

3R - 413

2007 AGWMR

JAN 2008

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2007

***HARE GAS COM B #1
(G) SECTION 23 – T29N – R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO***

***PREPARED FOR:
MR. GLENN VON GONTEN
NEW MEXICO OIL CONSERVATION DIVISION***

January 2008

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2007 XTO GROUNDWATER REPORT

HARE GAS COM B #1

LEGALS - TWN: 29N	<u>SITE DETAILS</u> RNG: 11W	SEC: 23	UNIT: G
NMOCD HAZARD RANKING: 60		LAND TYPE: FEE	

PREVIOUS ACTIVITIES

Excavation: May-95 (2000 cy)

Additional Excavation: June/Aug-05 (1600 cy)

Monitoring Wells: Apr-06

Quarterly Sampling Initiated: Dec-06

SITE MAP

A site map is presented as Figure 1.

SUMMARY TABLES

A summary of groundwater laboratory results is presented as Table 1. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2006 and 2007 are presented as Attachment 1.

POTENTIOMETRIC SURFACE DIAGRAMS

Field data collected during site monitoring activities indicate a groundwater gradient that trends towards the south. Figures 2 - 5 illustrate the estimated groundwater gradient for 2006 and 2007.

ANNUAL GROUNDWATER REMEDIATION REPORTS

The 2006 annual groundwater report was submitted to New Mexico Oil Conservation Division (NMOCD) in February 2007 proposing quarterly sampling of all monitoring wells until four (4) consecutive quarters have been analyzed for hydrocarbon constituents.

2007 ACTIVITIES

Groundwater monitoring wells, (MW-1, MW-2, MW-3, MW-4) were installed in April 2006 to evaluate impacts to groundwater. Groundwater samples were collected from monitoring wells numbered MW-1 through MW-4 during the last quarter of 2006 and for three quarters in 2007. No detectable levels of benzene, toluene, ethyl benzene or total xylenes (BTEX) were observed in any of the four monitoring wells.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

Bore/Test Hole Reports are presented as Figures 6-9 representing drilling that occurred on site in April 2006.

DISPOSITION OF GENERATED WASTES

Waste generated (groundwater) during monitoring well sampling and development was placed in the produced water tank located on the well site.

CONCLUSIONS

In January 1998 XTO Energy Inc. (XTO) acquired the Hare Gas Com B #1 from Amoco Production Company. In June 2005 XTO was notified by a contractor working within the area that discolored soil was observed. XTO conducted an evaluation of the area that

2007 XTO GROUNDWATER REPORT

included excavation of test holes to determine the extent of impacts to soil and removal of almost 1,600 cubic yards of hydrocarbon impacted soil. The field notes, analytical data and map summarizing the field notes are included (Attachment 2). Historical records located through the NMOCD website indicate a potential spill from a production tank was excavated in May 1995 (Attachment 3). In 2006 four groundwater monitoring wells were installed to delineate the extent of hydrocarbon impact to groundwater.

Groundwater analytical data from MW-1, MW-2, MW-3 and MW-4 for four (4) consecutive quarters have demonstrated no detectable levels of BTEX constituents and New Mexico Water Quality Control Commission (NMWQCC) standards have been met. The quarterly sampling has confirmed no rebound of BTEX constituents has occurred, therefore, XTO requests closure of this site.

RECOMMENDATIONS

- XTO requests closure of this site.
- Following OCD approval for closure, all monitoring well locations will be abandoned in accordance with the monitoring well abandonment plan.

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

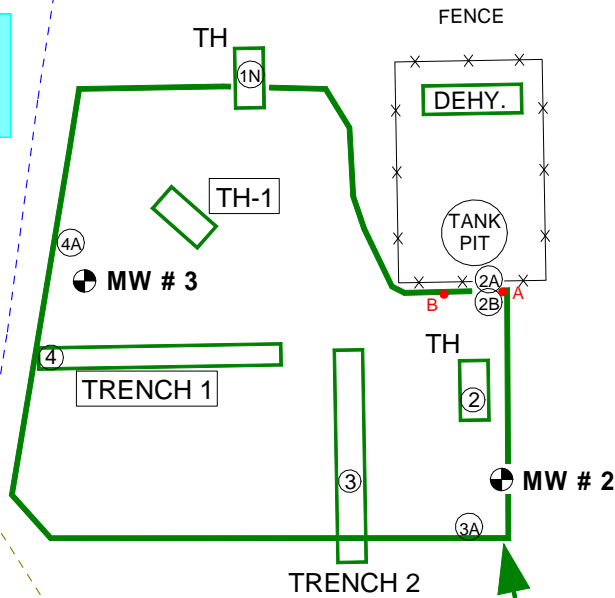
HARE GAS COM B #1 UNIT G, SEC. 23, T29N, R11W
--

Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	BTEX EPA Method 801 (PPB)			
					Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
7-Dec-06	MW #1	9.49	16.36		ND	ND	ND	ND
29-Mar-07		9.35	16.36		ND	ND	ND	ND
12-Jun-07		10.8	16.36		ND	ND	ND	ND
25-Sep-07		11.1	16.36		ND	ND	ND	ND
7-Dec-06	MW #2	7.77	14.61		ND	ND	ND	ND
29-Mar-07		7.5	14.61		ND	ND	ND	ND
12-Jun-07		8.7	14.61		ND	ND	ND	ND
25-Sep-07		8.85	14.61		ND	ND	ND	ND
7-Dec-06	MW #3	5.15	17.48		ND	ND	ND	ND
29-Mar-07		5.00	17.48		4.6	ND	ND	ND
12-Jun-07		6.51	17.48		ND	ND	ND	ND
25-Sep-07		6.22	17.48		ND	ND	ND	ND
7-Dec-06	MW #4	8.48	18.08		ND	ND	ND	ND
29-Mar-07		8.21	18.08		ND	ND	ND	ND
12-Jun-07		9.31	18.08		ND	ND	ND	ND
25-Sep-07		10	18.08		ND	ND	ND	ND
NMWQCC GROUNDWATER STANDARDS					10	750	750	620

FIGURE 1



**POND
AREA**



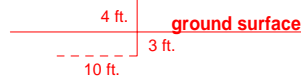
2 inch PVC casing (vertically) with slotted screen (horizontally). Wind turbines on each casing top. Slotted piping heading in the northern direction underneath tank pit.

HARE #3 P&A
MARKER

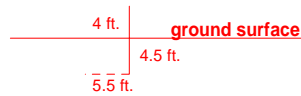


MW # 1

A



B



AREA OF
EXCAVATION

1,584 CUBIC YARDS
TRANSPORTED TO
JFJ LANDFARM
FACILITY IN CROUCH
MESA, NM.

SAMP. ID	TPH (ppm)	BENZENE (ppm)	TOT. BTEX (ppm)
4A @ 2.5'	28	NA	NA
2A @ 2'	231	ND	5.51
2B @ 6'	ND	ND	ND
3A @ 5'	ND	NA	NA

SAMP. ID	OVM (ppm)	TIME	DATE
TH-1 @ 2'	749	1510	06/06/05
1N @ 3'	0.0	0909	08/09/05
2 @ 3.5'	2,050	0952	08/09/05
3 @ 3'	79.0	0925	08/09/05
4 @ 1.5'	26.2	0857	08/09/05
4A @ 2.5'	15.8	1154	08/11/05
2A @ 2'	1,734	0905	08/18/05
2B @ 6'	61.0	0901	08/18/05
3A @ 5'	0.0	0920	08/18/05

NOTES: OVM - Organic Vapor Meter or Photo-ionization Detector (PID).
TPH - Total Petroleum Hydrocarbon (USEPA Method 8015B).
BTEX - Benzene, toluene, ethylbenzene, & total xylenes (USEPA Method 8021B).
ppm - Parts per million or milligram per kilogram (mg/kg).

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

WELL
HEAD



1 INCH = 30 FT.

0 30 60 FT.

XTO ENERGY INC.

HARE GC B #1

SW/4 NE/4 SEC. 23, T29N, R11W

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: SITE CLEAN-UP

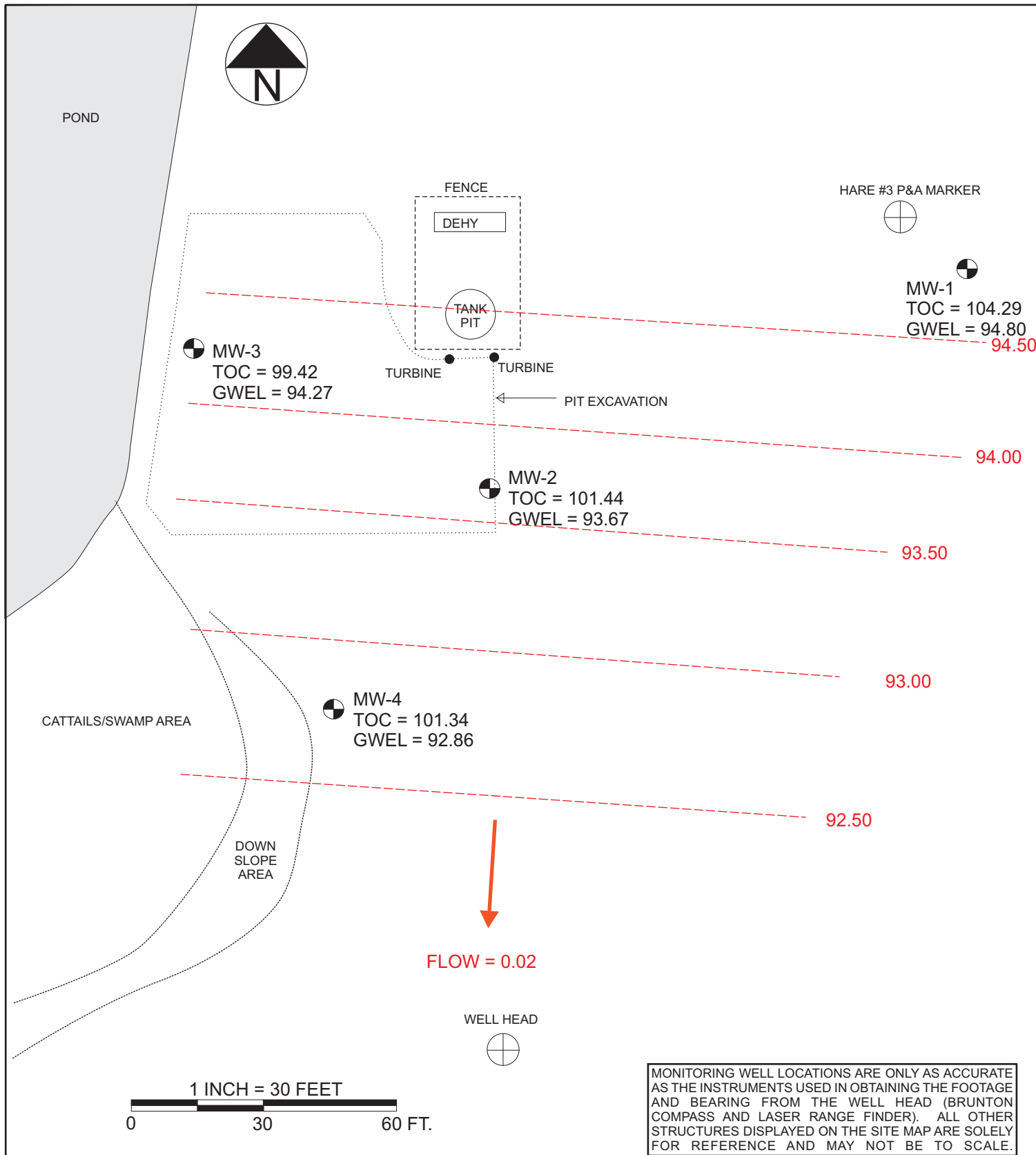
FILENAME: HARE-GC-B1-SM.SKF

DRAWN BY: NJV

REVISED: 4/27/06


**SITE
MAP**

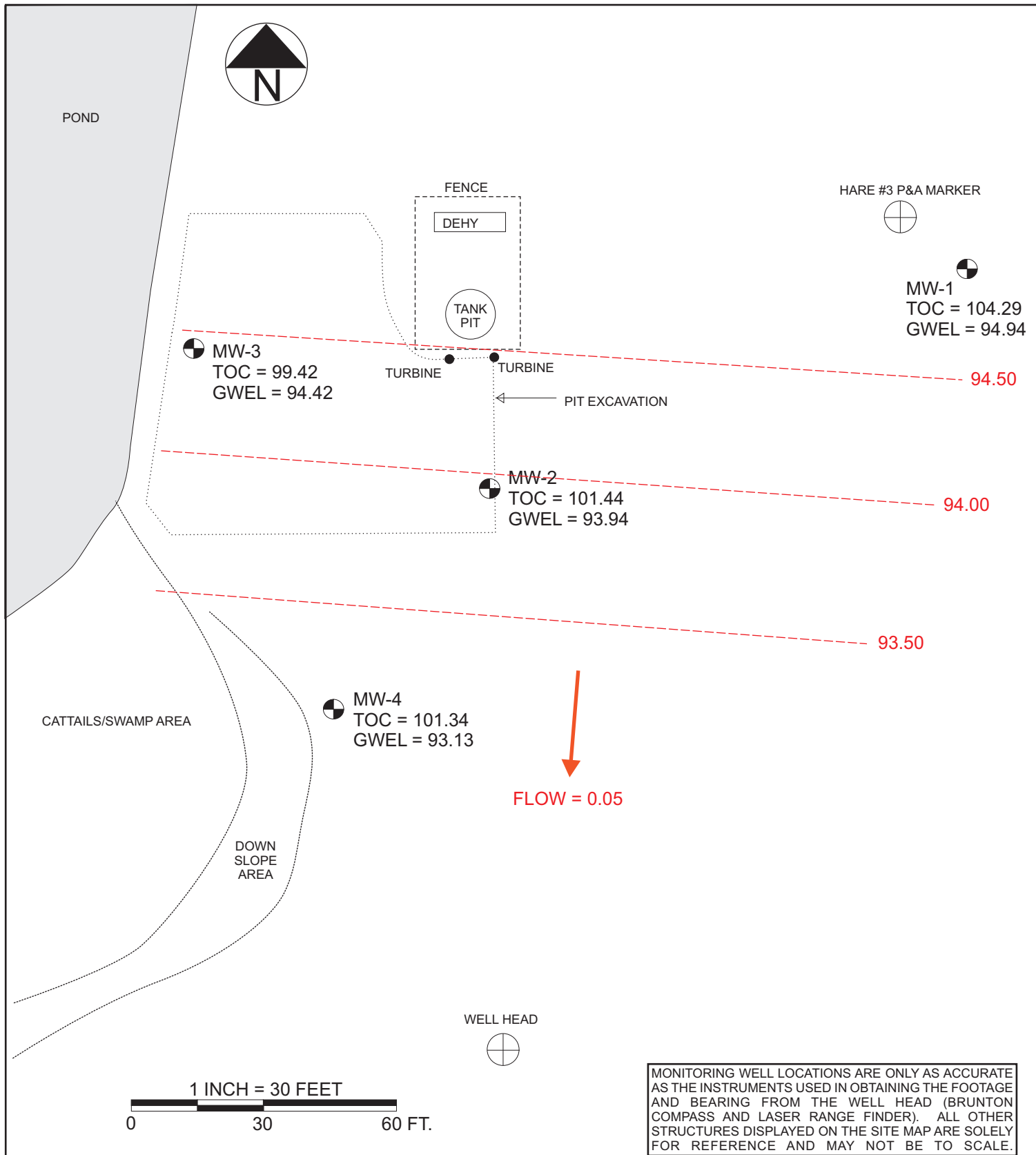
04/06



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


TOC = TOP OF CASING ELEVATION
 GWEL = GROUNDWATER ELEVATION
 --- = INFERRED GROUNDWATER CONTOUR LINE

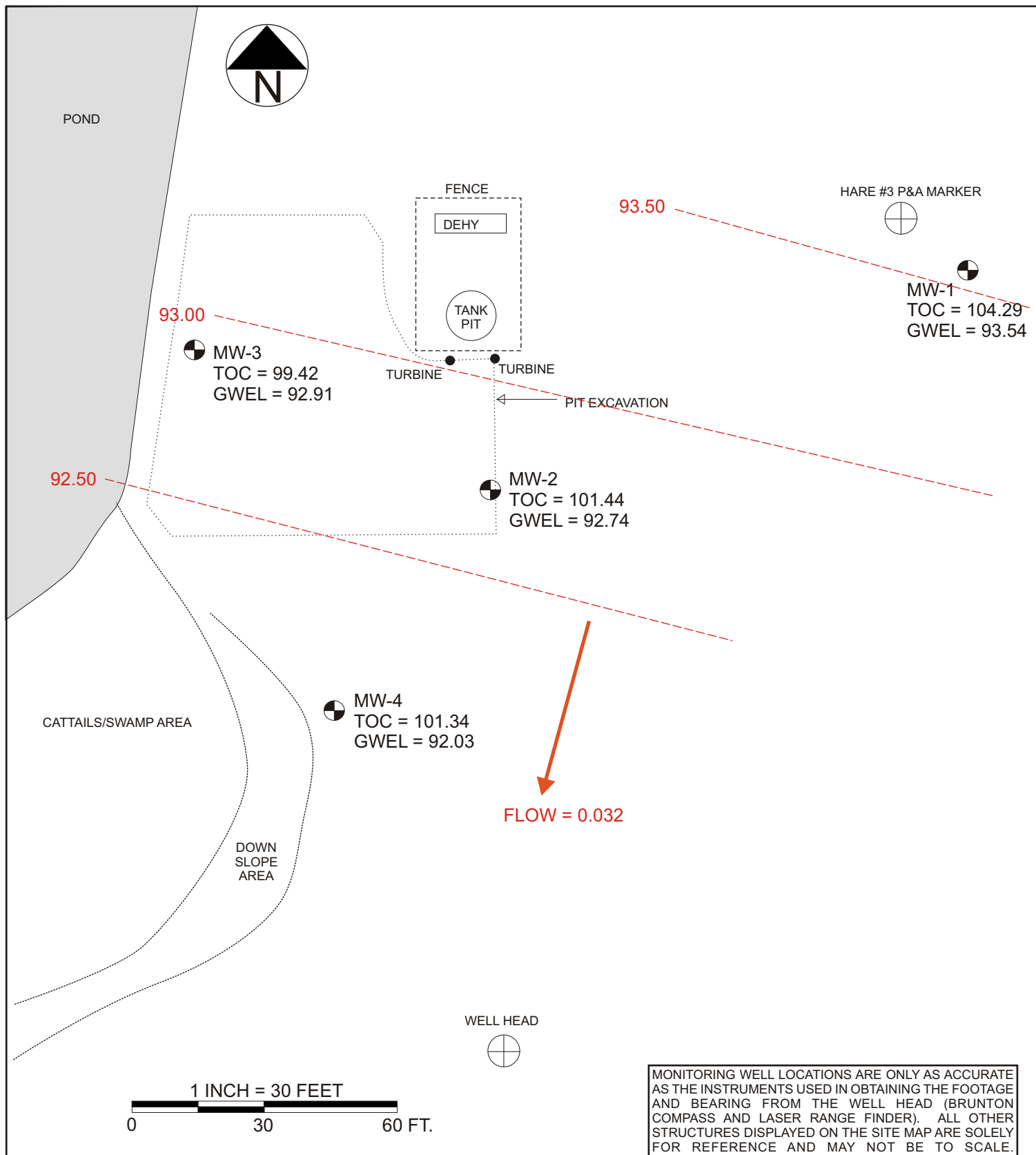
 Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	HARE GAS COM B #1 SW/4 NE/4 SEC. 23, T29N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 12/11/06	FIGURE 2 GROUNDWATER GRADIENT MAP 12/07/2006
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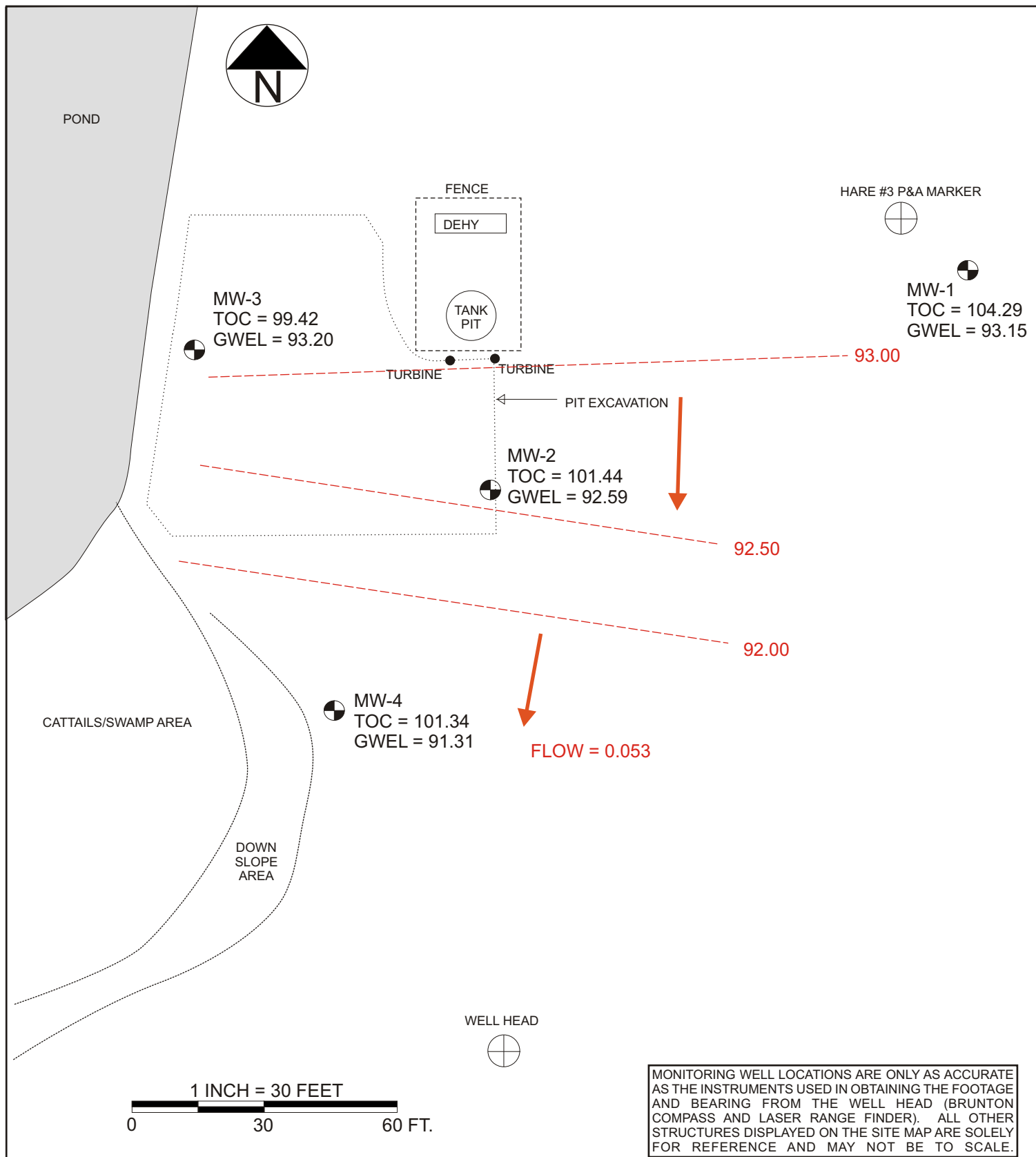
MONITORING WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

TOC = TOP OF CASING ELEVATION
 GWEL = GROUNDWATER ELEVATION
 --- = INFERRED GROUNDWATER CONTOUR LINE


 Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	HARE GAS COM B #1 SW/4 NE/4 SEC. 23, T29N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 03/30/07	GROUNDWATER GRADIENT MAP 03/29/07 FIGURE 3
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 Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	HARE GAS COM B #1 SW/4 NE/4 SEC. 23, T29N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 06/21/07	GROUNDWATER GRADIENT MAP 06/13/07 FIGURE 4
---	--	---	--



TOC = TOP OF CASING ELEVATION
 GWEL = GROUNDWATER ELEVATION
 - - - = INFERRED GROUNDWATER CONTOUR LINE

 Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	HARE GAS COM B #1 SW/4 NE/4 SEC. 23, T29N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED: 09/28/07	GROUNDWATER GRADIENT MAP 09/27/07 FIGURE 5
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BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT: **XTO ENERGY INC.**
LOCATION NAME: **HARE GC B #1 - DEHYDRATOR PIT, UNIT G, SEC. 23, T29N, R11W**
CONTRACTOR: **BLAGG ENGINEERING, INC. / ENVIROTECH, INC.**
EQUIPMENT USED: **MOBILE DRILL RIG (CME 75)**
BORING LOCATION: **200 FT., N31E FROM WELL HEAD.**

BORING #..... **BH-1**
MW #..... **1**
PAGE #..... **1**
DATE STARTED **4/14/06**
DATE FINISHED **4/14/06**
OPERATOR..... **DP**
PREPARED BY **NJV**

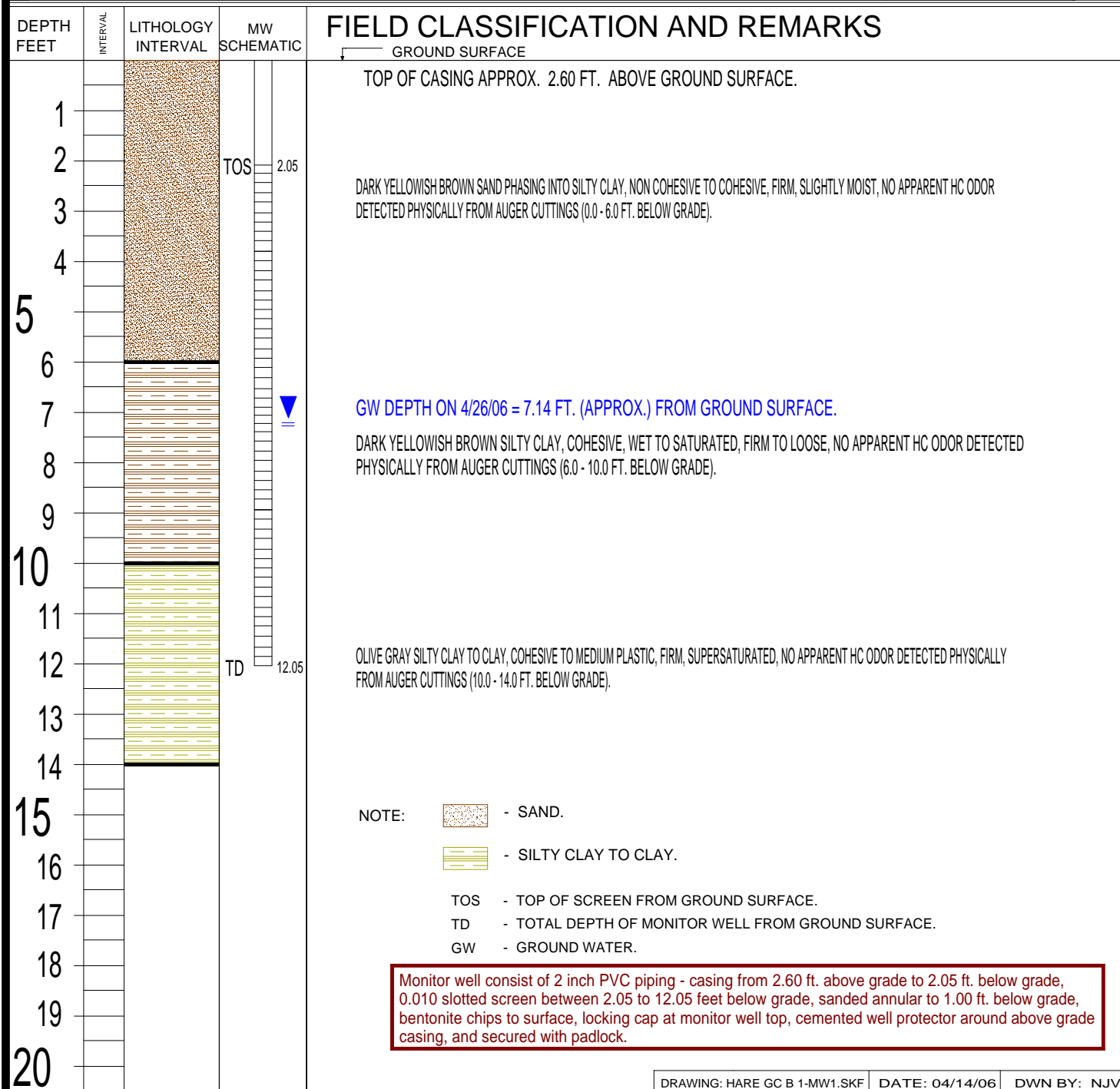


FIGURE 7

BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: HARE GC B #1 - DEHYDRATOR PIT, UNIT G, SEC. 23, T29N, R11W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 122.5 FT., N1.5E FROM WELL HEAD.

BORING #..... BH-2
MW #..... 2
PAGE #..... 2
DATE STARTED 4/14/06
DATE FINISHED 4/14/06
OPERATOR..... DP
PREPARED BY NJV

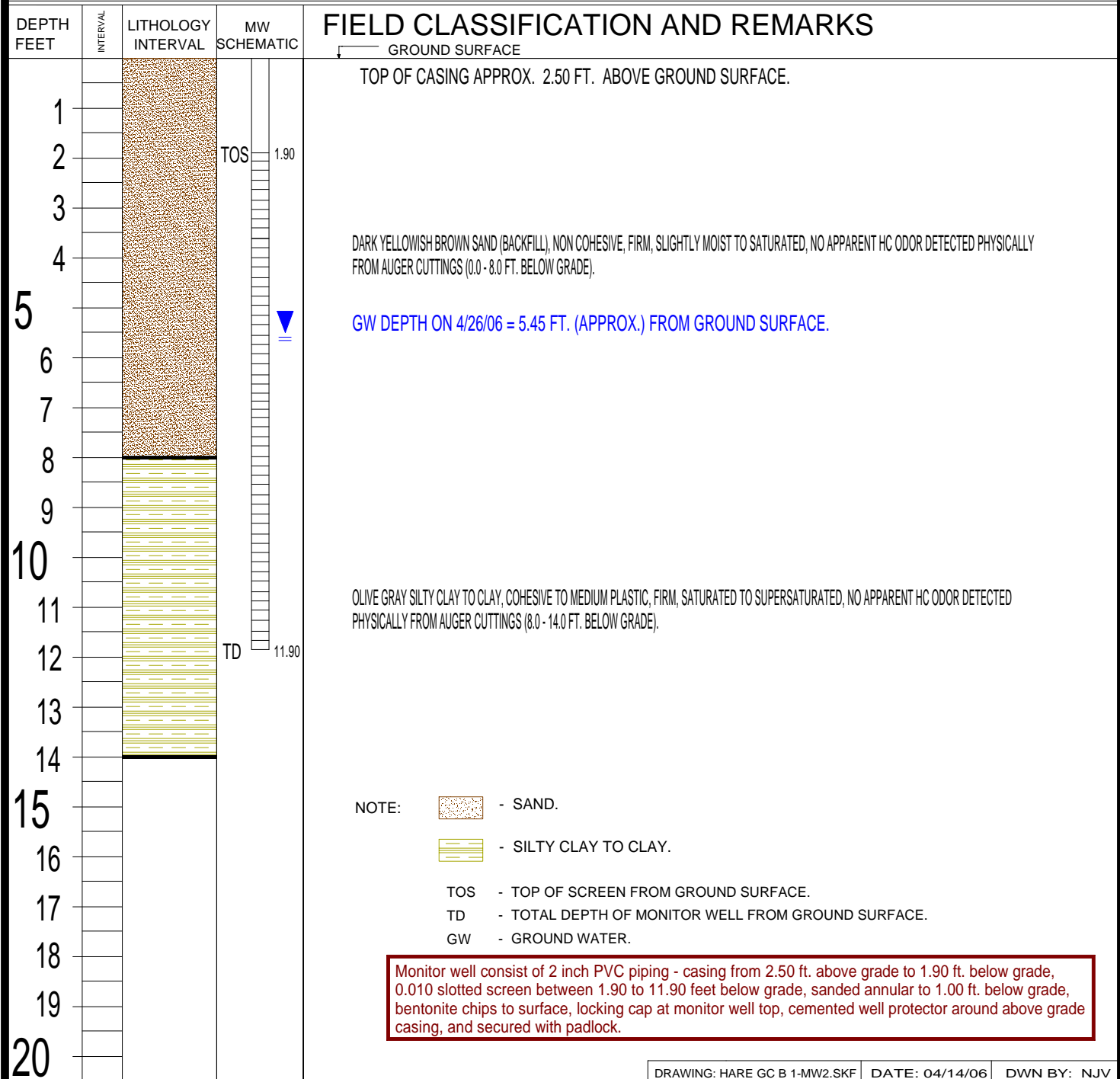


FIGURE 8

BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: HARE GC B #1 - DEHYDRATOR PIT, UNIT G, SEC. 23, T29N, R11W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 168 FT., N24W FROM WELL HEAD.

BORING #..... BH-3
MW #..... 3
PAGE #..... 3
DATE STARTED 4/27/06
DATE FINISHED 4/27/06
OPERATOR..... DP
PREPARED BY NJV

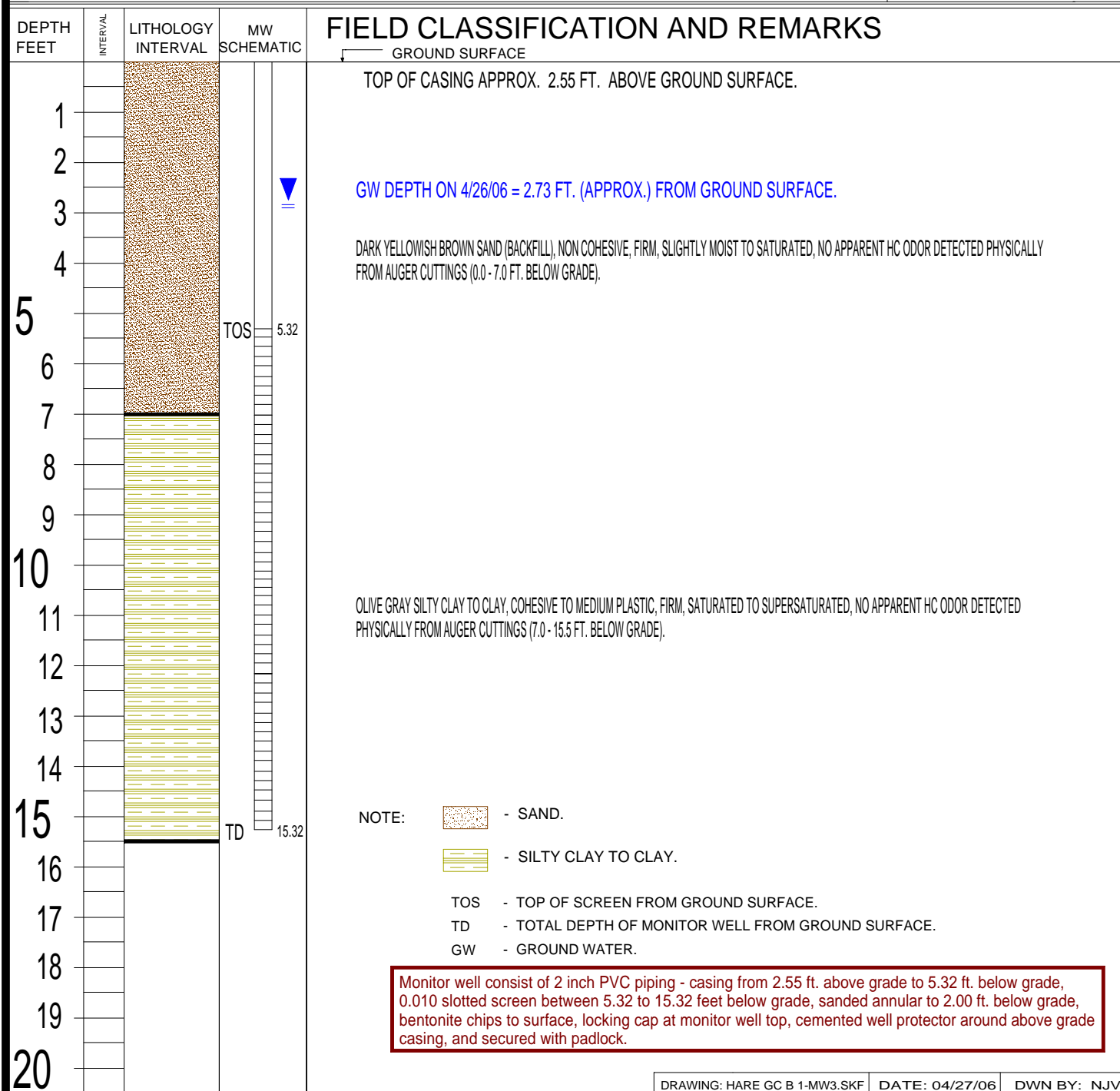


FIGURE 9

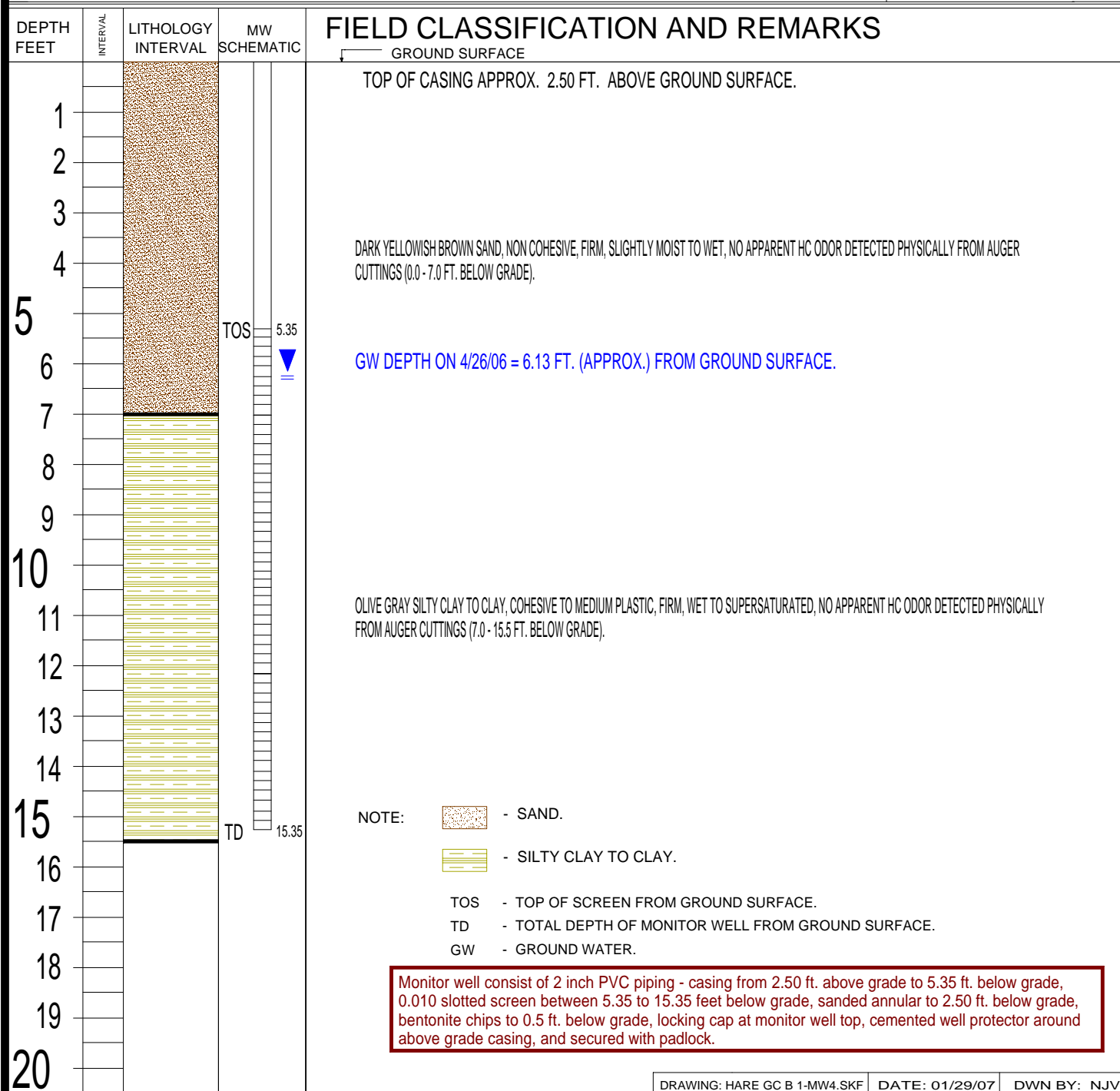
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT: XTO ENERGY INC.
LOCATION NAME: HARE GC B #1 - DEHYDRATOR PIT, UNIT G, SEC. 23, T29N, R11W
CONTRACTOR: BLAGG ENGINEERING, INC. / ENVIROTECH, INC.
EQUIPMENT USED: MOBILE DRILL RIG (CME 75)
BORING LOCATION: 83 FT., N26.5W FROM WELL HEAD.

BORING #..... BH-4
MW #..... 4
PAGE #..... 4
DATE STARTED 4/27/06
DATE FINISHED 4/27/06
OPERATOR..... DP
PREPARED BY NJV



Hall Environmental Analysis Laboratory, Inc.

Date: 15-Dec-06

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0612122

Lab ID: 0612122-01

Collection Date: 12/7/2006 12:03:00 PM

Client Sample ID: Hare Gas Com B1 MW-1

Matrix: AQUEOUS

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

EPA METHOD 8021B: VOLATILES

Analyst: NSB

Benzene	ND	1.0		µg/L	1	12/13/2006 7:03:33 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 7:03:33 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 7:03:33 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 7:03:33 PM
Surr: 4-Bromofluorobenzene	80.8	70.2-105		%REC	1	12/13/2006 7:03:33 PM

Lab ID: 0612122-02

Collection Date: 12/7/2006 12:34:00 PM

Client Sample ID: Hare Gas Com B1 MW-3

Matrix: AQUEOUS

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

Analyst: NSB

Benzene	ND	1.0		µg/L	1	12/13/2006 7:33:43 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 7:33:43 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 7:33:43 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 7:33:43 PM
Surr: 4-Bromofluorobenzene	82.2	70.2-105		%REC	1	12/13/2006 7:33:43 PM

Lab ID: 0612122-03

Collection Date: 12/7/2006 1:15:00 PM

Client Sample ID: Hare Gas Com B1 MW-4

Matrix: AQUEOUS

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

Analyst: NSB

Benzene	ND	1.0		µg/L	1	12/13/2006 8:03:49 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 8:03:49 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 8:03:49 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 8:03:49 PM
Surr: 4-Bromofluorobenzene	82.5	70.2-105		%REC	1	12/13/2006 8:03:49 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Dec-06

CLIENT: XTO Energy Lab Order: 0612122
 Project: Ground Water

Lab ID: 0612122-04 Collection Date: 12/7/2006 1:42:00 PM
 Client Sample ID: Hare Gas Com B1 MW-2 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/13/2006 8:33:52 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 8:33:52 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 8:33:52 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 8:33:52 PM
Surr: 4-Bromofluorobenzene	79.7	70.2-105		%REC	1	12/13/2006 8:33:52 PM

Lab ID: 0612122-05 Collection Date: 12/7/2006 2:45:00 PM
 Client Sample ID: ~~Hare Gas Com I1 MW-1~~ Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/13/2006 9:03:58 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 9:03:58 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 9:03:58 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 9:03:58 PM
Surr: 4-Bromofluorobenzene	79.4	70.2-105		%REC	1	12/13/2006 9:03:58 PM

Lab ID: 0612122-06 Collection Date: 12/7/2006 2:30:00 PM
 Client Sample ID: ~~Hare Gas Com I1 MW-3~~ Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/13/2006 9:33:55 PM
Toluene	ND	1.0		µg/L	1	12/13/2006 9:33:55 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2006 9:33:55 PM
Xylenes, Total	ND	3.0		µg/L	1	12/13/2006 9:33:55 PM
Surr: 4-Bromofluorobenzene	80.7	70.2-105		%REC	1	12/13/2006 9:33:55 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0612122

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: SW8021

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R21800 Analysis Date: 12/13/2006 8:26:25 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	3.0

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R21800 Analysis Date: 12/13/2006 4:33:03 PM

Benzene	18.09	µg/L	1.0	90.4	85.9	113
Toluene	17.99	µg/L	1.0	89.9	86.4	113
Ethylbenzene	17.55	µg/L	1.0	87.7	83.5	118
Xylenes, Total	52.58	µg/L	3.0	87.6	83.4	122

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Apr-07

CLIENT: XTO Energy
Project: Ground Water**Lab Order:** 0703474**Lab ID:** 0703474-13
Client Sample ID: Hare GCBI MW-1**Collection Date:** 3/29/2007 8:47:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/3/2007 2:13:13 PM
Toluene	ND	1.0		µg/L	1	4/3/2007 2:13:13 PM
Ethylbenzene	ND	1.0		µg/L	1	4/3/2007 2:13:13 PM
Xylenes, Total	ND	2.0		µg/L	1	4/3/2007 2:13:13 PM
Surr: 4-Bromofluorobenzene	91.3	70.2-105		%REC	1	4/3/2007 2:13:13 PM

Lab ID: 0703474-14
Client Sample ID: Hare GCBI MW-2**Collection Date:** 3/29/2007 9:25:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/3/2007 2:43:18 PM
Toluene	ND	1.0		µg/L	1	4/3/2007 2:43:18 PM
Ethylbenzene	ND	1.0		µg/L	1	4/3/2007 2:43:18 PM
Xylenes, Total	ND	2.0		µg/L	1	4/3/2007 2:43:18 PM
Surr: 4-Bromofluorobenzene	91.0	70.2-105		%REC	1	4/3/2007 2:43:18 PM

Lab ID: 0703474-15
Client Sample ID: Hare GCBI MW-3**Collection Date:** 3/29/2007 9:53:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	4.6	1.0		µg/L	1	4/2/2007 8:40:17 PM
Toluene	ND	1.0		µg/L	1	4/2/2007 8:40:17 PM
Ethylbenzene	ND	1.0		µg/L	1	4/2/2007 8:40:17 PM
Xylenes, Total	ND	2.0		µg/L	1	4/2/2007 8:40:17 PM
Surr: 4-Bromofluorobenzene	92.7	70.2-105		%REC	1	4/2/2007 8:40:17 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Apr-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0703474

Lab ID: 0703474-16
Client Sample ID: Hare GCBI MW-4

Collection Date: 3/29/2007 10:24:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/2/2007 9:10:19 PM
Toluene	ND	1.0		µg/L	1	4/2/2007 9:10:19 PM
Ethylbenzene	ND	1.0		µg/L	1	4/2/2007 9:10:19 PM
Xylenes, Total	ND	2.0		µg/L	1	4/2/2007 9:10:19 PM
Surr: 4-Bromofluorobenzene	91.6	70.2-105		%REC	1	4/2/2007 9:10:19 PM

Lab ID: 0703474-17
Client Sample ID: ~~Federal GCBI MW-1~~

Collection Date: 3/29/2007 11:22:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	39	20		µg/L	20	4/2/2007 9:43:01 PM
Toluene	ND	20		µg/L	20	4/2/2007 9:43:01 PM
Ethylbenzene	560	20		µg/L	20	4/2/2007 9:43:01 PM
Xylenes, Total	2300	40		µg/L	20	4/2/2007 9:43:01 PM
Surr: 4-Bromofluorobenzene	94.2	70.2-105		%REC	20	4/2/2007 9:43:01 PM

Lab ID: 0703474-18
Client Sample ID: ~~Federal GCBI MW-2~~

Collection Date: 3/29/2007 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	55	1.0		µg/L	1	4/2/2007 10:43:00 PM
Toluene	ND	1.0		µg/L	1	4/2/2007 10:43:00 PM
Ethylbenzene	39	1.0		µg/L	1	4/2/2007 10:43:00 PM
Xylenes, Total	60	2.0		µg/L	1	4/2/2007 10:43:00 PM
Surr: 4-Bromofluorobenzene	95.0	70.2-105		%REC	1	4/2/2007 10:43:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0703474

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0703474-01A MSD		MSD			Batch ID: R23096		Analysis Date: 4/3/2007 10:37:09 AM		
Benzene	19.32	µg/L	1.0	96.6	85.9	113	2.09	27	
Toluene	19.77	µg/L	1.0	98.8	86.4	113	1.70	19	
Ethylbenzene	19.98	µg/L	1.0	99.9	83.5	118	2.36	10	
Xylenes, Total	59.32	µg/L	2.0	98.9	83.4	122	2.06	13	
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23076		Analysis Date: 4/2/2007 8:45:02 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML RB-II		MBLK			Batch ID: R23076		Analysis Date: 4/3/2007 12:13:23 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23096		Analysis Date: 4/3/2007 8:06:11 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML REAGENT BLA		MBLK			Batch ID: R23114		Analysis Date: 4/4/2007 8:09:19 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23076		Analysis Date: 4/2/2007 5:37:16 PM		
Benzene	23.32	µg/L	1.0	117	85.9	113			S
Toluene	22.53	µg/L	1.0	111	86.4	113			
Ethylbenzene	20.71	µg/L	1.0	104	83.5	118			
Xylenes, Total	62.13	µg/L	2.0	103	83.4	122			
Sample ID: 100NG BTEX LCS-II		LCS			Batch ID: R23076		Analysis Date: 4/3/2007 12:43:23 AM		
Benzene	19.86	µg/L	1.0	97.6	85.9	113			
Toluene	20.09	µg/L	1.0	99.8	86.4	113			
Ethylbenzene	20.01	µg/L	1.0	100	83.5	118			
Xylenes, Total	59.59	µg/L	2.0	99.0	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23096		Analysis Date: 4/3/2007 4:13:33 PM		
Benzene	20.24	µg/L	1.0	99.1	85.9	113			
Toluene	20.61	µg/L	1.0	102	86.4	113			
Ethylbenzene	20.85	µg/L	1.0	104	83.5	118			
Xylenes, Total	62.10	µg/L	2.0	103	83.4	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23114		Analysis Date: 4/4/2007 12:30:51 PM		
Benzene	19.85	µg/L	1.0	99.2	85.9	113			
Toluene	20.02	µg/L	1.0	100	86.4	113			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0703474

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R23114	Analysis Date: 4/4/2007 12:30:51 PM			
Ethylbenzene	20.43	µg/L	1.0	102	83.5	118			
Xylenes, Total	60.81	µg/L	2.0	101	83.4	122			
Sample ID: 100NG BTEX LCSD-I		LCSD			Batch ID: R23076	Analysis Date: 4/3/2007 1:13:30 AM			
Benzene	19.77	µg/L	1.0	97.2	85.9	113	0.474	27	
Toluene	19.93	µg/L	1.0	99.0	86.4	113	0.809	19	
Ethylbenzene	19.91	µg/L	1.0	99.6	83.5	118	0.511	10	
Xylenes, Total	59.20	µg/L	2.0	98.3	83.4	122	0.657	13	
Sample ID: 100NG BTEX LCSD		LCSD			Batch ID: R23114	Analysis Date: 4/4/2007 1:01:01 PM			
Benzene	19.57	µg/L	1.0	97.8	85.9	113	1.42	27	
Toluene	19.76	µg/L	1.0	98.8	86.4	113	1.32	19	
Ethylbenzene	20.00	µg/L	1.0	100	83.5	118	2.11	10	
Xylenes, Total	59.61	µg/L	2.0	99.3	83.4	122	1.99	13	
Sample ID: 0703474-01A MS		MS			Batch ID: R23096	Analysis Date: 4/3/2007 10:06:58 AM			
Benzene	18.92	µg/L	1.0	94.6	85.9	113			
Toluene	19.43	µg/L	1.0	97.2	86.4	113			
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118			
Xylenes, Total	58.11	µg/L	2.0	96.8	83.4	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jun-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0706237

Lab ID:	0706237-19	Collection Date:	6/13/2007 1:55:00 PM			
Client Sample ID:	Hare GCBI MW-1	Matrix:	AQUEOUS			
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB	
Benzene	ND	1.0		µg/L	1	6/19/2007 8:43:32 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 8:43:32 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 8:43:32 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 8:43:32 PM
Surr: 4-Bromofluorobenzene	84.8	70.2-105		%REC	1	6/19/2007 8:43:32 PM

Lab ID:	0706237-20	Collection Date:	6/13/2007 2:19:00 PM			
Client Sample ID:	Hare GCBI MW-2	Matrix:	AQUEOUS			
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 9:13:38 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 9:13:38 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 9:13:38 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 9:13:38 PM
Surr: 4-Bromofluorobenzene	83.3	70.2-105		%REC	1	6/19/2007 9:13:38 PM

Lab ID:	0706237-21	Collection Date:	6/13/2007 2:37:00 PM			
Client Sample ID:	Hare GCBI MW-3	Matrix:	AQUEOUS			
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 9:43:43 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 9:43:43 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 9:43:43 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 9:43:43 PM
Surr: 4-Bromofluorobenzene	83.8	70.2-105		%REC	1	6/19/2007 9:43:43 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jun-07

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0706237

Lab ID: 0706237-22
Client Sample ID: Hare GCBI MW-4

Collection Date: 6/13/2007 2:50:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/19/2007 10:13:44 PM
Toluene	ND	1.0		µg/L	1	6/19/2007 10:13:44 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2007 10:13:44 PM
Xylenes, Total	ND	2.0		µg/L	1	6/19/2007 10:13:44 PM
Surr: 4-Bromofluorobenzene	82.2	70.2-105		%REC	1	6/19/2007 10:13:44 PM

Lab ID: 0706237-23
Client Sample ID: ~~Hare GCI/MW-2~~

Collection Date: 6/13/2007 3:32:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/20/2007 7:06:41 AM
Toluene	ND	1.0		µg/L	1	6/20/2007 7:06:41 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2007 7:06:41 AM
Xylenes, Total	ND	2.0		µg/L	1	6/20/2007 7:06:41 AM
Surr: 4-Bromofluorobenzene	90.0	70.2-105		%REC	1	6/20/2007 7:06:41 AM

Lab ID: 0706237-24
Client Sample ID: ~~Hare GCI/MW-3~~

Collection Date: 6/13/2007 3:53:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/20/2007 7:36:47 AM
Toluene	ND	1.0		µg/L	1	6/20/2007 7:36:47 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2007 7:36:47 AM
Xylenes, Total	ND	2.0		µg/L	1	6/20/2007 7:36:47 AM
Surr: 4-Bromofluorobenzene	82.0	70.2-105		%REC	1	6/20/2007 7:36:47 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0706237

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 0706237-12A MSD

MSD

Batch ID: R24017 Analysis Date: 6/18/2007 12:21:32 PM

Benzene	18.72	µg/L	1.0	93.6	85.9	113	4.52	27
Toluene	18.79	µg/L	1.0	94.0	86.4	113	4.64	19
Ethylbenzene	18.60	µg/L	1.0	93.0	83.5	118	4.77	10
Xylenes, Total	55.68	µg/L	2.0	92.8	83.4	122	3.58	13

Sample ID: 0706237-25A MSD

MSD

Batch ID: R24049 Analysis Date: 6/20/2007 9:23:49 PM

Benzene	19.29	µg/L	1.0	96.5	85.9	113	2.88	27
Toluene	18.77	µg/L	1.0	93.9	86.4	113	2.82	19
Ethylbenzene	18.77	µg/L	1.0	93.8	83.5	118	2.60	10
Xylenes, Total	54.62	µg/L	2.0	91.0	83.4	122	2.24	13

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24013 Analysis Date: 6/15/2007 8:56:45 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24017 Analysis Date: 6/18/2007 10:56:56 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24036 Analysis Date: 6/19/2007 9:56:41 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					

Sample ID: 5ML REAGENT BLA

MBLK

Batch ID: R24049 Analysis Date: 6/20/2007 10:05:12 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24013 Analysis Date: 6/15/2007 11:42:55 PM

Benzene	19.24	µg/L	1.0	96.2	85.9	113		
Toluene	18.67	µg/L	1.0	93.4	86.4	113		
Ethylbenzene	18.36	µg/L	1.0	91.8	83.5	118		
Xylenes, Total	54.32	µg/L	2.0	90.5	83.4	122		

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24017 Analysis Date: 6/18/2007 12:51:39 PM

Benzene	18.99	µg/L	1.0	94.9	85.9	113		
Toluene	19.05	µg/L	1.0	95.3	86.4	113		
Ethylbenzene	18.69	µg/L	1.0	93.4	83.5	118		
Xylenes, Total	56.17	µg/L	2.0	93.6	83.4	122		

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24036 Analysis Date: 6/19/2007 11:27:18 AM

Benzene	19.95	µg/L	1.0	99.7	85.9	113		
Toluene	20.29	µg/L	1.0	101	86.4	113		

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0706237

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: SW8021

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24036 Analysis Date: 6/19/2007 11:27:18 AM

Ethylbenzene 20.10 µg/L 1.0 101 83.5 118

Xylenes, Total 59.83 µg/L 2.0 99.7 83.4 122

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R24049 Analysis Date: 6/20/2007 9:54:18 PM

Benzene 18.97 µg/L 1.0 94.9 85.9 113

Toluene 18.46 µg/L 1.0 92.3 86.4 113

Ethylbenzene 18.62 µg/L 1.0 93.1 83.5 118

Xylenes, Total 54.86 µg/L 2.0 91.4 83.4 122

Sample ID: 0706237-12A MS

MS

Batch ID: R24017 Analysis Date: 6/18/2007 11:51:22 AM

Benzene 19.59 µg/L 1.0 98.0 85.9 113

Toluene 19.68 µg/L 1.0 98.4 86.4 113

Ethylbenzene 19.51 µg/L 1.0 97.5 83.5 118

Xylenes, Total 57.71 µg/L 2.0 96.2 83.4 122

Sample ID: 0706237-25A MS

MS

Batch ID: R24049 Analysis Date: 6/20/2007 8:53:24 PM

Benzene 18.74 µg/L 1.0 93.7 85.9 113

Toluene 18.25 µg/L 1.0 91.2 86.4 113

Ethylbenzene 18.29 µg/L 1.0 91.4 83.5 118

Xylenes, Total 53.41 µg/L 2.0 89.0 83.4 122

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-18

Client Sample ID: Hare GC B1 MW-1
Collection Date: 9/27/2007 8:31:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 6:14:43 AM
Toluene	ND	1.0		µg/L	1	10/3/2007 6:14:43 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 6:14:43 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 6:14:43 AM
Surr: 4-Bromofluorobenzene	84.8	70.2-105		%REC	1	10/3/2007 6:14:43 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-19

Client Sample ID: Hare GC B1 MW-2
Collection Date: 9/27/2007 8:56:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 6:44:41 AM
Toluene	ND	1.0		µg/L	1	10/3/2007 6:44:41 AM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 6:44:41 AM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 6:44:41 AM
Surr: 4-Bromofluorobenzene	82.9	70.2-105		%REC	1	10/3/2007 6:44:41 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-20

Client Sample ID: Hare GC B1 MW-3
Collection Date: 9/27/2007 9:26:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 5:33:49 PM
Toluene	ND	1.0		µg/L	1	10/3/2007 5:33:49 PM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 5:33:49 PM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 5:33:49 PM
Surr: 4-Bromofluorobenzene	83.0	70.2-105		%REC	1	10/3/2007 5:33:49 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-21

Client Sample ID: Hare GC B1 MW-4
Collection Date: 9/27/2007 9:45:00 AM
Date Received: 9/28/2007
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 6:03:54 PM
Toluene	ND	1.0		µg/L	1	10/3/2007 6:03:54 PM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 6:03:54 PM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 6:03:54 PM
Surr: 4-Bromofluorobenzene	84.1	70.2-105		%REC	1	10/3/2007 6:03:54 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-07

CLIENT: XTO Energy
Lab Order: 0709406
Project: Ground Water
Lab ID: 0709406-28

Client Sample ID: Trip Blank
Collection Date:
Date Received: 9/28/2007
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Toluene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Ethylbenzene	ND	1.0		µg/L	1	10/3/2007 11:35:56 PM
Xylenes, Total	ND	2.0		µg/L	1	10/3/2007 11:35:56 PM
Surr: 4-Bromofluorobenzene	82.7	70.2-105		%REC	1	10/3/2007 11:35:56 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0709406

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0709406-01A MSD		<i>MSD</i>			Batch ID: R25409		Analysis Date: 10/3/2007 3:45:13 AM		
Benzene	20.98	µg/L	1.0	105	85.9	113	0.580	27	
Toluene	19.97	µg/L	1.0	99.6	86.4	113	0.764	19	
Ethylbenzene	19.95	µg/L	1.0	99.3	83.5	118	1.13	10	
Xylenes, Total	59.14	µg/L	2.0	98.1	83.4	122	0.764	13	
Sample ID: 0709406-20A MSD		<i>MSD</i>			Batch ID: R25420		Analysis Date: 10/3/2007 8:05:57 PM		
Benzene	20.94	µg/L	1.0	102	85.9	113	1.15	27	
Toluene	19.97	µg/L	1.0	98.4	86.4	113	1.23	19	
Ethylbenzene	19.95	µg/L	1.0	99.2	83.5	118	2.10	10	
Xylenes, Total	58.87	µg/L	2.0	96.8	83.4	122	1.12	13	
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R25409		Analysis Date: 10/2/2007 8:14:55 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R25420		Analysis Date: 10/3/2007 9:00:15 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R25409		Analysis Date: 10/2/2007 8:15:26 PM		
Benzene	20.25	µg/L	1.0	101	85.9	113			
Toluene	19.54	µg/L	1.0	97.3	86.4	113			
Ethylbenzene	19.60	µg/L	1.0	97.4	83.5	118			
Xylenes, Total	58.14	µg/L	2.0	96.2	83.4	122			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R25420		Analysis Date: 10/3/2007 11:00:56 AM		
Benzene	20.65	µg/L	1.0	103	85.9	113			
Toluene	20.04	µg/L	1.0	99.8	86.4	113			
Ethylbenzene	20.04	µg/L	1.0	99.6	83.5	118			
Xylenes, Total	60.00	µg/L	2.0	99.5	83.4	122			
Sample ID: 0709406-01A MS		<i>MS</i>			Batch ID: R25409		Analysis Date: 10/3/2007 3:15:09 AM		
Benzene	21.10	µg/L	1.0	105	85.9	113			
Toluene	19.82	µg/L	1.0	98.8	86.4	113			
Ethylbenzene	19.73	µg/L	1.0	98.2	83.5	118			
Xylenes, Total	58.69	µg/L	2.0	97.4	83.4	122			
Sample ID: 0709406-20A MS		<i>MS</i>			Batch ID: R25420		Analysis Date: 10/3/2007 7:35:52 PM		
Benzene	20.70	µg/L	1.0	101	85.9	113			
Toluene	19.73	µg/L	1.0	97.2	86.4	113			
Ethylbenzene	19.53	µg/L	1.0	97.1	83.5	118			
Xylenes, Total	58.22	µg/L	2.0	95.7	83.4	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water

Work Order: 0709406

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E160.1									
Sample ID: 0709406-08B MSD		MSD			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	3202	mg/L	20	104	80	120	0.627	20	
Sample ID: MB-13963		MBLK			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-13963		LCS			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	1001	mg/L	20	100	80	120			
Sample ID: 0709406-08B MS		MS			Batch ID: 13963	Analysis Date:			10/1/2007
Total Dissolved Solids	3182	mg/L	20	102	80	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

CLIENT: XTO
BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199
LOCATION NO: BO292COCR NO: HALL**FIELD REPORT: SPILL CLOSURE VERIFICATION**PAGE No: 1 of 1LOCATION: NAME: HARE GC B WELL #: 1 TYPE: UNKNOWNQUAD/UNIT: 6 SEC: 23 TWP: 29N RNG: 11W PM: NM CNTY: ST ST: NMQTR/FOOTAGE: 1825'N/2330'E SW/NE CONTRACTOR: CORE (ROBERT)DATE STARTED: 6/6/05
DATE FINISHED:ENVIRONMENTAL SPECIALIST: NVEXCAVATION APPROX. 73 FT. x 73 FT. x 8 FT. DEEP. CUBIC YARDAGE: 1584DISPOSAL FACILITY: JFF LANDFARM - CROWN MESA REMEDIATION METHOD: LANDFARMED?LAND USE: RESIDENTIAL/RECREATIONAL LEASE: FEE FORMATION: DKFIELD NOTES & REMARKS: SPILL LOCATED APPROXIMATELY 1 FT. FROM WELL HEAD.DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: <1000' NEAREST SURFACE WATER: <200'NMOC D RANKING SCORE: 60 NMOC D TPH CLOSURE STD: 100 PPM**SOIL AND EXCAVATION**ELEV. - 5480'**DESCRIPTION:**
OVM CALIB. READ. = 53.6 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 12:25 am/pm DATE: 6/6/05
SOIL TYPE: SAND/SILTY SAND/SILT/SILTY CLAY/CLAY/GRAVEL/OTHERSOIL COLOR: DR. YELL. ORANGE TO BLACKCOHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVECONSISTENCY (NON COHESIVE SOILS): LOOSE/FIRM / DENSE / VERY DENSEPLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTICDENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARDMOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATEDDISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - BLACK @ TH1 @ 2'HC ODOR DETECTED: YES / NO EXPLANATION - TH1 @ 2' ONLY LT. GRAY SILTY CLAY @ TH2 @ 5'SAMPLE TYPE: GRAB / COMPOSITE - # OF PTS. 1

ADDITIONAL COMMENTS:

SCALE

0 FT

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

PIT PERIMETER**TEST HOLE PIT PROFILE****OVM READING**

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @	
2 @	
3 @	
4 @	
5 @	
TH1 @ 2'	749
TH2 @ 5'	8.7

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
TH1 @ 2'	TPH & BTEX	1510
W.S. - D.U.		
TH2 @ 5'	TPH ONLY	1520
W.S. - PT		

NOT APPLICABLE

P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW
T.H. = TEST HOLE; -- = APPROX.; T.B. = TANK BOTTOM

TRAVEL NOTES:

CALLOUT:

ONSITE:

Hall Environmental Analysis Laboratory

Date: 14-Jun-05

CLIENT: Blagg Engineering

Lab Order: 0506066

Project: HARE GC B #1

Lab ID: 0506066-01

Client Sample ID: TH1 @ 2'-W.S.-D.U.

Collection Date: 6/6/2005 3:10:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	Analyst: SCC 6/10/2005 4:00:04 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/10/2005 4:00:04 AM
Surr: DNOP	109	60-124		%REC	1	6/10/2005 4:00:04 AM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	1400	250		mg/Kg	50	Analyst: NSB 6/13/2005 9:39:38 AM
Surr: BFB	116	78.3-120		%REC	50	6/13/2005 9:39:38 AM
EPA METHOD 8260B: VOLATILES						
Benzene	ND	0.50		mg/Kg	10	Analyst: BDH 6/10/2005
Toluene	6.3	0.50		mg/Kg	10	6/10/2005
Ethylbenzene	5.4	0.50		mg/Kg	10	6/10/2005
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	6/10/2005
1,2,4-Trimethylbenzene	17	0.50		mg/Kg	10	6/10/2005
1,3,5-Trimethylbenzene	11	0.50		mg/Kg	10	6/10/2005
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	6/10/2005
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	6/10/2005
Naphthalene	1.1	1.0		mg/Kg	10	6/10/2005
1-Methylnaphthalene	ND	2.0		mg/Kg	10	6/10/2005
2-Methylnaphthalene	ND	2.0		mg/Kg	10	6/10/2005
Acetone	ND	20		mg/Kg	10	6/10/2005
Bromobenzene	ND	0.50		mg/Kg	10	6/10/2005
Bromochloromethane	ND	0.50		mg/Kg	10	6/10/2005
Bromodichloromethane	ND	0.50		mg/Kg	10	6/10/2005
Bromoform	ND	0.50		mg/Kg	10	6/10/2005
Bromomethane	ND	1.0		mg/Kg	10	6/10/2005
2-Butanone	ND	10		mg/Kg	10	6/10/2005
Carbon disulfide	ND	5.0		mg/Kg	10	6/10/2005
Carbon tetrachloride	ND	1.0		mg/Kg	10	6/10/2005
Chlorobenzene	ND	0.50		mg/Kg	10	6/10/2005
Chloroethane	ND	1.0		mg/Kg	10	6/10/2005
Chloroform	ND	0.50		mg/Kg	10	6/10/2005
Chloromethane	ND	0.50		mg/Kg	10	6/10/2005
2-Chlorotoluene	ND	0.50		mg/Kg	10	6/10/2005
4-Chlorotoluene	ND	0.50		mg/Kg	10	6/10/2005
cis-1,2-DCE	ND	0.50		mg/Kg	10	6/10/2005
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	6/10/2005
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	6/10/2005
Dibromochloromethane	ND	0.50		mg/Kg	10	6/10/2005
Dibromomethane	ND	1.0		mg/Kg	10	6/10/2005
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	6/10/2005
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	6/10/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 I - 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: 14-Jun-05

CLIENT: Blagg Engineering

Client Sample ID: TH1 @ 2'-W.S.-D.U.

Lab Order: 0506066

Collection Date: 6/6/2005 3:10:00 PM

Project: HARE GC B #1

Lab ID: 0506066-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	6/10/2005
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	6/10/2005
1,1-Dichloroethane	ND	0.50		mg/Kg	10	6/10/2005
1,1-Dichloroethene	ND	0.50		mg/Kg	10	6/10/2005
1,2-Dichloropropane	ND	0.50		mg/Kg	10	6/10/2005
1,3-Dichloropropane	ND	0.50		mg/Kg	10	6/10/2005
2,2-Dichloropropane	ND	0.50		mg/Kg	10	6/10/2005
1,1-Dichloropropene	ND	0.50		mg/Kg	10	6/10/2005
Hexachlorobutadiene	ND	0.50		mg/Kg	10	6/10/2005
2-Hexanone	ND	5.0		mg/Kg	10	6/10/2005
Isopropylbenzene	1.1	0.50		mg/Kg	10	6/10/2005
4-Isopropyltoluene	0.97	0.50		mg/Kg	10	6/10/2005
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	6/10/2005
Methylene chloride	ND	1.5		mg/Kg	10	6/10/2005
n-Butylbenzene	ND	0.50		mg/Kg	10	6/10/2005
n-Propylbenzene	2.3	0.50		mg/Kg	10	6/10/2005
sec-Butylbenzene	0.86	0.50		mg/Kg	10	6/10/2005
Styrene	ND	0.50		mg/Kg	10	6/10/2005
tert-Butylbenzene	ND	0.50		mg/Kg	10	6/10/2005
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	6/10/2005
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	6/10/2005
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	6/10/2005
trans-1,2-DCE	ND	0.50		mg/Kg	10	6/10/2005
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	6/10/2005
1,2,3-Trichlorobenzene	ND	0.50		mg/Kg	10	6/10/2005
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	6/10/2005
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	6/10/2005
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	6/10/2005
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	6/10/2005
Trichlorofluoromethane	ND	0.50		mg/Kg	10	6/10/2005
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	6/10/2005
Vinyl chloride	ND	0.50		mg/Kg	10	6/10/2005
Xylenes, Total	66	0.50		mg/Kg	10	6/10/2005
Surr: 1,2-Dichloroethane-d4	84.9	74.4-113		%REC	10	6/10/2005
Surr: 4-Bromofluorobenzene	77.0	86.2-120	S	%REC	10	6/10/2005
Surr: Dibromofluoromethane	88.1	77.7-120		%REC	10	6/10/2005
Surr: Toluene-d8	83.3	80.1-113		%REC	10	6/10/2005

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: 14-Jun-05

CLIENT: Blagg Engineering

Client Sample ID: TH1 @ 5'-W.S.-P.T.

Lab Order: 0506066

Collection Date: 6/6/2005 3:20:00 PM

Project: HARE GC B #1

Lab ID: 0506066-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	Analyst: SCC 6/10/2005 6:02:58 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/10/2005 6:02:58 AM
Surr: DNOP	108	60-124		%REC	1	6/10/2005 6:02:58 AM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	16	5.0		mg/Kg	1	Analyst: NSB 6/13/2005 10:10:08 AM
Surr: BFB	111	78.3-120		%REC	1	6/13/2005 10:10:08 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: 14-Jun-05

CLIENT: Blagg Engineering

Work Order: 0506066

Project: HARE GC B #1

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8125	Batch ID: 8125	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 2:27:57 AM	Prep Date	6/9/2005
Client ID:		Run ID:	FID(17A) 2_050609A		SeqNo:	370296		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Diesel Range Organics (DRO)	ND	10						
Motor Oil Range Organics (MRO)	ND	50						
Surr: DNOP	11.14	0	10	0	111	60	124	0

Sample ID	MB-8120	Batch ID: 8120	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 6:19:23 PM	Prep Date	6/8/2005
Client ID:		Run ID:	PIDFID_050610A		SeqNo:	370539		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Gasoline Range Organics (GRO)	ND	5						
Surr: BFB	1048	0	1000	0	105	78.3	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: 0506066

Project: HARE GC B #1

QC SUMMARY REPORT

Method Blank

Sample ID	mb-8120	Batch ID: 8120	Test Code: SW8260B	Units: mg/Kg	Analysis Date 6/10/2005	Prep Date 6/8/2005					
Client ID:			Run ID:	NEPTUNE_050609B	SeqNo:	371392					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.05									
Toluene	ND	0.05									
Ethylbenzene	ND	0.05									
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	ND	0.05									
1,2-Dibromoethane (EDB)	ND	0.05									
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	2									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	0.0279	0.1									J
2-Butanone	ND	1									
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	0.0259	0.05									
2-Chlorotoluene	ND	0.05									J
4-Chlorotoluene	ND	0.05									
cis-1,2-DCE	ND	0.05									
cis-1,3-Dichloropropene	ND	0.05									

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	QC SUMMARY REPORT
Work Order:	0506066	Method Blank
Project:	HARE GC B #1	

1,2-Dibromo-3-chloropropane	ND	0.1
Dibromochloromethane	ND	0.05
Dibromomethane	ND	0.1
1,2-Dichlorobenzene	ND	0.05
1,3-Dichlorobenzene	ND	0.05
1,4-Dichlorobenzene	ND	0.05
Dichlorodifluoromethane	ND	0.05
1,1-Dichloroethane	ND	0.05
1,1-Dichloroethene	ND	0.05
1,2-Dichloropropane	ND	0.05
1,3-Dichloropropane	ND	0.05
2,2-Dichloropropane	ND	0.05
1,1-Dichloropropene	ND	0.05
Hexachlorobutadiene	ND	0.05
2-Hexanone	ND	0.5
Isopropylbenzene	ND	0.05
4-Isopropyltoluene	ND	0.05
4-Methyl-2-pentanone	ND	0.5
Methylene chloride	ND	0.15
n-Butylbenzene	ND	0.05
n-Propylbenzene	ND	0.05
sec-Butylbenzene	ND	0.05
Styrene	ND	0.05
tert-Butylbenzene	ND	0.05
1,1,1,2-Tetrachloroethane	ND	0.05
1,1,2,2-Tetrachloroethane	ND	0.05
Tetrachloroethene (PCE)	ND	0.05
trans-1,2-DCE	ND	0.05
trans-1,3-Dichloropropene	ND	0.05
1,2,3-Trichlorobenzene	ND	0.05
1,2,4-Trichlorobenzene	ND	0.05
1,1,1-Trichloroethane	ND	0.05
1,1,2-Trichloroethane	ND	0.05

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: 14-Jun-05

CLIENT: Blagg Engineering

Work Order: 0506066

Project: HARE GC B #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0506066-01AMS	Batch ID: 8125	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 4:30:46 AM	Prep Date	6/9/2005			
Client ID: TH1 @ 2'-W.S.-D.			Run ID: FID(17A) 2_050609A		SeqNo: 370311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35.91	10	50	0	71.8	67.4	117	0			
Surr: DNOP	5.23	0	5	0	105	74	125	0			

Sample ID	0506066-01AMSD	Batch ID: 8125	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 5:32:16 AM	Prep Date	6/9/2005				
Client ID:	TH1 @ 2'-W.S.-D.	Run ID:	FID(17A) 2_050609A		SeqNo:	370313						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		44.63	10	50	0	89.3	67.4	117	35.91	21.6	17.4	R
Surr: DNOP		5.644	0	5	0	113	74	125	5.23	7.61	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

Date: 14-Jun-05

CLIENT: Blagg Engineering

Work Order: 0506066

Project: HARE GC B #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8125	Batch ID: 8125	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 2:58:42 AM	Prep Date	6/9/2005				
Client ID:		Run ID:	FID(17A) 2_050609A		SeqNo:	370297						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		46.49	10	50	0	0	67.4	117	0			

Sample ID	LCS-8125	Batch ID: 8125	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 3:29:24 AM	Prep Date	6/9/2005				
Client ID:		Run ID:	FID(17A) 2_050609A		SeqNo:	370298						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		52.19	10	50	0	0	67.4	117	46.49	11.5	17.4	

Sample ID	LCS-8120	Batch ID: 8120	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/10/2005 6:50:04 PM	Prep Date	6/8/2005				
Client ID:		Run ID:	PIDFID_050610A		SeqNo:	370540						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		23.93	5	25	0	95.7	84	120	0			

Sample ID	GRO lcs 2.5ug	Batch ID: 8120	Test Code: SW8015	Units: mg/Kg	Analysis Date	6/13/2005 10:40:36 AM	Prep Date					
Client ID:		Run ID:	PIDFID_050613A		SeqNo:	371197						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		24.44	5	25	0	97.8	84	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: 0506066
Project: HARE GC B #1

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	ics-8120	Batch ID:	8120	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	6/11/2005	Prep Date	6/8/2005		
Client ID:		Run ID:	NEPTUNE_050609B					SeqNo:	371393				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		1.045		0.05	1	0	104	79	133	0			
Toluene		1.122		0.05	1	0	112	74.3	124	0			
Chlorobenzene		1.14		0.05	1	0	114	81.3	126	0			
1,1-Dichloroethene		0.8778		0.05	1	0	87.8	71.3	144	0			
Trichloroethene (TCE)		1.014		0.05	1	0	101	70.2	124	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

2

Half Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG**

Work Order Number **0506066**

Date and Time Received:

6/7/2005

Received by **AT**

Checklist completed by

Signature

Date

Matrix

Carrier name **Greyhound**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
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

Date: 14-Jun-05

CLIENT: Blagg Engineering

Project: HARE GC B #1

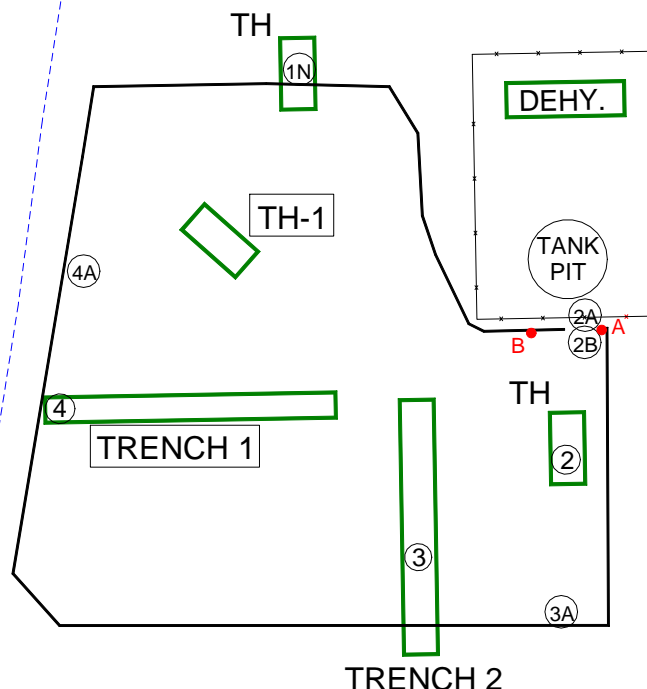
Lab Order: 0506066

CASE NARRATIVE

Analytical Comments for METHOD 8260_S, SAMPLE 0506066-01a: Low BFB recovery due to matrix interference.

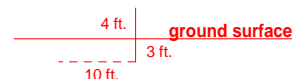


**POND
AREA**

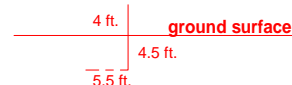


2 inch PVC casing (vertically) with
slotted screen (horizontally). Wind
turbines on each casing top.

A



B



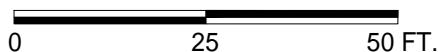
**1,584 CUBIC YARDS
TRANSPORTED TO
JFJ LANDFARM
FACILITY IN CROUCH
MESA, NM.**

SAMP. ID	OVM (ppm)	TIME	DATE
TH-1 @ 2'	749	1510	06/06/05
1N @ 3'	0.0	0909	08/09/05
2 @ 3.5'	2,050	0952	08/09/05
3 @ 3'	79.0	0925	08/09/05
4 @ 1.5'	26.2	0857	08/09/05
4A @ 2.5'	15.8	1154	08/11/05
2A @ 2'	1,734	0905	08/18/05
2B @ 6'	61.0	0901	08/18/05
3A @ 5'	0.0	0920	08/18/05

SAMP. ID	TPH (ppm)	BENZENE (ppm)	TOT. BTEX (ppm)
4A @ 2.5'	28	NA	NA
2A @ 2'	231	ND	5.51
2B @ 6'	ND	ND	ND
3A @ 5'	ND	NA	NA

NOTES: OVM - Organic Vapor Meter or Photo-ionization Detector (PID).
TPH - Total Petroleum Hydrocarbon (USEPA Method 8015B).
BTEX - Benzene, toluene, ethylbenzene, & total xylenes (USEPA Method 8021B).
ppm - Parts per million or milligram per kilogram (mg/kg).

1 INCH = 25 FT.



**WELL
HEAD** ⊕

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

XTO ENERGY INC.

HARE GC B #1

SW/4 NE/4 SEC. 23, T29N, R11W

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: SITE CLEAN-UP

FILENAME: HARE-GC-B1-SM1.SKf

DRAWN BY: NJV

REVISED: 9/13/05

**SITE
MAP**

08/05



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address XTO Energy Inc. 2700 Farmington Ave., Bldg. K, Suite 1 Farmington, NM 87401	2. Destination Name: J.F.J. Landfarm c/o Industrial Ecosystems Inc. 420 CR 3100 Aztec, NM 87410
3. Originating Site (name): HARE GC B #1	Location of the Waste (Street address &/or ULSTR): G-23-29N-11W
attach list of originating sites as appropriate	
4. Source and Description of Waste ABANDONED PIT - SURFACE EQUIP. DISCHARGED FLUIDS	

Nelson Velez

_____, representative for :
Print Name

Blagg Engineering, Inc. c/o XTO Energy Inc.

do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☒ EXEMPT oilfield waste

☐ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

☐ MSDS Information

☐ RCRA Hazardous Waste Analysis

☐ Chain of Custody

☐ Other (description)

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature):

Nelson Velez

Title: **Staff Geologist / AGENT for XTO Energy**

Date:

8/10/05

Hall Environmental Analysis Laboratory

Date: 25-Aug-05

CLIENT: Blagg Engineering

Client Sample ID: 4A@2.5'

Lab Order: 0508218

Collection Date: 8/11/2005 11:54:00 AM

Project: HARE GC B #1

Lab ID: 0508218-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/20/2005 4:09:17 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2005 4:09:17 PM
Surr: DNOP	104	60-124		%REC	1	8/20/2005 4:09:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	28	10		mg/Kg	2	8/25/2005 3:13:05 AM
Surr: BFB	107	83.1-124		%REC	2	8/25/2005 3:13:05 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-Sep-05

CLIENT: Blagg Engineering
Lab Order: 0508244
Project: HARE GC B #1
Lab ID: 0508244-01

Client Sample ID: 2A @ 2'
Collection Date: 8/18/2005 9:05:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	21	10		mg/Kg	1	Analyst: SCC 8/24/2005 5:14:56 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/24/2005 5:14:56 PM
Surr: DNOP	106	60-124		%REC	1	8/24/2005 5:14:56 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	210	25		mg/Kg	5	Analyst: NSB 8/30/2005 12:21:53 PM
Surr: BFB	140	83.1-124	S	%REC	5	8/30/2005 12:21:53 PM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	Analyst: NSB 8/30/2005 12:21:53 PM
Benzene	ND	0.13		mg/Kg	5	8/30/2005 12:21:53 PM
Toluene	ND	0.13		mg/Kg	5	8/30/2005 12:21:53 PM
Ethylbenzene	0.61	0.13		mg/Kg	5	8/30/2005 12:21:53 PM
Xylenes, Total	4.9	0.13		mg/Kg	5	8/30/2005 12:21:53 PM
Surr: 4-Bromofluorobenzene	111	87.5-115		%REC	5	8/30/2005 12:21:53 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-Sep-05

CLIENT: Blagg Engineering

Client Sample ID: 2B @ 6'

Lab Order: 0508244

Collection Date: 8/18/2005 9:01:00 AM

Project: HARE GC B #1

Lab ID: 0508244-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	Analyst: SCC 8/24/2005 7:27:13 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/24/2005 7:27:13 PM
Surr: DNOP	116	60-124		%REC	1	8/24/2005 7:27:13 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	Analyst: NSB 8/30/2005 12:53:10 PM
Surr: BFB	102	83.1-124		%REC	1	8/30/2005 12:53:10 PM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	Analyst: NSB 8/30/2005 12:53:10 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 12:53:10 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 12:53:10 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 12:53:10 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 12:53:10 PM
Surr: 4-Bromofluorobenzene	100	87.5-115		%REC	1	8/30/2005 12:53:10 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-Sep-05

CLIENT: Blagg Engineering

Client Sample ID: 3A @ 5'

Lab Order: 0508244

Collection Date: 8/18/2005 9:20:00 AM

Project: HARE GC B #1

Lab ID: 0508244-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	Analyst: SCC 8/24/2005 7:59:59 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/24/2005 7:59:59 PM
Surr: DNOP	105	60-124		%REC	1	8/24/2005 7:59:59 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	Analyst: NSB 8/30/2005 1:24:18 PM
Surr: BFB	100	83.1-124		%REC	1	8/30/2005 1:24:18 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

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:

NELAC ☐ USACE ☐

Other:

Project Name:

HARE GC 8 #1

Project #:

Project Manager:

NV

Sampler:

NV

Sample Temperature:

30

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

8/11/05

1154

SOIL

4A @ 2.5'

1 - 4 oz.

✓

1500218

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

Remarks:

8-18-05

8-18-05

Relinquished By: (Signature)

Received By: (Signature)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

ANALYSIS REQUEST

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 (PMA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, NO₃, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

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

ANALYSIS REQUEST

[illegible]

Remarks:

CHAIN-OF-CUSTODY RECORD										Accreditation Applied: NELAC <input type="checkbox"/> USACE <input type="checkbox"/>	
Client: <u>BAGG / XTO ENERGY</u>										Other: _____	
Address: <u>P.O. BOX 87</u>										Project Name: <u>HARE GC B #1</u>	
<u>800 NM 87413</u>										Project #: _____	
Project Manager: _____										Project Manager: <u>NV</u>	
Phone #: <u>632-1199</u>										Sampler: <u>NV</u>	
Fax #: _____										Sample Temperature: <u>60</u>	
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative HgCl ₂ HNO ₃		HEAL No.				
8/18/05	0905	SOIL	(2A) @ 2'	1-4 oz.		✓		1508244-1			
8/18/05	0901	SOIL	(2B) @ 6'	1-4 oz.		✓		-2			
8/18/05	0920	SOIL	(3A) @ 5'	1-4 oz.		✓		-3			
Date: 8/19/05	Time: 0700	Relinquished By: (Signature) <u>[Signature]</u>		Relinquished By: (Signature) <u>[Signature]</u>		Received By: (Signature) <u>[Signature]</u>		8-1905			
Date: 8/19/05	Time: 0700	Relinquished By: (Signature) <u>[Signature]</u>		Relinquished By: (Signature) <u>[Signature]</u>		Received By: (Signature) <u>[Signature]</u>		8-1905			

Hall Environmental Analysis Laboratory

Date: 25-Aug-05

CLIENT: Blagg Engineering
 Work Order: 0508218
 Project: HARE GC B #1

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8569	Batch ID: 8569	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/20/2005 12:52:22 PM	Prep Date	8/19/2005			
Client ID:			Run ID: FID(17A) 2_050820A		SeqNo:	390339					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.67	0	10	0	107	60	124	0			

Sample ID	mb-8571	Batch ID: 8571	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005			
Client ID:			Run ID: PIDFID_050822A		SeqNo:	391043					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	914.7	0	1000	0	91.5	83.1	124	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

Date: 25-Aug-05

CLIENT: Blagg Engineering

Work Order: 0508218

Project: HARE GC B #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8569	Batch ID:	8569	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/20/2005 1:25:07 PM	Prep Date	8/19/2005
Client ID:		Run ID:		FID(17A) 2_050820A				SeqNo:	390340		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Diesel Range Organics (DRO)		46.25		10	50	0	92.5	67.4	117	0	

Sample ID	LCS-8569	Batch ID:	8569	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/20/2005 1:57:51 PM	Prep Date	8/19/2005
Client ID:		Run ID:		FID(17A) 2_050820A				SeqNo:	390341		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Diesel Range Organics (DRO)		47.07		10	50	0	94.1	67.4	117	46.25	1.74 17.4

Sample ID	lcs-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:		PIDFID_050822A				SeqNo:	391059		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		24.66		5	25	0	98.6	84	120	0	

Sample ID	GRO lcs 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 12:52:35 PM	Prep Date	
Client ID:		Run ID:		PIDFID_050823A				SeqNo:	391457		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		22.13		5	25	0.0156	88.5	84	120	0	

Sample ID	GRO lcs 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/24/2005 4:49:06 PM	Prep Date	
Client ID:		Run ID:		PIDFID_050824A				SeqNo:	392009		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Gasoline Range Organics (GRO)		22.35		5	25	0.0214	89.3	84	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

/

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG

Date and Time Received:

8/18/2005

Work Order Number 0508218

Received by

GLS

Checklist completed by

Signature

Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Container/Temp Blank temperature?	3°	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

Date: 01-Sep-05

CLIENT: Blagg Engineering

Work Order: 0508244

Project: HARE GC B #1

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8588	Batch ID: 8588	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/22/2005 7:15:23 PM	Prep Date	8/22/2005			
Client ID:			Run ID: FID(17A) 2_050822A		SeqNo: 390841						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.01	0	10	0	100	60	124	0			

Sample ID	mb-8594	Batch ID: 8594	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/23/2005 6:41:01 PM	Prep Date	8/22/2005			
Client ID:			Run ID: PIDFID_050823A		SeqNo: 391443						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	943.5	0	1000	0	94.4	83.1	124	0			

Sample ID	mb-8594	Batch ID: 8594	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/23/2005 6:41:01 PM	Prep Date	8/22/2005			
Client ID:			Run ID: PIDFID_050823A		SeqNo: 391292						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	1.004	0	1	0	100	87.5	115	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

Date: 01-Sep-05

CLIENT: Blagg Engineering

Work Order: 0508244

Project: HARE GC B #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8588	Batch ID:	8588	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 7:48:08 PM	Prep Date	8/22/2005		
Client ID:		Run ID:	FID(17A) 2_050822A					SeqNo:	390842				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		45.13	10	50	0	90.3	67.4	117	0				

Sample ID	LCSD-8588	Batch ID:	8588	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 8:19:22 PM	Prep Date	8/22/2005	
Client ID:		Run ID:	FID(17A) 2_050822A					SeqNo:	390843			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		42.95	10	50	0	85.9	67.4	117	45.13	4.96	17.4	

Sample ID	Ics-8594	Batch ID:	8594	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 7:12:34 PM	Prep Date	8/22/2005		
Client ID:		Run ID:	PIDFID_050823A					SeqNo:	391444				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		23.22	5	25	0	92.9	84	120	0				

Sample ID	GRO Ics 2.5ug	Batch ID: 8594	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/24/2005 4:49:06 PM	Prep Date					
Client ID:		Run ID: PIDFID_050824A			SeqNo: 392007							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		22.35	5	25	0.0214	89.3	84	120	0			

Sample ID	GRO Ics 2.5ug	Batch ID:	8594	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/26/2005 4:48:50 PM	Prep Date		
Client ID:		Run ID:	PIDFID_050826A					SeqNo:	392953			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		22.96	5	25	0.0126	91.8	84	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
7

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Blagg Engineering
 Work Order: 0508244
 Project: HARE GC B #1

Sample ID	GRO Ics 2.5ug	Batch ID: 8594	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/30/2005 9:48:26 PM	Prep Date					
Client ID:			Run ID: PIDFID_050830A		SeqNo:	393956						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		24.97	5	25	0	99.9	84	120	0			

Sample ID	Ics-8594	Batch ID: 8594	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/23/2005 7:12:34 PM	Prep Date	8/22/2005			
Client ID:			Run ID: PIDFID_050823A		SeqNo:	391296					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.116	0.1	2	0	108	65	132	0			
Benzene	0.4416	0.025	0.42	0	105	85.6	116	0			
Toluene	2.084	0.025	2	0	104	82.4	120	0			
Ethylbenzene	0.4274	0.025	0.41	0	104	86.4	111	0			
Xylenes, Total	2.155	0.025	2	0	108	78.4	125	0			

Sample ID	BTEX Ics 100ng	Batch ID: 8594	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/24/2005 6:24:58 PM	Prep Date					
Client ID:			Run ID: PIDFID_050824A		SeqNo:	391969						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		1.014	0.1	1	0	101	65	132	0			
Benzene		1.043	0.025	1	0	104	85.6	116	0			
Toluene		1.009	0.025	1	0	101	82.4	120	0			
Ethylbenzene		1.016	0.025	1	0	102	86.4	111	0			
Xylenes, Total		2.058	0.025	2	0	103	78.4	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: 0508244

Project: HAREGC B #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	BTEX Ics 100ng	Batch ID: 8594	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/26/2005 3:44:06 PM	Prep Date				
Client ID:			Run ID: PIDFID_050826A		SeqNo:	392876					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.067	0.1	1	0	107	65	132	0			
Benzene	1.047	0.025	1	0	105	85.6	116	0			
Toluene	1.013	0.025	1	0	101	82.4	120	0			
Ethylbenzene	1.005	0.025	1	0	100	86.4	111	0			
Xylenes, Total	2.049	0.025	2	0	102	78.4	125	0			

Sample ID	BTEX Ics 100ng	Batch ID: 8594	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/31/2005 12:53:47 AM	Prep Date				
Client ID:			Run ID: PIDFID_050830A		SeqNo:	393856					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.8808	0.1	1	0	88.1	65	132	0			
Benzene	1.045	0.025	1	0	105	85.6	116	0			
Toluene	0.988	0.025	1	0	98.8	82.4	120	0			
Ethylbenzene	0.9957	0.025	1	0	99.6	86.4	111	0			
Xylenes, Total	2.026	0.025	2	0	101	78.4	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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG**

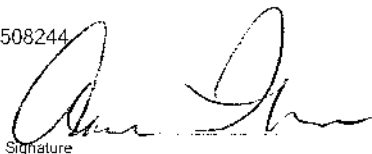
Date and Time Received:

8/19/2005

Work Order Number **0508244**

Received by **AT**

Checklist completed by



Signature

Date

8/19/05

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?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

District I
P.O. Box 1980, Hobbs, NM

District II
P.O. Drawer D-1, Artesia, NM 88211

District III
DEPUTY OIL & GAS INSPECTOR
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

OK
80292
SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

TPH
water
cleaned

DEC 11 5 1995

PIT REMEDIATION AND CLOSURE REPORT

Approved - based on groundwater

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: HARE GC B 1
Well Name

Location: Unit or Qtr/Qtr Sec G Sec 23 T 29N R 11W County SAN JUAN

Pit Type: Separator Dehydrator Other PROD. TANK

Land Type: BLM , State , Fee X, Other

Pit Location: Pit dimensions: length 135', width 100', depth 4-8'
(Attach diagram)

Reference: wellhead X, other

Footage from reference: 135

Direction from reference: 0 Degrees East North
of
 West South X

Depth To Ground Water:
(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 Points) 20

Wellhead Protection Area:
(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

RECEIVED
JUN 12 1995
OIL CON. DIV.
DIST. 3

Yes (20 points)
No (0 points) 0

Distance To Surface Water:
(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)
200 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 20

RANKING SCORE (TOTAL POINTS): 40

Date Remediation Started: 5-25-95 Date Completed: 5-31-95

Remediation Method: Excavation X Approx. cubic yards 2000
 (Check all appropriate sections) Landfarmed Insitu Bioremediation
 Other Stockpiled

Remediation Location: Onsite X Offsite X MOVED TO ARBURY WOODS
 (ie. landfarmed onsite, name and location of offsite facility) PRIVATE PROPERTY - UNIT E, SEC 23
(~ 1/2 MILE NE OF AERUE 6L #1) T 29 N
R 11 W

General Description Of Remedial Action: ExcavationGround Water Encountered: No Yes X Depth 7'Final Pit: Sample location see Attached Documents

Closure Sampling:
 (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth 7'Sample date 5-31-95 Sample time 1550 (5/25)

WATER

Sample Results

Benzene (ppm) ND WATERTotal BTEX (ppm) 5.96 PPBField headspace (ppm) 1TPH Ground Water Sample: Yes X No (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 5-31-95

SIGNATURE

B. ShawPRINTED NAME
AND TITLEBuddy D. Shaw
ENVIRONMENTAL COORDINATOR

5-31-95

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Hare GC B 1
Sample ID: PW 1 @ GW (7')
Lab ID: 1046
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 05/26/95
Date Sampled: 05/25/95
Date Received: 05/25/95
Date Analyzed: 05/26/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	0.98	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	3.06	0.40
o-Xylene	1.63	0.20

Total BTEX	5.96
-------------------	-------------


ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	100	88 - 110%
	Bromofluorobenzene	91	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:


Analyst


Review