3R - 004

CLOSURE REPORT

DECEMBER 2010

3R004

BP AMERICA PRODUCTION CO.

GROUNDWATER REMEDIATION REPORT

BOYD GC #1A
(A) SECTION 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
NEW MEXICO OIL CONSERVATION DIVISION
1220 ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87504

DECEMBER 2010

PREPARED BY:
BLAGG ENGINEERING, INC.

Consulting Petroleum / Reclamation Services
P.O. Box 87
Bloomfield, New Mexico 87413

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE¼ NE¼, Sec. 8, T31N, R10W

Monitor Well Installation Dates: 10/31/2002 (MW #2), 12/13/2002 (MW #1, MW #3), 1/16/2003 (MW #4), 7/24/2006 (MW #5)

Monitor Well Sampling Dates: 3/31/09, 5/16/09, 9/2/09, 12/16/09, 3/3/10, 5/20/10, 7/20/10, 10/12/10

Pit Closure and Background:

Groundwater was encountered at a depth of approximately 24 feet below surface grade during excavation of impacted soils from an earthen separator/dehydrator (sep/dehy) pit in July/August 1994. Impacted soils discovered at the site's compressor 21 barrel below-grade tank (**BGT**) were encountered during closure activities in October 2002. The origin of the release is unknown; however, the observations noted during the closure activity indicate a historical nature is highly probable. Potential groundwater impact was identified within the compressor BGT source area via installation of a monitor well in November 2002 (MW #2). Documentation for this work and subsequent groundwater monitoring data for the site was previously submitted to the New Mexico Oil Conservation Division (**NMOCD**) for review. Continued annual and/or quarterly sampling and testing pursuant to BP's NMOCD approved Groundwater Management Plan (**GMP**) was recommended within the report. The reporting herein is for site monitoring conducted in 2009 and 2010 only.

Groundwater Monitor Well Sampling Procedures:

Monitor wells were developed by hand-bailing, using new disposable bailers after installation. Prior to sample collections, the monitor wells were purged approximately three (3) well bore volumes with new disposable bailers. The groundwater samples were collected following US EPA: SW-846 protocol, were placed into laboratory supplied containers with appropriate preservative, and stored in an ice chest for express delivery to an analytical laboratory for testing under strict chain-of-custody procedures. Analytical testing for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by US EPA Method 8021B or 8260 was conducted.

Fluids generated during monitor well development and purging were managed by discarding into the separator BGT located on the well site. The BGT contents are eventually disposed through approved NMOCD operational procedures for removal of produced fluids.

Water Quality and Gradient Information:

Sampling of the groundwater monitor wells has been ongoing since November, 2002. Test results for MW #1, MW #3, and MW #5 were discussed in the previous annual report. Groundwater at the site of the prior compressor BGT (MW #2) has tested benzene and total xylenes in excess of New Mexico Water Quality Control Commission (**NMWQCC**) standards since 2002. MW #4 has tested benzene levels fluctuating above and below NMWQCC standards since quarterly sampling was initiated in June 2003. A summary of BTEX laboratory analytical results is included within the table on the following pages. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included.
Groundwater contour maps (Figure 2 through Figure 9) reveal the relative elevations from the site wells have shown an apparent west or northwest flow direction. It was noted within the previous annual reports; a significant fluctuation (4± feet) in seasonal depth to water levels was likely due to crop irrigation and ditch flow between April – October.

Summary and/or Recommendations:

Bi-annual sampling of MW #2 and the continuation of quarterly sampling of MW #4 is proposed unless changes in their analytical data suggest otherwise. This site will continue to have sampling and testing pursuant to BP's GMP. If warranted, alternative remedial actions will be evaluated.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

BOYD GC # 1A
UNIT A, SEC. 8, T31N, R10W

REVISED DATE: October 28, 2010

FILENAME: (B1A-4Q10.WK4) NJV

								BTEX EPA METHOD 8021B (ppb)			
SAMPLE DATE	WELL NAME or #	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	Benzene	Toluene	Ethyl Benzene	Total Xylene
04-Oct-02	**GAINES**	NA	NA					ND	ND	ND	ND
10-Aug-06		NA	NA					ND	ND	ND	ND
31-Oct-02	**HARRIS**	NA	NA					ND	ND	ND	ND
09-Jun-03	MW #1	23.31	29.50		700	6.96		ND	ND	ND	ND
20-Aug-03		19.00			900	7.21		ND	ND	ND	ND
11-Nov-03		22.84			900	7.17		ND	ND	ND	ND
27-May-04		26.49			900	6.80		ND	ND	ND	ND
28-Sep-04		19.59			900	7.20		ND	ND	ND	ND
13-Nov-02	MW #2	23.31	29.50		700	6.84		**705**	597	60	**959**
09-Jun-03		23.06			700	6.89		**830**	110	170	**1,800**
20-Aug-03		18.11			700	6.94		**58**	ND	60	**800**
27-May-04		26.76			1,000	6.67		**940**	ND	200	**1,200**
23-Jun-05		22.31			1,100	6.82		**1,400**	21	490	**5,500**
28-Jun-06		18.59			800	6.88		**75**	ND	ND	**1,600**
24-Jun-08		24.04			900	6.98		**553**	ND	117	**1,590**
27-Aug-08		22.41			700	6.81		**410**	ND	170	**2,400**
16-May-09		27.79			600	6.79		**530**	ND	140	**1,200**
20-May-10		26.44			900	6.91		**160**	18	58	**590**
09-Jun-03	MW #3	26.46	29.50		600	6.92		ND	ND	ND	ND
20-Aug-03		23.11			900	7.08		ND	ND	ND	ND
11-Nov-03		26.23			900	7.17		ND	ND	ND	ND
28-Sep-04		23.17			800	7.17		ND	ND	ND	ND
09-Jun-03	MW #4	28.09	34.50		1,000	6.69		**15**	ND	4.5	0.75
20-Aug-03		25.26			1,000	6.80		**460**	71	100	88
11-Nov-03		28.08			1,000	7.00		**270**	ND	310	440
27-May-04		30.52			1,000	6.87		**5.1**	ND	14	51
28-Sep-04		25.13			700	6.91		**140**	ND	18	9.1
23-Jun-05		27.81			1,000	6.73		**0.68**	0.59	2.0	ND
20-Sep-05		27.28			800	6.70		**120**	3.4	120	130
28-Jun-06		26.96			900	6.80		**ND**	ND	ND	ND
15-Nov-06		28.74			800	7.08		**29**	ND	38	200
24-Jan-07		31.17			800	7.14		**40**	ND	140	**1,300**
18-Apr-07		32.44			800	6.98		**ND**	ND	1.6	**ND**
24-Jul-07		27.82			700	7.01		**ND**	ND	ND	**ND**
23-Oct-07		28.73			1,000	6.93		**26**	ND	20	**120**
15-Apr-08		32.09			800	7.11		**1.0**	ND	50.9	**186**
24-Jun-08		28.90			800	7.10		**ND**	ND	3.2	**ND**
27-Aug-08		27.68			900	7.15		**ND**	ND	ND	**ND**
20-Dec-08		29.54			800	7.21		**120**	ND	150	**570**
31-Mar-09		31.73			700	7.34		**13**	ND	210	**1,200**
16-May-09		30.71			700	7.22		**ND**	ND	21	**72**
02-Sep-09		27.09			900	7.38		**12**	ND	ND	**ND**
16-Dec-09		30.07			800	7.50		**33**	ND	140	**510**
03-Mar-10		31.90			800	7.36		**7.5**	ND	170	**1,100**
20-May-10		30.22			900	7.34		**ND**	ND	7.4	**ND**
20-Jul-10		28.15			900	7.17		**ND**	ND	ND	**ND**
12-Oct-10		28.55			1,000	7.21		**16**	ND	17	**37**
					NMWQCC GROUNDWATER STANDARDS			**10**	**750**	**750**	**620**

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

BOYD GC # 1A
UNIT A, SEC. 8, T31N, R10W

REVISED DATE: October 28, 2010

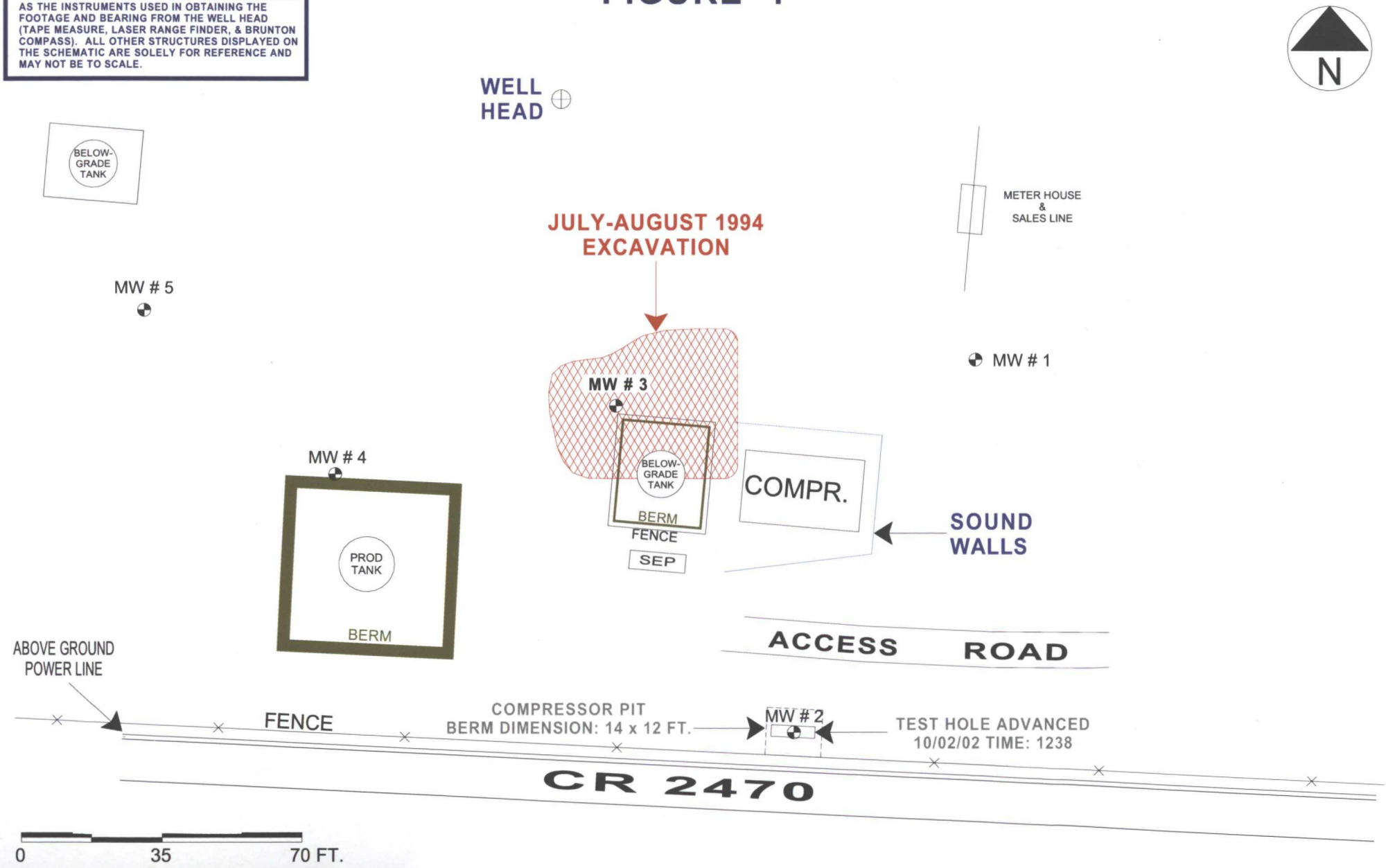
FILENAME: (B1A-4Q10.WK4) NJV

SAMPLE DATE	WELL NAME or #	D.T.W. (ft)	T.D. (ft)	TDS (mg/L)	COND. umhos	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb) Benzene	Toluene	Ethyl Benzene	Total Xylene
10-Aug-06	MW #5	23.90	36.30		1,100	6.84		**23**	ND	11	15
15-Nov-06		26.20			900	7.05		**6.8**	ND	2.9	ND
24-Jan-07		28.35			800	7.13		**1.3**	ND	ND	ND
18-Apr-07		29.29			900	6.90		**ND**	ND	ND	ND
24-Jul-07		25.25			1,500	6.74		**ND**	ND	ND	ND
					NMWQCC GROUNDWATER STANDARDS			**10**	**750**	**750**	**620**

NOTES :
1) GAINES WATER WELL CURRENTLY CATEGORIZED AS UP GRADIENT FROM MW # 2 .
2) HARRIS WATER WELL CURRENTLY CATEGORIZED AS LATERAL GRADIENT FROM MW # 2 .
3) MW # 2 LOCATED WITHIN COMPRESSOR PIT , IDENTIFIED WITH SOIL HYDROCARBON CONTAMINATION ON 10 / 2 / 02 .
4) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .
5) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .
6) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10) .

FIGURE 1

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



BP AMERICA PRODUCTION COMPANY

BOYD GC # 1A

NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING

DRAFTED BY: NJV

FILENAME: BOYD GC 1A-SM3.SKF

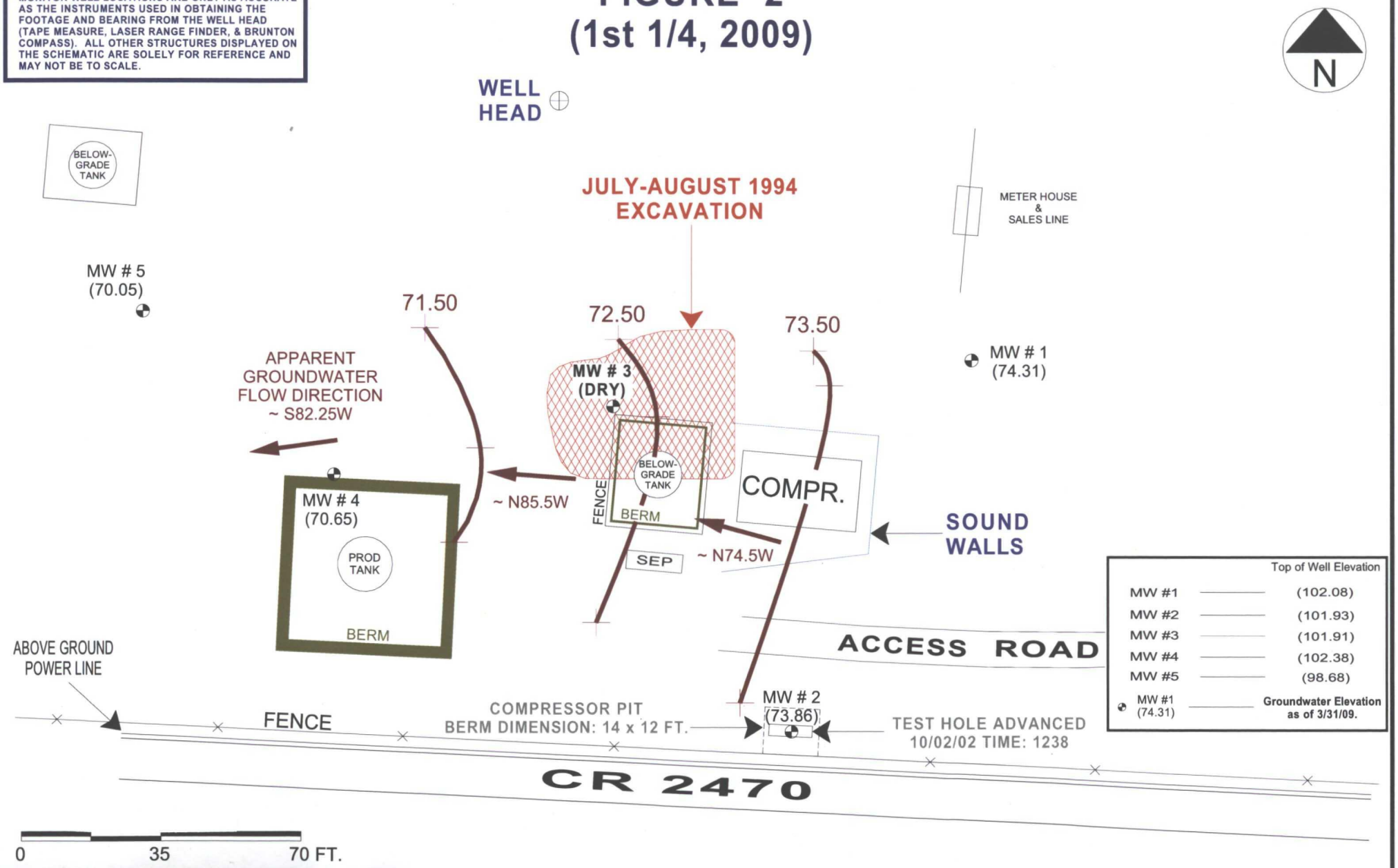
REVISED: 05-22-09 NJV

SITE MAP

05/09

FIGURE 2
(1st 1/4, 2009)

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



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)

MW #1 (74.31) — Groundwater Elevation as of 3/31/09.

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

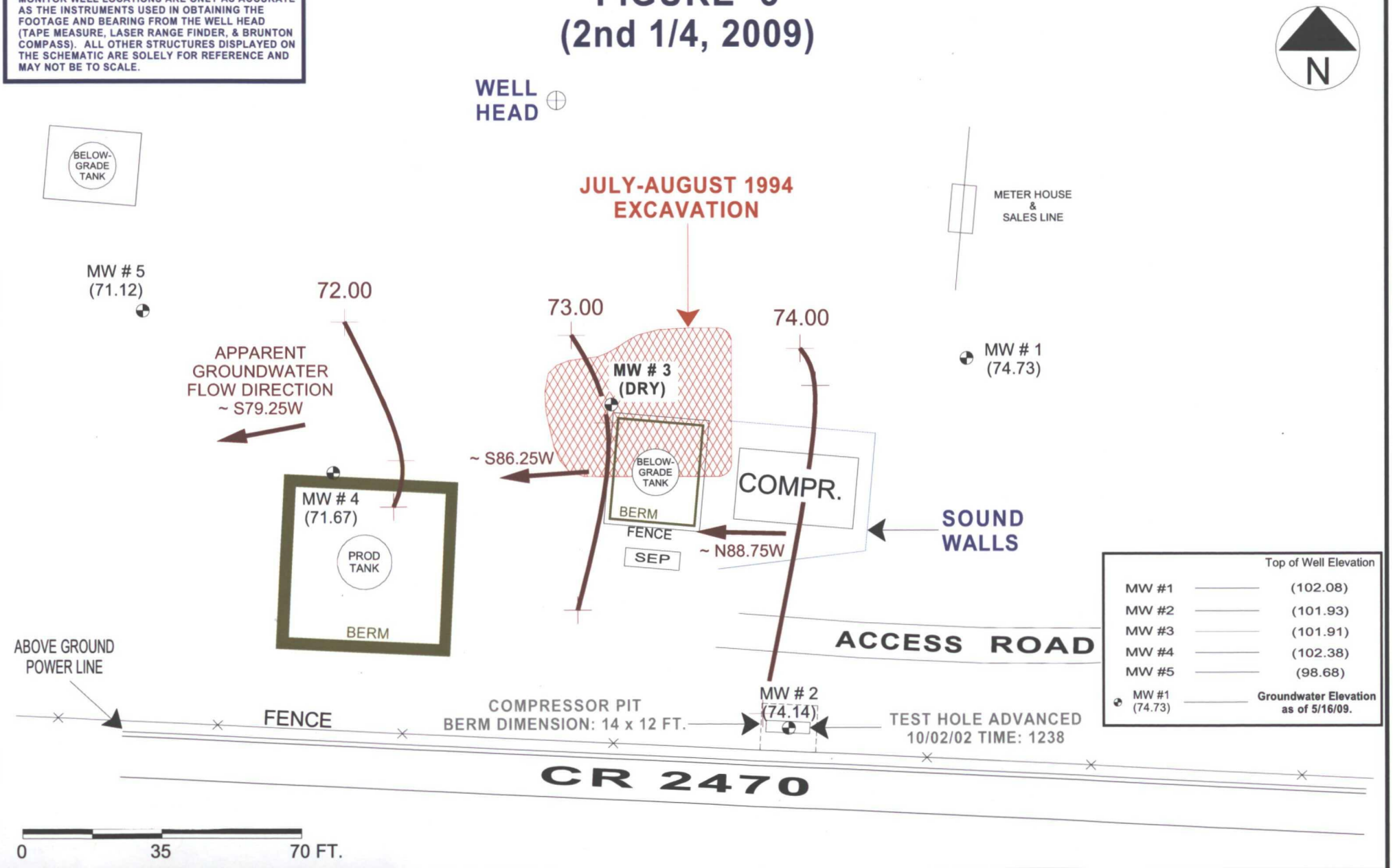
BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 03-31-09-GW.SKF
REVISED: 04-01-09 NJV

GROUNDWATER CONTOUR MAP
03/09

FIGURE 3
(2nd 1/4, 2009)

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



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)

MW #1 (74.73) — Groundwater Elevation as of 5/16/09.

BP AMERICA PRODUCTION COMPANY

BOYD GC # 1A

NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING

DRAFTED BY: NJV

FILENAME: 05-16-09-GW.SKF

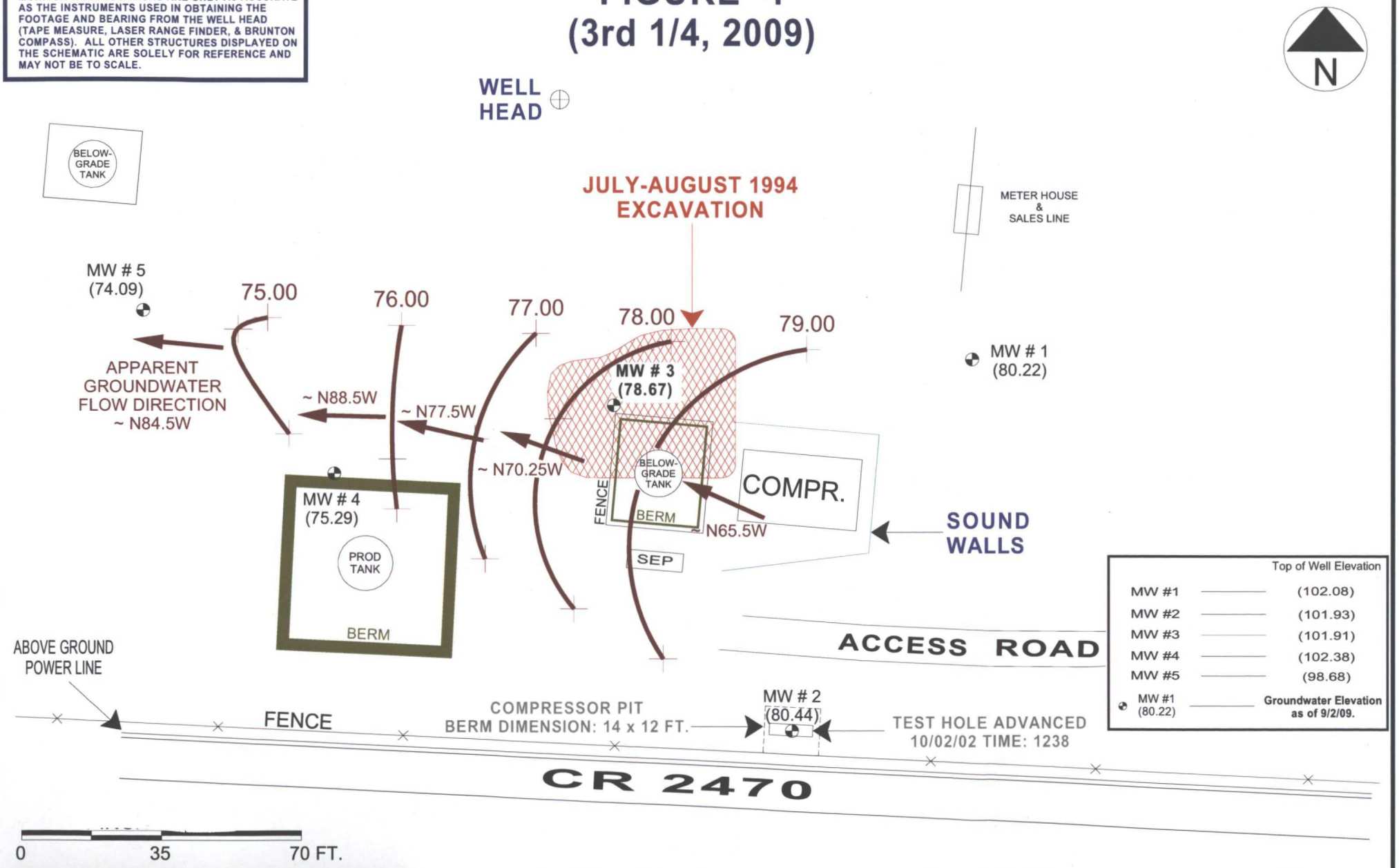
REVISED: 05-22-09 NJV

GROUNDWATER CONTOUR MAP

05/09

FIGURE 4
(3rd 1/4, 2009)

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



BP AMERICA PRODUCTION COMPANY

BOYD GC # 1A

NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING

DRAFTED BY: NJV

FILENAME: 09-02-09-GW.SKF

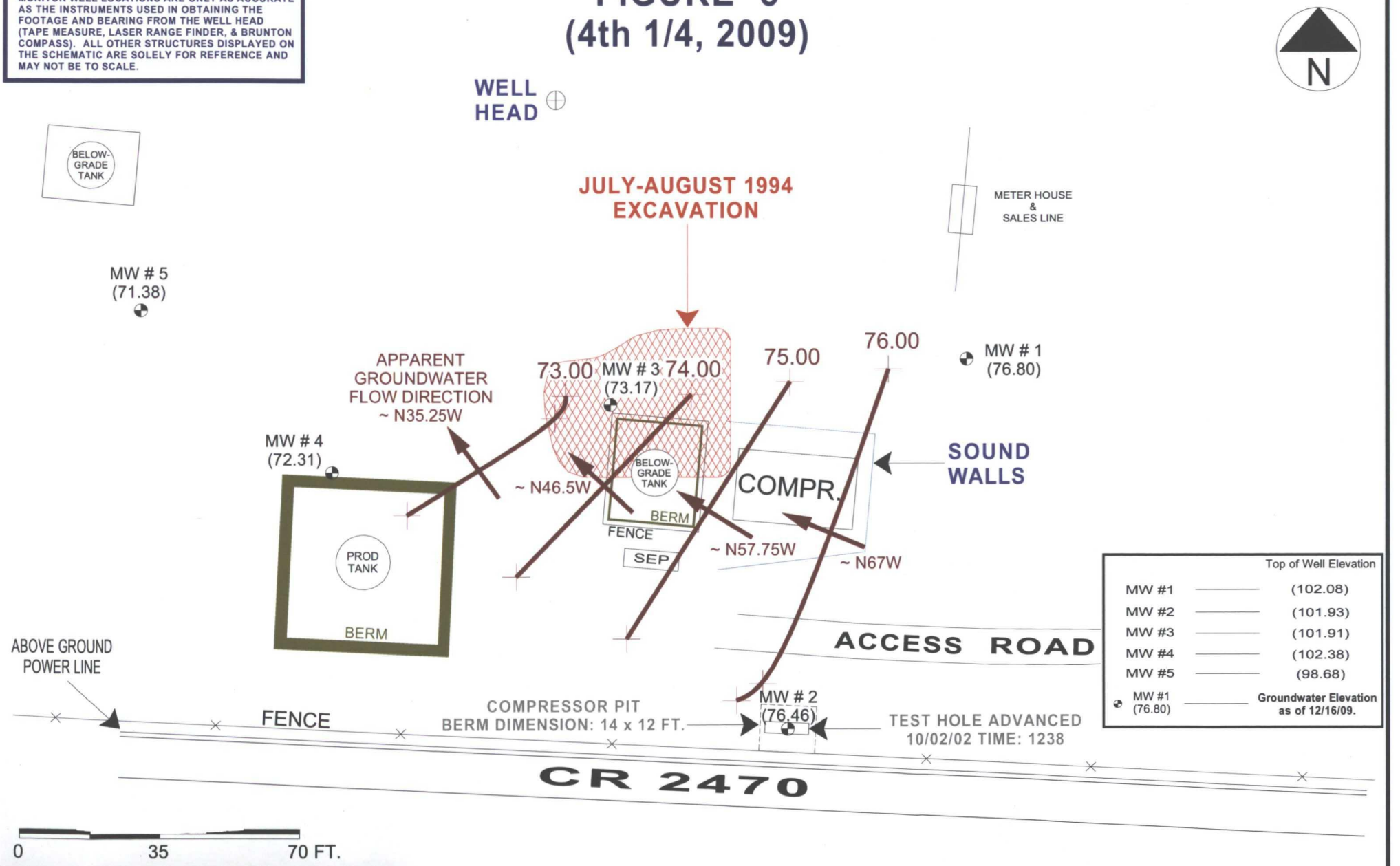
REVISED: 09-02-09 NJV

GROUNDWATER CONTOUR MAP

09/09

FIGURE 5
(4th 1/4, 2009)

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



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)

MW #1 (76.80) — Groundwater Elevation as of 12/16/09.

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

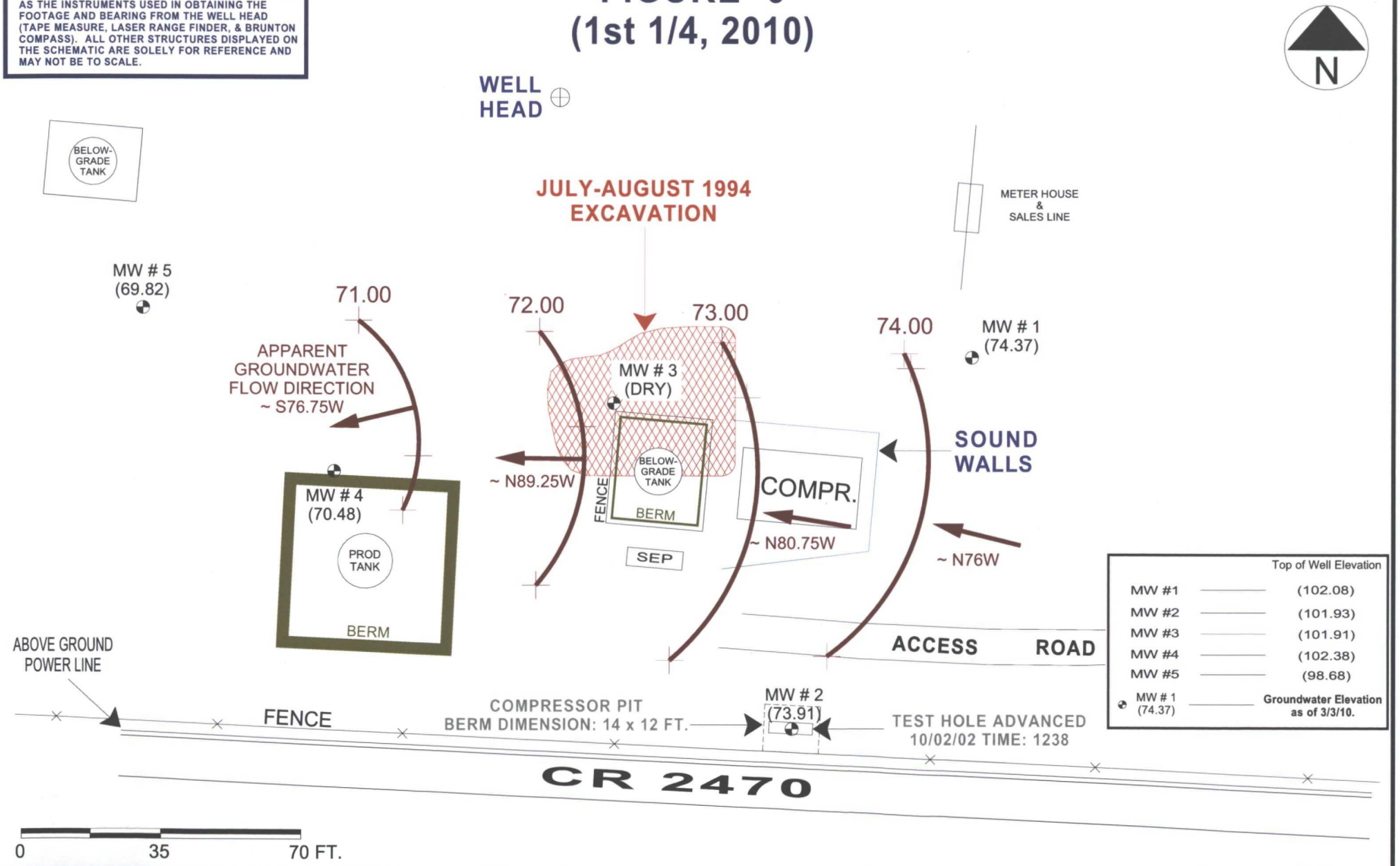
BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 12-16-09-GW.SKF
REVISED: 12-19-09 NJV

GROUNDWATER CONTOUR MAP
12/09

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

FIGURE 6
(1st 1/4, 2010)



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)
MW # 1 (74.37)	Groundwater Elevation as of 3/3/10.

BP AMERICA PRODUCTION COMPANY

BOYD GC # 1A

NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING

DRAFTED BY: NJV

FILENAME: 03-03-10-GW.SKF

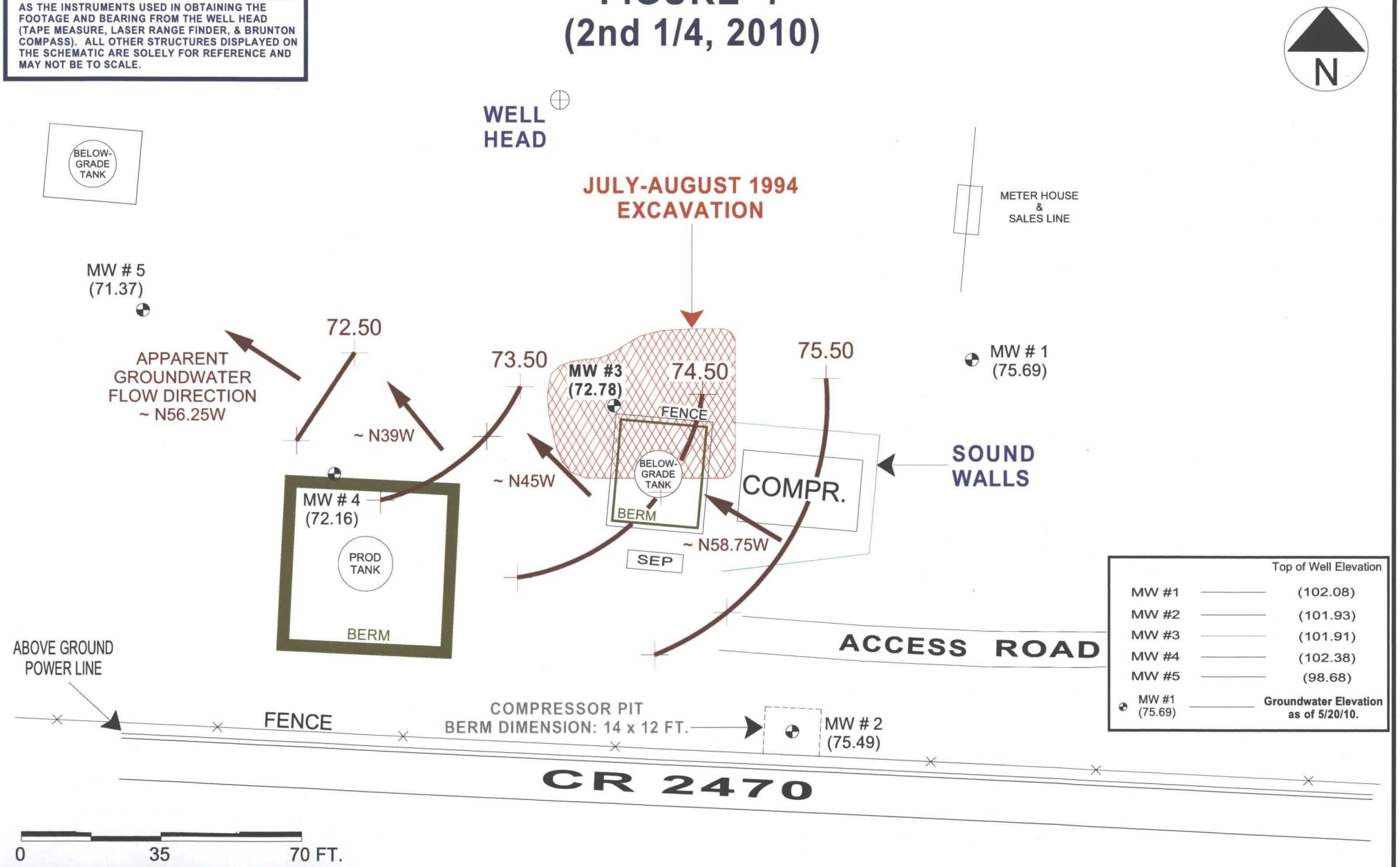
REVISED: 03-03-10 NJV

GROUNDWATER CONTOUR MAP

03/10

FIGURE 7
(2nd 1/4, 2010)

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



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)

MW #1 (75.69) — Groundwater Elevation as of 5/20/10.

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, NMPM
SAN JUAN COUNTY, NEW MEXICO

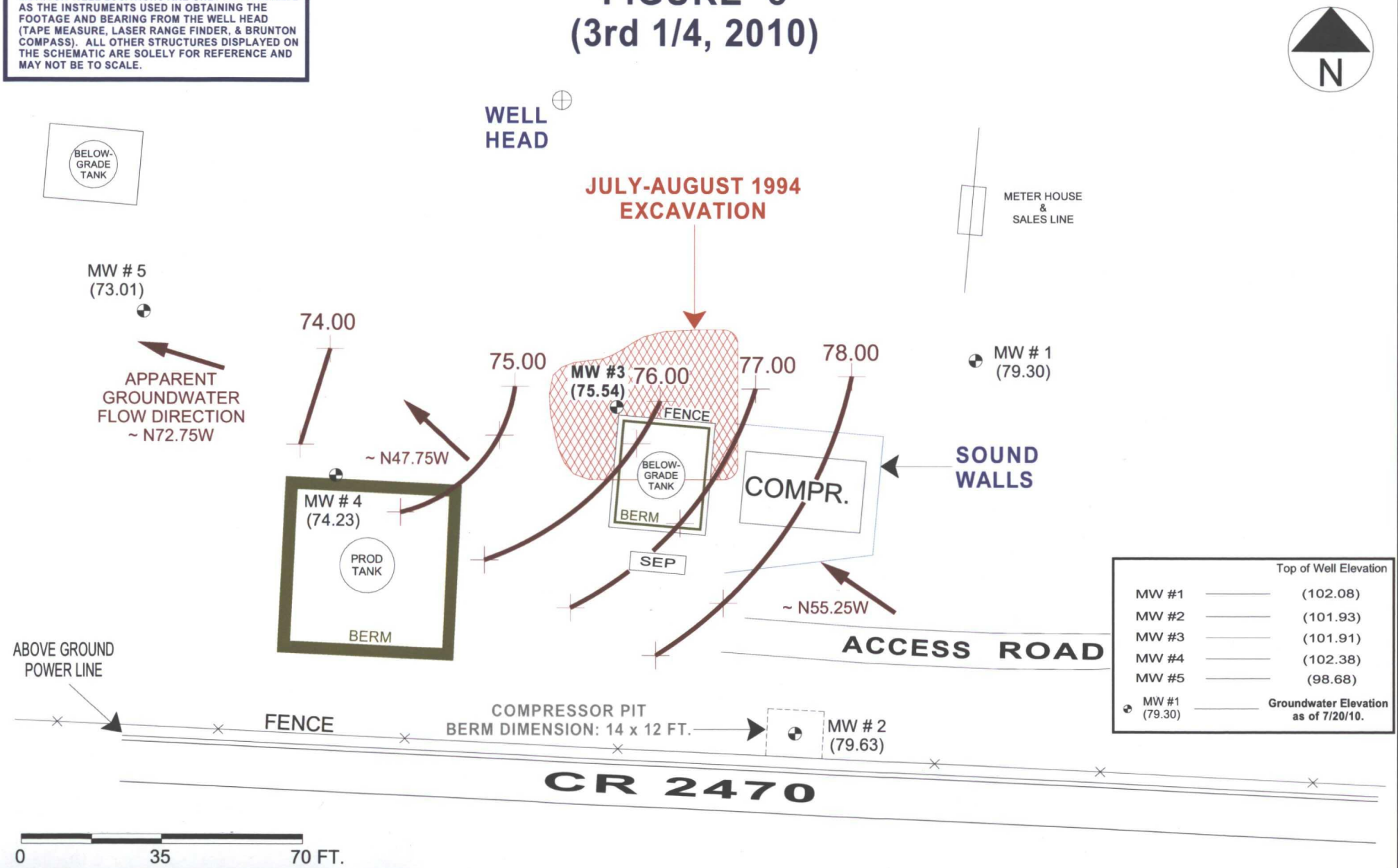
BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 05-20-10-GW.SKF
REVISED: 05-20-10 NJV

GROUNDWATER CONTOUR MAP
05/10

FIGURE 8
(3rd 1/4, 2010)

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



BP AMERICA PRODUCTION COMPANY

BOYD GC # 1A

NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING

DRAFTED BY: NJV

FILENAME: 07-20-10-GW.SKF

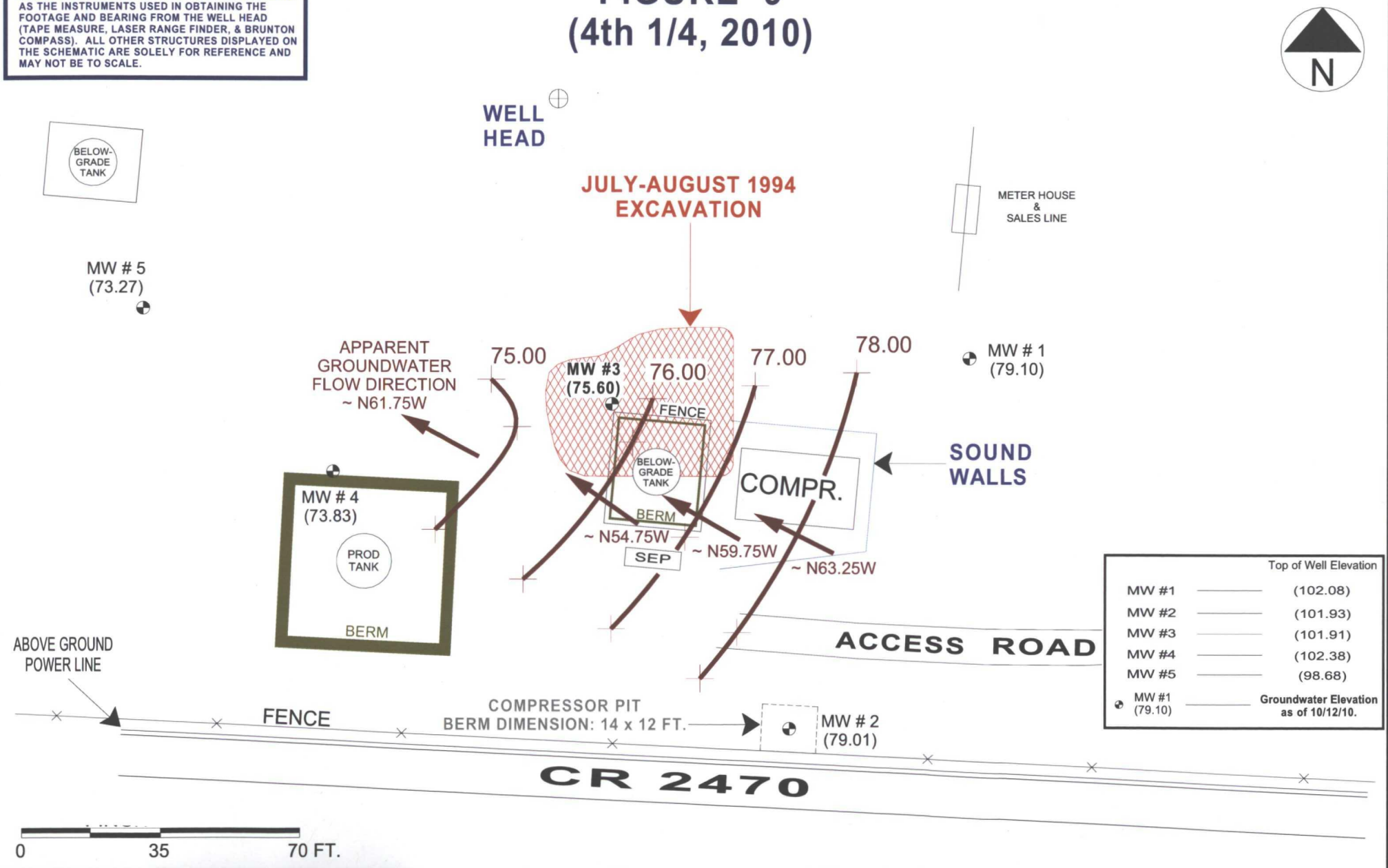
REVISED: 07-20-10 NJV

GROUNDWATER CONTOUR MAP

07/10

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

FIGURE 9
(4th 1/4, 2010)



Top of Well Elevation	
MW #1	(102.08)
MW #2	(101.93)
MW #3	(101.91)
MW #4	(102.38)
MW #5	(98.68)

MW #1 (79.10) — Groundwater Elevation as of 10/12/10.

BP AMERICA PRODUCTION COMPANY
BOYD GC # 1A
NE/4 NW/4 SEC. 8, T31N, R10W, 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: MW SAMPLING
DRAFTED BY: NJV
FILENAME: 10-12-10-GW.SKF
REVISED: 10-12-10 NJV

GROUNDWATER CONTOUR MAP
10/10

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **March 31, 2009**

SAMPLER : N J V

Filename : **03-31-09.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	74.31	27.77	29.50	-	-	-	-	-
MW - 2	101.93	73.86	28.07	29.50	-	-	-	-	-
MW - 3	101.91	-	DRY	29.50	-	-	-	-	-
MW - 4	102.38	70.65	31.73	34.50	1410	7.34	700	17.7	0.75
MW - 5	98.68	70.05	28.63	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	03/31/09	0945

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW , r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected sample from MW # 4 onlyy BTEX analysis .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade .

on-site	1:39	temp	51 F
off-site	2:20	temp	52 F
sky cond.	Mostly sunny		
wind speed	0-10	direct.	W

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Apr-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	0904020	**Collection Date:**	3/31/2009 2:10:00 PM
Project:	Boyd GC #1A	**Date Received:**	4/1/2009
Lab ID:	0904020-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	13	5.0		µg/L	5	4/7/2009 12:49:54 AM
Toluene	ND	5.0		µg/L	5	4/7/2009 12:49:54 AM
Ethylbenzene	210	5.0		µg/L	5	4/7/2009 12:49:54 AM
Xylenes, Total	1200	20		µg/L	10	4/7/2009 2:43:28 PM
Surr: 4-Bromofluorobenzene	103	65.9-130		%REC	5	4/7/2009 12:49:54 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		

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☒ Level 4 ☐
Other:

Client: BLAGG ENGR. / BP AMERICA

Project Name: BOYD GC #1A

Address: P.O. BOX 87
BLFD., NM 87413

Project #:

Project Manager: NELSON VELEZ

Phone #: 632-1199

Sampler: NELSON VELEZ

Fax #:

Sample Temperature: 2°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					$HgCl_2$	HNO_3	HCl	
3/31/09	1410	WATER	MW #4	2-40 ml			✓	0904020-1

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

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
4/1/09	0830	Nelson Velez		
				4/1/09 1645
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 0904020

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33112**		Analysis Date:		4/6/2009 10:05:03 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: **R33112**		Analysis Date:		4/6/2009 8:13:23 PM
Benzene	21.79	µg/L	1.0	109	85.9	113			
Toluene	22.74	µg/L	1.0	114	86.4	113			S
Ethylbenzene	21.76	µg/L	1.0	109	83.5	118			
Xylenes, Total	64.38	µg/L	2.0	107	83.4	122			

Qualifiers:

E	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 BLAGG | Date Received: 4/1/2009

Work Order Number 0904020 | Received by: AT

Checklist completed by: _____ (Signature) 4/1/09 (Date) | Sample ID labels checked by: _____ (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 ☐		
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 ☑	
Container/Temp Blank temperature?	2°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **May 16, 2009**

SAMPLER : N J V

Filename : **05-16-09.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	74.73	27.35	29.50	-	-	-	-	-
MW - 2	101.93	74.14	27.79	29.50	1315	6.79	600	21.9	0.50
MW - 3	101.91	-	DRY	29.50	-	-	-	-	-
MW - 4	102.38	71.67	30.71	34.50	1225	7.22	700	20.4	1.50
MW - 5	98.68	71.12	27.56	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	05/16/09	0810

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 , very poor recovery in MW # 2 . Collected samples for BTEX per US EPA Method 8021B from MW # 2 & MW # 4 .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade.

on-site	11:39	temp	76 F
off-site	1:25	temp	80 F
sky cond.	Partly cloudy		
wind speed	0 - 5	direct.	S

Hall Environmental Analysis Laboratory, Inc.

Date: *29-May-09*

CLIENT: Blagg Engineering
Project: Boyd GC #1A
Lab Order: 0905362

Lab ID: 0905362-01
Collection Date: 5/16/2009 1:15:00 PM
Client Sample ID: MW #2
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	530	10		µg/L	10	5/29/2009 12:26:54 AM
Toluene	ND	10		µg/L	10	5/29/2009 12:26:54 AM
Ethylbenzene	140	10		µg/L	10	5/29/2009 12:26:54 AM
Xylenes, Total	1200	20		µg/L	10	5/29/2009 12:26:54 AM
Surr: 4-Bromofluorobenzene	109	65.9-130		%REC	10	5/29/2009 12:26:54 AM

Lab ID: 0905362-02
Collection Date: 5/16/2009 12:25:00 PM
Client Sample ID: MW #4
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	5/29/2009 1:27:34 AM
Toluene	ND	1.0		µg/L	1	5/29/2009 1:27:34 AM
Ethylbenzene	21	1.0		µg/L	1	5/29/2009 1:27:34 AM
Xylenes, Total	72	2.0		µg/L	1	5/29/2009 1:27:34 AM
Surr: 4-Bromofluorobenzene	97.8	65.9-130		%REC	1	5/29/2009 1:27:34 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		

CHAIN-OF-CUSTODY RECORD

QA/QC Package:
Std ☒ Level 4 ☐
Other:

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

Client: BLAGG ENER. / BP AMERICA
Address: P.O. BOX 87
BLFD, NM 87413
Phone #: 632-1199
Fax #:

Project Name: BOYD GC #1A
Project #:
Project Manager: NELSON VELEZ
Sampler: NELSON VELEZ
Sample Temperature: 3.8

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative HCl	HEAL No. 0905362	(BTEX) ~~+ MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
5/16/09	1315	WATER	MW #2	2-40ml			✓	1	✓															
5/16/09	1225	WATER	MW #4	2-40ml			✓	2	✓															

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
5/19/09	1425		5/20/09 850
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 0905362

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33871**		Analysis Date:		5/28/2009 8:39:43 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: **R33871**		Analysis Date:		5/29/2009 3:29:31 AM
Benzene	20.76	µg/L	1.0	104	85.9	113			
Toluene	20.87	µg/L	1.0	102	86.4	113			
Ethylbenzene	21.00	µg/L	1.0	104	83.5	118			
Xylenes, Total	63.28	µg/L	2.0	105	83.4	122			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID: **R33871**		Analysis Date:		5/29/2009 4:00:07 AM
Benzene	20.80	µg/L	1.0	104	85.9	113	0.183	27	
Toluene	20.71	µg/L	1.0	101	86.4	113	0.750	19	
Ethylbenzene	20.97	µg/L	1.0	104	83.5	118	0.152	10	
Xylenes, Total	62.85	µg/L	2.0	105	83.4	122	0.685	13	

Qualifiers:

E	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 BLAGG | Date Received: 5/20/2009

Work Order Number 0905362 | Received by: TLS

Checklist completed by: [signature] Signature 5/20/09 Date | Sample ID labels checked by: [initials] 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 ☐		
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 ☑	
Container/Temp Blank temperature?	3.8°	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **September 2, 2009**

SAMPLER : N J V

Filename : **09-02-09.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	80.22	21.86	29.50	-	-	-	-	-
MW - 2	101.93	80.44	21.49	29.50	-	-	-	-	-
MW - 3	101.91	80.67	21.24	29.50	-	-	-	-	-
MW - 4	102.38	75.29	27.09	34.50	0820	7.38	900	16.6	3.75
MW - 5	98.68	74.09	24.59	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	09/02/09	0815

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected samples for BTEX per US EPA Method 8021B from MW # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade .

on-site	7:49	temp	65 F
off-site	8:35	temp	67 F
sky cond.	Mostly sunny		
wind speed	0 - 5	direct.	NE

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	0909076	**Collection Date:**	9/2/2009 8:20:00 AM
Project:	Boyd GC #1A	**Date Received:**	9/3/2009
Lab ID:	0909076-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	12	1.0		µg/L	1	9/8/2009 5:49:52 PM
Toluene	ND	1.0		µg/L	1	9/8/2009 5:49:52 PM
Ethylbenzene	ND	1.0		µg/L	1	9/8/2009 5:49:52 PM
Xylenes, Total	ND	2.0		µg/L	1	9/8/2009 5:49:52 PM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	1	9/8/2009 5:49:52 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		

Chain-of-Custody Record

Client: BLAGG ENER. / BP AMERICA

Mailing Address: P.O. BOX 87
BLFD., NM 87413

Phone #: 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: BOYD GC #1A

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☑ Yes ☐ No

Sample Temperature: 4

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. 0909046	Analysis Request: BTEX + MTBE + TMBs (8021B)	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)				Air Bubbles (Y or N)
~~8/31/09~~ 9/2/09	0820	WATER	MW #4	2-40ml	HCl & COOL	1	✓														

Date: 9/2/09 Time: 1615 Relinquished by: Nelson Velez

Received by: 9:45 Date: 9/3/09 Time:

Date: Time: Relinquished by:

Received by: Date: Time:

Remarks:

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.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 0909076

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: **R35219**		Analysis Date:	9/8/2009 9:20:48 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: **R35219**		Analysis Date:	9/9/2009 2:55:15 AM		
Benzene	21.17	µg/L	1.0	20	0	106	85.9	113			
Toluene	21.76	µg/L	1.0	20	0	109	86.4	113			
Ethylbenzene	21.04	µg/L	1.0	20	0.134	105	83.5	118			
Xylenes, Total	62.33	µg/L	2.0	60	0	104	83.4	122			

Qualifiers:

E	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 **BLAGG** Date Received: **9/3/2009**

Work Order Number **0909076** Received by: ARS

Checklist completed by: _____ 9/3/09 Sample ID labels checked by: CS
Signature Date 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?	**4.1°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **December 16, 2009**

SAMPLER : N J V

Filename : **12-16-09.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	76.80	25.28	29.50	-	-	-	-	-
MW - 2	101.93	76.46	25.47	29.50	-	-	-	-	-
MW - 3	101.91	73.17	28.74	29.50	-	-	-	-	-
MW - 4	102.38	72.31	30.07	34.50	0840	7.50	800	10.0	1.50
MW - 5	98.68	71.38	27.30	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	12/16/09	0835

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected sample for BTEX per US EPA Method 8021B from MW # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade.

on-site	**8:00**	temp.	**19 F**
off-site	**8:45**	temp.	**22 F**
sky cond.	**Mostly sunny**		
wind speed	**0 - 5**	direct.	**SE**

Hall Environmental Analysis Laboratory, Inc.

Date: *30-Dec-09*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	0912423	**Collection Date:**	12/16/2009 8:40:00 AM
Project:	Boyd GC #1A	**Date Received:**	12/18/2009
Lab ID:	0912423-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	33	1.0		µg/L	1	12/24/2009 11:44:35 PM
Toluene	ND	1.0		µg/L	1	12/24/2009 11:44:35 PM
Ethylbenzene	140	10		µg/L	10	12/28/2009 4:00:53 PM
Xylenes, Total	510	20		µg/L	10	12/28/2009 4:00:53 PM
Surr: 4-Bromofluorobenzene	111	65.9-130		%REC	1	12/24/2009 11:44:35 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		

Chain-of-Custody Record

Client: BLAGG ENER. / BP AMERICA

Mailing Address: P.O. BOX 87
BLFD., NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: BOYD GC #1A

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.5

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 0912933	(BTEX + MTBE + TMB's (8021B)	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)					Air Bubbles (Y or N)
12/16/09	0840	WATER	MW #4	2-40ml	HCl & Cool	-1	✓															

Date: 12/17/09 Time: 1515 Relinquished by: [signature]

Date: Time: Relinquished by:

Received by: [signature] Date: 12/18/09 Time: 1010

Received by: Date: Time:

Remarks:

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.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 0912423

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:	**R36711**	Analysis Date:	12/24/2009 10:04:25 AM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36728**	Analysis Date:	12/28/2009 9:33:12 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:	**R36711**	Analysis Date:	12/24/2009 6:11:13 PM		
Benzene	20.55	µg/L	1.0	20	0	103	85.9	113			
Toluene	20.53	µg/L	1.0	20	0	103	86.4	113			
Ethylbenzene	20.09	µg/L	1.0	20	0.066	100	83.5	118			
Xylenes, Total	61.73	µg/L	2.0	60	0	103	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R36728**	Analysis Date:	12/28/2009 7:33:50 PM		
Benzene	19.19	µg/L	1.0	20	0	96.0	85.9	113			
Toluene	19.21	µg/L	1.0	20	0	96.0	86.4	113			
Ethylbenzene	19.09	µg/L	1.0	20	0	95.5	83.5	118			
Xylenes, Total	57.94	µg/L	2.0	60	0	96.6	83.4	122			

Qualifiers:

E	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 **BLAGG** Date Received: **12/18/2009**

Work Order Number **0912423** Received by: **TLS**

Checklist completed by: _____ 12/18/09 Sample ID labels checked by: _____
Signature Date 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 ☐		
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 ☑	
Container/Temp Blank temperature?	**0.8°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **March 3, 2010**

SAMPLER : N J V

Filename : **03-03-10.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	74.37	27.71	29.50	-	-	-	-	-
MW - 2	101.93	73.91	28.02	29.50	-	-	-	-	-
MW - 3	101.91	101.91	DRY	29.50	-	-	-	-	-
MW - 4	102.38	70.48	31.90	34.50	1135	7.36	800	17.8	0.75
MW - 5	98.68	69.82	28.86	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	03/01/10	1215

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected sample for BTEX per US EPA Method 8021B from MW # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade .

on-site	**11:00**	temp.	**48 F**
off-site	**11:46**	temp.	**51 F**
sky cond.	**Sunny**		
wind speed	**0 - 5**	direct.	**E**

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Mar-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	1003178	**Collection Date:**	3/3/2010 11:35:00 AM
Project:	Boyd GC #1A	**Date Received:**	3/8/2010
Lab ID:	1003178-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	7.5	1.0		µg/L	1	3/9/2010 3:32:34 AM
Toluene	ND	1.0		µg/L	1	3/9/2010 3:32:34 AM
Ethylbenzene	170	10		µg/L	10	3/9/2010 3:02:16 AM
Xylenes, Total	1100	20		µg/L	10	3/9/2010 3:02:16 AM
Surr: 4-Bromofluorobenzene	125	65.9-130		%REC	1	3/9/2010 3:32:34 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

Mailing Address: P.O. BOX 87
BLFD., NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: BOYD GC #1A

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 3

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. 1-00578
3/3/10	1135	WATER	MW #4	2-40ml	HCl & cool	-1

Analysis Request

BTEX + MTBE + TMB's (8021B)	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)					Air Bubbles (Y or N)
✓															

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/4/10	1415				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				3/5/10	12:20

Remarks:

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.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 1003178

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: b 5		*MBLK*				Batch ID: **R37677**		Analysis Date:	3/8/2010 11:21:44 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: **R37677**		Analysis Date:	3/8/2010 8:58:22 PM		
Benzene	21.82	µg/L	1.0	20	0	109	85.9	113			
Toluene	21.28	µg/L	1.0	20	0	106	86.4	113			
Ethylbenzene	20.95	µg/L	1.0	20	0	105	83.5	118			
Xylenes, Total	62.35	µg/L	2.0	60	0	104	83.4	122			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **3/8/2010**

Work Order Number **1003178** Received by: ARS

Checklist completed by: _____ 3/8/10 Sample ID labels checked by: _____
Signature Date 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 ☐		
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 ☑	
Container/Temp Blank temperature?	**3.8°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **May 20, 2010**

SAMPLER : N J V

Filename : **05-20-10.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	75.69	26.39	29.50	-	-	-	-	-
MW - 2	101.93	75.49	26.44	29.50	1000	6.91	900	16.5	0.75
MW - 3	101.91	72.78	29.13	29.50	-	-	-	-	-
MW - 4	102.38	72.16	30.22	34.50	0930	7.34	900	16.6	1.25
MW - 5	98.68	71.37	27.31	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	05/19/10	1035

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Poor recovery in MW # 2 , poor / fair recovery in MW # 4 . Collected samples for BTEX per US EPA Method 8021B from MW # 2 & # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade.

on-site	**9:00**	temp.	**55 F**
off-site	**10:23**	temp.	**65 F**
sky cond.	**Sunny**		
wind speed	**0 - 5**	direct.	**ESE - S**

Hall Environmental Analysis Laboratory, Inc.

Date: *26-May-10*

CLIENT: Blagg Engineering
Project: Boyd GC #1A
Lab Order: 1005608

Lab ID: 1005608-01
Collection Date: 5/20/2010 10:00:00 AM
Client Sample ID: MW #2
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	160	10		µg/L	10	5/26/2010 2:03:24 AM
Toluene	18	10		µg/L	10	5/26/2010 2:03:24 AM
Ethylbenzene	58	10		µg/L	10	5/26/2010 2:03:24 AM
Xylenes, Total	590	20		µg/L	10	5/26/2010 2:03:24 AM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	10	5/26/2010 2:03:24 AM

Lab ID: 1005608-02
Collection Date: 5/20/2010 9:30:00 AM
Client Sample ID: MW #4
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	5/26/2010 3:03:56 AM
Toluene	ND	1.0		µg/L	1	5/26/2010 3:03:56 AM
Ethylbenzene	7.4	1.0		µg/L	1	5/26/2010 3:03:56 AM
Xylenes, Total	ND	2.0		µg/L	1	5/26/2010 3:03:56 AM
Surr: 4-Bromofluorobenzene	97.1	65.9-130		%REC	1	5/26/2010 3:03:56 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: BLAGG ENGR / BP AMERICA

Mailing Address: P.O. BOX 87
BLFD. NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: BOYD GC #1A

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 6°C

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. 1005008	BTEX + MTBE + TMB's (8021B)	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)				Air Bubbles (Y or N)
5/20/10	1000	WATER	MW #2	2-40ml	HCl & cool	1	✓														
5/20/10	0930	WATER	MW #4	2-40ml	HCl & cool	2	✓														

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/20/10	1600			5/21/10	900
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 1005608

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:**	**R38920**	**Analysis Date:**		**5/25/2010 9:21:20 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:**	**R38920**	**Analysis Date:**		**5/25/2010 6:58:36 PM**	
Benzene	22.78	µg/L	1.0	20	0	114	87.9	121			
Toluene	23.15	µg/L	1.0	20	0	116	83	124			
Ethylbenzene	22.55	µg/L	1.0	20	0.138	112	81.7	122			
Xylenes, Total	68.50	µg/L	2.0	60	0	114	85.6	121			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **5/21/2010**

Work Order Number **1005608** Received by: **TLS**

Checklist completed by: _____ 5/21/10 Sample ID labels checked by: _____

Signature Date 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 ☐		
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 ☑	
Container/Temp Blank temperature?	**-0.6°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **July 20, 2010**

SAMPLER : N J V

Filename : **07-20-10.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	79.30	22.78	29.50	-	-	-	-	-
MW - 2	101.93	79.63	22.30	29.50	-	-	-	-	-
MW - 3	101.91	75.54	26.37	29.50	-	-	-	-	-
MW - 4	102.38	74.23	28.15	34.50	0925	7.17	900	22.0	3.00
MW - 5	98.68	73.01	25.67	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	07/20/10	0800

NOTES : Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected sample for BTEX per US EPA Method 8021B from MW # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade .

on-site	**8:43**	temp.	**80 F**
off-site	**9:35**	temp.	**82 F**
sky cond.	**Partly cloudy**		
wind speed	**0 - 5**	direct.	**E**

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	1007841	**Collection Date:**	7/20/2010 9:25:00 AM
Project:	Boyd GC #1A	**Date Received:**	7/23/2010
Lab ID:	1007841-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	7/27/2010 3:00:11 AM
Toluene	ND	1.0		µg/L	1	7/27/2010 3:00:11 AM
Ethylbenzene	ND	1.0		µg/L	1	7/27/2010 3:00:11 AM
Xylenes, Total	ND	2.0		µg/L	1	7/27/2010 3:00:11 AM
Surr: 4-Bromofluorobenzene	125	65.9-130		%REC	1	7/27/2010 3:00:11 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: BLAGG ENGR./BP AMERICA

Mailing Address: P.O. BOX 87
BLFD. NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: BOYD GC #1A

Project #:

Project Manager: NV
NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.7

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. 1007881	BTEX + MTBE + TMBs (8021B)	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)					Air Bubbles (Y or N)
7/20/10	0925	WATER	MW #4	2-40ml	HCl & Cool	1	✓															

Date: 7/22/10 Time: 1530 Relinquished by: [signature]

Date: _____ Time: _____ Relinquished by: _____

Received by: [signature] Date: 7/23/10 Time: 735

Received by: _____ Date _____ Time _____

Remarks:

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 1007841

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:	**R40035**	Analysis Date:	7/26/2010 9:47:15 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		*LCS*				Batch ID:	**R40035**	Analysis Date:	7/26/2010 12:19:12 PM		
Benzene	19.22	µg/L	1.0	20	0	96.1	87.9	121			
Toluene	20.45	µg/L	1.0	20	0	102	83	124			
Ethylbenzene	20.00	µg/L	1.0	20	0	100	81.7	122			
Xylenes, Total	60.28	µg/L	2.0	60	0	100	85.6	121			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **BLAGG** Date Received: **7/23/2010**

Work Order Number **1007841** Received by: TLS

Checklist completed by: _____ 7/23/10 Sample ID labels checked by: _____

Signature Date 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 ☐		
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 ☑	
Container/Temp Blank temperature?	**0.7°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

BOYD GC # 1A - COMPRESSOR PIT
UNIT A, SEC. 8, T31N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **October 12, 2010**

SAMPLER : N J V

Filename : **10-12-10.WK4**

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	102.08	79.10	22.98	29.50	-	-	-	-	-
MW - 2	101.93	79.01	22.92	29.50	-	-	-	-	-
MW - 3	101.91	75.60	26.31	29.50	-	-	-	-	-
MW - 4	102.38	73.83	28.55	34.50	1035	7.21	1,000	16.3	2.25
MW - 5	98.68	73.27	25.41	36.30	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	4.01/7.00/10.00	2,800
DATE & TIME =	10/12/10	0900

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)
Ideally a minimum of three (3) wellbore volumes:
2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Fair / good recovery in MW # 4 . Collected sample for BTEX per US EPA Method 8021B from MW # 4 only .

Top of casing MW # 1 ~ 2.20 ft., MW # 2 ~ 2.50 ft., MW # 3 ~ 2.00 ft., MW # 4 ~ 3.05 ft., MW # 5 ~ 2.20 ft. above grade .

on-site	**9:45**	temp.	**55 F**
off-site	**10:45**	temp.	**61 F**
sky cond.	**Sunny**		
wind speed	**0 - 5**	direct.	**calm**

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Oct-10*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #4
Lab Order:	1010601	**Collection Date:**	10/12/2010 10:35:00 AM
Project:	Boyd GC #1A	**Date Received:**	10/13/2010
Lab ID:	1010601-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	16	1.0		µg/L	1	10/19/2010 2:23:05 AM
Toluene	ND	1.0		µg/L	1	10/19/2010 2:23:05 AM
Ethylbenzene	17	1.0		µg/L	1	10/19/2010 2:23:05 AM
Xylenes, Total	37	2.0		µg/L	1	10/19/2010 2:23:05 AM
Surr: 4-Bromofluorobenzene	95.3	81.3-151		%REC	1	10/19/2010 2:23:05 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: BLAGG ENGR. / BP AMERICA

Mailing Address: P.O. BOX 87
BLFD., NM 87413

Phone #: (505) 632-1199

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: BOYD GC #1A

Project #:

Project Manager: NELSON VELEZ

Sampler: NELSON VELEZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

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.	BTEX + MTBE + TMBs (8021B)	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)	Air Bubbles (Y or N)
10/12/10	1035	WATER	MW #4	40ml-2	HCl & COOL	-1	✓											

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date Time
10/12/10	1605		M. Walters	10/13/10 1130
Date:	Time:	Relinquished by:	Received by:	Date Time

Remarks:

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.

QA/QC SUMMARY REPORT

Client: Blagg Engineering
Project: Boyd GC #1A **Work Order:** 1010601

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R41614**		Analysis Date:	10/18/2010 9:37:01 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: **R41614**		Analysis Date:	10/18/2010 1:10:34 PM		
Benzene	19.57	µg/L	1.0	20	0.16	97.1	84.7	118			
Toluene	19.27	µg/L	1.0	20	0.196	95.4	82	123			
Ethylbenzene	19.30	µg/L	1.0	20	0.276	95.1	83	118			
Xylenes, Total	58.89	µg/L	2.0	60	0	98.2	85.4	119			

Qualifiers:

J	Estimated value	H	Holding times for preparation or analysis exceeded
B	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name BLAGG | Date Received: 10/13/2010

Work Order Number 1010601 | Received by: MLW

Checklist completed by: Signature 10/13/10 Date | Sample ID labels checked by: Initials MB

Matrix: | Carrier name: Priority US Mail

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?	**2.1°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____