signature

Date

8/19/04

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐
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 ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Sample temperature: 420

	Received By: (Signature)	8/17/04
	Received By: (Signature)	8/17/04

Remarks: per MH no 8260 analysis on
MW-1 & MW-8 - analyze for 8021/8310/
Cd, Cu, Hg / AT 8/19/04

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:

NEAC ☐

USAC ☐

Other:

Client:

EL Paso Field Services

Project Name: Chaco 14 GW

Memorandum

Address:

ATTN: David Bays
614 Betty Avenue

Project #:

Farmingdale, NY 87401

Project Manager: Jake W Tanner

Phone #:

(505) 599-2256

Sampler: JWS RRB

Fax #:

(505) 599-2119

Sample Temperature:

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
08/15/04	1359	H2O	MW-1				
08/15/04	1518		MW-2				
08/15/04	1447		MW-3				
08/15/04	1550		MW-4				
08/15/04	1557		MW-5				
08/15/04	1712		MW-6				
08/15/04	1643		MW-7				
08/15/04	1327		MW-8				
08/15/04	1245		MW-9				
08/15/04	1222		MW-10				

Date: 08/15/04 Time: 0830 Relinquished By: (Signature)

Received By: (Signature)

Date:

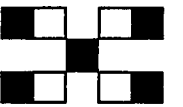
Time:

Relinquished By: (Signature)

Received By: (Signature)

Remarks:

	BTEX + MTBE + TMB's (8021)	
	BTEX + MTBE + TPH (Gasoline Only)	
	TPH Method 8015B (Gas/Diesel)	
	TPH (Method 418.1)	
	EDB (Method 504.1)	
	EDC (Method 8021)	
	8310 (PNA or PAH)	
	RCRA 8 Metals	
	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
	8081 Pesticides / PCB's (8082)	
	8260B (VOA)	
	8270 (Semi-VOA)	
	CATIONS	
	GEN. Chem.	
	Cd, Cr, Hg	
	Air Bubbles or Headspace (Y or N)	



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ANALYSIS REQUEST

Hall Environmental Analysis Laboratory

Date: 20-Dec-04

CLIENT: El Paso Field Services
Project: Chaco 1/4 GW Monitoring
Lab Order: 0412148

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX_W, SAMPLE 0412148-02a: Sample analyzed at dilution because of high late eluting hydrocarbons.

Hall Environmental Analysis Laboratory

Date: 20-Dec-04

CLIENT: El Paso Field Services
Project: Chaco 1/4 GW Monitoring

Lab Order: 0412148

Lab ID: 0412148-01

Collection Date: 12/15/2004 9:24:00 AM

Client Sample ID: MW-9

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/17/2004 2:58:30 PM
Benzene	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
Toluene	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
Ethylbenzene	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
Xylenes, Total	ND	0.50		µg/L	1	12/17/2004 2:58:30 PM
Surr: 4-Bromofluorobenzene	98.2	83.3-121		%REC	1	12/17/2004 2:58:30 PM

Lab ID: 0412148-02

Collection Date: 12/15/2004 10:11:00 AM

Client Sample ID: MW-10

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	12/17/2004 3:28:15 PM
Benzene	ND	10		µg/L	20	12/17/2004 3:28:15 PM
Toluene	ND	10		µg/L	20	12/17/2004 3:28:15 PM
Ethylbenzene	22	10		µg/L	20	12/17/2004 3:28:15 PM
1,2,4-Trimethylbenzene	22	10		µg/L	20	12/17/2004 3:28:15 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	20	12/17/2004 3:28:15 PM
Xylenes, Total	54	10		µg/L	20	12/17/2004 3:28:15 PM
Surr: 4-Bromofluorobenzene	114	83.3-121		%REC	20	12/17/2004 3:28:15 PM

Lab ID: 0412148-03

Collection Date:

Client Sample ID: Trip Blank

Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	------	-------	----	---------------

EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/17/2004 3:58:20 PM
Benzene	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
Toluene	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
Ethylbenzene	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
Xylenes, Total	ND	0.50		µg/L	1	12/17/2004 3:58:20 PM
Surr: 4-Bromofluorobenzene	100	83.3-121		%REC	1	12/17/2004 3:58:20 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
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 20-Dec-04

CLIENT: El Paso Field Services
 Work Order: 0412148
 Project: Chaco 1/4 GW Monitoring

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R14067	Test Code: SW8021	Units: µg/L	Analysis Date	12/17/2004 8:32:16 AM	Prep Date				
Client ID:			Run ID: PIDFID_041217A		SeqNo:	326970					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
1,2,4-Trimethylbenzene	ND	0.5									
1,3,5-Trimethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.83	0	20	0	104	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name EL PASO FSVS

Date and Time Received:

12/16/2004

Work Order Number 0412148

Received by AT

Checklist completed by

Signature

Date

12/16/04

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☒	N/A ☐	
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 ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☒	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

2°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: El Paso Field Services
Attn: David Bays
 Address: 6614 Reilly Avenue
Farmington, NM
87401

Phone #: (505) 599-2256
 Fax #: (505) 599-2119

Date	Time	Matrix	Sample I.D. No.
15 Dec 04	09:24	H ₂ O	MW-9
15 Dec 04	10:11	H ₂ O	MW-10
Trip Blank			

QA/QC Package:
 Std ☐ Level 4 ☐
 Other: _____
 Project Name: Chaco 1/4 6W
Monitoring
 Project #: 69047003
 Project Manager: Jake W. Tanner

Sampler: JWT
 Sample Temperature: 20

Number/Volume	Preservative		HEAL No.
	HgCl ₂	HNO ₃	
2	X		04/12/1481
2	X		-2
			-3

Date: 15 Dec 04 Time: 11:40
 Relinquished By: (Signature) [Signature]
 Relinquished By: (Signature) _____

Received By: (Signature) [Signature] 12/16/04
 Received By: (Signature) [Signature] 0900

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)	BTEX + MTBE + TMB's (8021)
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles or Headspace (Y or N)	

Remarks: