3RP-386

XTO ENERGY

Annual Groundwater Remediation Reports For Year 2009

March 2010

XTO ENERGY

March 8, 2010

Mr. Glenn von Gonten
Hydrologist-Groundwater Remediation
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Annual Groundwater Remediation Reports

Dear Mr. von Gonten,

XTO Energy Inc. (XTO) herein submits our Annual Groundwater Remediation Reports for year ending 2009, in accordance with the New Mexico Oil Conservation Division (NMOCD) approved Groundwater Management Plan (GWMP). Enclosed are summary reports with analytical data, summary tables, site maps, topographic maps, potentiometric surface diagrams and recommendations/proposed actions for:

- Bruington Gas Com #1- 3RP106
- Federal Gas Com #H1- 3RP110
- McCoy GC D #1E- 3RP414
- OH Randel #7- 3RP386
- Rowland Gas Com #1- 3RP124
- Valdez A #1E- 3RP134

We have also enclosed an Annual Groundwater Report for three sites that meet the closure requirements outlined in the GWMP. XTO respectfully requests closure of:

- EJ Johnson C #1E- 3RP385
- Frost, Jack B #2- 3RP416
- PO Pipken #3E- 3RP409

In previously submitted reports, eighteen sites met the closure requirements outlined in the GWMP. XTO has requested closure of these sites annually since 2006. The reports for the below listed sites are being submitted again for your review.

- Abrams J #1- 3RP100
  Closure Requested 01-2007
- Armenta Gas Com C #1E- 3RP394
  Closure Requested 01-2006
- Baca Gas Com A #1A- 3RP104
  Closure Requested 03-2008
- Bergin Gas Com #1E- 3RP105
  Closure Requested 01-2006
- Carson Gas Com #1E- 3RP415
  Closure Requested 04-2009
- Garcia Gas Com B #1- 3RP111
  Closure Requested 03-2008
- Haney Gas Com B #1E- 3RP113
  Closure Requested 03-2008
- Hare Gas Com B #1- 3RP413
  Closure Requested 03-2008
- Hare Gas Com B #1E- 3RP384
  Closure Requested 03-2008
- Hare Gas Com I #1- 3RP412
  Closure Requested 03-2008
- Masden Gas Com #1E- 3RP120
  Closure Requested 03-2008
- McDaniel Gas Com B #1E- 3RP121
  Closure Requested 03-2008
- Romero Gas Com A #1- 3RP123
  Closure Requested 01-2007
- Snyder Gas Com #1A- 3RP126
  Closure Requested 04-2009
- State Gas Com BS #1- 3RP127
  Closure Requested 01-2006
- Stedje Gas Com #1- 3RP128
  Closure Requested 03-2008
- Sullivan Frame A #1E- 3RP130
  Closure Requested 03-2008
- Sullivan Gas Com D #1- 3RP131
  Closure Requested 04-2009

Thank you for your review of the reports. XTO looks forward to hearing from you regarding closure requests and proposed remedial actions. If you have any questions please do not hesitate to contact me at (505) 333-3100.

Respectfully,

Martin Nee
EH & S Manager
San Juan Division

cc: Mr. Brandon Powell, Environmental, NMOCD District III Office, Aztec, NM
Ms. Ashley Ager, LT Environmental
File- San Juan Groundwater

OH Randel # 7

XTO ENERGY INC.

ANNUAL GROUNDWATER REPORT

2009

O.H. RANDEL #7
3RP-386
(D) SECTION 15 – T26N – R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO

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

MARCH 2010

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2009 XTO GROUNDWATER REPORT

OH RANDEL #7
3RP-386

SITE DETAILS

LEGALS - TWN: 26N **RNG:** 11W **SEC:** 15 **UNIT:** D
OCD HAZARD RANKING: 20 **LAND TYPE:** NAVAJO
LATITUDE: 36.49194 **LONGITUDE:** 107.99572

INTRODUCTION

XTO Energy Inc. (XTO) acquired the OH Randel #7 well site from Amoco Production Company (Amoco) in January 1998. This is a gas producing well in the Dakota Sandstone and Gallegos Gallup formations and is currently active. This location is located near an irrigated field owned and operated by Navajo Agricultural Products Inc. (NAPI). A topographic map and site map are presented as Figures 1 and 2.

HISTORY

In March 2002 during equipment upgrades XTO encountered hydrocarbon impacted soil that was assumed to be an abandoned earthen separator pit (Attachment 1). Soil samples were collected and a groundwater monitoring well MW-1 was installed to determine impact to groundwater. Completion Diagram and Borehole Log is presented as Figure 5 documenting drilling that occurred on site in March 2002. Groundwater was encountered at 16 feet below ground surface. After installation of the monitoring well, 3.84 inches of free phase product was discovered at a depth of 16.36 feet below ground surface. Additional monitoring wells (MW-2, MW-3, MW-4, MW-5 & MW-6) were installed near the source area; upgradient, downgradient and crossgradient of the source area. Completion Diagrams and Borehole Logs for the monitoring wells installed in April 2002 are presented in Figures 6-10.

Phase separated hydrocarbons (PSH) were observed in monitoring wells MW-1, MW-2 and MW-6 during 2002-2004 sampling events. A total of approximately 22 gallons of product was recovered by hand bailing the PSH as of January 2006.

The 2005 annual groundwater report was submitted to the New Mexico Oil Conservation Division (OCD) in January 2006 proposing excavation of soil impacted by the former separator pit and the installation of additional groundwater monitoring wells to further delineate hydrocarbon impact to groundwater.

XTO submitted a remediation work plan to the Navajo Nation EPA (NNEPA) in August 2006 (Attachment 2) and received approval in October 2006. The first phase of the work plan was excavation of the earthen separator pit to beneath the water table and backfilling with clean soil, which was completed in November 2006 (Attachment 3). Approximately 9,000 cubic yards of hydrocarbon impacted soil was removed and transported offsite to an approved landfarm. No PSH was observed during the November 2006 excavation work. Monitoring wells MW-1, MW-2 and MW-6 were removed during the excavation. The US EPA Region 9 and NNEPA approved the closure of the excavation as described in the report. Following the excavation work, groundwater from monitoring wells MW-3,

MW-4, and MW-5 revealed no detectable concentrations or trace concentrations of dissolved hydrocarbons all beneath New Mexico Water Quality Control Commission (WQCC) standards.

The 2006 annual groundwater report was submitted to the OCD in February 2007 proposing installation of additional groundwater monitoring wells (MW-7 & MW-8) to the north and east of the former source area and quarterly sampling.

Monitoring wells MW-7 and MW-8 were installed to the north and the east of the former pit in May 2007. Completion Diagrams and Borehole Logs are presented in Figures 11-12 for the monitoring wells installed in May 2007. It appeared that groundwater impact throughout the excavated area had been adequately delineated with the exception of the far northwest edge (MW-7). XTO proposed to evaluate other potential sources of groundwater impact in this area and screen appropriate remediation methods.

The 2007 annual groundwater report was submitted to the OCD in February 2008 proposing discontinuing sampling of MW-3, MW-4, and MW-5 and semi-annual sampling of MW-7 and MW-8.

The 2008 annual groundwater report was submitted to the OCD in April 2009 proposing installation of two additional monitoring wells, (MW-9 & MW-10), addition of a chemical oxygenate in MW-7 and quarterly sampling.

Monitoring wells MW-9 and MW-10 were installed in July 2009. The water bearing unit that supplies the existing groundwater monitoring wells was practically dry. The existing monitoring wells are completed in impermeable clay. Monitoring wells MW-9 and MW-10 were complete when drilling encountered the same impermeable clay bed. After allowing 24 hours for the new wells to fill in with water MW-9 contained only 1 ½ feet of water and did not recharge after purging dry while MW-10 never filled with water and was ultimately plugged. Figures 13-15 are presented for the boreholes and monitor well installed in July 2009. Monitoring well MW-9 was sampled after development.

A summary of laboratory results from historical and current groundwater monitoring is presented as Table 1. Copies of the laboratory data sheets and associated quality assurance/quality control data for 2009 are presented as Attachment 4.

METHODOLOGY

Monitoring wells MW-7, MW-9 and MW-9 were sampled semi-annually during 2009 for benzene, toluene, ethyl benzene and total xylene (BTEX).

Water Level Measurements

Static groundwater level monitoring includes recording depth to groundwater measurements with a Keck oil/water interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. These data are recorded as Depth to Water (DTW) and Total Depth (TD) in feet on Table 1.

Groundwater Sampling

Prior to sampling groundwater, depth to groundwater and total depth of wells is measured with a Keck oil/water interface probe. Presence of any free-phase crude oil is also

investigated using the interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. The volume of water in the wells is calculated, and a minimum of three casing volumes of water is purged from each well using a disposable bailer or a permanent decontaminated PVC bailer. As water is extracted, pH, electric conductivity and temperature are monitored. Wells are purged until these properties stabilize, indicating that the purge water is representative of aquifer conditions. Stabilization is defined as three consecutive stable readings for each water property (±0.4 units for pH, ±10 percent for electric conductivity and ±2° C for temperature). All purge water is disposed of into tanks on site.

Once each monitoring well is properly purged, groundwater samples are collected by filling at least two 40-millititer (ml) glass vials. The pre-cleaned and pre-preserved (with hydrochloric acid or mercuric chloride) vials are filled and capped with no air inside to prevent degradation of the sample. Samples are labeled with the date and time of collection, well designation, project name, collector's name and parameters to be analyzed. They are immediately sealed and packed on ice. The samples are shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico in a sealed cooler via bus before designated holding times expire. Proper chain-of-custody (COC) procedures are followed with logs documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used, analyses required and sampler's signature.

Groundwater Contour Maps
Top of casing well elevations are surveyed using a surveyor's level; and groundwater elevations obtained from monitoring wells during site visits are used to draft groundwater contour maps. Contours are inferred based on groundwater elevations obtained and observation of physical characteristics at the site (topography, proximity to irrigation ditches, etc.).

RESULTS

Laboratory results from MW-7 indicate BTEX concentrations in excess of WQCC standards. BTEX concentrations in MW-8 are non-detect or below WQCC standards and benzene concentrations from MW-9 were elevated. All laboratory analytical results are presented in Table 1. Laboratory reports are presented in Attachment 4.

Field data collected during site monitoring activities indicate the groundwater surface is relatively flat trending primarily toward the southwest. Groundwater at this site may be influenced by irrigation of a field adjacent to the location. Additionally, it is possible the groundwater at this site is a shallow water table created by irrigation water from this field. Slight increases in the groundwater flow rate exhibit a more easterly flow which is attributed to the seasonal irrigation of the adjacent field. Groundwater flow remained fairly consistent during 2009 site monitoring activities. Figures 3-4 illustrate the estimated groundwater gradients for 2009.

CONCLUSIONS

Based on the laboratory results from 2009 groundwater in the vicinity of monitor well MW-7 needs further remediation.

RECOMMENDATIONS

XTO proposes the addition of chemical oxygenate in MW-7 to enhance biodegradation of the hydrocarbon in groundwater. In addition, XTO will begin quarterly sampling of monitoring wells MW-7 and MW-9 and discontinue monitoring of monitoring well MW-8.

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

O.H. RANDEL #7- SEP. PIT
UNIT D, SEC. 15, T26N, R11W

Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylene ug/L
22-Apr-02	MW#1	16.63	22.22	0.33	NA	NA	NA	NA
24-Apr-02				0.58	NA	NA	NA	NA
27-Aug-02		16.49		0.30	NA	NA	NA	NA
08-Oct-02		16.16		0.37	NA	NA	NA	NA
23-May-03		16.04		0.31	NA	NA	NA	NA
28-May-03		15.99		0.18	NA	NA	NA	NA
06-Jun-03		16.04		0.11	NA	NA	NA	NA
18-Jun-03		16.04		0.07	NA	NA	NA	NA
26-Jun-03		17.93		0.08	NA	NA	NA	NA
31-Jul-03		16.19		0.01	NA	NA	NA	NA
29-Aug-03		16.29		-	NA	NA	NA	NA
21-Jun-04		17.09		0.81	NA	NA	NA	NA
22-Apr-02	MW #2	18.32	24.60	-	NA	NA	NA	NA
24-Apr-02		18.38		0.03	NA	NA	NA	NA
27-Aug-02		19.86		0.94	NA	NA	NA	NA
08-Oct-02		18.02		0.52	NA	NA	NA	NA
23-May-03		17.83		0.53	NA	NA	NA	NA
28-May-03		17.78		0.16	NA	NA	NA	NA
06-Jun-03		17.83		0.12	NA	NA	NA	NA
18-Jun-03		17.88		0.09	NA	NA	NA	NA
26-Jun-03		16.09		0.04	NA	NA	NA	NA
31-Jul-03		15.86		-	NA	NA	NA	NA
29-Aug-03		15.99		-	NA	NA	NA	NA
21-Jun-04		16.83		0.73	NA	NA	NA	NA
22-Apr-02	MW #3	16.26	22.50		NA	NA	NA	NA
24-Apr-02		16.25			24	2.4	0.58	200
27-Aug-02		15.28			9.4	ND	ND	150
08-Oct-02		14.74			NA	NA	NA	NA
03-Mar-03		15.17			5.5	ND	ND	43
18-Jun-03		15.16			6.1	0.97	ND	43
29-Aug-03		15.39			3.2	0.53	ND	24
05-Dec-06		13.85	23.85		ND	ND	ND	ND
08-Mar-07		13.40	23.40		ND	ND	ND	3.8
17-May-07					ND	ND	ND	ND
09-Aug-07		12.37	23.40		ND	ND	ND	ND
27-Nov-07		12.70	23.40		ND	ND	ND	ND
22-Apr-02	MW #4	16.63	23.50		NA	NA	NA	NA
24-Apr-02		16.86			ND	0.59	ND	2.1
27-Aug-02		16.47			1.3	ND	ND	3.5
08-Oct-02		16.03			NA	NA	NA	NA
03-Mar-03		15.94			4.2	ND	ND	5
18-Jun-03		16.03			6.2	ND	ND	4.5
29-Aug-03		16.29			8.3	ND	ND	4.3
05-Dec-06		13.75	22.44		ND	ND	ND	ND
08-Mar-07		12.55	22.44		ND	ND	ND	ND
17-May-07					ND	ND	ND	ND
09-Aug-07		12.59	22.44		ND	ND	ND	ND
27-Nov-07		12.65	22.44		ND	ND	ND	ND
22-Apr-02	MW #5	19.11	25.00		NA	NA	NA	NA
24-Apr-02		19.14			510	0.64	8.9	240
08-Oct-02		19.10			NA	NA	NA	NA
18-Jun-03		18.86			1,100	20	ND	660
21-Jun-04		19.64			2,000	ND	ND	260

TABLE 1

XTO ENERGY INC. GROUNDWATER LAB RESULTS

O.H. RANDEL #7- SEP. PIT
UNIT D, SEC. 15, T26N, R11W

Sample Date	Monitor Well No.	DTW (ft)	TD (ft)	Product (ft)	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Total Xylene ug/L
28-Jun-05		17.30			1,100	15	ND	160
05-Dec-06		18.65	26.14		37	ND	ND	4.1
08-Mar-07		18.15	26.14		ND	ND	ND	ND
17-May-07					ND	ND	ND	ND
27-Nov-07		18.63	26.14		3.0	1.0	ND	ND
22-Apr-02	MW #6	18.31	25.00		NA	NA	NA	NA
24-Apr-02		18.32			6,100	4,800	920	6,600
27-Aug-02		NA		0.47	NA	NA	NA	NA
08-Oct-02		18.13		1.29	NA	NA	NA	NA
23-May-03		17.95		1.33	NA	NA	NA	NA
28-May-03		17.90		1.22	NA	NA	NA	NA
06-Jun-03		18.00		1.20	NA	NA	NA	NA
18-Jun-03		18.02		1.24	NA	NA	NA	NA
26-Jun-03		18.10		1.22	NA	NA	NA	NA
31-Jul-03		19.13		1.36	NA	NA	NA	NA
29-Aug-03		18.34		1.46	NA	NA	NA	NA
21-Jun-04		18.95		1.17	NA	NA	NA	NA
17-May-07	MW #7				8500	17000	980	16000
09-Aug-07		14.72	32.07		9800	11000	770	12000
27-Nov-07		14.91	32.07		12000	9000	940	13000
12-May-08		15.12	32.07		7900	11000	830	12000
07-Nov-08		15.82	32.07		12000	16000	1100	17000
08-Jul-09		16.44	32.07		9800	8200	ND	12000
08-Nov-09		16.76	32.07		9800	7900	570	13000
17-May-07	MW #8				ND	1.9	ND	3.7
09-Aug-07		18.94	32.45		ND	ND	ND	ND
27-Nov-07		19.20	32.45		21	ND	ND	ND
12-May-08		19.97	32.45		1.4	ND	ND	ND
07-Nov-08		19.55	32.45		1.2	ND	ND	ND
08-Jul-09		20.01	32.45		ND	ND	ND	ND
08-Nov-09		20.41	32.45		1.1	ND	ND	ND
07-Jul-09	MW #9	35.26	36.80		91	160	6.9	100
08-Nov-09		33.08	36.80		Not Enough Water			
NMWQCC GROUNDWATER STANDARDS					10	750	750	620

Figure 1

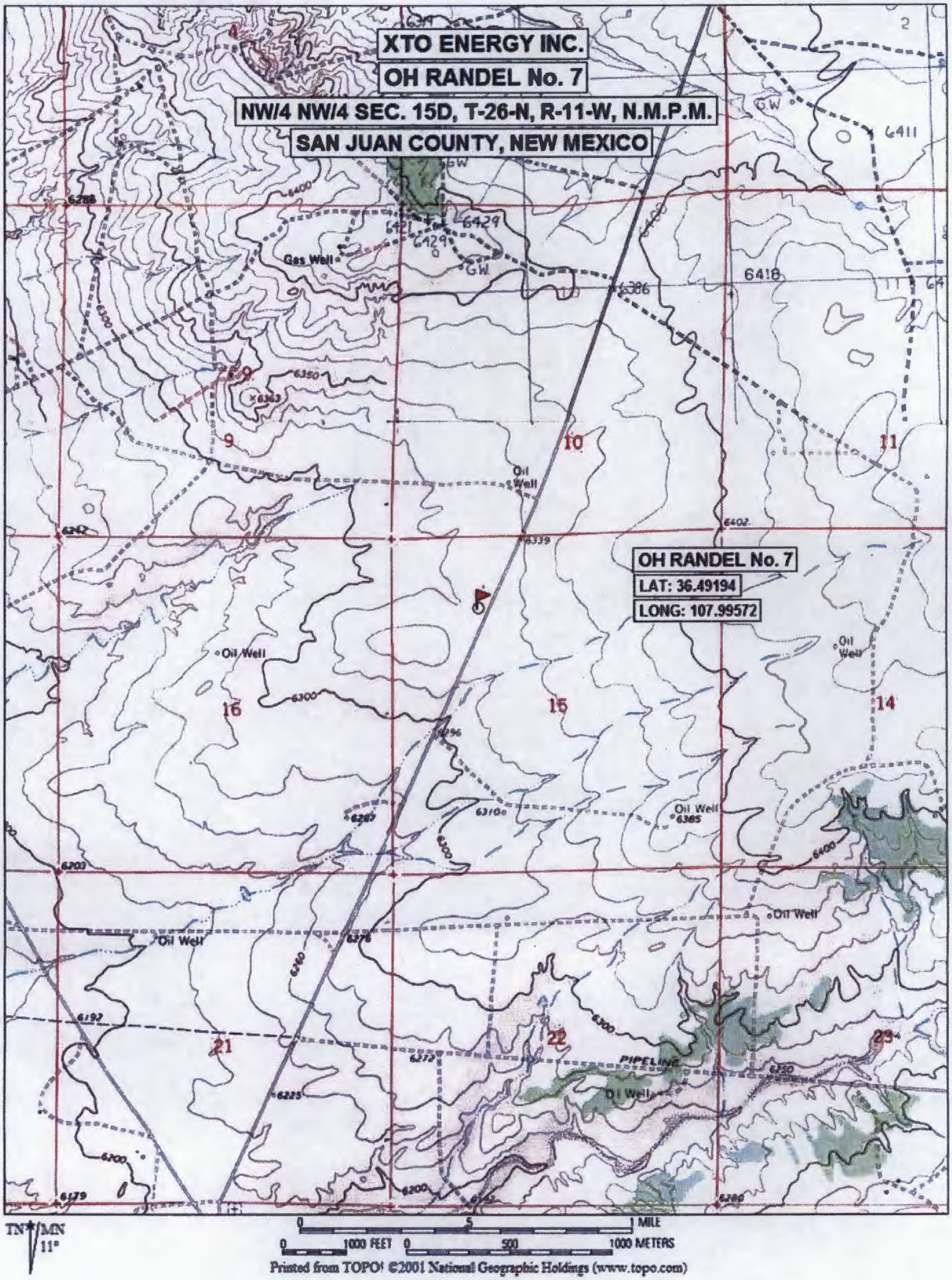

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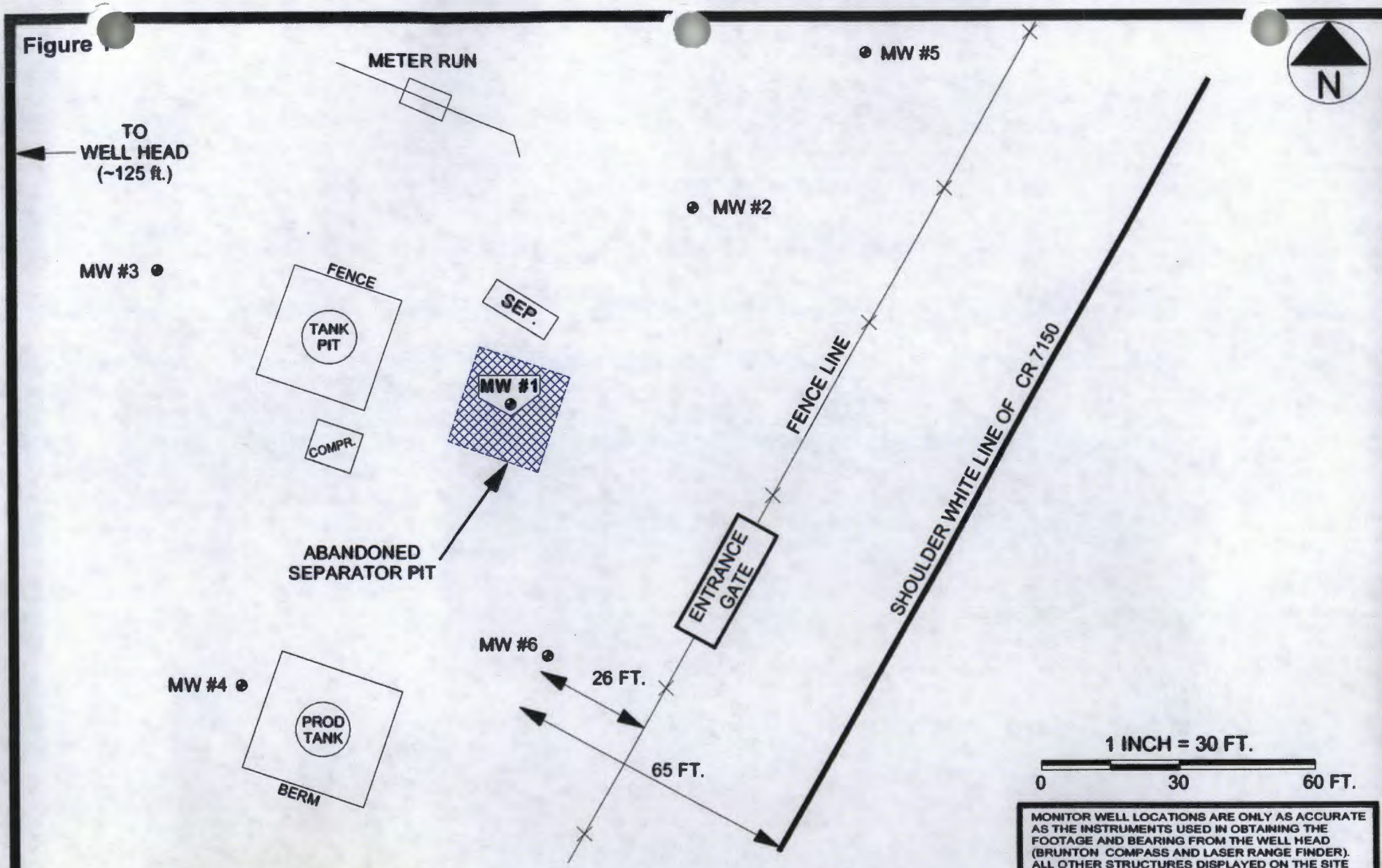
Figure 1



MONITOR 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.

XTO ENERGY INC.

O.H. RANDEL #7

NW/4 NW/4 SEC. 15, T26N, R11W, NMPM

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: GW INVESTIGAT.

DRAWN BY: NJV

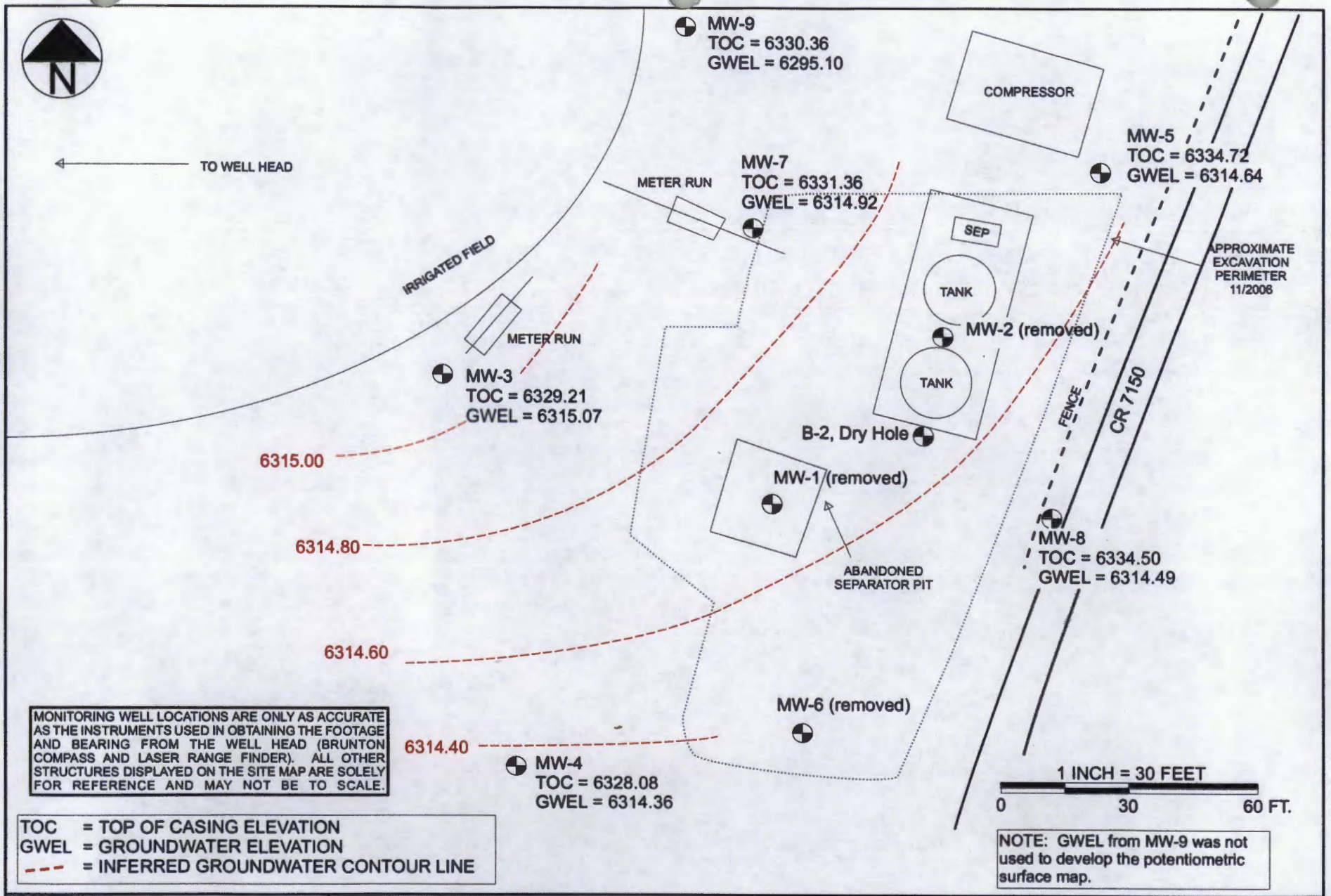
FILENAME: 10-17-05-SM.SKF

REVISED: 10/17/05 NJV

SITE MAP

06/05

Figure



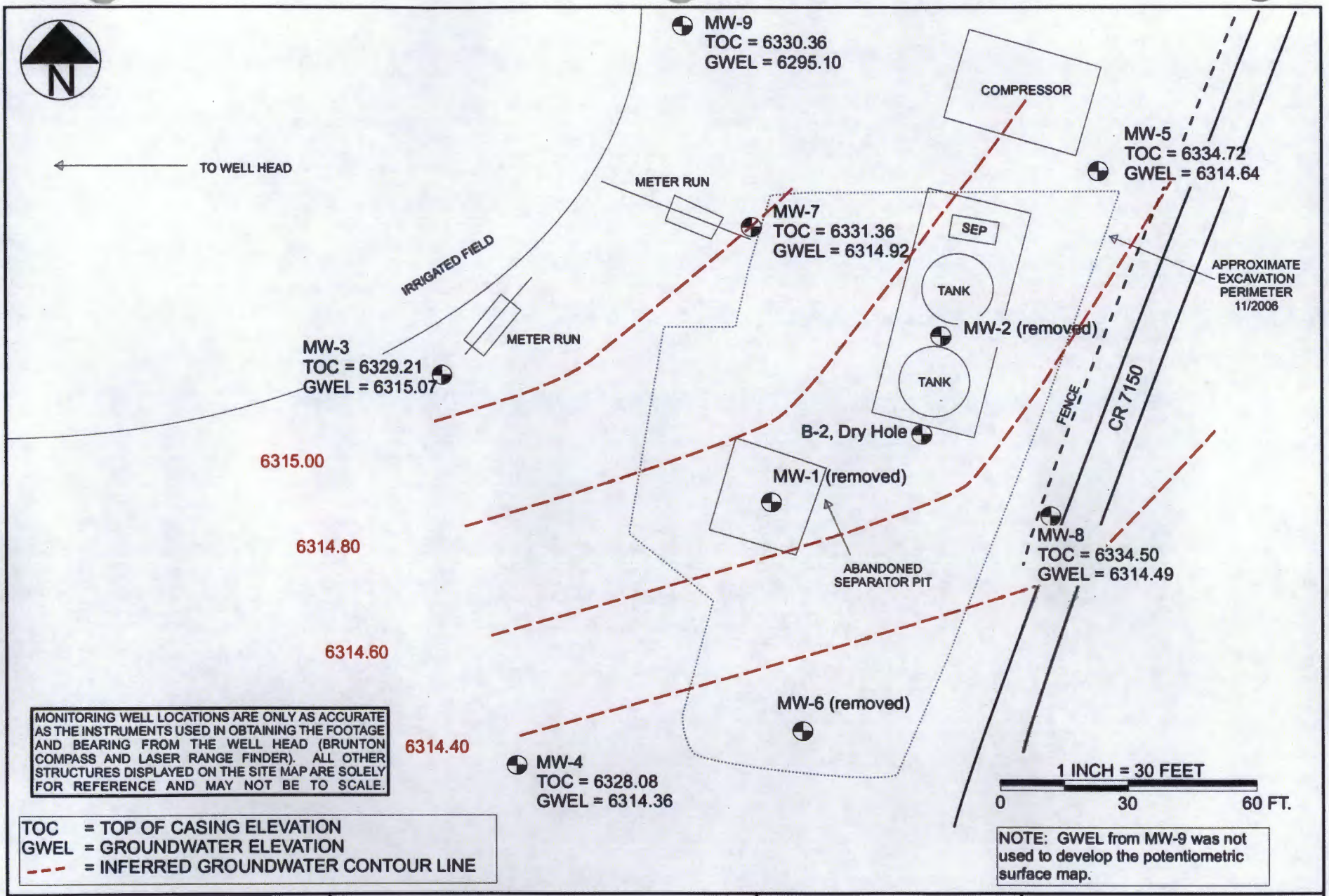
MONITORING WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

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

NOTE: GWEL from MW-9 was not used to develop the potentiometric surface map.

Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	OH RANDEL #7 NW/4 NW/4 SEC. 15, T26N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ADH REVISED:29 Jul 09	GROUNDWATER GRADIENT MAP 16 Jul 09

Figure



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	OH RANDEL #7 NW/4 NW/4 SEC. 15, T26N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO GROUND WATER DRAWN BY: ALA REVISED:30 Nov 09	GROUNDWATER GRADIENT MAP 05 Nov 09

Figure 5

BLAGG ENGINEERING, INC.

P.O. BOX 87

BLOOMFIELD, NM 87413

(505) 632-1199

BORE / TEST HOLE REPORT

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	3/22/02
DATE FINISHED	3/22/02
OPERATOR.....	JCB
PREPARED BY	NJV

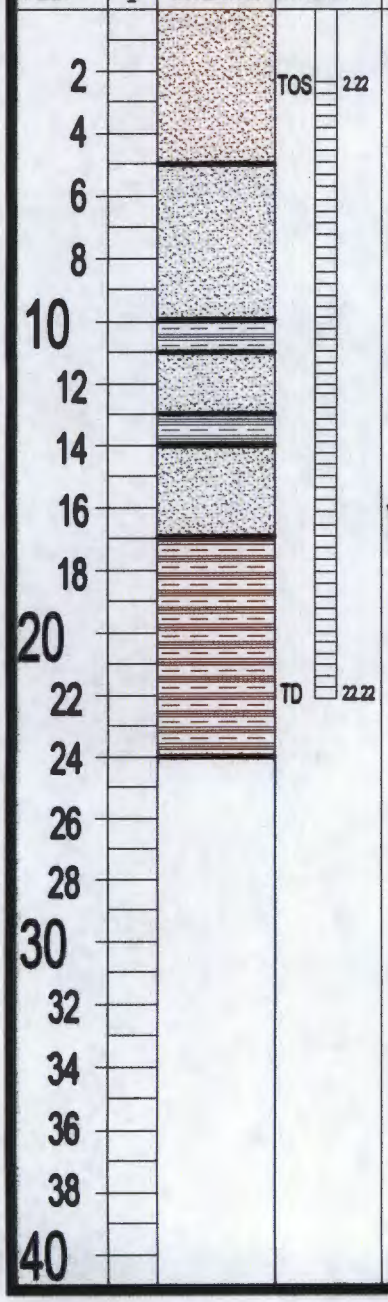
CLIENT: XTO ENERGY INC.

LOCATION NAME: RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W

CONTRACTOR: BLAGG ENGINEERING, INC.

EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)

BORING LOCATION: 240 FT., S76.5E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 0.15 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND & ROCK AGGREGATE, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 5.0 FT. BELOW GRADE).

LIGHT TO MEDIUM GRAY SAND, NON COHESIVE, SLIGHTLY MOIST TO MOIST, FIRM, STRONG HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (5.0 - 10.0 FT. BELOW GRADE).

LIGHT MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, SLIGHTLY MOIST, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (10.0 - 11.0 FT. BELOW GRADE).

SAME AS 5.0 - 10.0 FT. INTERVAL (11.0 - 13.0 FT. BELOW GRADE).

SAME AS 10.0 - 11.0 FT. INTERVAL (13.0 - 14.0 FT. BELOW GRADE).

SAME AS 5.0 - 10.0 FT. INTERVAL EXCEPT MOIST TO WET (14.0 - 17.0 FT. BELOW GRADE).

▼ GW DEPTH ON 3/25/02 = 16.68 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, WET TO SATURATED, APPARENT STRONG HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 24.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.

TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 0.15 ft. above grade to 2.22 ft. below grade, 0.010 slotted screen between 2.22 to 22.22 feet below grade, sand packed annular to grade.

DRAWING: RANDEL-7-MW1.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 6

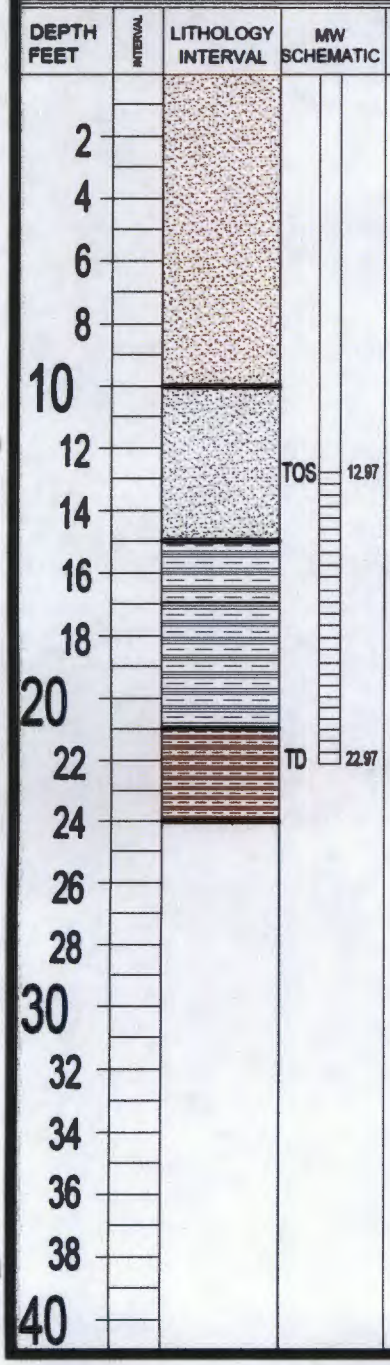
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

BORING #.....	BH - 2
MW #.....	2
PAGE #.....	2
DATE STARTED	4/09/02
DATE FINISHED	4/09/02
OPERATOR.....	JCB
PREPARED BY	NJV

CLIENT: XTO ENERGY INC.
LOCATION NAME: RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 274 FT., S87.5E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.63 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).

LIGHT TO MEDIUM GRAY SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, DENSE, STRONG HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (10.0 - 15.0 FT. BELOW GRADE).

▼ GW DEPTH ON 4/22/02 = 16.69 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, SLIGHTLY MOIST, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (15.0 - 21.0 FT. BELOW GRADE).

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, DRY, SLIGHT APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (21.0 - 24.0 FT. BELOW GRADE).

NOTE:
- SAND.
- SILTY SAND (HC IMPACTED).
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.63 ft. above grade to 12.97 ft. below grade, 0.010 slotted screen between 12.97 to 22.97 feet below grade, sand packed annular to 10 ft. below grade, then filled with clean native soil to surface.

DRAWING: RANDEL-7-MW2.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 7

BLAGG ENGINEERING, INC.

P.O. BOX 87

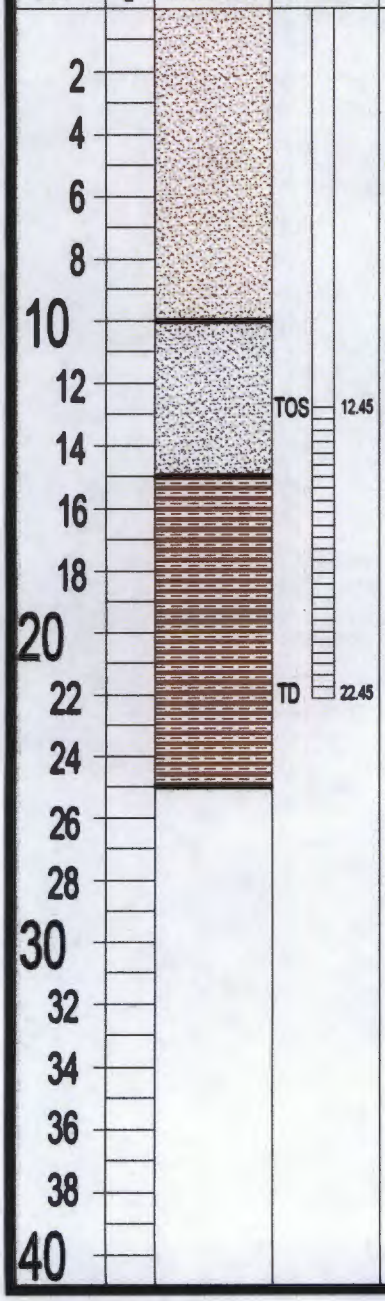
BLOOMFIELD, NM 87413

(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	158 FT., S80.5E FEET FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	4/09/02
DATE FINISHED	4/09/02
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.15 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 10.0 FT. BELOW GRADE).

MODERATE TO DARK YELLOWISH BROWN SILTY SAND, COHESIVE, SLIGHTLY MOIST TO WET, FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (10.0 - 15.0 FT. BELOW GRADE).

GW DEPTH ON 4/22/02 = 14.11 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, WET TO SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (15.0 - 25.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SILTY SAND.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 2.15 ft. above grade to 12.45 ft. below grade, 0.010 slotted screen between 12.45 to 22.45 feet below grade, sand packed annular to 10 ft. below grade, then filled with clean native soil to surface.

DRAWING: RANDEL-7-MW3.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 8

BLAGG ENGINEERING, INC.

P.O. BOX 87

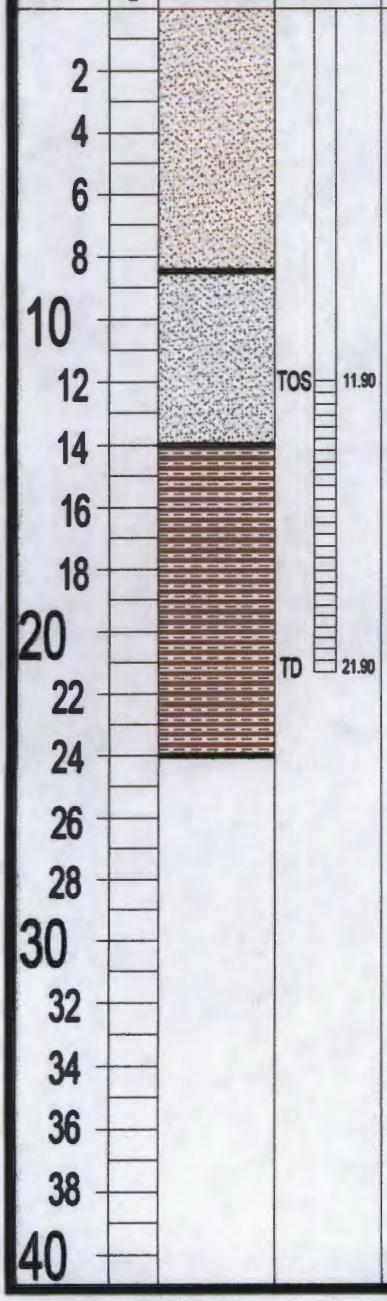
BLOOMFIELD, NM 87413

(505) 632-1199

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	210 FT., S56E FEET FROM WELL HEAD.

BORING #.....	BH - 4
MW #.....	4
PAGE #.....	4
DATE STARTED	4/09/02
DATE FINISHED	4/09/02
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.60 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 8.5 FT. BELOW GRADE).

MODERATE TO DARK YELLOWISH BROWN SILTY SAND, COHESIVE, SLIGHTLY MOIST TO WET, FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (8.5 - 14.0 FT. BELOW GRADE).

▼ GW DEPTH ON 4/22/02 = 15.03 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, WET TO SATURATED, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (14.0 - 24.0 FT. BELOW GRADE).

NOTE:

- SAND.
- SILTY SAND.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.60 ft. above grade to 11.90 ft. below grade, 0.010 slotted screen between 11.90 to 21.90 feet below grade, sand packed annular to 8 ft. below grade, then filled with clean native soil to surface.

DRAWING: RANDEL-7-MW4.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 9

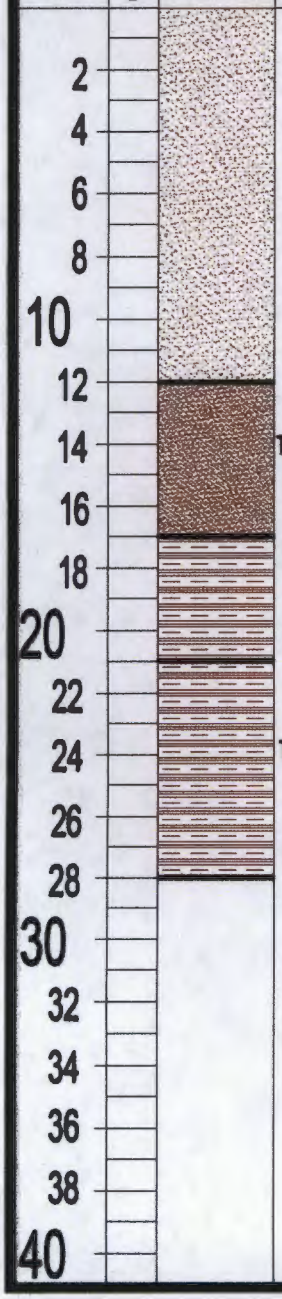
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	312 FT., N86E FEET FROM WELL HEAD.

BORING #.....	BH - 5
MW #.....	5
PAGE #.....	5
DATE STARTED	4/19/02
DATE FINISHED	4/19/02
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.00 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 12.0 FT. BELOW GRADE).

MODERATE BROWN SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, DENSE, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (12.0 - 17.0 FT. BELOW GRADE).

▼ GW DEPTH ON 4/22/02 = 18.11 FT. (APPROX.) FROM GROUND SURFACE.

MEDIUM BROWN TO LIGHT OLIVE GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, SLIGHTLY MOIST, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (17.0 - 21.0 FT. BELOW GRADE).

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, DRY, SLIGHT APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (21.0 - 28.0 FT. BELOW GRADE).

NOTE:
- SAND.
- SILTY SAND.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 1.0 ft. above grade to 14.00 ft. below grade, 0.010 slotted screen between 14.00 to 24.00 feet below grade, sand packed annular to 12 ft. below grade, then filled with clean native soil to surface.

DRAWING: RANDEL-7-MW5.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 10

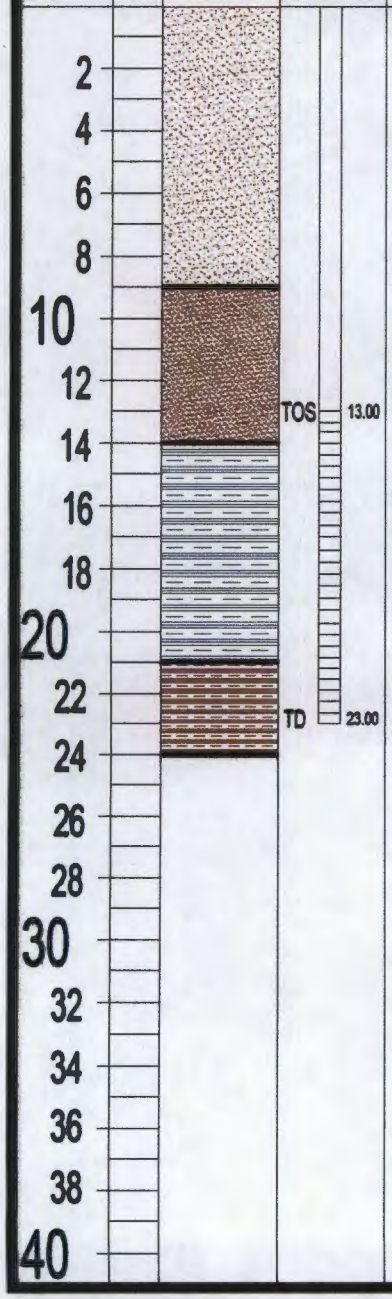
BLAGG ENGINEERING, INC.

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

BORE / TEST HOLE REPORT

CLIENT:	XTO ENERGY INC.
LOCATION NAME:	RANDEL, O.H. #7 - SEP. PIT, UNIT D, SEC. 15, T26N, R11W
CONTRACTOR:	BLAGG ENGINEERING, INC.
EQUIPMENT USED:	MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION:	266 FT., S65.5E FEET FROM WELL HEAD.

BORING #.....	BH - 6
MW #.....	6
PAGE #.....	6
DATE STARTED	4/19/02
DATE FINISHED	4/19/02
OPERATOR.....	JCB
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.00 FT. ABOVE GROUND SURFACE.

MODERATE TO DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE TO FIRM, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTINGS (0.0 - 9.0 FT. BELOW GRADE).

MODERATE BROWN TO LIGHT OLIVE GRAY SILTY SAND, NON COHESIVE, DRY TO SLIGHTLY MOIST, DENSE, NO APPARENT HC ODOR DETECTED PHYSICALLY WITHIN AUGER CUTTING (9.0 - 14.0 FT. BELOW GRADE).

▼ GW DEPTH ON 4/22/02 = 16.51 FT. (APPROX.) FROM GROUND SURFACE.

LIGHT OLIVE TO MEDIUM GRAY SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, SLIGHTLY MOIST, APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (14.0 - 21.0 FT. BELOW GRADE).

LIGHT DUSKY BROWN SILTY CLAY TO CLAY, MEDIUM PLASTIC, STIFF, DRY, SLIGHT APPARENT HC ODOR DETECTED PHYSICALLY WITHIN CUTTINGS (21.0 - 24.0 FT. BELOW GRADE).

NOTE:
- SAND.
- SILTY SAND.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

Monitor well consist of 2 inch PVC piping - casing from 2.00 ft. above grade to 13.00 ft. below grade, 0.010 slotted screen between 13.00 to 23.00 feet below grade, sand packed annular to 10 ft. below grade, then filled with clean native soil to surface.

DRAWING: RANDEL-7-MW6.SKF | DATE: 10/19/05 | DWN BY: NJV

Figure 11

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-817-6288

Borehole #: 1
Well #: MW-7
Page: 1 of 2

Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.508' N, 107° 59.720' W
GWL Depth: 19'
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/01/07
Date Completed: 05/01/07

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0	1	0-5'	cuttings	brown, unconsolidated, poorly sorted sand and gravel, damp	0	Easy
5	2	5-7'	split spoon	brown, unconsolidated, poorly sorted sand and gravel, damp	0	Easy
10	3	10-12	split spoon	10-10.5: brown, unconsolidated, poorly sorted sand and gravel, damp 10.5-12: whitish-brown medium sand, well sorted, unconsolidated, dry	0 0	Easy
15	4	15-17	split spoon	15-15.5: reddish brown coarse sand, poorly sorted, damp 15.5-16.5: brown clay with white chalkish material on top 16.5-17: reddish brown silty sand, coarse, poorly sorted, damp	7.2 0 0	Easy
20						

Comments:

Geologist Signature: Ashley L. Ager

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4466
Durango, CO 81302
303-917-6288

Borehole #: 1
Well #: MW-7
Page: 2 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.522' N, 107° 59.736' W
GWL Depth: 16.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/01/07
Date Completed: 05/01/07

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20	5	20-22	split spoon	20-20.4: reddish brown, coarse sand, poorly sorted, damp	1.3	Easy
				20.4-20.8: gray coarse sand, moist, poorly sorted	1.0	
				20.8-21: saturated gray coarse sand, poorly sorted	0.5	
				21-22: reddish gray clay	0	
25	6	25-16	split spoon	Variegated reddish brown clay, dry	0	Easy
30	7	30-32	split spoon	Variegated reddish brown clay, dry	0	Easy
35						
40						

Comments: Very thin saturated layer at approximately 20'. Stiff clay is present below that. Wet layer probably represents a small perched aquifer atop the clay.

Geologist Signature: Ashley L. Ager

Figure 12

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: 1
Well #: MW-8
Page: 1 of 2

Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.522' N, 107° 59.736' W
GWL Depth: 16.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/01/07
Date Completed: 05/01/07

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0	1	0-5'	cuttings	brown, unconsolidated, poorly sorted sand and gravel, damp	0	Easy
5	2	5-7'	split spoon	brown, unconsolidated, poorly sorted sand and gravel, damp	0	Easy
10	3	10-11.8	split spoon	brown, unconsolidated, poorly sorted sand and gravel, damp	0	Easy
15	4	15-16.9	split spoon	15-15.8: brown, unconsolidated, poorly sorted sand and gravel 15.8-16.4: moist, grayish brown sandy silt 16.4-16.9: coarse, poorly sorted, grayish brown sand, wet, some HC odor	0 52.8 319	Easy Easy Easy
20						

Comments:

Geologist Signature: Ashley L. Ager

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: 1
Well #: MW-8
Page: 2 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.522' N, 107° 59.736' W
GWL Depth: 16.5
Drilled By: Enviro-Drill
Well Logged By: Ashley Ager
Date Started: 05/01/07
Date Completed: 05/01/07

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20	5	20-21.8	split spoon	20-20.4: reddish brown sand, coarse, poorly sorted, some gravel content, moist 20.4-21.8: variegated reddish gray stiff clay, moist	78.9 0.2	Easy Easy
25	6	25-27	split spoon	Variegated reddish brown clay wet at top, dry at bottom	0	Easy
30	7	30-32	split spoon	30-30.7: variegated reddish brown clay 30.7-31.8: greenish gray silty sand, coarse, poorly sorted, consolidated, dry	0 0	Steady
35						
40						

Comments: Very thin saturated layer at approximately 16.5'. Stiff clay is present below that. Wet layer probably represents a small perched aquifer atop the clay.

Geologist Signature: Ashley L Ager

Figure 13

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: B-1
Well #: MW-9
Page: 1 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.531' N, 107° 59.731' W
GWL Depth: 16'
Drilled By: Kelly Padilla
Well Logged By: Ashley Ager
Date Started: 07/07/09
Date Completed: 07/07/09

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-5	cuttings	brown, poorly sorted coarse sand and gravel, road base		easy
5	1	5-7'	split spoon, 17"	0-13.5": 7.5 YR 5/6 strong brown sp, poorly sorted coarse sand, sub angular, dry, unconsolidated 13.5 - 17": 10YR 6/1 gray, sandy shale, crumbly	0	34 Blows
10	2	10-12	split spoon, 22"	10 YR 5/3 brown sp, poorly sorted, coarse sand, sub angular, dry	0	30 Blows
15	3	15-17	split spoon, 18"	0-2": same as above 2 - 16": 10 YR 5/3 brown sm, poorly sorted, medium sand w/ higher silt content, damp	0	25 Blows
20						

Comments:

Geologist Signature: Ashley L. Ager

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4466
Durango, CO 81302
303-917-6288

Borehole #: B-1
Well #: MW-9
Page: 2 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29.531' N, 107° 59.731' W
GWL Depth: 16'
Drilled By: Kelly Padilla
Well Logged By: Ashley Ager
Date Started: 07/07/09
Date Completed: 07/07/09

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20	4	20-22	split spoon, 20"	10 YR 3/2 v. dark grayish brown CL, clay some coarse sand at top, damp	0.1	68 Blows Wet rod
25	5	25-27	split spoon, 18"	10 YR 7/2 light gray CL, clay interbedded with 10 yr 4/2 dark grayish brown clays, iron discoloration, dry	0	58 Blows
30	6	30-32	split spoon, 18"	same as above, dry	0	76 Blows
35	7	35-37'	split spoon, 15"	same as above, dry	0	41 Blows
40						

Comments: Based on data from existing wells, damp sand layer at ~16' is water bearing unit. Contains only small amount of water, and hole is dry after drilling to 37'. Will let sit and see if wet layer fills in. 3" of water in hole after 30 mins. Set hole.

Geologist Signature: Ashley L. Ager

Figure 14

MONITORING WELL INSTALLATION RECORD

Borehole # B-1
Well # MW-9
Page 1 of 1

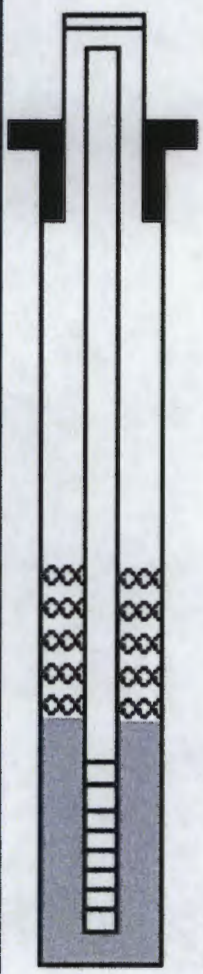
Lodestar Services, Inc
PO Box 3861
Farmington, New Mexico 87499
(505) 334-2791

Project Name XTO Ground Water
Project Number _____ Cost Code _____
Project Location OH Randel #7

Elevation 6330
Well Location 36° 29.531' N, 107° 59.731' W
GWL Depth 35.62'
Installed By Kyvek
Kelly Padilla
Date/Time Started 06/07/09, 1129
Date/Time Completed 06/08/09, 1015

On-Site Geologist Ashley Ager
Personnel On-Site Kelly, Kimo, Ritchie
Contractors On-Site
Client Personnel On-Site

Depths in Reference to Ground Surface		
Item	Material	Depth (feet)
Top of Protective Casing	Steel	2.5
Bottom of Protective Casing		-2.5
Top of Permanent Borehole Casing		NA
Bottom of Permanent Borehole Casing		NA
Top of Concrete	Concrete	1"
Bottom of Concrete		-1.5"
Top of Grout	Quickcrete	-2.0
Bottom of Grout		-16.0
Top of Well Riser	Sch. 40 PVC	2.2
Bottom of Well Riser		-21.0
Top of Well Screen	Sch. 40 PVC	-21.0
Bottom of Well Screen		-36.0
Top of Peltonite Seal	3/8" Bentonite hole plug	-16.0
Bottom of Peltonite Seal		-18.0
Top of Gravel Pack	10-20 grade silica sand	-18.0
Bottom of Gravel Pack		-36.2
Top of Natural Cave-In	Silty sand	-36.2
Bottom of Natural Cave-In		-36.8
Top of Groundwater		-35.62
Total Depth of Borehole		-36.8



Top of Protective Casing 2.5
Top of Riser 2.2
Ground Surface 0
Top of Seal -16.0
Top of Gravel Pack -18.0
Top of Screen -21.0
Bottom of Screen -36.0
Bottom of Borehole -36.8

Comments: 13 bags of sand used; 1 hole plug, 3 gallons of water; 3 bags of concrete for pad, 1 metal casing, 2 bags of quikcrete used

Geologist Signature Ashley L. Ager

Figure 15

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: B-2
Well #:
Page: 1 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29' 30.46" N, 107° 59' 44.2" W
GWL Depth: Dry Hole
Drilled By: Kelly Padilla
Well Logged By: Ashley Ager
Date Started: 07/07/09
Date Completed: 07/08/09

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
0		0-5'	cuttings	brown poorly sorted coarse sand and gravel - road base		easy
5	1	5-7'	split spoon, 11"	2.5 Y 6/1 Gray coarse sand sp, subrounded, backfill	0	Easy, 26 Blows
10	2	10-12	split spoon, 16"	2.5 Y 4/2 dark grayish brown, fine sand, poorly sorted, lots of fines	0	25 Blows
15	3	15-17	split spoon, 10"	2.5 Y 4/1 Dark Gray, fine silty sand, about 5% c. content, damp, backfill	0	12 Blows Wet rod
20						

Comments:

Geologist Signature: Ashley L Ager

RECORD OF SUBSURFACE EXPLORATION

LodeStar Services
P.O. Box 4465
Durango, CO 81302
303-917-6288

Borehole #: B-2
Well #:
Page: 2 of 2
Project Number:
Project Name: XTO Ground Water
Project Location: OH Randel #7

Borehole Location: 36° 29' 30.46" N, 107° 59' 44.2" W
GWL Depth: dry hole
Drilled By: Kelly Padilla
Well Logged By: Ashley Ager
Date Started: 07/07/09
Date Completed: 07/08/09

Drilling Method: Hollow Stem Auger
Air Monitoring Method: PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description	Air Monitoring	Drilling Conditions
20	4	20-22	split spoon, 19"	5 YR 3/2 Dark reddish brown CL, Clay, damp	0.1	59 Blows
25	5	25-27	split spoon, 16.5"	0 - 2": same as above 2-16.5": 10YR 6/2 light brownish gray, silty clay, dry	0	66 Blows
30	6	30-32	split spoon, 14"	same as above, damp	0	48 Blows
35	7	35-37'	split spoon, 9"	same as above, dry Stop to see if it fills	11.2	45 Blows
40						

Comments: Based on data from existing wells, damp sand layer at ~16' is water bearing unit. Contains only a small amount of water and hole is dry after drilling to 37'. Let sit for 2 hours, and did not fill in. Let sit overnight. At 11:15 am on 07/08/09, hole is still dry. Plug.

Geologist Signature: Ashley L Ager

Attachment 1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: XTO ENERGY INC. Telephone: (505)-324-1090 e-mail address:
Address: 2700 FARMINGTON AVE., BLDG. K, SUITE 1, FARMINGTON, NM 87401
Facility or well name: O. H. RANDEL #7 API #: 30-045- 24749 U/L or Qtr/Qtr D Sec 15 T 26N R 11W
County: SAN JUAN Latitude 36.49193 Longitude 107.99632 NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**
Type: Drilling ☐ Production ☒ Disposal ☐ SEPARATOR Workover ☐ Emergency ☐ Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness _____mil Clay ☐ Pit Volume _____bbl	Volume: _____bbl Type of fluid: Construction material: N/A Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (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.)	Yes No	(20 points) (0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)	0
	Ranking Score (Total Points)		20

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments. PIT LOCATED APPROXIMATELY 239 FT. S75E FROM WELL HEAD.
PIT EXCAVATION: WIDTH N/A ft., LENGTH N/A ft., DEPTH N/A ft.
PIT REMEDIATION: CLOSE AS IS: ☒, LANDFARM: ☐, COMPOST: ☐, STOCKPILE: ☐, OTHER ☐ (explain)
Cubic yards: N/A

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an alternative OCD-approved plan ☒.**

Date: 11/18/05

PrintedName/Title Jeff Blagg – P.E. # 11607 Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title Signature Date:

3004524749 36.49193/107.99632

CLIENT: XTO

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

LOCATION NO: _____
C.O.C. NO: 9796

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: O.H. RANDEL WELL #: 7 TYPE: ABAN. SEP.
QUAD/UNIT: D SEC: 15 TWP: 26N RNG: 11W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: 1150'N/1150'W NW/NW CONTRACTOR:

DATE STARTED: 3/12/02
DATE FINISHED: _____
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX. NA FT. x NA FT. x NA FT. DEEP. CUBIC YARDAGE: NA
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: _____
LAND USE: RANGE - BLM LEASE: _____ FORMATION: DK

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 239 FT. S75E FROM WELLHEAD
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

OVM CALIB. READ. 52.7 ppm
OVM CALIB. GAS = 100 ppm RF = 0.52
TIME: 11:48 (am)/pm DATE: 3/12/02

SOIL AND EXCAVATION DESCRIPTION:

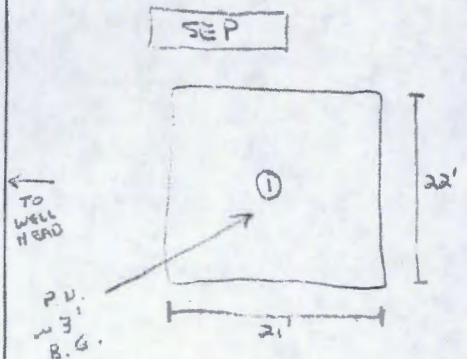
SOIL TYPE: (SAND) / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____
SOIL COLOR: MED. GRAY
COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
CONSISTENCY (NON COHESIVE SOILS): LOOSE / (FIRM) / DENSE / VERY DENSE
PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC
DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD
MOISTURE: DRY / SLIGHTLY MOIST / (MOIST) / WET / SATURATED / SUPER SATURATED
DISCOLORATION/STAINING OBSERVED: (YES) / NO EXPLANATION - BET. 4-6' BELOW GRADE
HC ODOR DETECTED: (YES) / NO EXPLANATION - MED. GRAY SAND (STAINED)
SAMPLE TYPE: (GRAB) / COMPOSITE - # OF PTS. -
ADDITIONAL COMMENTS: CONDUCTED SAMPLING WITH HAND SHOVEL.

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 6'	1,015
2 @	
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
(1) @ 6'	TPH (SW-418.1)	1153
"	BTEX (SW-8021B)	"

PIT PROFILE

P D = PIT DEPRESSION; B.G. = BELOW GRADE
T.H. = TEST HOLE, ~ = APPROX.; B = BELOW

TRAVEL NOTES: CALLOUT: 3/12/02 - MORN. ONSITE: 3/12/02 - MORN.

revised: 02/27/02 bei1005C.skd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	1 @ 6'	Date Reported:	03-14-02
Laboratory Number:	22253	Date Sampled:	03-12-02
Chain of Custody No:	9796	Date Received:	03-12-02
Sample Matrix:	Soil	Date Extracted:	03-14-02
Preservative:	Cool	Date Analyzed:	03-14-02
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,750**	**0.2**
Diesel Range (C10 - C28)	**15.5**	**0.1**
Total Petroleum Hydrocarbons	**1,770**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **O.H. Randel #7 Abandoned Separator Pit Grab Sample.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / XTO Energy	Project #:	94034-010
Sample ID:	1 @ 6'	Date Reported:	03-14-02
Laboratory Number:	22253	Date Sampled:	03-12-02
Chain of Custody:	9796	Date Received:	03-12-02
Sample Matrix:	Soil	Date Analyzed:	03-14-02
Preservative:	Cool	Date Extracted:	03-14-02
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**3,000**	**1.8**
Toluene	**1,180**	**1.7**
Ethylbenzene	**835**	**1.5**
p,m-Xylene	**1,550**	**2.2**
o-Xylene	**1,220**	**1.0**
Total BTEX	**7,790**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**95 %**
	1,4-difluorobenzene	**95 %**
	Bromochlorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **O.H. Randel #7 Abandoned Separator Pit Grab Sample.**

Analyst

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CHAIN OF CUSTODY RECORD

09796

Client / Project Name: BLAGG / ~~BP~~ XTO Energy

Project Location: ABANDONED SEPARATOR PIT C.H. RANDEL #7

Sampler: NJV

Client No.: 94034-010

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015B)	BTEX (8021B)					Remarks
												PRESERVED COOL
(1) C6'	3/12/02	1130	22253	SOIL	1	✓	✓					GRAB SAMPLE

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	3/12/02	1230	[signature]	3/12/02	1230
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-14-TPH QA/QC	Date Reported:	03-14-02
Laboratory Number:	22234	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-14-02
Condition:	N/A	Analysis Requested:	TPH

Gasoline Range C5 - C10	01-07-02	2.5028E-002	2.5003E-002	0.10%	0 - 15%
Diesel Range C10 - C28	01-07-02	1.2696E-002	1.2671E-002	0.20%	0 - 15%

Blank Conc (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 22234 -22239, 22253 and 22272.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-14-BTEX QA/QC	Date Reported:	03-14-02
Laboratory Number:	22234	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-14-02
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	[illegible]	[illegible]	[illegible]	Blank Conc	Detect. Limit
Benzene	6.9839E-002	7.0049E-002	0.3%	ND	0.2
Toluene	5.0724E-002	5.0825E-002	0.2%	ND	0.2
Ethylbenzene	8.2086E-002	8.2333E-002	0.3%	ND	0.2
p,m-Xylene	7.1064E-002	7.1278E-002	0.3%	ND	0.2
o-Xylene	6.2661E-002	6.2787E-002	0.2%	ND	0.1

Duplicate Conc (ug/Kg)	Sample	Duplicate	RPD	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	ND	ND	0.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

Spike Conc (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.8	99.6%	39 - 150
Toluene	ND	50.0	49.8	99.6%	46 - 148
Ethylbenzene	ND	50.0	49.8	99.6%	32 - 160
p,m-Xylene	ND	100	99.5	99.5%	46 - 148
o-Xylene	ND	50.0	49.8	99.6%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for sample 22234 - 22239, 22253 and 22272.**

Analyst

Review

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BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

April 17, 2002

Mr. Roger Anderson
Chief of Environmental Bureau
State of New Mexico Oil Conservation Division (NMOCD)
1220 St. Francis Drive
Santa Fe, New Mexico 87505

RE: Groundwater Impact
XTO Energy, Inc.

O.H. Randel # 7 Well site
Legal Description: Unit D, Sec. 15, T26N, R11W
San Juan County, New Mexico

Dear Mr. Anderson:

Physical observation of groundwater after monitor well construction was completed on March 22, 2002 at the above referenced well site indicates approximately 0.32 ft. or 3.84 inches of free phase product. The monitor well is located within an abandoned separator pit area. XTO Energy will adhere to its NMOCD approved groundwater management plan during further assessment of the apparent hydrocarbon contamination encountered. Depth to free phase product in the monitor well was approximately 16.36 ft. below the ground surface.

If you have any questions concerning this information, please do not hesitate to contact Nelson Velez or myself at (505) 632-1199. Thank you for your cooperation.

Respectfully submitted,
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Denny Foust, Environmental Geologist, NMOCD, Aztec, NM
Terry Matthews, Production Superintendent, XTO Energy, Inc., Farmington, NM
Nina Hutton, Environmental & Safety Manager, XTO Energy, Inc., Ft. Worth, TX

NJV/njv

RANDEL-7.LTR

Attachment 2

Lodestar Services, Inc.
P.O. Box 3861, Farmington, NM 87499-3861, 505-334-2791

August 15, 2006

Mr. Steve Austin
Navajo Nation EPA
PO Box 1999
Shiprock, NM 87420

CERTIFIED MAIL: 7004 1160 0007 4952 1517

RE: OH Randel #7

Dear Mr. Austin,

XTO Energy Inc. (XTO) has contracted Lodestar Services, Incorporated (Lodestar) to oversee groundwater monitoring and remedial activities at the OH Randel #7 natural gas production well. It has come to our attention that the well is located on land regulated by the Navajo Nation Environmental Protection Agency (NNEPA). Previous regulatory correspondence has been with the New Mexico Oil Conservation Division (NMOCD). An annual comprehensive report was submitted to the NMOCD in January 2006 and is included for your review.

The OH Randel #7 is located in Unit D of Section 16 of Township 26N, Range 11W, and includes a former oil-water-separator pit that may have affected shallow groundwater. Six groundwater monitoring wells were previously installed on the site to investigate groundwater quality. One of the wells, MW-6, contains free-phase hydrocarbons. Previously MW-1 and MW-2 contained free-phase hydrocarbons. MW-1 is located in the center of the former pit. MW-2 is directly adjacent to the pit, and MW-6 is located down gradient of the pit. The annual report included herein has several groundwater contour maps provided by Blagg Engineering that indicate varying groundwater flow directions. Navajo Agricultural Products Incorporated (NAPI) conducts irrigation adjacent to the site and may influence groundwater flow direction.

The following steps are proposed remove impacted soil and free-phase hydrocarbons:

1. Excavate affected soil associated with historical operations from the former pit. Impacted soil will be disposed at a local land farm permitted by the NMOCD. Soil headspace gas will be monitored with a photo-ionization detector (PID) to determine extent of impacted soil during excavation according to the NMOCD Guidelines for headspace analysis. Soil above 10 milligrams per kilogram (mg/kg) benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons will be removed. Laboratory analyses of composite samples collected from the sidewalls of the excavation will be used to document that impacted soil has been removed.
2. Erect temporary fencing around the excavated site and remove impacted water and free-phase hydrocarbons from the pit.

3. Once the free-phase hydrocarbons have been removed, backfill the excavation site with clean soil.
4. Replace groundwater-monitoring wells as necessary.
5. Install additional down gradient monitoring wells as necessary to characterize impacted groundwater.
6. Remove free phase hydrocarbons from groundwater, then sample groundwater-monitoring wells for benzene, toluene, ethylbenzene and total xylenes (BTEX) on a quarterly basis to monitor progress at the site.

Following completion of the above tasks, XTO will provide a letter report describing onsite activities and analytical results. XTO wishes to complete this work as soon as practical and will contact you to schedule activities. Should you have any questions or require additional information, please do not hesitate to contact Lisa Winn of XTO at (505) 324-1090 or you can call me at (505) 334 2791.

Sincerely,
LODESTAR SERVICES, INC

Martin Nee

Cc: Lisa Winn, XTO, w/o enclosures
Kim Champlin, XTO, w/o enclosures
Ashley Ager, LSI, w/o enclosures
Glenn Von Gonten, NMOCD
File
Attachments: Annual Report

cc mr Jim Walker USEPA

Lodestar Services, Incorporated
PO Box 3861 Farmington, NM 87499-3861 Office (505) 334-2791

January 29, 2007

Mr. William Freeman
Navajo Nation Environmental Protection Agency
PO Box 1999
Shiprock, NM 87420

RE: Report of Excavation and Sampling at OH Randel #7

Dear Mr. Freeman:

XTO Energy Inc. (XTO) operates the OH Randel #7 natural gas production well located in Unit D of Section 16 of Township 26N, Range 11W, San Juan County, New Mexico. A former oil-water-separator pit may have impacted soil and shallow groundwater at the site. On August 15, 2006, XTO submitted a work plan to the Navajo Nation Environmental Protection Agency (NNEPA) describing planned remedial activities to investigate and remove impacted soil. XTO contracted Lodestar Services, Incorporated (Lodestar) to direct excavation activities according to the August 15 work plan. Core Oilfield Services completed the excavation, backfilling, and transportation of impacted soil to Envirotech Inc.'s land farm. Clean backfill was purchased from Moss Excavation's gravel pit located on highway 550 in Bloomfield, NM.

On November 13-27, 2006, a geologist from Lodestar was present during excavation of impacted soil at the OH Randel #7. During excavation, field screening according to the New Mexico Oil Conservation Division's (NMOCD) guidelines for headspace analysis was conducted to determine extent of impacted soil by collecting samples from the sidewalls and floor of the excavated pit. Following headspace screening and excavation, composite samples from the sidewalls and floor of the excavation were collected for laboratory analysis. Samples were collected where field screening indicated the highest concentrations of hydrocarbons. Compositing included placing four aliquots of soil from a given wall or floor into a one-gallon plastic bag. The soil within the bag was thoroughly mixed before filling a four-ounce glass jar. The sample was immediately placed on ice, and maintained under strict chain-of-custody until delivered to Envirotech Laboratories in Farmington, NM. Envirotech Laboratories analyzed the samples for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH) by United States Environmental Protection Agency (USEPA) methods 8021 and 8015, respectively. The results of sample analyses are as follows:

	GRO (ppm)	DRO (ppm)	TPH (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl benzene (ppb)	P&M Xylenes (ppb)	O Xylenes (ppb)	Total BTEX (ppb)
NMOCD Standard			100	10,000					50,000
North Excavation North Wall	2.6	3.6	6.2	2.2	20.3	39.1	374	64.8	500
North Excavation East Wall	1080	266	1350	518	3230	3290	9590	3610	20240

	GRO (ppm)	DRO (ppm)	TPH (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl benzene (ppb)	P&M Xylenes (ppb)	O Xylenes (ppb)	Total BTEX (ppb)
NMOCD Standard			100	10,000					50,000
North Excavation West Wall	8.0	ND	8.0	2.0	746	889	2170	979	4790
North Excavation Floor	3.6	ND	3.6	10.5	65.9	119	619	202	1020
South Excavation East Wall	5.2	15.0	20.2	7.4	50.7	16.7	78.6	37.0	190
South Excavation West Wall	0.5	0.4	0.9	3.3	9.1	19.6	84.7	28.4	145
South Excavation Floor	ND	ND	ND	ND	4.4	7.7	24.5	5.3	41.9
South Excavation South Wall	ND	ND	ND	ND	1.9	7.9	24.8	8.7	43.3

GRO: Gasoline Range Organics; DRO: Diesel Range Organics;
ND: Not Detected in sample; ppm: parts per million; ppb: parts per billion

Approximately six thousand eight hundred and eighty two cubic yards of soil were removed for treatment to the land farm. Lodestar and XTO met with the USEPA and the NNEPA on November 27, 2006 at the job site and received permission to backfill the excavation based on the above results.

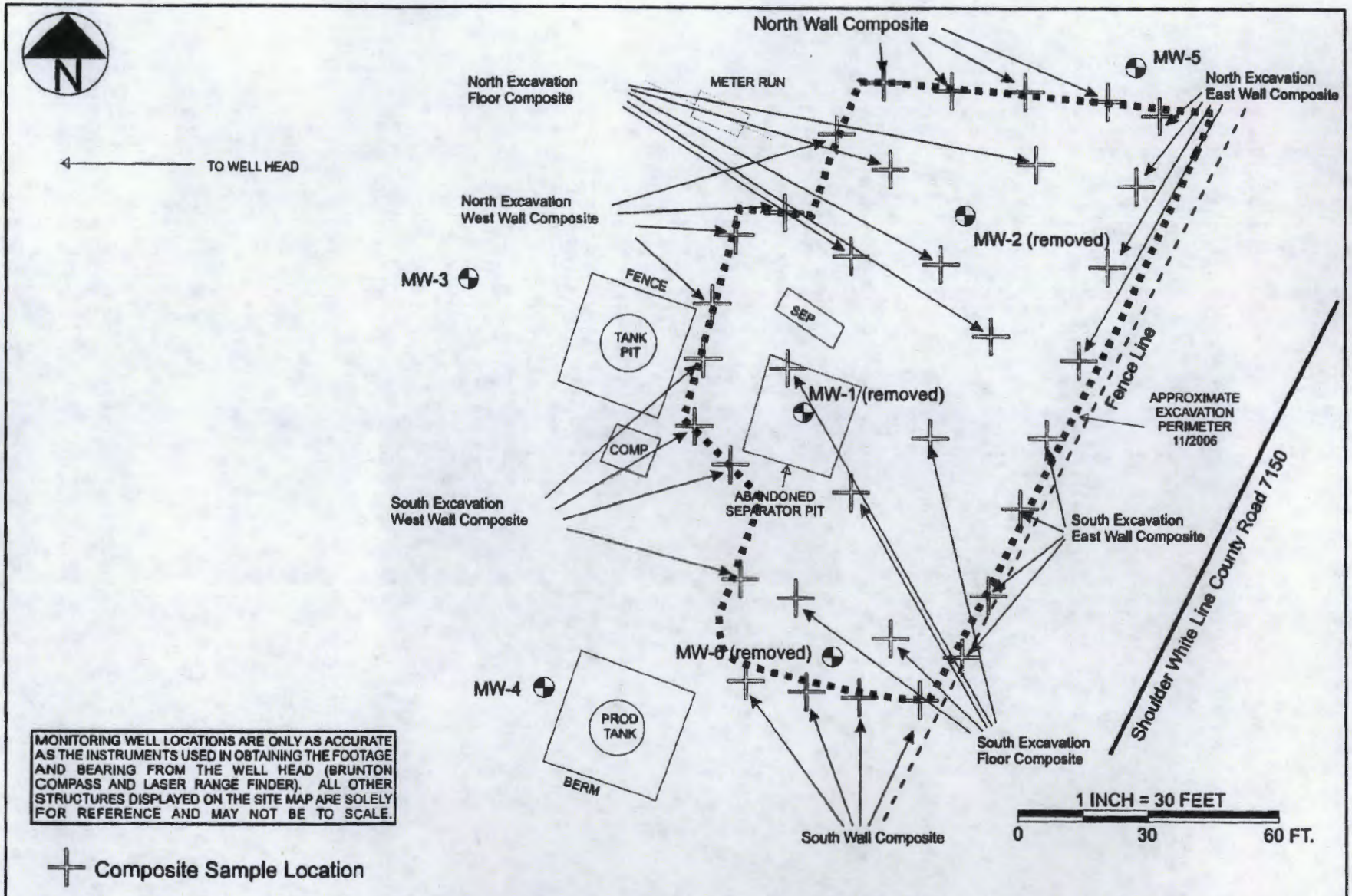
Six groundwater monitoring wells were previously installed on the site to investigate groundwater quality. Three of the wells, MW-1, MW-2, and MW-6 were removed during excavation activities.

Laboratory reports and Bill-of-Lading copies are attached. Please contact Lisa Winn of XTO at (505) 324-1090 with any questions that may arise.

Sincerely,
Lodestar Services, Inc.

Martin Nee

Cc: Jim Walker, USEPA
Lisa Winn, XTO Energy
Kim Champlin, XTO Energy
Ashley Ager, Lodestar Services



Lodestar Services, Inc PO Box 3861 Farmington, NM 87499	OH RANDEL #7 NW/4 NW/4 SEC. 15, T26N, R11W SAN JUAN COUNTY, NEW MEXICO	PROJECT: XTO Excavation DRAWN BY: MJN REVISED: 01/29/07	Composite Sample Location Map 1/29/2007

Attachment 4

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT: XTO Energy
Project: Ground Water
Lab Order: 0907183

Lab ID: 0907183-01 **Collection Date:** 7/8/2009 3:20:00 PM
Client Sample ID: ~~Federal GCH #1 MW-2~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	7.5	1.0		µg/L	1	7/13/2009 11:29:15 PM
Toluene	ND	1.0		µg/L	1	7/13/2009 11:29:15 PM
Ethylbenzene	13	1.0		µg/L	1	7/13/2009 11:29:15 PM
Xylenes, Total	3.0	2.0		µg/L	1	7/13/2009 11:29:15 PM
Surr: 4-Bromofluorobenzene	93.3	65.9-130		%REC	1	7/13/2009 11:29:15 PM

Lab ID: 0907183-02 **Collection Date:** 7/8/2009 3:09:00 PM
Client Sample ID: ~~Federal GCH #1 MW-1~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	16	10		µg/L	10	7/14/2009 12:02:24 AM
Toluene	ND	10		µg/L	10	7/14/2009 12:02:24 AM
Ethylbenzene	280	10		µg/L	10	7/14/2009 12:02:24 AM
Xylenes, Total	530	20		µg/L	10	7/14/2009 12:02:24 AM
Surr: 4-Bromofluorobenzene	100	65.9-130		%REC	10	7/14/2009 12:02:24 AM

Lab ID: 0907183-03 **Collection Date:** 7/8/2009 10:40:00 AM
Client Sample ID: OH Randel #7 MW-8 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:32:56 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2009 12:32:56 AM
Surr: 4-Bromofluorobenzene	81.5	65.9-130		%REC	1	7/14/2009 12:32:56 AM

Lab ID: 0907183-04 **Collection Date:** 7/8/2009 10:00:00 AM
Client Sample ID: OH Randel #7 MW-7 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	9800	100		µg/L	100	7/14/2009 2:04:21 AM
Toluene	8200	100		µg/L	100	7/14/2009 2:04:21 AM
Ethylbenzene	ND	100		µg/L	100	7/14/2009 2:04:21 AM
Xylenes, Total	12000	200		µg/L	100	7/14/2009 2:04:21 AM
Surr: 4-Bromofluorobenzene	96.3	65.9-130		%REC	100	7/14/2009 2:04:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT: XTO Energy
Project: Ground Water

Lab Order: 0907183

Lab ID: 0907183-05 **Collection Date:** 7/8/2009 11:57:00 AM
Client Sample ID: OH Randel #7 MW-9 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	91	1.0		µg/L	1	7/14/2009 3:05:15 AM
Toluene	160	1.0	E	µg/L	1	7/14/2009 3:05:15 AM
Ethylbenzene	6.9	1.0		µg/L	1	7/14/2009 3:05:15 AM
Xylenes, Total	100	2.0		µg/L	1	7/14/2009 3:05:15 AM
Surr: 4-Bromofluorobenzene	97.9	65.9-130		%REC	1	7/14/2009 3:05:15 AM

Lab ID: 0907183-06 **Collection Date:** 7/8/2009 12:57:00 PM
Client Sample ID: ~~PO Pipkin 3E MW-2~~ **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	5.2	1.0		µg/L	1	7/14/2009 2:07:00 PM
Toluene	ND	1.0		µg/L	1	7/14/2009 2:07:00 PM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 2:07:00 PM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2009 2:07:00 PM
Surr: 4-Bromofluorobenzene	92.5	65.9-130		%REC	1	7/14/2009 2:07:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: XTO Energy
Project: Ground Water **Work Order:** 0907183

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			**Batch ID:**	**R34504**	**Analysis Date:**	**7/13/2009 9:16:57 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		*MBLK*			**Batch ID:**	**R34522**	**Analysis Date:**	**7/14/2009 9:32:33 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:**	**R34504**	**Analysis Date:**	**7/13/2009 7:55:26 PM**	
Benzene	19.53	µg/L	1.0	97.7	85.9	113			
Toluene	19.16	µg/L	1.0	95.8	86.4	113			
Ethylbenzene	19.44	µg/L	1.0	97.2	83.5	118			
Xylenes, Total	57.95	µg/L	2.0	96.6	83.4	122			

Qualifiers:

B	Estimated value	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.

Sample Receipt Checklist

Client Name XTO ENERGY | Date Received: 7/10/2009

Work Order Number 0907183 | Received by: TLS

Checklist completed by: [signature] Signature | 7/16/09 Date | Sample ID labels checked by: [initials] Initials

Matrix: | Carrier name: UPS

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 ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	2.8°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: XTO Energy
Kim Champlin
Mailing Address: 382 CR 3100
Aztec NM 87410
Phone #: 505.333.3207
email or Fax#:
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush
Project Name: Groundwater
Project #: ~~Ashley~~
Project Manager: Ashley Tyler
Sampler:
On Ice: ☑ Yes ☐ No
Sample Temperature: 5.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 090193	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 6 TEX				Air Bubbles (Y or N)
8/3/09	15:20	AQ	Federal GC #1 MW-2	glass/3	HCl	1												✓				
8/3/09	1509	AQ	Federal GC #1 MW-1	glass/3	HCl	2												✓				
8/3/09	10:40	AQ	OH Randel #7 MW-8	glass/3	HCl	3												✓				
8/3/09	10:00	AQ	OH Randel #7 MW-7	glass/3	HCl	4												✓				
8/3/09	1157	AQ	OH Randel #7 MW-9	glass/1	HCl	5												✓				
8/3/09	1257	AQ	P.O. Pipkin 3E MW-2	glass/3	HCl	6												✓				

Date	Time	Relinquished by:	Received by:	Date	Time
8/3/09	1700		7/10/09		930
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: OH Randel MW-9 - well went dry before more samples could be taken.
Please CC results to: ala@lodestarservices.com
adh@lodestarservices.com
Thank you!

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-09*

CLIENT: XTO Energy
Project: OH Randel #7

Lab Order: 0911175

Lab ID: 0911175-01 **Collection Date:** 11/5/2009 12:43:00 PM
Client Sample ID: MW-7 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	9800	100		µg/L	100	11/13/2009 6:07:04 PM
Toluene	7900	100		µg/L	100	11/13/2009 6:07:04 PM
Ethylbenzene	570	10		µg/L	10	11/12/2009 11:55:09 PM
Xylenes, Total	13000	200		µg/L	100	11/13/2009 6:07:04 PM
Surr: 4-Bromofluorobenzene	97.0	65.9-130		%REC	100	11/13/2009 6:07:04 PM

Lab ID: 0911175-02 **Collection Date:** 11/5/2009 1:24:00 PM
Client Sample ID: MW-8 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1.1	1.0		µg/L	1	11/13/2009 11:41:03 PM
Toluene	ND	1.0		µg/L	1	11/13/2009 11:41:03 PM
Ethylbenzene	ND	1.0		µg/L	1	11/13/2009 11:41:03 PM
Xylenes, Total	ND	2.0		µg/L	1	11/13/2009 11:41:03 PM
Surr: 4-Bromofluorobenzene	82.4	65.9-130		%REC	1	11/13/2009 11:41:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Estimated value
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: OH Randel #7

Work Order: 0911175

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				**Batch ID:**	**R36161**	**Analysis Date:**	**11/12/2009 10:10:54 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		*MBLK*				**Batch ID:**	**R36179**	**Analysis Date:**	**11/13/2009 10:41:17 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:**	**R36161**	**Analysis Date:**	**11/13/2009 5:28:07 AM**		
Benzene	18.02	µg/L	1.0	20	0	90.1	85.9	113			
Toluene	18.41	µg/L	1.0	20	0	92.0	86.4	113			
Ethylbenzene	18.37	µg/L	1.0	20	0	91.8	83.5	118			
Xylenes, Total	55.04	µg/L	2.0	60	0	91.7	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*				**Batch ID:**	**R36179**	**Analysis Date:**	**11/13/2009 8:38:43 PM**		
Benzene	18.56	µg/L	1.0	20	0	92.8	85.9	113			
Toluene	18.79	µg/L	1.0	20	0	94.0	86.4	113			
Ethylbenzene	17.97	µg/L	1.0	20	0	89.8	83.5	118			
Xylenes, Total	53.88	µg/L	2.0	60	0	89.8	83.4	122			

Qualifiers:

B	Estimated value	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.

Sample Receipt Checklist

Client Name XTO ENERGY | Date Received: 11/9/2009

Work Order Number 0911175 | Received by: TLS

Checklist completed by: _____ (Signature) 11/9/09 (Date) | Sample ID labels checked by: TS (Initials)

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 ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	5.0°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: XTO

Kim Champlin

Mailing Address: 382 CR 3100

Aztec, NM 87410

Phone #: 505-333-3207

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: OH Randel #7

Project #:

Project Manager: Ashley Ager

Sampler: Devin Hencmann

On Ice: [illegible]

Sample Temperature: [illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
11-5-09	1243	Aq	MW-7	3	HCl	1
11-5-09	1324	Aq	MW-8	3	$HgCl_2$	2

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX 8021				Air Bubbles (Y or N)
											XX				
											X				

Date	Time	Relinquished by:	Received by:	Date	Time
11-5-09	1840	[signature]	[signature]	11/9/09	801
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Please forward results to: ala@lodestarservices.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.