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GW REPORT

4/19/2005

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Oil Conservation Division
Environmental Bureau

GROUNDWATER QUALITY INVESTIGATION

**CONOCOPHILLIPS
SCOTT NO. 1**

**(K) Sec 2 - T29N - R13W
San Juan County, New Mexico**

PREPARED FOR:

**CONOCOPHILLIPS
THREADNEEDLE OFFICE
P.O. BOX 2197
HOUSTON, TEXAS 77252**

PREPARED BY:

**BLAGG ENGINEERING, INC.
P.O. BOX 87
BLOOMFIELD, NM 87413
(505)632-1199**

APRIL 19, 2005

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I. INTRODUCTION

Blagg Engineering, Inc. (BEI) has been retained by Conocophillips to conduct a groundwater quality investigation at the Scott No. 1 well, located at (K) Sec. 2 - T29N - R13W, San Juan County, New Mexico (Figure 1). This well is within the city limits of Farmington, New Mexico and is on the privately owned Drake Ranch. The investigation was performed pursuant to requirements set out by the New Mexico Oil Conservation Division with letter dated September 28, 2004.

The investigation included installation of three (3) groundwater monitor wells, sampling, analysis and preparation of this report.

II. EXECUTIVE SUMMARY

Potential groundwater contamination at the site was identified in June, 2003 during replacement of an underground hydrocarbon storage tank system. BEI attempted to install piezometers (identified as MW-1, MW-2 and MW-3, Figure 2) at the site in July 2003 to determine the local groundwater gradient but subsurface obstructions prevented successful placement. BEI contracted a drill rig to install groundwater monitor wells beginning in January 2005. Initial drilling was terminated because large cobbles/boulders found between 10 - 15 feet below ground surface offered refusal with a conventional hollow stem auger drill unit. A Tubex system was brought to the job in February 2005 and two monitor wells were installed. The Tubex unit was damaged during placement of a third well. Following repairs, this well was completed on March 9, 2005.

The new wells were developed on March 21, 2005 and sampled on March 23, 2005. Analytical test results indicate that down-gradient wells MW-4 and MW-6 have not been impacted by contamination. Source area well MW-5 reported minor impacts with aromatic hydrocarbons, but not in excess of New Mexico Water Quality Control Commission (NMWQCC) standards.

The results of the investigation indicate that further site characterization is not presently warranted. Additional but limited water quality testing is suggested to identify potential gradient and contaminate variations that may occur with seasonal groundwater elevation fluctuations.

III. Monitor Well Installation

BEI contracted Envirotech, Inc. to install groundwater monitor wells for the investigation. On January 31, 2005 a CME-75 hollow stem auger unit with 8-inch OD x 4.25-inch ID flights was brought on location. Attempts were made to drill monitor wells MW-4 and MW-5 but subsurface obstructions by large cobbles and boulders stopped auger advancement. A Tubex system using a down-hole hammer driven with high pressure air was brought to the job on February 23, 2005 and monitor wells MW-4 and MW-6 were installed. The drive hammer was damaged during placement of MW-5. Following hammer repair, this well was completed on March 9, 2005.

Normal soil sampling with a split spoon sampler is not feasible with the Tubex drilling system. Based on cuttings blown from each boring, soil at the site was a sand/silt/clay mixture from the ground surface to a depth ranging between 10 -15 feet below grade. Below that depth are large river cobbles and boulders comprised of igneous quartz, feldspar, hornblende and mica.

Groundwater at the site is found at depths ranging between 12 and 20 feet below the surface. The intent of monitor well construction was to place a minimum 10 foot screened interval across the water table surface. Each well was completed with 2-inch diameter PVC slotted casing (0.010 mesh) and solid casing riser. Filter pack consisted of 10-20 graded sand and a bentonite well seal was placed above the sand. Surface completions included 8-inch diameter bolt down well covers sealed with concrete for monitor wells MW-4 and MW-6. Monitor well MW-5 is within the fenced location and an above grade well protector was used. Boring logs and well completion diagrams are found in the Appendices.

IV. Groundwater Sampling

A. Groundwater Sampling Methodology

The newly drilled wells were developed on March 21, 2005 to remove sediment fines that may have accumulated during the drilling process. Each well was inspected for the presence of free product prior to development. Initial product inspection was with an interface probe, and secondary inspection included using a new, dedicated disposable bailer to observe the top layer of fluid in each well. No product was identified in any well. Development included running the bailer into the well and removing water/sediment. Field parameters of pH, temperature and electrical conductivity (E.C.) were measured during this process to insure that stable conditions were achieved. In all wells, fines cleared up substantially and stable conditions were reached. A sheen was observed on the surface of the bail bucket in each well.

Formal sampling of the new wells was conducted on March 23, 2005. Each well was inspected for the presence of free product with an interface probe prior to sampling. No product was identified in any well during this sample event. The wells were purged a minimum of three (3) well volumes with dedicated bailers. Bailed water was placed into clean, 5 gallon plastic buckets and observed for the presence of hydrocarbon sheen, sediment and odor. During the purging process the parameters of pH, temperature, and E.C. were periodically measured to insure that stable conditions were reached. Water samples were then collected into appropriate laboratory supplied containers with pre-measured preservative, labeled and stored cool in an ice chest with ice. Samples were express delivered to the analytical laboratory for testing.

Laboratory analysis was by U.S. EPA Method 8260 for volatile organics, U.S. EPA Method 8310 for polynuclear aromatic hydrocarbons, cation/anion balance and 17 metals. Summary key water quality results are included in Table 1 and groundwater elevations are included in Table 2, found at the end of the text. Laboratory reports are found in the appendices.

V. Interpretation of Data

A. Groundwater Quality

Analytical test results of down-gradient wells MW-4 and MW-6 indicate an absence of hydrocarbon impacts. There are trace amounts of metals (including barium, chromium, cobalt, copper and lead) but at levels well below NMWQCC drinking water standards. There are no up-gradient wells at the site to test background quality, but trace naturally occurring metals are not uncommon in shallow aquifers in the San Juan Basin.

Monitor well MW-5 is located within the original source area of the hydrocarbon release. Analytical test results indicate the presence of key volatile hydrocarbons including toluene, naphthalenes and xylenes. However, these constituents all tested below NMWQCC drinking water standards. Other key constituents, including metals and cations/anions did not test any parameters exceeding closure standards. There was no noticeable change in total dissolved solids (TDS) between the up-gradient and source area wells.

Water quality can be impacted by fluctuations in groundwater depth. The Scott No. 1 is located in a cultivated alfalfa field. The irrigation season typically runs between April 15 - October 15 and groundwater depths can be expected to rise when water is applied for crop growth. A more shallow water table may therefore be present at the site at the end of the irrigation season.

B. Groundwater Gradient.

Well surface elevations and coordinates were established by assigning a relative elevation of the top flange at the Scott No. 1 gas well at 100.00 feet. BEI made depth to water measurements from the well surface casing during sampling on March 23, 2005. A piezometric surface map, Figure 3, was prepared from these measurements. The groundwater gradient is towards the south-south-west with a substantial drop of about 0.18 feet/foot. Normal gradients in the San Juan Basin typically range between 0.01 and 0.05 feet/foot. None of the monitor well borings penetrated through the cobble layer, but regional stratigraphy indicates there may be a sandstone bench at the site with a substantial drop-off that dictates the steep site gradient. Future site monitoring of seasonal groundwater elevation fluctuations may help with gradient interpretation.

VI. Conclusions and Recommendations

Based on the information collected during this investigation, BEI has made the following conclusions:

- 1) Groundwater has been impacted with hydrocarbon constituents (including toluene, naphthalenes, and xylenes) at source area well MW-5, but at levels well below closure standards. Down-gradient wells MW-4 and MW-6 did not test the presence of hydrocarbon contamination.
- 2) Soil lithology is consistent with a high energy fluvial depositional environment, with large river cobbles/boulders present at 10 - 15 feet below grade. A water table aquifer is present in this lithology at a depth ranging between approximately 12 and 20 feet below grade.
- 3) The groundwater gradient as measured on March 23, 2005 was at 0.18 feet/foot in a south-south-west direction. This is an uncommonly steep gradient for the San Juan Basin and may change with application of irrigation water to surrounding crops during the growing season.

BEI has the following recommendations for future site work:

- 1) A minimum of one (1) additional sample event is indicated to confirm water quality, groundwater gradient magnitude and direction. This event is recommended to occur in the late summer after seasonal irrigation of area crops has had time to affect local groundwater flow. Laboratory testing should include U.S. EPA Method 8260 for volatile organics only.

VII. Statement of Familiarity

This report has been prepared for the exclusive use of Conocophillips. I am familiar with the information contained herein and attest that it is true and complete to the best of my knowledge and belief.

Jeffrey C. Blagg
Jeffrey C. Blagg, NMPE 11607

APRIL 19, 2005
Date

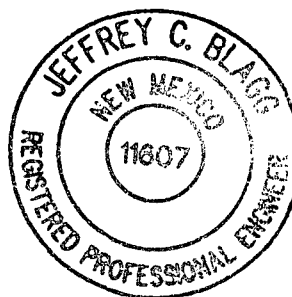


Table 1
Scott No. 1
Summary Key Water Quality Analytical Results

March 23, 2005

Well ID	Benzene ug/L	Toluene ug/L	Ethyl- Benzene ug/L	Total Xylenes ug/L	Total Naphthalenes ug/L
MW-4	<1.0	<1.0	<1.0	<1.0	<2.5
MW-5	<2.0	<2.0	40	220	9.6
MW-6	<1.0	<1.0	<1.0	<1.0	<2.5
NMWQCC Standard	10	750	750	620	30

Note: ug/L = micrograms per liter, equivalent to parts per billion
 NMWQCC = New Mexico Water Quality Control Commission

Table 2
Scott No. 1
Groundwater Relative Elevations

March 23, 2005

MONITOR WELL	SURFACE ELEVATION (FEET)	DEPTH TO WATER (FEET)	RELATIVE WATER TABLE ELEVATION (FEET)
MW-1	99.74	Dry to TD (13.3')	NA
MW-2	Well Damaged	NA	NA
MW-3	98.76	Dry to TD (9.25')	NA
MW-4	95.79	20.25	75.54
MW-5	101.77	13.18	88.59
MW-6	96.84	21.89	74.95

Casing elevations based on relative surface elevation of gas well head flange = 100.00 feet

NA = Not Applicable

TD = Total Depth

ATTACHMENT 1

FIGURES

Figure 1: Conocophillips Scott No. 1, Farmington, New Mexico

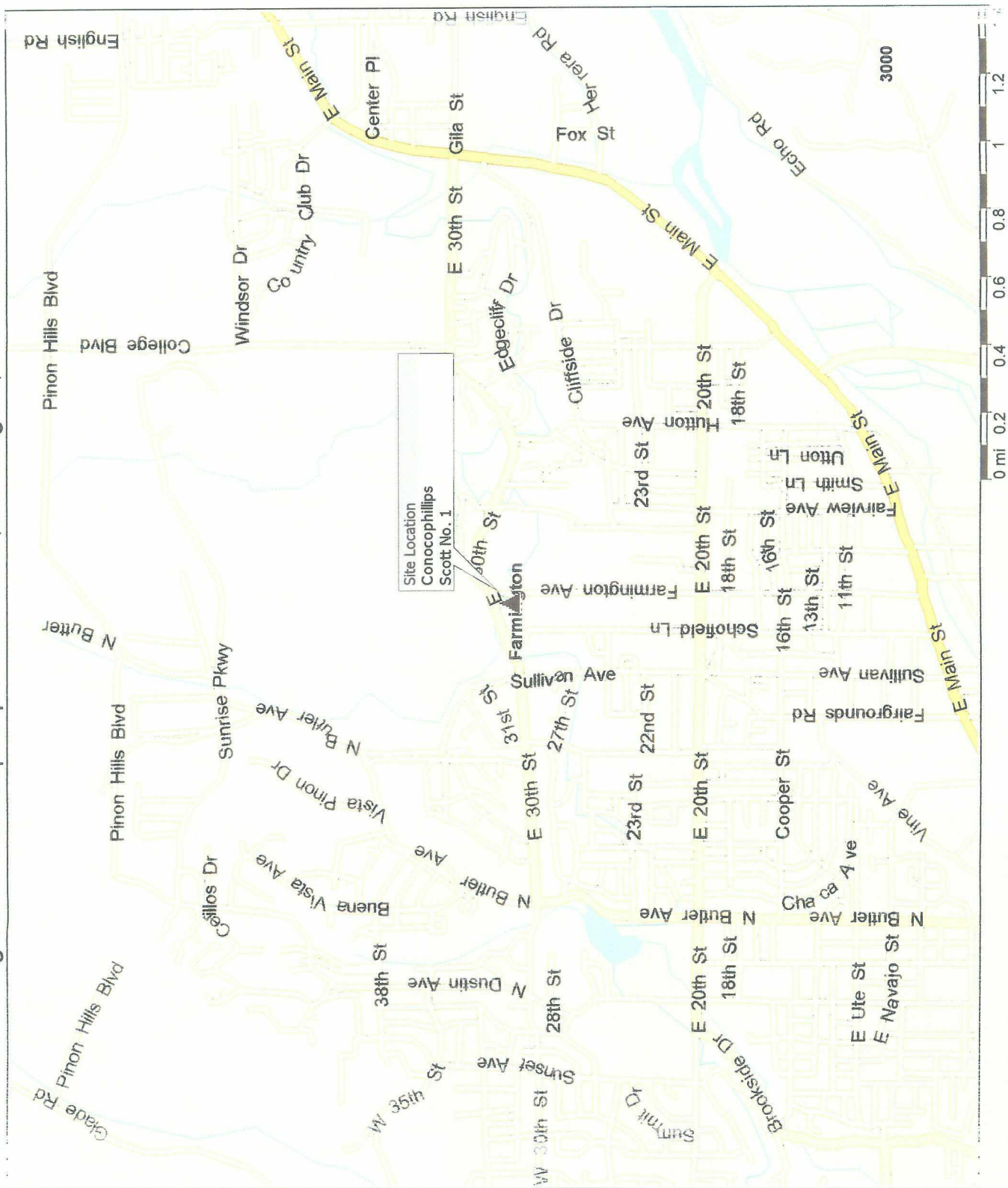
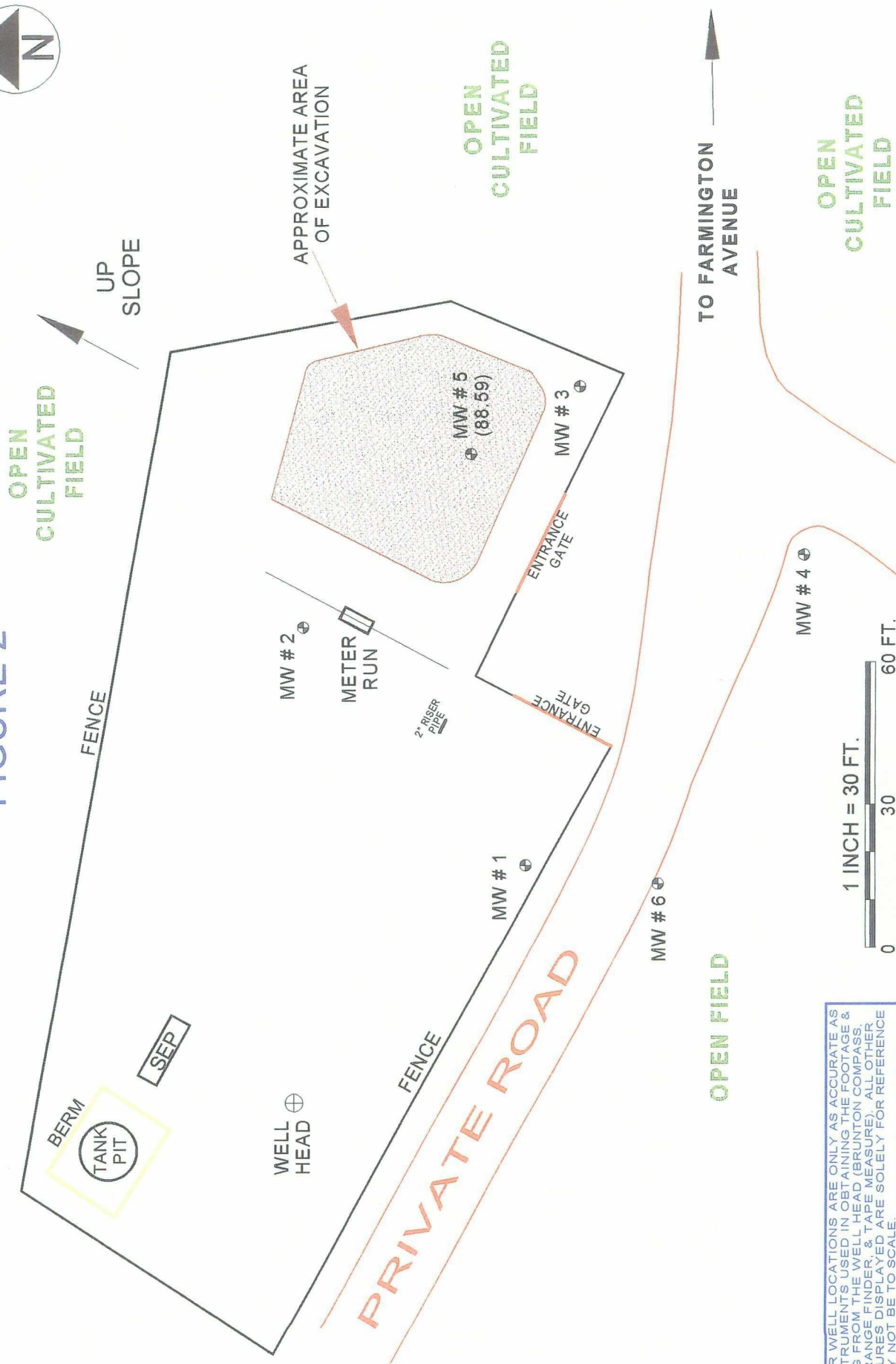




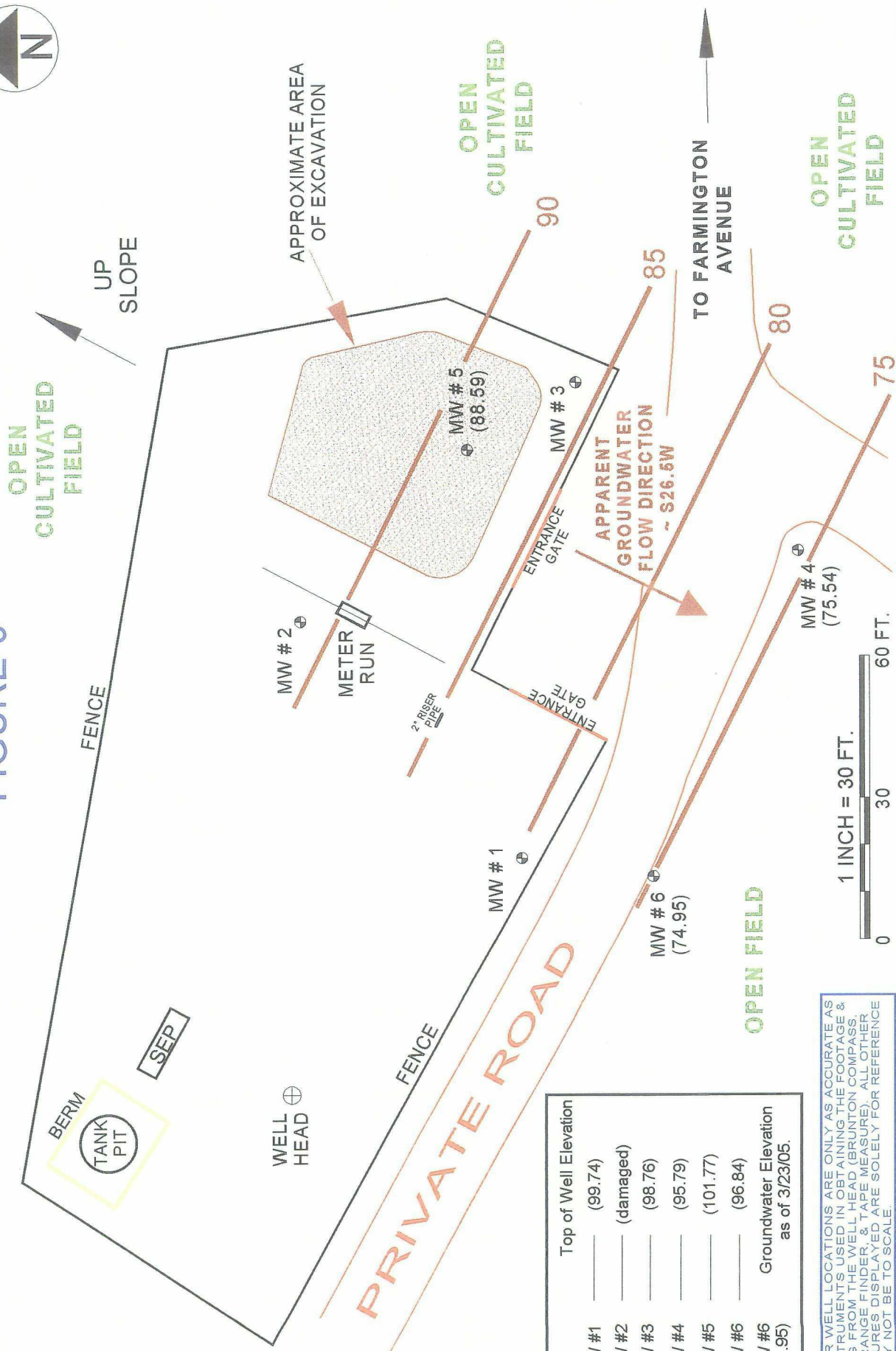
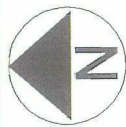
FIGURE 2



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (BRUNTON COMPASS, LASER RANGE FINDER, & TAPE MEASURE). ALL OTHER STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

CONOCO PHILLIPS SCOTT # 1 - DAKOTA NE/4 SW/4 SEC. 2, T29N, R13W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: REMED. PLAN FILENAME: SCOTT-1-SM2.SKF REVISED: 04/19/05 DRAWN BY: NJV	SITE MAP 04/05
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FIGURE 3



Top of Well Elevation	
MW #1	(99.74)
MW #2	(damaged)
MW #3	(98.76)
MW #4	(95.79)
MW #5	(101.77)
MW #6	(96.84)
⊕ MW #6	Groundwater Elevation as of 3/23/05.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (BRUNTON COMPASS, LASER RANGE FINDER & TAPE MEASURED). ALL OTHER STRUCTURES DISPLAYED ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

CONOCO PHILLIPS

SCOTT # 1 - DAKOTA

NE/4 SW/4 SEC. 2, T29N, R13W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: REMED. PLAN

FILENAME: SCOTT-1-GW3.SKF

REVISED: 04/19/05

DRAWN BY: NJV

GROUNDWATER CONTOUR MAP

04/05

ATTACHMENT 2

BORING REPORTS

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

Page 1 of 1

BORING REPORT: SCOTT NO. 1 — MW-4

PROJECT: ConocoPhillips - Sec 2 T29N R13W - San Juan Co. - NM

CLIENT: ConocoPhillips

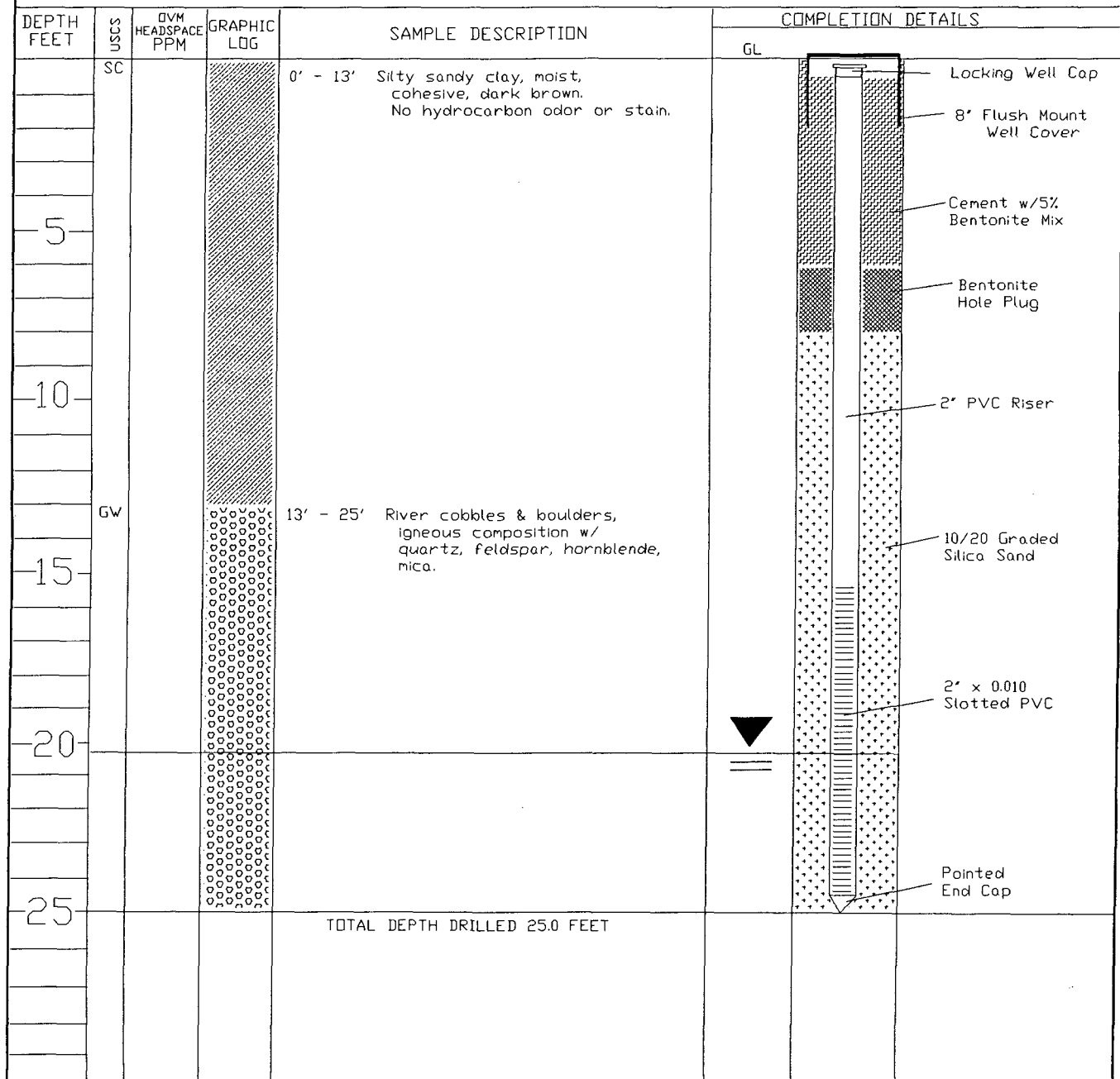
DRILLING CONTRACTOR: Envirotech, Inc.

EQUIPMENT USED: CME 75 w/ Tubex Drilling System

DATE START: 2/23/2005 DATE FINISH: 2/23/2005 DRILLER: K. Padilla LOGGED BY: J. Blagg

TOTAL DEPTH: 25.0 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010

COMMENTS: Penetration refusal at 25 feet.



BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

Page 1 of 1

BORING REPORT: SCOTT NO. 1 — MW-5

PROJECT: ConocoPhillips - Sec 2 T29N R13W - San Juan Co. - NM

CLIENT: ConocoPhillips

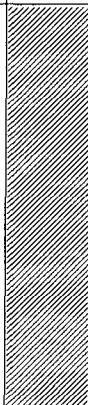
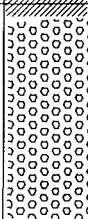
DRILLING CONTRACTOR: Envirotech, Inc.

EQUIPMENT USED: CME 75 w/ Tubex Drilling System

DATE START: 2/28/2005 DATE FINISH: 3/9/2005 DRILLER: K. Padilla LOGGED BY: J. Blagg

TOTAL DEPTH: 15 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010

COMMENTS: Penetration refusal at 15 feet.

DEPTH FEET	USCS	DVM HEADSPACE PPM	GRAPHIC LOG	SAMPLE DESCRIPTION	COMPLETION DETAILS				
					GL				
	SC			0' - 10' Silty sandy clay, moist, cohesive, dark brown. Minor hydrocarbon odor 8'-10'			4" Riser Well Cover		
								Locking Well Cap	
								Cement w/5% Bentonite Mix	
								Bentonite Hole Plug	
5								2" PVC Riser	
	GW			10' - 15' River cobbles & boulders, igneous composition w/ quartz, feldspar, hornblende, mica.			10/20 Graded Silica Sand		
10								2" x 0.010 Slotted PVC	
								Pointed End Cap	
15									
				TOTAL DEPTH DRILLED 15 FEET					
20									
25									

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

Page 1 of 1

BORING REPORT: SCOTT NO. 1 — MW-6

PROJECT: ConocoPhillips - Sec 2 T29N R13W - San Juan Co. - NM

CLIENT: ConocoPhillips

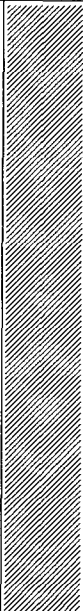
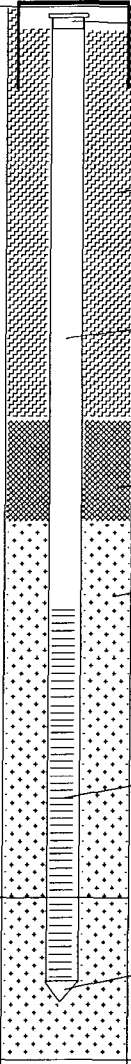
DRILLING CONTRACTOR: Envirotech, Inc.

EQUIPMENT USED: CME 75 w/ Tubex Drilling System

DATE START: 2/24/2005 DATE FINISH: 2/24/2005 DRILLER: K. Padilla LOGGED BY: J. Blagg

TOTAL DEPTH: 25.5 FEET CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0.010

COMMENTS: Penetration refusal at 25.5 feet.

DEPTH FEET	SCS US	DVM HEADSPACE PPM	GRAPHIC LOG	SAMPLE DESCRIPTION	COMPLETION DETAILS		
					GL		
	SC			0' - 15' Silty sandy clay, moist, cohesive, dark brown. No hydrocarbon odor or stain.			Locking Well Cap
					8' Flush Mount Well Cover		
5					Cement w/5% Bentonite Mix		
					2' PVC Riser		
10					Bentonite Hole Plug		
	GW			15'-25.5' River cobbles & boulders, igneous composition w/ quartz, feldspar, hornblende, mica.		10/20 Graded Silica Sand	
15					2' x 0.010 Slotted PVC		
20							
25							
				TOTAL DEPTH DRILLED 25.5 FEET			

ATTACHMENT 3

LABORATORY TEST REPORTS

COVER LETTER

April 07, 2005

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 632-1199
FAX (505) 632-3903

RE: Conoco Phillips Scott #1

Order No.: 0503231

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 samples on 3/24/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-01

Client Sample ID: MW #4
Collection Date: 3/23/2005 3:40:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.90	0.10		mg/L	1	3/24/2005
Chloride	27	0.10		mg/L	1	3/24/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2005
Bromide	ND	0.50		mg/L	1	3/30/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	3/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2005
Sulfate	260	2.5		mg/L	5	3/25/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	290	4.0		mg/L CaCO3	2	3/29/2005
Carbonate	ND	4.0		mg/L CaCO3	2	3/29/2005
Bicarbonate	290	4.0		mg/L CaCO3	2	3/29/2005
EPA METHOD 8260: VOLATILES						Analyst: KTM
Benzene	ND	1.0		µg/L	1	3/29/2005
Toluene	ND	1.0		µg/L	1	3/29/2005
Ethylbenzene	ND	1.0		µg/L	1	3/29/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/29/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/29/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/29/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/29/2005
Naphthalene	ND	2.0		µg/L	1	3/29/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	3/29/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	3/29/2005
Acetone	ND	10		µg/L	1	3/29/2005
Bromobenzene	ND	1.0		µg/L	1	3/29/2005
Bromochloromethane	ND	1.0		µg/L	1	3/29/2005
Bromodichloromethane	ND	1.0		µg/L	1	3/29/2005
Bromoform	ND	1.0		µg/L	1	3/29/2005
Bromomethane	ND	2.0		µg/L	1	3/29/2005
2-Butanone	ND	10		µg/L	1	3/29/2005
Carbon disulfide	ND	10		µg/L	1	3/29/2005
Carbon Tetrachloride	ND	1.0		µg/L	1	3/29/2005
Chlorobenzene	ND	1.0		µg/L	1	3/29/2005
Chloroethane	ND	2.0		µg/L	1	3/29/2005
Chloroform	ND	1.0		µg/L	1	3/29/2005
Chloromethane	ND	1.0		µg/L	1	3/29/2005
2-Chlorotoluene	ND	1.0		µg/L	1	3/29/2005
4-Chlorotoluene	ND	1.0		µg/L	1	3/29/2005
cis-1,2-DCE	ND	1.0		µg/L	1	3/29/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/29/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-01

Client Sample ID: MW #4
Collection Date: 3/23/2005 3:40:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/29/2005
Dibromochloromethane	ND	1.0		µg/L	1	3/29/2005
Dibromomethane	ND	2.0		µg/L	1	3/29/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	3/29/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	3/29/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	3/29/2005
2-Hexanone	ND	10		µg/L	1	3/29/2005
Isopropylbenzene	ND	1.0		µg/L	1	3/29/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	3/29/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	3/29/2005
Methylene Chloride	ND	3.0		µg/L	1	3/29/2005
n-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
n-Propylbenzene	ND	1.0		µg/L	1	3/29/2005
sec-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
Styrene	ND	1.0		µg/L	1	3/29/2005
tert-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/29/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	3/29/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/29/2005
trans-1,2-DCE	ND	1.0		µg/L	1	3/29/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/29/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/29/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/29/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/29/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	3/29/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/29/2005
Vinyl chloride	ND	1.0		µg/L	1	3/29/2005
Xylenes, Total	ND	1.0		µg/L	1	3/29/2005
Surr: 1,2-Dichloroethane-d4	97.9	80-120		%REC	1	3/29/2005
Surr: 4-Bromofluorobenzene	91.3	80-120		%REC	1	3/29/2005
Surr: Dibromofluoromethane	96.7	80-120		%REC	1	3/29/2005
Surr: Toluene-d8	96.5	80-120		%REC	1	3/29/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-01

Client Sample ID: MW #4
Collection Date: 3/23/2005 3:40:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	4/6/2005 3:21:44 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	4/6/2005 3:21:44 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	4/6/2005 3:21:44 AM
Acenaphthylene	ND	2.5		µg/L	1	4/6/2005 3:21:44 AM
Acenaphthene	ND	2.5		µg/L	1	4/6/2005 3:21:44 AM
Fluorene	ND	0.80		µg/L	1	4/6/2005 3:21:44 AM
Phenanthrene	ND	0.60		µg/L	1	4/6/2005 3:21:44 AM
Anthracene	ND	0.60		µg/L	1	4/6/2005 3:21:44 AM
Fluoranthene	ND	0.30		µg/L	1	4/6/2005 3:21:44 AM
Pyrene	ND	0.30		µg/L	1	4/6/2005 3:21:44 AM
Benz(a)anthracene	ND	0.020		µg/L	1	4/6/2005 3:21:44 AM
Chrysene	ND	0.20		µg/L	1	4/6/2005 3:21:44 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	4/6/2005 3:21:44 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	4/6/2005 3:21:44 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	4/6/2005 3:21:44 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	4/6/2005 3:21:44 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	4/6/2005 3:21:44 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/6/2005 3:21:44 AM
Surr: Benzo(e)pyrene	66.8	54-102		%REC	1	4/6/2005 3:21:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	1000	0.010		µmhos/cm	1	3/30/2005
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	3/29/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Calcium	130	1.0		mg/L	1	4/5/2005 9:30:09 AM
Magnesium	31	1.0		mg/L	1	4/5/2005 9:30:09 AM
Potassium	1.5	1.0		mg/L	1	4/5/2005 11:52:14 AM
Sodium	66	1.0		mg/L	1	4/5/2005 11:52:14 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Antimony	ND	0.010		mg/L	1	4/4/2005 3:11:48 PM
Arsenic	ND	0.020		mg/L	1	4/4/2005 9:52:35 AM
Barium	0.062	0.020		mg/L	1	4/4/2005 9:52:35 AM
Beryllium	ND	0.0030		mg/L	1	4/4/2005 9:52:35 AM
Cadmium	ND	0.0020		mg/L	1	4/4/2005 9:52:35 AM
Chromium	ND	0.0060		mg/L	1	4/4/2005 9:52:35 AM
Cobalt	ND	0.0060		mg/L	1	4/4/2005 9:52:35 AM
Copper	ND	0.0060		mg/L	1	4/4/2005 9:52:35 AM
Lead	0.0054	0.0050		mg/L	1	4/4/2005 9:52:35 AM
Nickel	ND	0.010		mg/L	1	4/4/2005 9:52:35 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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-01

Client Sample ID: MW #4
Collection Date: 3/23/2005 3:40:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Selenium	ND	0.050		mg/L	1	4/4/2005 9:52:35 AM
Silver	ND	0.0050		mg/L	1	4/4/2005 9:52:35 AM
Thallium	ND	0.010		mg/L	1	4/4/2005 9:52:35 AM
Tin	ND	0.010		mg/L	1	4/4/2005 9:52:35 AM
Vanadium	ND	0.050		mg/L	1	4/4/2005 9:52:35 AM
Zinc	ND	0.050		mg/L	1	4/4/2005 3:11:48 PM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	690	50		mg/L	1	3/31/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-02

Client Sample ID: MW #5
Collection Date: 3/23/2005 3:00:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	1.1	0.10		mg/L	1	3/24/2005
Chloride	23	0.10		mg/L	1	3/24/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2005
Bromide	ND	0.50		mg/L	1	3/30/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	3/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2005
Sulfate	140	2.5		mg/L	5	3/25/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	300	4.0		mg/L CaCO ₃	2	3/29/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	3/29/2005
Bicarbonate	300	4.0		mg/L CaCO ₃	2	3/29/2005
EPA METHOD 8260: VOLATILES						Analyst: KTM
Benzene	ND	2.0		µg/L	2	3/29/2005
Toluene	ND	2.0		µg/L	2	3/29/2005
Ethylbenzene	40	2.0		µg/L	2	3/29/2005
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	3/29/2005
1,2,4-Trimethylbenzene	110	2.0		µg/L	2	3/29/2005
1,3,5-Trimethylbenzene	48	2.0		µg/L	2	3/29/2005
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	3/29/2005
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	3/29/2005
Naphthalene	ND	4.0		µg/L	2	3/29/2005
1-Methylnaphthalene	9.6	8.0		µg/L	2	3/29/2005
2-Methylnaphthalene	ND	8.0		µg/L	2	3/29/2005
Acetone	ND	20		µg/L	2	3/29/2005
Bromobenzene	ND	2.0		µg/L	2	3/29/2005
Bromochloromethane	ND	2.0		µg/L	2	3/29/2005
Bromodichloromethane	ND	2.0		µg/L	2	3/29/2005
Bromoform	ND	2.0		µg/L	2	3/29/2005
Bromomethane	ND	4.0		µg/L	2	3/29/2005
2-Butanone	ND	20		µg/L	2	3/29/2005
Carbon disulfide	ND	20		µg/L	2	3/29/2005
Carbon Tetrachloride	ND	2.0		µg/L	2	3/29/2005
Chlorobenzene	ND	2.0		µg/L	2	3/29/2005
Chloroethane	ND	4.0		µg/L	2	3/29/2005
Chloroform	ND	2.0		µg/L	2	3/29/2005
Chloromethane	ND	2.0		µg/L	2	3/29/2005
2-Chlorotoluene	ND	2.0		µg/L	2	3/29/2005
4-Chlorotoluene	ND	2.0		µg/L	2	3/29/2005
cis-1,2-DCE	ND	2.0		µg/L	2	3/29/2005
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	3/29/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
 Lab Order: 0503231
 Project: Conoco Phillips Scott #1
 Lab ID: 0503231-02

Client Sample ID: MW #5
 Collection Date: 3/23/2005 3:00:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	3/29/2005
Dibromochloromethane	ND	2.0		µg/L	2	3/29/2005
Dibromomethane	ND	4.0		µg/L	2	3/29/2005
1,2-Dichlorobenzene	ND	2.0		µg/L	2	3/29/2005
1,3-Dichlorobenzene	ND	2.0		µg/L	2	3/29/2005
1,4-Dichlorobenzene	ND	2.0		µg/L	2	3/29/2005
Dichlorodifluoromethane	ND	2.0		µg/L	2	3/29/2005
1,1-Dichloroethane	ND	2.0		µg/L	2	3/29/2005
1,1-Dichloroethene	ND	2.0		µg/L	2	3/29/2005
1,2-Dichloropropane	ND	2.0		µg/L	2	3/29/2005
1,3-Dichloropropane	ND	2.0		µg/L	2	3/29/2005
2,2-Dichloropropane	ND	2.0		µg/L	2	3/29/2005
1,1-Dichloropropene	ND	2.0		µg/L	2	3/29/2005
Hexachlorobutadiene	ND	2.0		µg/L	2	3/29/2005
2-Hexanone	ND	20		µg/L	2	3/29/2005
Isopropylbenzene	23	2.0		µg/L	2	3/29/2005
4-Isopropyltoluene	6.0	2.0		µg/L	2	3/29/2005
4-Methyl-2-pentanone	ND	20		µg/L	2	3/29/2005
Methylene Chloride	ND	6.0		µg/L	2	3/29/2005
n-Butylbenzene	5.2	2.0		µg/L	2	3/29/2005
n-Propylbenzene	24	2.0		µg/L	2	3/29/2005
sec-Butylbenzene	5.1	2.0		µg/L	2	3/29/2005
Styrene	ND	2.0		µg/L	2	3/29/2005
tert-Butylbenzene	ND	2.0		µg/L	2	3/29/2005
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	3/29/2005
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	2	3/29/2005
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	3/29/2005
trans-1,2-DCE	ND	2.0		µg/L	2	3/29/2005
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	3/29/2005
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	3/29/2005
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	3/29/2005
1,1,1-Trichloroethane	ND	2.0		µg/L	2	3/29/2005
1,1,2-Trichloroethane	ND	2.0		µg/L	2	3/29/2005
Trichloroethene (TCE)	ND	2.0		µg/L	2	3/29/2005
Trichlorofluoromethane	ND	2.0		µg/L	2	3/29/2005
1,2,3-Trichloropropane	ND	4.0		µg/L	2	3/29/2005
Vinyl chloride	ND	2.0		µg/L	2	3/29/2005
Xylenes, Total	220	2.0		µg/L	2	3/29/2005
Surr: 1,2-Dichloroethane-d4	101	80-120		%REC	2	3/29/2005
Surr: 4-Bromofluorobenzene	96.8	80-120		%REC	2	3/29/2005
Surr: Dibromofluoromethane	96.3	80-120		%REC	2	3/29/2005
Surr: Toluene-d8	88.7	80-120		%REC	2	3/29/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-02

Client Sample ID: MW #5
Collection Date: 3/23/2005 3:00:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	4/6/2005 4:09:44 AM
1-Methylnaphthalene	6.4	2.5		µg/L	1	4/6/2005 4:09:44 AM
2-Methylnaphthalene	3.2	2.5		µg/L	1	4/6/2005 4:09:44 AM
Acenaphthylene	ND	2.5		µg/L	1	4/6/2005 4:09:44 AM
Acenaphthene	ND	2.5		µg/L	1	4/6/2005 4:09:44 AM
Fluorene	1.3	0.80		µg/L	1	4/6/2005 4:09:44 AM
Phenanthrene	1.5	0.60		µg/L	1	4/6/2005 4:09:44 AM
Anthracene	ND	0.60		µg/L	1	4/6/2005 4:09:44 AM
Fluoranthene	ND	0.30		µg/L	1	4/6/2005 4:09:44 AM
Pyrene	ND	0.30		µg/L	1	4/6/2005 4:09:44 AM
Benz(a)anthracene	ND	0.020		µg/L	1	4/6/2005 4:09:44 AM
Chrysene	ND	0.20		µg/L	1	4/6/2005 4:09:44 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	4/6/2005 4:09:44 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	4/6/2005 4:09:44 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	4/6/2005 4:09:44 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	4/6/2005 4:09:44 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	4/6/2005 4:09:44 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/6/2005 4:09:44 AM
Surr: Benzo(e)pyrene	58.9	54-102		%REC	1	4/6/2005 4:09:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	840	0.010		µmhos/cm	1	3/30/2005
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	3/29/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Calcium	200	10		mg/L	10	4/5/2005 10:32:15 AM
Magnesium	34	1.0		mg/L	1	4/5/2005 9:33:11 AM
Potassium	2.4	1.0		mg/L	1	4/5/2005 11:54:31 AM
Sodium	38	1.0		mg/L	1	4/5/2005 11:54:31 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Antimony	ND	0.010		mg/L	1	4/4/2005 3:14:13 PM
Arsenic	ND	0.020		mg/L	1	4/4/2005 9:55:28 AM
Barium	0.19	0.020		mg/L	1	4/4/2005 9:55:28 AM
Beryllium	ND	0.0030		mg/L	1	4/4/2005 9:55:28 AM
Cadmium	ND	0.0020		mg/L	1	4/4/2005 9:55:28 AM
Chromium	ND	0.0060		mg/L	1	4/4/2005 9:55:28 AM
Cobalt	ND	0.0060		mg/L	1	4/4/2005 9:55:28 AM
Copper	ND	0.0060		mg/L	1	4/4/2005 9:55:28 AM
Lead	0.0071	0.0050		mg/L	1	4/4/2005 9:55:28 AM
Nickel	ND	0.010		mg/L	1	4/4/2005 9:55:28 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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-02

Client Sample ID: MW #5
Collection Date: 3/23/2005 3:00:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Selenium	ND	0.050		mg/L	1	4/4/2005 9:55:28 AM
Silver	ND	0.0050		mg/L	1	4/4/2005 9:55:28 AM
Thallium	ND	0.010		mg/L	1	4/4/2005 9:55:28 AM
Tin	ND	0.010		mg/L	1	4/4/2005 9:55:28 AM
Vanadium	ND	0.050		mg/L	1	4/4/2005 9:55:28 AM
Zinc	ND	0.050		mg/L	1	4/4/2005 3:14:13 PM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	550	50		mg/L	1	3/31/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-03

Client Sample ID: MW #6
Collection Date: 3/23/2005 2:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.99	0.10		mg/L	1	3/24/2005
Chloride	23	0.10		mg/L	1	3/24/2005
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2005
Bromide	ND	0.50		mg/L	1	3/30/2005
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	3/24/2005
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2005
Sulfate	180	2.5		mg/L	5	3/25/2005
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	300	4.0		mg/L CaCO ₃	2	3/29/2005
Carbonate	ND	4.0		mg/L CaCO ₃	2	3/29/2005
Bicarbonate	300	4.0		mg/L CaCO ₃	2	3/29/2005
EPA METHOD 8260: VOLATILES						Analyst: KTM
Benzene	ND	1.0		µg/L	1	3/29/2005
Toluene	ND	1.0		µg/L	1	3/29/2005
Ethylbenzene	ND	1.0		µg/L	1	3/29/2005
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2005
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/29/2005
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/29/2005
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/29/2005
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/29/2005
Naphthalene	ND	2.0		µg/L	1	3/29/2005
1-Methylnaphthalene	ND	4.0		µg/L	1	3/29/2005
2-Methylnaphthalene	ND	4.0		µg/L	1	3/29/2005
Acetone	ND	10		µg/L	1	3/29/2005
Bromobenzene	ND	1.0		µg/L	1	3/29/2005
Bromochloromethane	ND	1.0		µg/L	1	3/29/2005
Bromodichloromethane	ND	1.0		µg/L	1	3/29/2005
Bromoform	ND	1.0		µg/L	1	3/29/2005
Bromomethane	ND	2.0		µg/L	1	3/29/2005
2-Butanone	ND	10		µg/L	1	3/29/2005
Carbon disulfide	ND	10		µg/L	1	3/29/2005
Carbon Tetrachloride	ND	1.0		µg/L	1	3/29/2005
Chlorobenzene	ND	1.0		µg/L	1	3/29/2005
Chloroethane	ND	2.0		µg/L	1	3/29/2005
Chloroform	ND	1.0		µg/L	1	3/29/2005
Chloromethane	ND	1.0		µg/L	1	3/29/2005
2-Chlorotoluene	ND	1.0		µg/L	1	3/29/2005
4-Chlorotoluene	ND	1.0		µg/L	1	3/29/2005
cis-1,2-DCE	ND	1.0		µg/L	1	3/29/2005
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/29/2005

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: 07-Apr-05

CLIENT: Blagg Engineering
 Lab Order: 0503231
 Project: Conoco Phillips Scott #1
 Lab ID: 0503231-03

Client Sample ID: MW #6
 Collection Date: 3/23/2005 2:20:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/29/2005
Dibromochloromethane	ND	1.0		µg/L	1	3/29/2005
Dibromomethane	ND	2.0		µg/L	1	3/29/2005
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/29/2005
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloroethane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloroethene	ND	1.0		µg/L	1	3/29/2005
1,2-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
1,3-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
2,2-Dichloropropane	ND	1.0		µg/L	1	3/29/2005
1,1-Dichloropropene	ND	1.0		µg/L	1	3/29/2005
Hexachlorobutadiene	ND	1.0		µg/L	1	3/29/2005
2-Hexanone	ND	10		µg/L	1	3/29/2005
Isopropylbenzene	ND	1.0		µg/L	1	3/29/2005
4-Isopropyltoluene	ND	1.0		µg/L	1	3/29/2005
4-Methyl-2-pentanone	ND	10		µg/L	1	3/29/2005
Methylene Chloride	ND	3.0		µg/L	1	3/29/2005
n-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
n-Propylbenzene	ND	1.0		µg/L	1	3/29/2005
sec-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
Styrene	ND	1.0		µg/L	1	3/29/2005
tert-Butylbenzene	ND	1.0		µg/L	1	3/29/2005
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/29/2005
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	3/29/2005
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/29/2005
trans-1,2-DCE	ND	1.0		µg/L	1	3/29/2005
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/29/2005
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/29/2005
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/29/2005
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/29/2005
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/29/2005
Trichlorofluoromethane	ND	1.0		µg/L	1	3/29/2005
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/29/2005
Vinyl chloride	ND	1.0		µg/L	1	3/29/2005
Xylenes, Total	ND	1.0		µg/L	1	3/29/2005
Surr: 1,2-Dichloroethane-d4	99.8	80-120		%REC	1	3/29/2005
Surr: 4-Bromofluorobenzene	113	80-120		%REC	1	3/29/2005
Surr: Dibromofluoromethane	101	80-120		%REC	1	3/29/2005
Surr: Toluene-d8	92.3	80-120		%REC	1	3/29/2005

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

Hall Environmental Analysis Laboratory

Date: 07-Apr-05

CLIENT: Blagg Engineering
Lab Order: 0503231
Project: Conoco Phillips Scott #1
Lab ID: 0503231-03

Client Sample ID: MW #6
Collection Date: 3/23/2005 2:20:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: JMP
Naphthalene	ND	2.5		µg/L	1	4/6/2005 5:45:44 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	4/6/2005 5:45:44 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	4/6/2005 5:45:44 AM
Acenaphthylene	ND	2.5		µg/L	1	4/6/2005 5:45:44 AM
Acenaphthene	ND	2.5		µg/L	1	4/6/2005 5:45:44 AM
Fluorene	1.6	0.80		µg/L	1	4/6/2005 5:45:44 AM
Phenanthrene	ND	0.60		µg/L	1	4/6/2005 5:45:44 AM
Anthracene	ND	0.60		µg/L	1	4/6/2005 5:45:44 AM
Fluoranthene	ND	0.30		µg/L	1	4/6/2005 5:45:44 AM
Pyrene	ND	0.30		µg/L	1	4/6/2005 5:45:44 AM
Benz(a)anthracene	0.050	0.020		µg/L	1	4/6/2005 5:45:44 AM
Chrysene	ND	0.20		µg/L	1	4/6/2005 5:45:44 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	4/6/2005 5:45:44 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	4/6/2005 5:45:44 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	4/6/2005 5:45:44 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	4/6/2005 5:45:44 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	4/6/2005 5:45:44 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/6/2005 5:45:44 AM
Surr: Benzo(e)pyrene	76.8	54-102		%REC	1	4/6/2005 5:45:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: MAP
Specific Conductance	960	0.010		µmhos/cm	1	3/30/2005
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	3/29/2005
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Calcium	150	1.0		mg/L	1	4/5/2005 9:37:05 AM
Magnesium	30	1.0		mg/L	1	4/5/2005 9:37:05 AM
Potassium	2.1	1.0		mg/L	1	4/5/2005 11:56:48 AM
Sodium	48	1.0		mg/L	1	4/5/2005 11:56:48 AM
EPA 6010: TOTAL RECOVERABLE METALS						Analyst: NMO
Antimony	ND	0.010		mg/L	1	4/4/2005 3:16:39 PM
Arsenic	ND	0.020		mg/L	1	4/4/2005 9:59:22 AM
Barium	0.28	0.020		mg/L	1	4/4/2005 9:59:22 AM
Beryllium	ND	0.0030		mg/L	1	4/4/2005 9:59:22 AM
Cadmium	ND	0.0020		mg/L	1	4/4/2005 9:59:22 AM
Chromium	0.020	0.0060		mg/L	1	4/4/2005 9:59:22 AM
Cobalt	0.0060	0.0060		mg/L	1	4/4/2005 9:59:22 AM
Copper	0.011	0.0060		mg/L	1	4/4/2005 9:59:22 AM
Lead	0.010	0.0050		mg/L	1	4/4/2005 9:59:22 AM
Nickel	ND	0.010		mg/L	1	4/4/2005 9:59:22 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: 07-Apr-05

CLIENT: Blagg Engineering

Client Sample ID: MW #6

Lab Order: 0503231

Collection Date: 3/23/2005 2:20:00 PM

Project: Conoco Phillips Scott #1

Lab ID: 0503231-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Selenium	ND	0.050		mg/L	1	4/4/2005 9:59:22 AM
Silver	ND	0.0050		mg/L	1	4/4/2005 9:59:22 AM
Thallium	ND	0.010		mg/L	1	4/4/2005 9:59:22 AM
Tin	ND	0.010		mg/L	1	4/4/2005 9:59:22 AM
Vanadium	ND	0.050		mg/L	1	4/4/2005 9:59:22 AM
Zinc	0.23	0.050		mg/L	1	4/4/2005 3:16:39 PM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	600	50		mg/L	1	3/31/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Apr-05

CLIENT: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R14919	Test Code: E300	Units: mg/L	Analysis Date 3/24/2005	Prep Date					
Client ID:		Run ID: LC_050324A			SeqNo: 347028						
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									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R14940	Test Code: E300	Units: mg/L	Analysis Date 3/25/2005		Prep Date				
Client ID:			Run ID: LC_050325A		SeqNo: 347505						
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									
Bromide	ND	0.5									
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: Blagg Engineering
 Work Order: 0503231
 Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Method Blank

Sample ID	MBLK	Batch ID: R14971	Test Code: E300	Units: mg/L	Analysis Date 3/30/2005	Prep Date					
Client ID:			Run ID: LC_050330A		SeqNo: 348227						
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									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R14971	Test Code: E300	Units: mg/L	Analysis Date 3/30/2005	Prep Date					
Client ID:			Run ID: LC_050330A		SeqNo: 348256						
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									
Bromide	ND	0.5									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									

Sample ID	MBLK	Batch ID: R14946	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 3/29/2005	Prep Date					
Client ID:			Run ID: WC_050329A		SeqNo: 347638						
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									

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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-7661	Batch ID: 7661	Test Code: SW8310	Units: µg/L	Analysis Date	4/6/2005 12:57:43 AM	Prep Date	3/29/2005			
Client ID:			Run ID: HUGO_050405A		SeqNo:	349567					
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	7.06	0	10	0	70.6	54	102	0			

Sample ID	MB-7657	Batch ID: 7657	Test Code: SW7470	Units: mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005			
Client ID:			Run ID: MI-LA254_050329A		SeqNo:	347626					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
 Method Blank

Sample ID	MB	Batch ID: R15009	Test Code: SW6010A	Units: mg/L	Analysis Date 4/5/2005 9:14:17 AM	Prep Date
Client ID:			Run ID: ICP_050405A		SeqNo: 349279	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium		ND	1			
Magnesium		ND	1			

Sample ID	MB	Batch ID: R15009	Test Code: SW6010A	Units: mg/L	Analysis Date 4/5/2005 11:41:18 AM	Prep Date
Client ID:			Run ID: ICP_050405A		SeqNo: 349351	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium		ND	1	0	0	0 0 0
Sodium		ND	1	0	0	0 0 0

Sample ID	MB-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date 4/4/2005 9:36:42 AM	Prep Date 3/31/2005
Client ID:			Run ID: ICP_050404B		SeqNo: 349004	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Arsenic		ND	0.02			
Barium		ND	0.02			
Beryllium		ND	0.003			
Cadmium		ND	0.002			
Chromium		ND	0.006			
Cobalt		ND	0.006			
Copper		ND	0.006			
Lead		ND	0.005			
Nickel		ND	0.01			
Selenium		ND	0.05			
Silver		0.004307	0.005			
Thallium		ND	0.01			
Tin		ND	0.01			
Vanadium		ND	0.05			

J

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

CLIENT: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Method Blank

Sample ID	MB-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date 4/4/2005 3:02:40 PM	Prep Date 3/31/2005
Client ID:		Run ID: ICP_050404B			SeqNo: 349063	
Analyte		Result	PQL	SPK value	SPK Ref Val	RPD Ref Val
Antimony		ND	0.01			
Zinc		ND	0.05			
				%REC	LowLimit	HighLimit
				%RPD	RPDLimit	Qual

Sample ID	MB-7659	Batch ID: 7659	Test Code: E160.1	Units: mg/L	Analysis Date 3/31/2005	Prep Date 3/30/2005
Client ID:		Run ID: WC_050331A			SeqNo: 348294	
Analyte		Result	PQL	SPK value	SPK Ref Val	RPD Ref Val
Total Dissolved Solids		ND	50			
				%REC	LowLimit	HighLimit
				%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

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Hall Environmental Analysis Laboratory

Date: 07-Apr-05

CLIENT: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Method Blank

Sample ID	5mL rb	Batch ID: R14941	Test Code: SW8260B	Units: µg/L	Analysis Date	3/28/2005	Prep Date				
Client ID:			Run ID: VAL_050328A		SeqNo:	347514					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	ND	2									
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	ND	2									
2-Butanone	ND	10									
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromethane	ND	1									
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									

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

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QC SUMMARY REPORT

Method Blank

CLIENT: Blagg Engineering
 Work Order: 0503231
 Project: Conoco Phillips Scott #1

cis-1,3-Dichloropropene	ND	1
1,2-Dibromo-3-chloropropane	ND	2
Dibromochloromethane	ND	1
Dibromomethane	ND	2
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,1-Dichloroethene	ND	1
1,2-Dichloropropane	ND	1
1,3-Dichloropropane	ND	1
2,2-Dichloropropane	ND	1
1,1-Dichloropropene	ND	1
Hexachlorobutadiene	ND	1
2-Hexanone	ND	10
Isopropylbenzene	ND	1
4-Isopropyltoluene	ND	1
4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	3
n-Butylbenzene	ND	1
n-Propylbenzene	ND	1
sec-Butylbenzene	ND	1
Styrene	ND	1
tert-Butylbenzene	ND	1
1,1,1,2-Tetrachloroethane	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene (PCE)	ND	1
trans-1,2-DCE	ND	1
trans-1,3-Dichloropropene	ND	1
1,2,3-Trichlorobenzene	ND	1
1,2,4-Trichlorobenzene	ND	1
1,1,1-Trichloroethane	ND	1

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: 07-Apr-05

CLIENT: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
Sample Duplicate

Sample ID	0503231-01C DUP	Batch ID: 7657	Test Code: SW7470	Units: mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005				
Client ID:	MW #4		Run ID: MI-LA254_050329A		SeqNo:	347631						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.0002	0	0	0	0	0	0	0	0	20

Sample ID	0503231-03D DUP	Batch ID: 7659	Test Code: E160.1	Units: mg/L	Analysis Date	3/31/2005	Prep Date	3/30/2005				
Client ID:	MW #6		Run ID: WC_050331A		SeqNo:	348299						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		612	50	0	0	0	0	0	599	2.15	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: 07-Apr-05

CLIENT: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0503231-01C MS	Batch ID: 7657	Test Code: SW7470	Units: mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005			
Client ID:	MW #4		Run ID: MI-LA254_050329A		SeqNo: 347632						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004469	0.0002	0.005	0	89.4	75.2	134	0			
Sample ID	0503231-01C MSD	Batch ID: 7657	Test Code: SW7470	Units: mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005			
Client ID:	MW #4		Run ID: MI-LA254_050329A		SeqNo: 347633						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004791	0.0002	0.005	0	95.8	75.2	134	0.004469	6.95	20	
Sample ID	0503231-03D MS	Batch ID: 7659	Test Code: E160.1	Units: mg/L	Analysis Date	3/31/2005	Prep Date	3/30/2005			
Client ID:	MW #6		Run ID: WC_050331A		SeqNo: 348300						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1604	50	1000	599	101	80	120	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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Hall Environmental Analysis Laboratory

Date: 07-Apr-05

CLIENT: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R14919	Test Code: E300	Units: mg/L	Analysis Date 3/24/2005	Prep Date					
Client ID:		Run ID: LC_050324A			SeqNo: 347029						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.483	0.1	0.5	0	96.6	90	110	0			
Chloride	4.841	0.1	5	0	96.8	90	110	0			
Nitrogen, Nitrite (As N)	0.959	0.1	1	0	95.9	90	110	0			
Bromide	1.505	0.5	2.5	0	60.2	90	110	0			S
Nitrogen, Nitrate (As N)	2.59	0.1	2.5	0	104	90	110	0			
Phosphorus, Orthophosphate (As P)	4.946	0.5	5	0	98.9	90	110	0			
Sulfate	9.738	0.5	10	0	97.4	90	110	0			

Sample ID	LCS	Batch ID: R14940	Test Code: E300	Units: mg/L	Analysis Date 3/25/2005		Prep Date				
Client ID:		Run ID: LC_050325A			SeqNo: 347506						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.479	0.1	0.5	0	95.8	90	110	0			
Chloride	4.801	0.1	5	0	96.0	90	110	0			
Nitrogen, Nitrite (As N)	0.928	0.1	1	0	92.8	90	110	0			
Bromide	1.566	0.5	2.5	0	62.6	90	110	0			S
Nitrogen, Nitrate (As N)	2.567	0.1	2.5	0	103	90	110	0			
Phosphorus, Orthophosphate (As P)	4.939	0.5	5	0	98.8	90	110	0			
Sulfate	9.747	0.5	10	0	97.5	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

I

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Blagg Engineering
 Work Order: 0503231
 Project: Conoco Phillips Scott #1

Sample ID	LCS	Batch ID: R14971	Test Code: E300	Units: mg/L	Analysis Date	3/30/2005	Prep Date				
Client ID:		Run ID:	LC_050330A		SeqNo:	348228					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.455	0.1	0.5	0	91.0	90	110	0			
Chloride	4.643	0.1	5	0	92.9	90	110	0			
Nitrogen, Nitrite (As N)	0.935	0.1	1	0	93.5	90	110	0			
Bromide	2.402	0.5	2.5	0	96.1	90	110	0			
Nitrogen, Nitrate (As N)	2.363	0.1	2.5	0	94.5	90	110	0			
Phosphorus, Orthophosphate (As P)	4.755	0.5	5	0	95.1	90	110	0			
Sulfate	9.412	0.5	10	0	94.1	90	110	0			

Sample ID	LCS	Batch ID: R14971	Test Code: E300	Units: mg/L	Analysis Date	3/30/2005	Prep Date				
Client ID:		Run ID:	LC_050330A		SeqNo:	348257					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.479	0.1	0.5	0	95.8	90	110	0			
Chloride	4.788	0.1	5	0	95.8	90	110	0			
Nitrogen, Nitrite (As N)	0.981	0.1	1	0	98.1	90	110	0			
Bromide	2.481	0.5	2.5	0	99.2	90	110	0			
Nitrogen, Nitrate (As N)	2.434	0.1	2.5	0	97.4	90	110	0			
Phosphorus, Orthophosphate (As P)	4.934	0.5	5	0	98.7	90	110	0			
Sulfate	9.818	0.5	10	0	98.2	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: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	100ng lcs	Batch ID: R14941	Test Code: SW8260B	Units: µg/L	Analysis Date	3/28/2005	Prep Date				
Client ID:		Run ID:	VAL_050328A		SeqNo:	347516					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.62	1	20	0	103	80	130	0			
Toluene	24.8	1	20	0	124	87.5	128	0			
Chlorobenzene	24.11	1	20	0	121	76.2	130	0			
1,1-Dichloroethene	22.09	1	20	0	110	73.3	130	0			
Trichloroethene (TCE)	19.58	1	20	0	97.9	76.9	130	0			

Sample ID	100ng lcs	Batch ID: R14956	Test Code: SW8260B	Units: µg/L	Analysis Date	3/29/2005	Prep Date				
Client ID:		Run ID:	VAL_050329A		SeqNo:	347847					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.73	1	20	0	104	80	130	0			
Toluene	23.85	1	20	0	119	87.5	128	0			
Chlorobenzene	23.87	1	20	0	119	76.2	130	0			
1,1-Dichloroethene	20.78	1	20	0	104	73.3	130	0			
Trichloroethene (TCE)	19.12	1	20	0	95.6	76.9	130	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: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-7661	Batch ID: 7661	Test Code: SW8310	Units: µg/L	Analysis Date	4/6/2005 1:45:42 AM	Prep Date	3/29/2005			
Client ID:			Run ID: HUGO_050405A		SeqNo: 349568						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	20.98	2.5	40	0	52.5	49.1	92.3	0			
1-Methylnaphthalene	21.63	2.5	40.1	0	53.9	49.7	93.6	0			
2-Methylnaphthalene	21.52	2.5	40	0	53.8	50.1	91.7	0			
Acenaphthylene	25.78	2.5	40.1	0	64.3	54	93	0			
Acenaphthene	23.71	2.5	40	0	59.3	49.5	93.6	0			
Fluorene	2.63	0.8	4.01	0	65.6	46.8	93.4	0			
Phenanthrene	1.31	0.6	2.01	0	65.2	48.7	104	0			
Anthracene	1.31	0.6	2.01	0	65.2	47.5	102	0			
Fluoranthene	2.84	0.3	4.01	0	70.8	46.3	108	0			
Pyrene	2.91	0.3	4.01	0	72.6	43.8	109	0			
Benz(a)anthracene	0.28	0.02	0.401	0	69.8	40.3	115	0			
Chrysene	1.42	0.2	2.01	0	70.6	42.6	107	0			
Benzo(b)fluoranthene	0.4	0.05	0.501	0	79.8	48.6	107	0			
Benzo(k)fluoranthene	0.19	0.02	0.25	0	76.0	23.3	136	0			
Benzo(a)pyrene	0.17	0.02	0.251	0	67.7	33.4	117	0			
Dibenz(a,h)anthracene	0.4	0.04	0.501	0	79.8	27.3	139	0			
Benzo(g,h,i)perylene	0.34	0.03	0.5	0	68.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.76	0.08	1.002	0	75.8	39.9	125	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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-7661	Batch ID: 7661	Test Code: SW8310	Units: µg/L	Analysis Date	4/6/2005 2:33:41 AM	Prep Date	3/29/2005			
Client ID:		Run ID:	HUGO_050405A	SeqNo:	349569						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	20.6	2.5	40	0	51.5	49.1	92.3	20.98	1.83	32.1	
1-Methylnaphthalene	20.65	2.5	40.1	0	51.5	49.7	93.6	21.63	4.64	32.7	
2-Methylnaphthalene	20.41	2.5	40	0	51.0	50.1	91.7	21.52	5.29	34	
Acenaphthylene	24.25	2.5	40.1	0	60.5	54	93	25.78	6.12	38.8	
Acenaphthene	21.98	2.5	40	0	55.0	49.5	93.6	23.71	7.57	38.6	
Fluorene	2.37	0.8	4.01	0	59.1	46.8	93.4	2.63	10.4	39.3	
Phenanthrene	1.17	0.6	2.01	0	58.2	48.7	104	1.31	11.3	25	
Anthracene	1.17	0.6	2.01	0	58.2	47.5	102	1.31	11.3	23.9	
Fluoranthene	2.56	0.3	4.01	0	63.8	46.3	108	2.84	10.4	15.7	
Pyrene	2.53	0.3	4.01	0	63.1	43.8	109	2.91	14.0	15.3	
Benz(a)anthracene	0.27	0.02	0.401	0	67.3	40.3	115	0.28	3.64	119	
Chrysene	1.27	0.2	2.01	0	63.2	42.6	107	1.42	11.2	16.6	
Benzo(b)fluoranthene	0.38	0.05	0.501	0	75.8	48.6	107	0.4	5.13	21.7	
Benzo(k)fluoranthene	0.17	0.02	0.25	0	68.0	23.3	136	0.19	11.1	19.4	
Benzo(a)pyrene	0.15	0.02	0.251	0	59.8	33.4	117	0.17	12.5	16.7	
Dibenz(a,h)anthracene	0.36	0.04	0.501	0	71.9	27.3	139	0.4	10.5	17.3	
Benzo(g,h,i)perylene	0.32	0.03	0.5	0	64.0	38.2	117	0.34	6.06	118	
Indeno(1,2,3-cd)pyrene	0.818	0.08	1.002	0	81.6	39.9	125	0.76	7.35	17.7	

Sample ID	LCS-7657	Batch ID:	7657	Test Code:	SW7470	Units:	mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005	
Client ID:		Run ID:	MI-LA254_050329A					SeqNo:	347627			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.005265	0.0002	0.005	0	105	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: Blagg Engineering

Work Order: 0503231

Project: Conoco Phillips Scott #1

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-7657	Batch ID:	7657	Test Code:	SW7470	Units:	mg/L	Analysis Date	3/29/2005	Prep Date	3/29/2005			
Client ID:		Run ID:		PQL	MI-LA254_050329A			SeqNo:	347636					
Analyte		Result						%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.005242		0.0002	0.005	0		105	75.2	134	0.005265	0.445	0	

Sample ID	LCS	Batch ID:	R15009	Test Code:	SW6010A	Units:	mg/L	Analysis Date	4/5/2005 9:17:26 AM	Prep Date				
Client ID:		Run ID:		PQL	ICP_050405A			SeqNo:	349280					
Analyte		Result						%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		49.44		1	50.5	0		97.9	80	120	0			
Magnesium		49.75		1	50.5	0		98.5	80	120	0			

Sample ID	LCSD	Batch ID:	R15009	Test Code:	SW6010A	Units:	mg/L	Analysis Date	4/5/2005 9:20:39 AM	Prep Date				
Client ID:		Run ID:		PQL	ICP_050405A			SeqNo:	349281					
Analyte		Result						%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		49.82		1	50.5	0		98.7	80	120	0	0	20	
Magnesium		50.11		1	50.5	0		99.2	80	120	0	0	20	

Sample ID	LCS	Batch ID:	R15009	Test Code:	SW6010A	Units:	mg/L	Analysis Date	4/5/2005 11:43:26 AM	Prep Date				
Client ID:		Run ID:		PQL	ICP_050405A			SeqNo:	349352					
Analyte		Result						%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium		53.17		1	55	0		96.7	80	120	0			
Sodium		54.25		1	50.5	0		107	80	120	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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD	Batch ID: R15009	Test Code: SW6010A	Units: mg/L	Analysis Date	4/5/2005 11:45:42 AM	Prep Date
Client ID:		Run ID: ICP_050405A	PQL	SPK value	SeqNo: 349353		
Analyte		Result	PQL	SPK value	LowLimit	HighLimit	RPD Ref Val
Potassium		52.72	1	55	80	120	53.17
Sodium		53.99	1	50.5	80	120	54.25
					%REC		%RPD
					95.9		0.839
					107		0.480

Sample ID	LCS-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date	4/4/2005 9:39:53 AM	Prep Date
Client ID:		Run ID: ICP_050404B	PQL	SPK value	SeqNo: 349005		
Analyte		Result	PQL	SPK value	LowLimit	HighLimit	RPD Ref Val
Arsenic		0.4737	0.02	0.5	80	120	0
Barium		0.4592	0.02	0.5	80	120	0
Beryllium		0.4863	0.003	0.5	80	120	0
Cadmium		0.4568	0.002	0.5	80	120	0
Chromium		0.4713	0.006	0.5	80	120	0
Cobalt		0.4655	0.006	0.5	80	120	0
Copper		0.48	0.006	0.5	80	120	0
Lead		0.45	0.005	0.5	80	120	0
Nickel		0.4439	0.01	0.5	80	120	0
Selenium		0.4283	0.05	0.5	80	120	0
Silver		0.467	0.005	0.5	80	120	0
Thallium		0.4605	0.01	0.5	80	120	0
Tin		0.2229	0.01	0.5	80	120	0
Vanadium		0.4803	0.05	0.5	80	120	0
				0.004307			
					%REC		%RPD
					94.7		
					91.8		
					97.3		
					91.4		
					94.3		
					93.1		
					96.0		
					90.0		
					88.8		
					85.7		
					92.5		
					92.1		
					44.6		
					96.1		

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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date	4/4/2005 9:43:06 AM	Prep Date	3/31/2005			
Client ID:			Run ID: ICP_050404B		SeqNo:	349006					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4914	0.02	0.5	0	98.3	80	120	0.4737	3.66	20	
Barium	0.4728	0.02	0.5	0	94.6	80	120	0.4592	2.92	20	
Beryllium	0.5038	0.003	0.5	0	101	80	120	0.4863	3.53	20	
Cadmium	0.4663	0.002	0.5	0	93.3	80	120	0.4568	2.07	20	
Chromium	0.4802	0.006	0.5	0	96.0	80	120	0.4713	1.87	20	
Cobalt	0.4749	0.006	0.5	0	95.0	80	120	0.4655	1.99	20	
Copper	0.4959	0.006	0.5	0	99.2	80	120	0.48	3.25	20	
Lead	0.4607	0.005	0.5	0	92.1	80	120	0.45	2.36	20	
Nickel	0.4509	0.01	0.5	0	90.2	80	120	0.4439	1.55	20	
Selenium	0.4383	0.05	0.5	0	87.7	80	120	0.4283	2.30	20	
Silver	0.4792	0.005	0.5	0.004307	95.0	80	120	0.467	2.58	20	
Thallium	0.4724	0.01	0.5	0	94.5	80	120	0.4605	2.55	20	
Tin	0.2225	0.01	0.5	0	44.5	80	120	0.2229	0.153	20	S
Vanadium	0.4953	0.05	0.5	0	99.1	80	120	0.4803	3.07	20	

Sample ID	LCS-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date	4/4/2005 3:04:12 PM	Prep Date	3/31/2005			
Client ID:			Run ID: ICP_050404B		SeqNo:	349064					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5181	0.01	0.5	0	104	80	120	0			
Zinc	0.489	0.05	0.5	0	97.8	80	120	0			

Sample ID	LCSD-7683	Batch ID: 7683	Test Code: SW6010A	Units: mg/L	Analysis Date	4/4/2005 3:06:34 PM	Prep Date	3/31/2005			
Client ID:			Run ID: ICP_050404B		SeqNo:	349065					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5237	0.01	0.5	0	105	80	120	0.5181	1.07	20	
Zinc	0.51	0.05	0.5	0	102	80	120	0.489	4.20	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: Blagg Engineering
Work Order: 0503231
Project: Conoco Phillips Scott #1

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	LCS-7659	Batch ID:	7659	Test Code:	E160.1	Units:	mg/L	Analysis Date	3/31/2005	Prep Date	3/30/2005							
Client ID:		Run ID:		WC_050331A				SeqNo:	348295									
Analyte		Result		PQL	50	SPK value	1000	%REC	97.6	LowLimit	80	HighLimit	120	RPD Ref Val	0	%RPD	RPDLimit	Qual
Total Dissolved Solids			976															

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 BLAGG

Date and Time Received:

3/24/2005

Work Order Number 0503231

Received by AT

Checklist completed by

Signature

Date

3/24/05

Matrix

Carrier name Client drop-off

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

Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.3976
www.hallenvironmental.com

Project #:

Project Manager:

40

Sampler

Sample Temperature: 15

[illegible]

Received By: (Signature) 3/24/05
Received By: (Signature) 3/24/05

ANALYSIS REQUEST

	Volume	Preservative			HEAL No.
		HgCl ₂	HNO ₃	H ₂ SO ₄	
BTEX + MTBE + TPH (Gasoline Only)		X	X	X	0583231-1
TPH Method 8015B (Gas/Diesel)					-2
TPH (Method 418.1)					-3
EDB (Method 504.1)					
EDC (Method 8021)					
8310 (PNA or PAH)					
RCA B Metals					
Anions (F ⁻ , Cl ⁻ , NO ₂ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)					
8081 Pesticides / PCB's (8082)					
8260B (VOA)					
8270 (Semi-VOA)					
New Mexico METALS					
CATION/ANION Balance + TDS					
Air Bubbles or Headspace (Y or N)					

Remarks:

ATTACHMENT 4

WELL DEVELOPMENT
&
SAMPLING NOTES

Monitoring of field water chemistry conditions for stabilization for sampling and reporting: DATE 3/21/05 SITE Seoff #1

time (24 hr)	temp deg Celsius	pH (au)	EC/MS umho/cm	salinity (per mil)	volume (gallons)	dissolved O ₂ (ug/L)	ORP/Eh (mV)	SWL (feet)	comments: flow rate (gpm), water color, odor, turbidity, bubbles, etc.
1440	12.2	7.03	960	-	1 st BAIL	-	-	12.92	clear, no sheen, lite ODR
1455	11.8	7.02	1044	-	2 GAL	-	-	-	DARK GRAY, lite sheen, ODR
1500	11.7	7.04	1043	-	4 GAL	-	-	-	SAA
1510	11.6	7.04	1042	-	5 GAL	-	-	-	SAA
1515	12.7	6.97	1250	-	1 st BAIL	-	-	20.22	clear - no sheen, NO ODR
1520	12.5	6.99	1251	-	2 GAL	-	-	-	lite gray, v. minor sheen, NO ODR
1524	12.4	6.99	1256	-	5 GAL	-	-	-	SAA - less gray
1535	12.3	7.00	1255	-	8 GAL	-	-	-	SAA - almost clear
1542	12.3	6.99	1121	-	1 st BAIL	-	-	21.83	clear - no sheen - lite ODR
1548	12.4	7.03	1139	-	1 GAL	-	-	-	DARK GRAY - ODR - NO sheen
1557	12.5	6.99	1141	-	2 GAL	-	-	-	SAA - except lite sheen
FINAL TIME	FINAL TEMP	FINAL pH	EC (30S) *	FINAL SALINITY	TOTAL VOL withdrawn	FINAL DS/LVO CO	FINAL ORP/EH	FINAL SWL	
1605	12.4	7.01	1142	-	4 GAL	-	-	-	SAA

Circle analyses requested: modified full suite short suite special analysis (describe) _____
 (bottle colors: white, red, green, yellow, brown, H₂S, orange, & clear) BLUE
 Circle if all water: (field filtered) or lab filtered or both: isotope sample(s) & no.(s): ¹⁸O/¹⁶O & ²H/¹H ¹⁵N/¹⁴N ³⁴S/³²S
☐ RAW SAMPLE COMMENTS: -----

* Temperature correction (EC_c) to 25 deg C for non-temperature compensating EC meters: $EC_c = EC_{meas} \times [1/(0.52 + 0.019 \times ^\circ C)]$ SWL = Standing Water Level

3/23/05

SITE MW #5

DATE SCOTT #1

Monitoring of field water chemistry conditions for stabilization for sampling and reporting:

time (24 hr)	temp deg Celsius	pH (au)	EC TDS µmhos/cm	salinity (per mil)	volume (gallons)	dissolved O ₂ (ug/L)	ORP/Eh (mV)	SWL (feet)	comments: flow rate (gpm), water color, odor, turbidity, bubbles, etc.
1440	12.6	7.01	526	-	1 st BAIL	-	-	13.18	TD = 16.3 Clear, No Sheen, lite odor
1445	11.9	7.06	527	-	1 GAL	-	-	-	Lite Grey, odor, lite sheen
1450	11.9	7.06	532	-	2 GAL	-	-	-	SAA
1455	11.8	7.07	534	-	3 GAL	-	-	-	SAA
1500	11.8	7.08	535	-	3 1/2 GAL	-	-	-	SAA SAMPLE FOR LAB
FINAL TIME	FINAL TEMP	FINAL PH	EC (DS/CM) *	FINAL SALINITY	TOTAL VOL withdrawn	FINAL DS/LVO O ₂	FINAL ORP/Eh	FINAL SWL	

Circle analyses requested: modified full suite short suite special analysis (describe)

(bottle colors: white) red, green, yellow, brown (H2S), orange, & clear.

Circle if all water: (field filtered) or lab filtered or both.

isotope sample(s) & no.(s): ¹⁸O/¹⁶O & ²H/¹H¹⁵N/¹⁴N³⁴S/³²S

RAW SAMPLE

3 we'll Vol = (16.3 - 13.18) * 2 = 1.6 GAL

* Temperature correction (EC_c) to 25 deg C for non-temperature compensating EC meters: $EC_c = EC_{meas} \times [1/(0.02 + 0.019 \times ^\circ C)]$.

SWL = Standing Water Level

3/23/05

SCOTT #1

SITE MW-6

Monitoring of field water chemistry conditions for stabilization for sampling and reporting:

DATE

time (24 hr)	temp deg Celsius	pH (au)	EC TDS micro-mhos/cm	salinity (per mil)	volume (gallons)	dissolved O ₂ (ug/L)	ORP/Eh (mV)	SWL (feet)	comments: flow rate (gpm), water color, odor, turbidity, bubbles, etc.
1400	14.0	6.89	549	-	1 st 3ml	-	-	21.89	TD = 24' clear, no sheen, like odor
1414	13.2	6.93	560	-	1 GAL	-	-	-	DATE GREAT, odor, like sheen
1418	13.2	6.94	561	-	2 GAL	-	-	-	SAA
1420	13.1	6.93	562	-	2 nd 6AL	-	-	-	SAA SAMPLE FOR LAB
FINAL TIME	FINAL TEMP	FINAL PH	EC (25°C) *	FINAL SALINITY	TOTAL VOL collected	FINAL DILVO O ₂	FINAL ORP/Eh	FINAL SWL	

Circle analyses requested: modified full suite short suite special analysis (describe)

bottle colors: white, red, green, yellow, brown (H₂S), orange, & clear.

Circle if all water: (field filtered) or lab filtered or both.

☐ RAW SAMPLE

COMMENTS

COMMENTS

COMMENTS

3 well Vol = (24-21.9)/2 = 1.1 GAL

Cal PH: 7.0 = 7.0; 4.0 = 4.0; 10.0 = 10.0

Cal TDS: 2060 µS = 2060 µS

* Temperature correction (EC₂₅) to 25 deg C for non-temperature compensating EC meters: EC₂₅ = EC₁₀₀ x [1/(0.52 + 0.019 x °C)].

SWL = Standing Water Level