

3R - 55

REPORTS

DATE:
FEB 2006

BLAGG ENGINEERING, INC.

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

3120055

February 9, 2006
RECEIVED

Mr. Glenn Von Gonten, Hydrologist
New Mexico Oil Conservation Division-NMOCD
Environmental Bureau
1220 St. Francis Drive
Santa Fe, New Mexico 87505

FEB 10 2006

Oil Conservation Division
Environmental Bureau

**Re: BP America Production Company (formerly BP Amoco)
Groundwater Monitoring Report
Valencia GC B # 1M, Unit K, Sec. 18, T29N, R9W, NMPM
San Juan County, New Mexico**

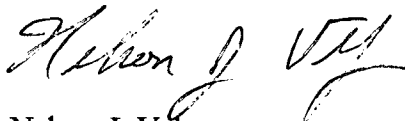
Dear Mr. Von Gonten:

BP America Production Company (BP) had retained Blagg Engineering, Inc. (BEI) to conduct environmental monitoring of groundwater at the Valencia GC B # 1M.

The last formal correspondence concerning the above reference well site was with a NMOCD letter dated, July 25, 1996. Since then, BP has followed its NMOCD approved groundwater management plan and request permanent closure for the on-site separator pit.

If you have any questions concerning the enclosed documentation, please contact either myself or Jeffrey C. Blagg at the address or phone number listed above. Thank you for your cooperation and assistance.

Respectfully submitted:
Blagg Engineering, Inc.



Nelson J. Velez
Staff Geologist

Attachment: Groundwater Report

cc: Mr. Denny Foust, Environmental Geologist, NMOCD District III Office, Aztec, NM
Mr. Don Brooks, Environmental Coordinator, BP, Farmington, NM (without lab reports)

320055

BP AMERICA PRODUCTION CO. RECEIVED

FEB 10 2006

Oil Conservation Division
Environmental Bureau

GROUNDWATER REMEDIATION REPORT

1998-2000

**VALENCIA GC B #1M
(K) SECTION 18, T29N, R9W, NMPPM
SAN JUAN COUNTY, NEW MEXICO**

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

DECEMBER 2005

**PREPARED BY:
BLAGG ENGINEERING, INC.**

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

**BP America Production Co.
Valencia GC B # 1M - Separator Pit
Nw/4 Sw/4 Sec. 18, T29N, R12W**

Pit Closure Date: 12/15/94-1/12/95 (Documentation Included)

Monitor Well Installation Dates: 1/29/98 (MW #1 & #2), 2/10/98 (MW #3 & #4)

Monitor Well Sampling Dates: (See following summary table)

Site Historic Summary:

A site separator pit was closed out beginning in December, 1994 by removing impacted soils by excavation. These soils were transported to the BP Crouch Mesa Waste Management facility. During remedial efforts, groundwater was encountered at a depth of approximately 6 feet below ground level. During contaminated soil removal groundwater in the excavation was collected and submitted for laboratory determination of hydrocarbon impacts by testing for benzene, toluene, ethylbenzene, and total xylenes (BTEX). These pit water samples were found to have contamination in excess of New Mexico Water Quality Control Commission (NMWQCC) standards. Following removal of all impacted soils and site backfilling with clean fill, monitor wells were installed to ascertain residual water quality. Initial and follow-up sampling and analysis indicated that groundwater in the original pit area and down-gradient was within NMWQCC standards for closure.

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells (*Figure 1*) following US EPA: SW-846 protocol. Samples were collected using new disposable bailers and placed into new laboratory supplied 40 ml glass vials with teflon septa caps. The samples were preserved cool and with either mercuric chloride or hydrochloric acid and hand delivered to a qualified laboratory for testing. Analytical procedures included BTEX per US EPA Method 8020 or 8021. Additional samples were collected into laboratory supplied containers for general water chemistry testing. Waste generated during monitor well sampling and development was disposed of utilizing the separator tank pit located on the well site.

Water Quality and Gradient Information:

Based on the enclosed site monitor well information, groundwater flow has been determined to be in the south to south-east direction. Groundwater gradient maps are displayed on *Figures 2 through Figure 6*. Following initial site remediation by excavation of impacted soils, all monitor well testing has determined that there are no residual hydrocarbon impacts in excess of NMWQCC standards in either the original pit or down-gradient wells.

Summary and/or Recommendations:

Site closure is recommended. Following approval by the New Mexico Oil Conservation Division, site monitor wells will be abandoned pursuant to the approved BP Ground Water Management Plan.

AMOCO GROUNDWATER MONITOR WELL LABORATORY RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

VALENCIA GC B #1M - SEP. PIT
UNIT K, SEC. 18, T29N, R9W

REVISED DATE: JANUARY 26, 2000

FILENAME: (V-B1M-99.WK4) NJV

SAMPLE DATE	MONITOR WELL #	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. umhos	pH	PRODUCT (in)	BTEX EPA METHOD 8020 (PPB)			
								Benzene	Toluene	Ethyl Benzene	Total Xylene
25-Feb-98	MW #1	3.93	8.00	1846	2000	7.4	-	ND	ND	ND	2.2
25-Feb-98	MW #2	5.93	10.00	1945	2500	7.8	-	0.9	7.6	10.9	166.8
29-May-98		5.79			1400	8.0	-	3.4	1.6	3.0	44.1
25-Sep-98		6.12			1300	7.6	-	0.5	0.5	0.3	3.4
18-Feb-99		6.02			1800	7.2	-	ND	3.2	3.2	12.5
25-Feb-98	MW #3	5.04	10.00	2966	2900	7.7	-	ND	ND	ND	1.0
25-Feb-98	MW #4	5.48	10.00	2873	3100	7.8	-	1.7	2.0	1.2	15.3
16-Dec-99		5.49	10.00				-	ND	ND	ND	ND

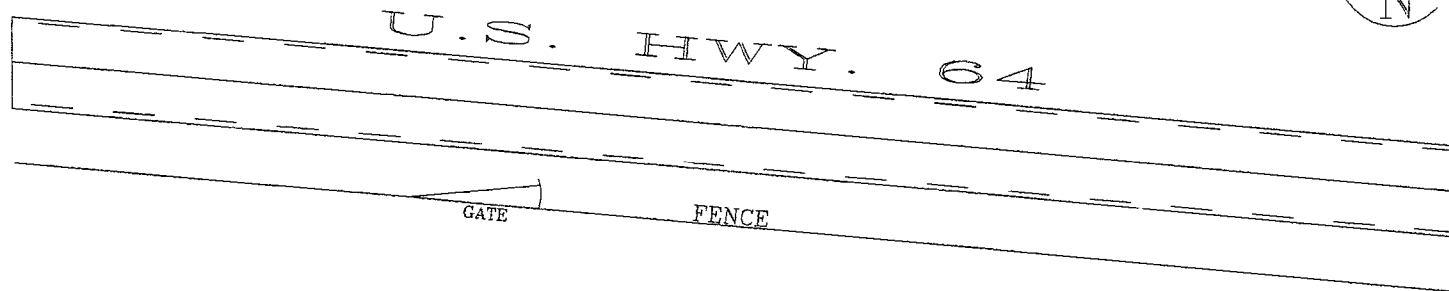
GENERAL WATER QUALITY
BP AMOCO
VALENCIA GC B # 1M
SAMPLE DATES : 2 / 25 / 98 & 12 / 16 / 99

PARAMETERS	MW # 1	MW # 2	MW # 3	MW # 4	Units
LAB pH	7.43	7.59	7.37	7.55	s. u.
LAB CONDUCTIVITY @ 25 C	3,695	3,910	6,000	5,900	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	1,850	1,950	2,985	2,900	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	1,846	1,945	2,966	2,873	mg / L
SODIUM ABSORPTION RATIO	9.8	3.9	10.6	13.4	ratio
TOTAL ALKALINITY AS CaCO ₃	354	396	522	500	mg / L
TOTAL HARDNESS AS CaCO ₃	402	858	752	556	mg / L
BICARBONATE as HCO ₃	354	396	522	500	mg / L
CARBONATE AS CO ₃	< 1	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	0.1	31.6	0.2	0.3	mg / L
NITRITE NITROGEN	< 0.001	0.203	< 0.001	< 0.001	mg / L
CHLORIDE	38.0	312	108	112	mg / L
FLUORIDE	1.00	1.07	1.80	1.83	mg / L
PHOSPHATE	2.1	5.8	4.1	1.0	mg / L
SULFATE	992	706	1,572	1,510	mg / L
IRON	NA	NA	NA	NA	mg / L
CALCIUM	117	239	243	184	mg / L
MAGNESIUM	26.8	63.5	35.2	23.4	mg / L
POTASSIUM	4.3	80.4	14.5	11.5	mg / L
SODIUM	450	265	670	725	mg / L
CATION / ANION DIFFERENCE	0.29	0.03	0.05	0.03	%

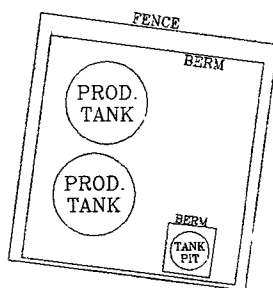
SAMPLING CONDUCTED ON DEC. 16, 1999

CHLORIDE	4.5	7.6	7.2	11.2	mg / L
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FIGURE 1

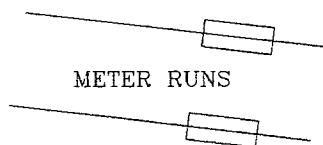


WELL
HEAD



SEP.
SEP.

MW #2



METER RUNS

MW #3

MW #4

MW #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 ARE NOT TO SCALE.

1 INCH = 50 FT.

0 50 100 FT.

AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

NE/4 SW/4 SEC. 18, T29N, R9W

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: 1/4 ly SAMP.

DRAWN BY: NJV

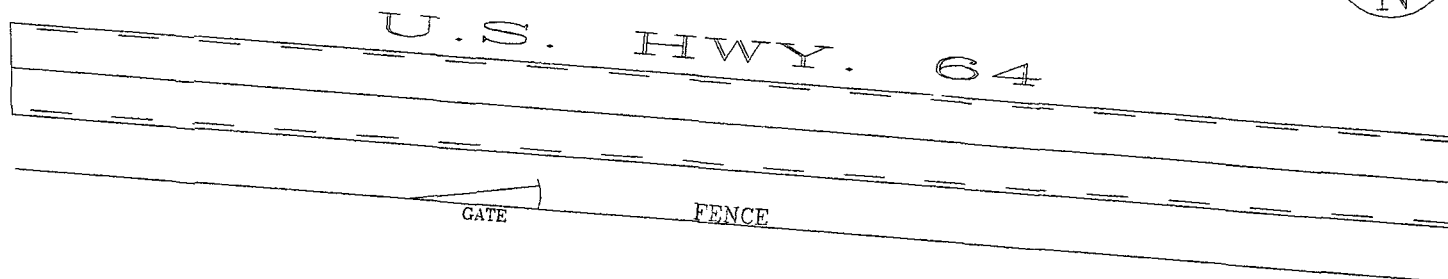
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DRAFTED: 2/02/98 NJV

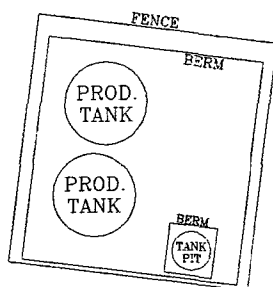
SITE
MAP

1/98

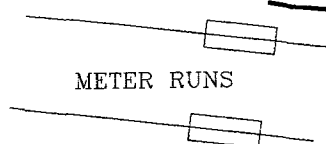
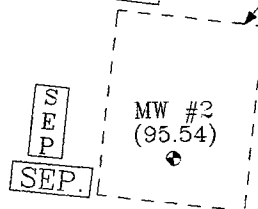
FIGURE 2 (1st 1/4, 1998)



WELL
HEAD
⊕



MW #1
(95.72) 95.70
ORIGINAL
SEP. PIT
EXCAVATION



MW #3
(95.38)

95.30
MW #4
(95.30)

APPARENT GROUNDWATER
FLOW DIRECTIONS

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 ARE NOT TO
SCALE.

1 INCH = 50 FT.

0 50 100 FT.

Top of Well Elevation	
MW #1	(99.65)
MW #2	(101.47)
MW #3	(100.42)
MW #4	(100.78)
• MW #1	Groundwater Elevation (95.72) as of 2/25/98.

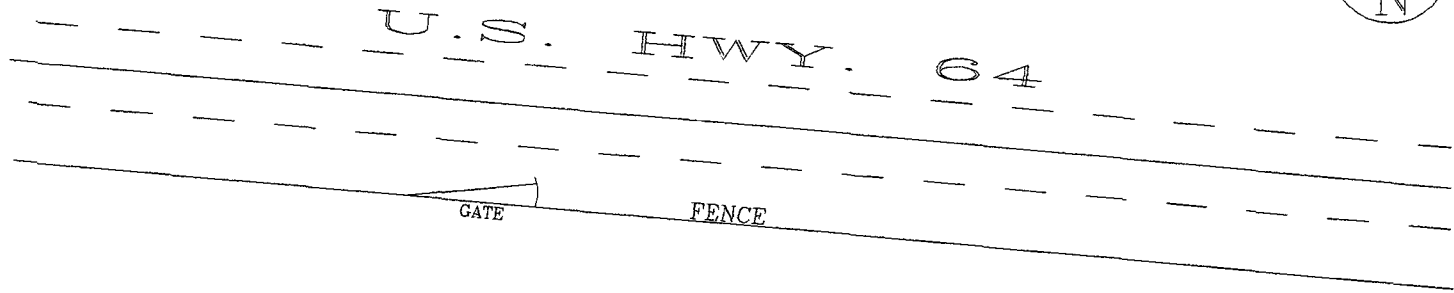
AMOCO PRODUCTION COMPANY
VALENCIA GC B # 1M
NE/4 SW/4 SEC. 18, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
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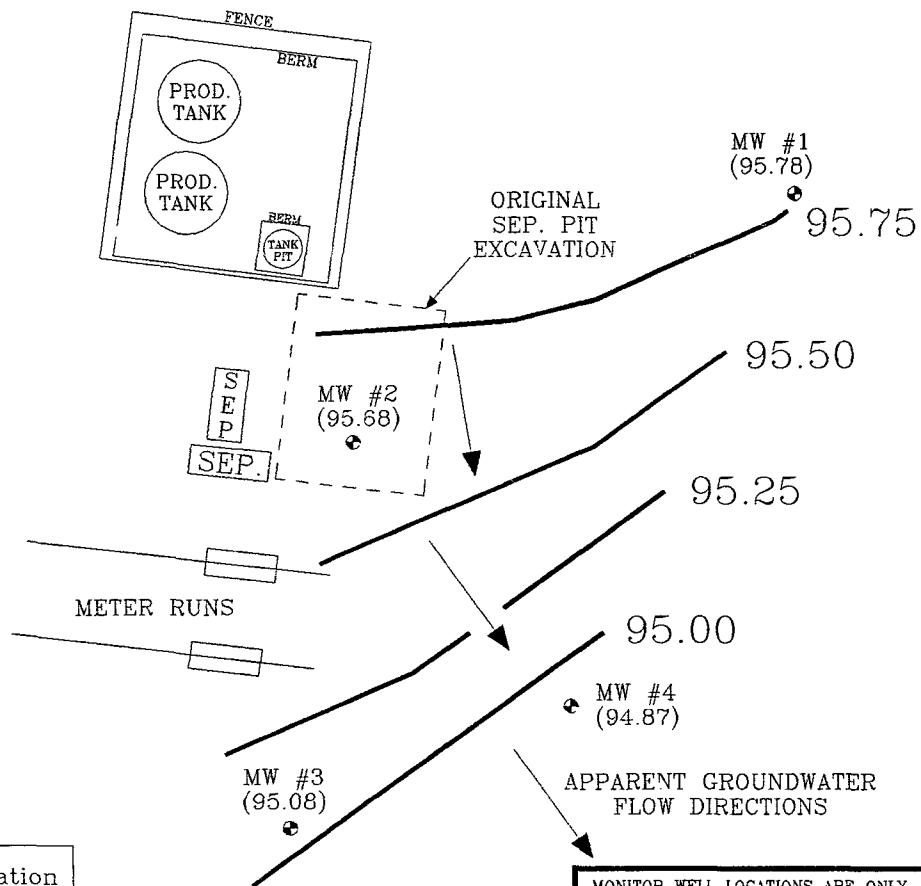
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DRAWN BY: NJV
FILENAME: 02-25-R1
DRAFTED: 2/25/98 NJV

GROUNDWATER
GRADIENT
MAP
2/98

FIGURE 3 (2nd 1/4, 1998)



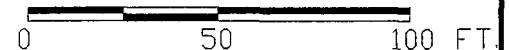
WELL
HEAD
⊕



Top of Well Elevation	
MW #1	(99.65)
MW #2	(101.47)
MW #3	(100.42)
MW #4	(100.78)
• MW #1	Groundwater Elevation as of 5/29/98. (95.78)

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 ARE NOT TO SCALE.

1 INCH = 50 FT.



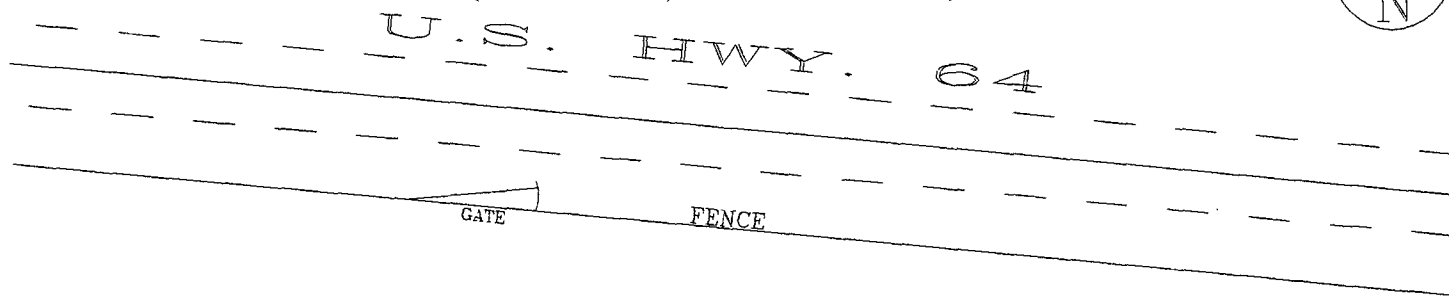
AMOCO PRODUCTION COMPANY
VALENCIA GC B # 1M
NE/4 SW/4 SEC. 18, T29N, R9W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
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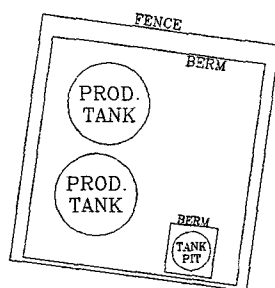
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DRAWN BY: NJV
FILENAME: 05-29-GW
DRAFTED: 5/29/99 NJV

GROUNDWATER
GRADIENT
MAP
5/98

FIGURE 4 (3rd 1/4, 1998)



WELL
HEAD



ORIGINAL
SEP. PIT
EXCAVATION

SEP.
SEP.

MW #2
(95.35)

MW #1
(95.35)

95.25

95.00

94.75

MW #4
(94.57)

APPARENT GROUNDWATER
FLOW DIRECTION

MW #3
(94.64)

METER RUNS

Top of Well Elevation

MW #1 ——— (99.65)

MW #2 ——— (101.47)

MW #3 ——— (100.42)

MW #4 ——— (100.78)

• MW #1 Groundwater Elevation
(95.35) as of 9/25/98.

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(BRUNTON COMPASS AND LASER RANGE FINDER).
ALL OTHER STRUCTURES DISPLAYED ON THE SITE
MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO
SCALE.

1 INCH = 50 FT.

0 50 100 FT.

AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

NE/4 SW/4 SEC. 18, T29N, R9W

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: 1/4 ly SAMP.

DRAWN BY: NJV

FILENAME: 09-25-GW

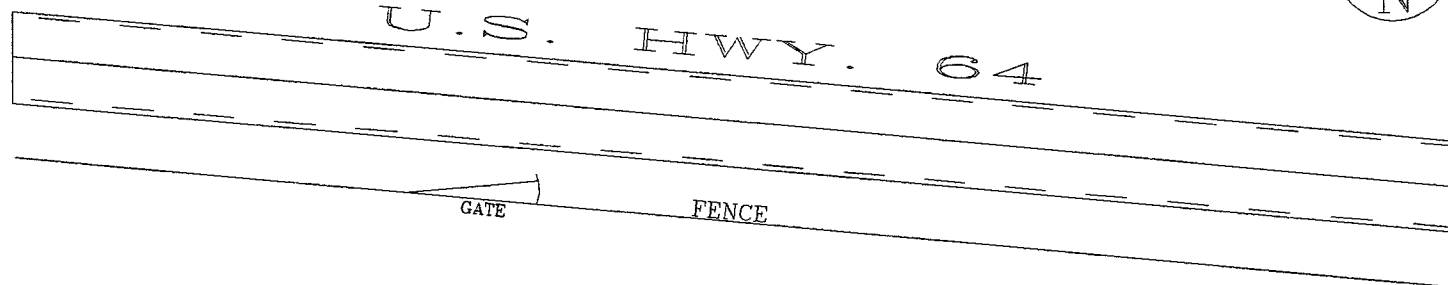
DRAFTED: 7/16/99 NJV

GROUNDWATER
GRADIENT

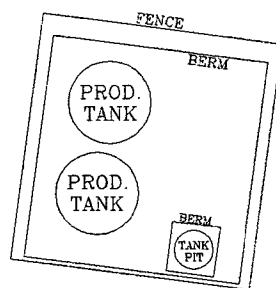
MAP

9/98

FIGURE 5 (1st 1/4, 1999)



WELL
HEAD



ORIGINAL
SEP. PIT
EXCAVATION

MW #1
(95.62)

95.50

95.25

95.00

94.75

MW #4
(94.65)

MW #3
(94.82)

APPARENT GROUNDWATER
FLOW DIRECTIONS

METER RUNS

Top of Well Elevation

MW #1 ——— (99.65)

MW #2 ——— (101.47)

MW #3 ——— (100.42)

MW #4 ——— (100.78)

• MW #1 Groundwater Elevation
(95.62) as of 2/18/99.

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 ARE NOT TO
SCALE.

1 INCH = 50 FT.

0 50 100 FT.

AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

NE/4 SW/4 SEC. 18, T29N, R9W

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: 1/4 ly SAMP.

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FILENAME: 02-18-GW

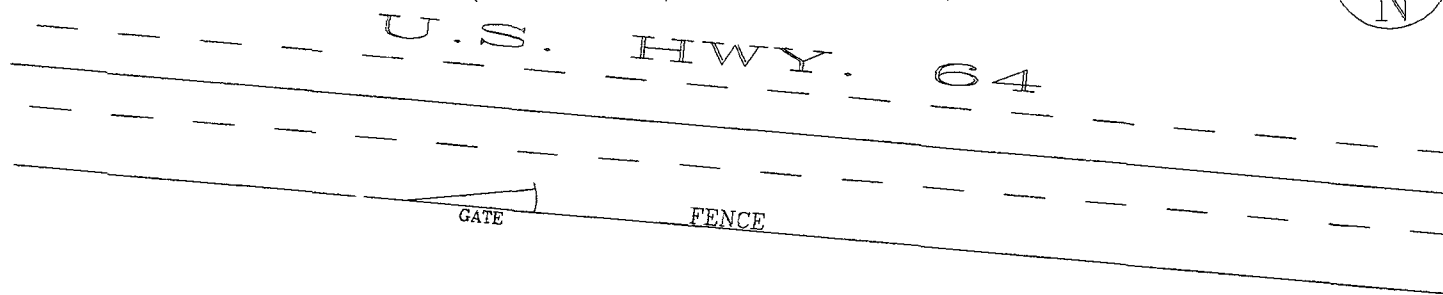
DRAFTED: 7/16/99 NJV

GROUNDWATER
GRADIENT

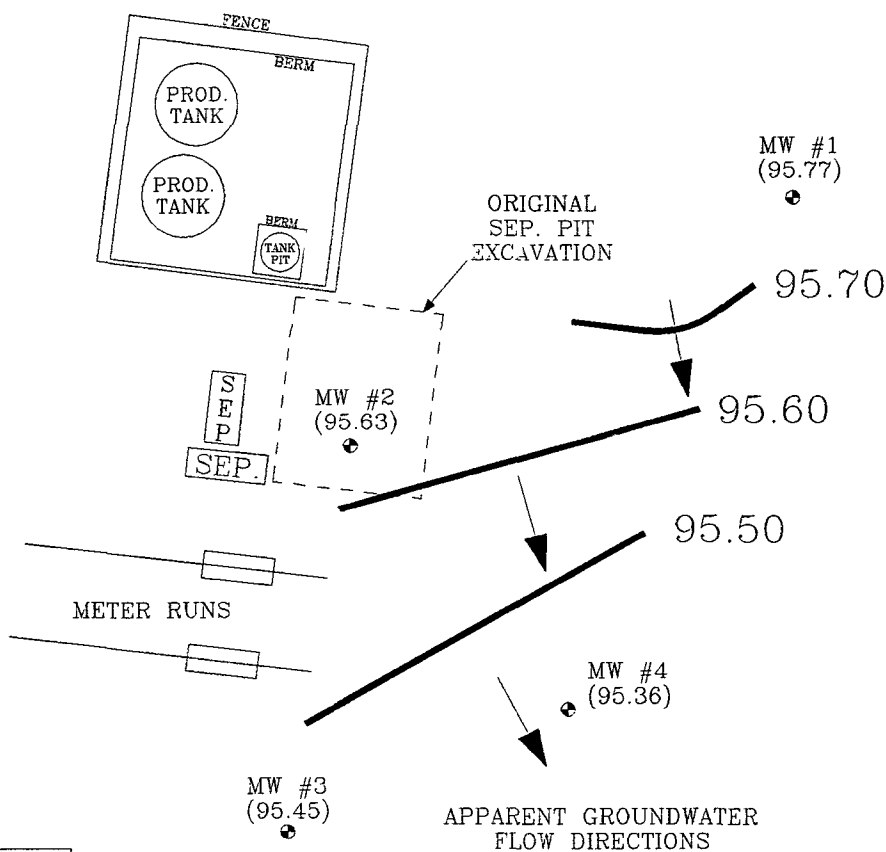
MAP

2/99

FIGURE 6 (4th 1/4, 1999)



WELL
HEAD
⊕



Top of Well Elevation

MW #1	—	(99.66)
MW #2	—	(101.52)
MW #3	—	(100.47)
MW #4	—	(100.85)
● MW #1	Groundwater Elevation	
(95.77)	as of 1/16/99.	

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 ARE NOT TO SCALE.

1 INCH = 50 FT.

0 50 100 FT.

AMOCO PRODUCTION COMPANY
VALENCIA GC B # 1M
NE/4 SW/4 SEC. 18, T29N, R9W
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
DRAWN BY: NJV
FILENAME: 12-16-GW
DRAFTED: 1/26/00 NJV

GROUNDWATER
GRADIENT
MAP
12/99

BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

LOCATION NAME: VALENCIA GC B # 1M

CLIENT: AMOCO PRODUCTION COMPANY

CONTRACTOR: BLAGG ENGINEERING, INC. / PAUL & SONS

EQUIPMENT USED: BACKHOE

BORING LOCATION: N80E, 240 FEET FROM WELL HEAD.

BORING #..... BH - 1

MW #..... 1

PAGE #..... 1

DATE STARTED 1/29/98

DATE FINISHED 1/29/98

OPERATOR..... GG

PREPARED BY NJV

DEPTH
FEET

INTERVAL

LITHOLOGY
INTERVAL

MW
SCHEMATIC

FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.75 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN CLAY, SLIGHTLY PLASTIC TO PLASTIC, SLIGHTLY MOIST, FIRM TO STIFF, NO APPARENT DISCOLORATION OBSERVED (0.0 - 3.0 FT. INTERVAL).

▼ GW DEPTH ON 2/25/98 = 2.18 FT. (APPROX.) FROM GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, SLIGHTLY MOIST TO SATURATED (AT GROUNDWATER), FIRM TO LOOSE, NO APPARENT DISCOLORATION OBSERVED (0.0 - 6.25 FT. INTERVAL).

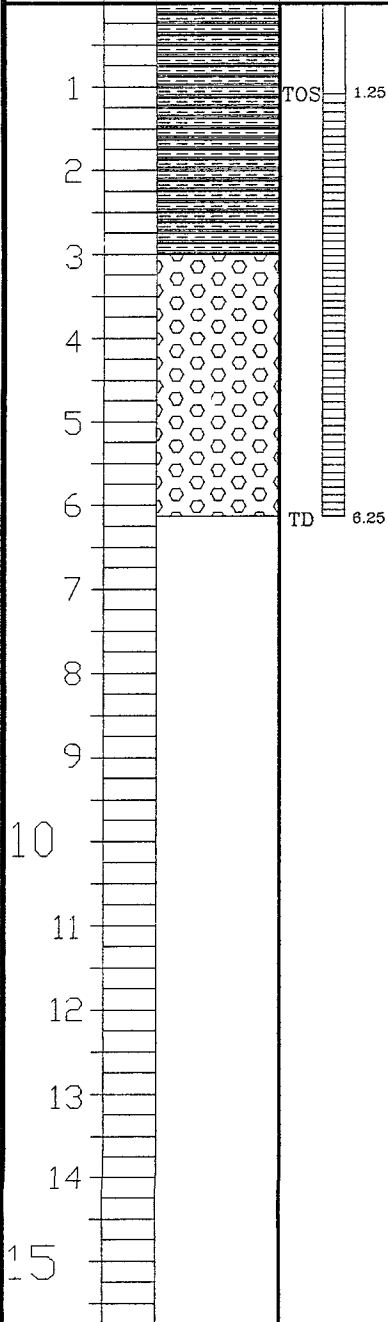
NOTES:  - CLAY.

 - SAND & GRAVEL (VARYING SIZES).

TOS - TOP OF SCREEN FROM GROUND SURFACE.

TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

GW - GROUND WATER.



DRAWING: VALB1M-1

DATE: 2/26/98

DWN BY: NJV

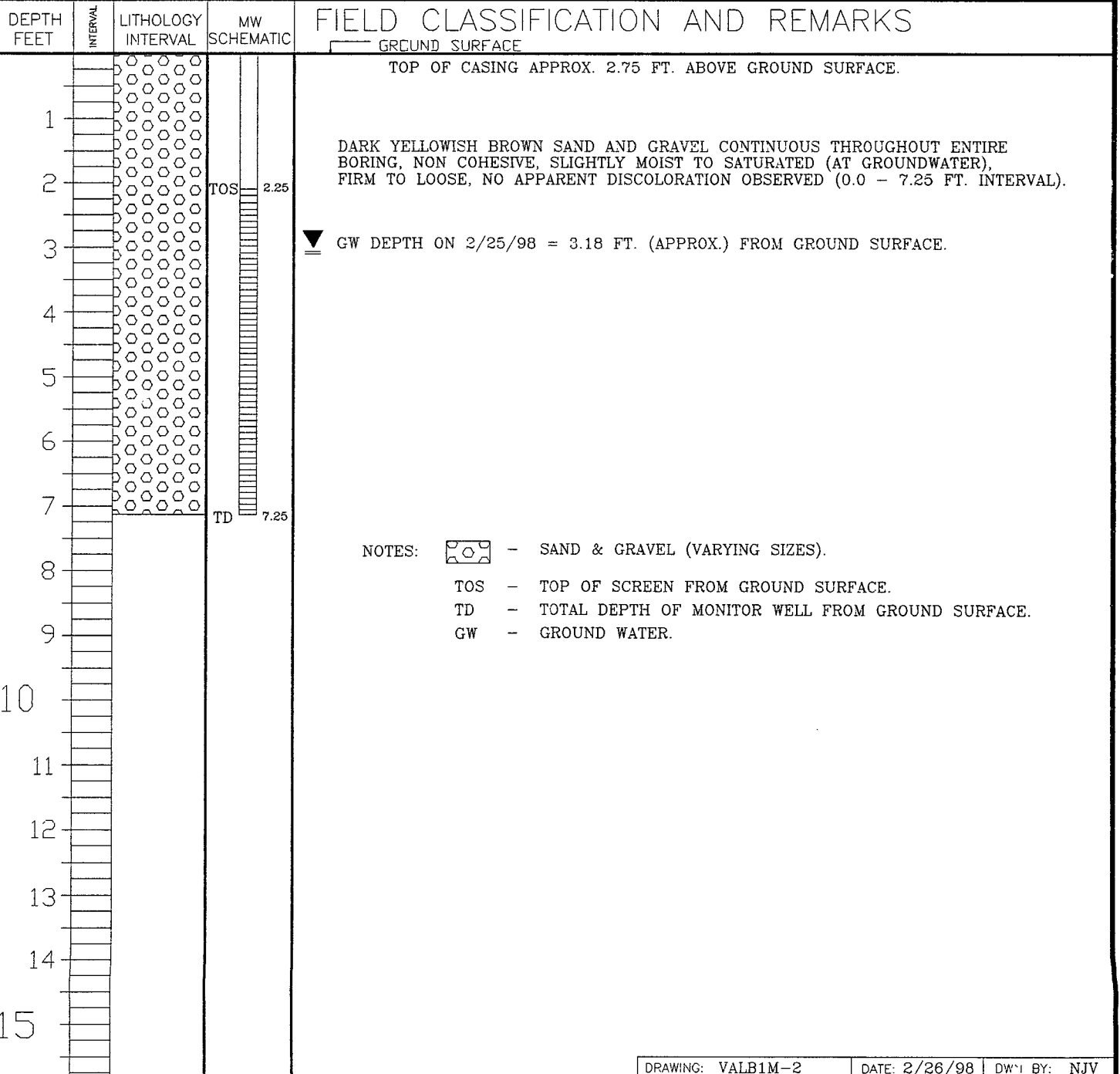
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

LOCATION NAME: VALENCIA GC B # 1M
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: BLAGG ENGINEERING, INC. / PAUL & SONS
EQUIPMENT USED: BACKHOE
BORING LOCATION: S79E, 123 FEET FROM WELL HEAD.

BORING #..... BH - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 1/29/98
DATE FINISHED 1/29/98
OPERATOR..... GG
PREPARED BY NJV



BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

LOCATION NAME: VALENCIA GC B # 1M

CLIENT: AMOCO PRODUCTION COMPANY

CONTRACTOR: BLAGG ENGINEERING, INC. / PAUL & SONS

EQUIPMENT USED: BACKHOE

BORING LOCATION: S40E, 162 FEET FROM WELL HEAD.

BORING #..... BH - 3

MW #..... 3

PAGE #..... 3

DATE STARTED 2/10/98

DATE FINISHED 2/10/98

OPERATOR..... GG

PREPARED BY NJV

DEPTH
FEET

INTERVAL

LITHOLOGY
INTERVAL

MW
SCHEMATIC

FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.75 FT. ABOVE GROUND SURFACE.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

TOS

2.25

TD

7.25

▼ GW DEPTH ON 2/25/98 = 2.29 FT. (APPROX.) FROM GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL CONTINUOUS THROUGHOUT ENTIRE BORING. NON COHESIVE, SLIGHTLY MOIST TO SATURATED (AT GROUNDWATER). FIRM TO LOOSE, NO APPARENT DISCOLORATION OBSERVED (0.0 - 7.25 FT. INTERVAL).

NOTES:  - SAND & GRAVEL (VARYING SIZES).

TOS - TOP OF SCREEN FROM GROUND SURFACE.

TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.

GW - GROUND WATER.

DRAWING: VALB1M-3

DATE: 2/26/98

DWN BY: NJV

BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

LOCATION NAME: VALENCIA GC B # 1M
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: BLAGG ENGINEERING, INC. / PAUL & SONS
EQUIPMENT USED: BACKHOE
BORING LOCATION: S62.5E, 200 FEET FROM WELL HEAD.

BORING #..... BH - 4
MW #..... 4
PAGE #..... 4
DATE STARTED 2/10/98
DATE FINISHED 2/10/98
OPERATOR..... GG
PREPARED BY NJV

DEPTH FEET	INTERVAL	LITHOLOGY INTERVAL	MW SCHEMATIC	FIELD CLASSIFICATION AND REMARKS
				GROUND SURFACE
				TOP OF CASING APPROX. 3.10 FT. ABOVE GROUND SURFACE.
1				
2			TOS 1.90	▼ GW DEPTH ON 2/25/98 = 2.38 FT. (APPROX.) FROM GROUND SURFACE.
3				
4				DARK YELLOWISH BROWN SAND AND GRAVEL CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED (AT GROUNDWATER). FIRM TO LOOSE, NO APPARENT DISCOLORATION OBSERVED (0.0 - 6.90 FT. INTERVAL).
5				
6				
7			TD 6.90	
8				
9				
10				
11				
12				
13				
14				
15				

NOTES:  - SAND & GRAVEL (VARYING SIZES).
TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

DRAWING: VALB1M-4

DATE: 2/26/98

DWN BY: NJV

MONITOR WELL #1

AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: FEB. '98

FILENAME: MW-1

2" DIA. SCH. 40 PVC
WELL CASING WITH SLIP CAP
(approx. 1.75 ft. above
ground surface)

TOTAL CASING
LENGTH = 1.25 ft.
FROM GROUND SURFACE
TO TOP OF SCREEN

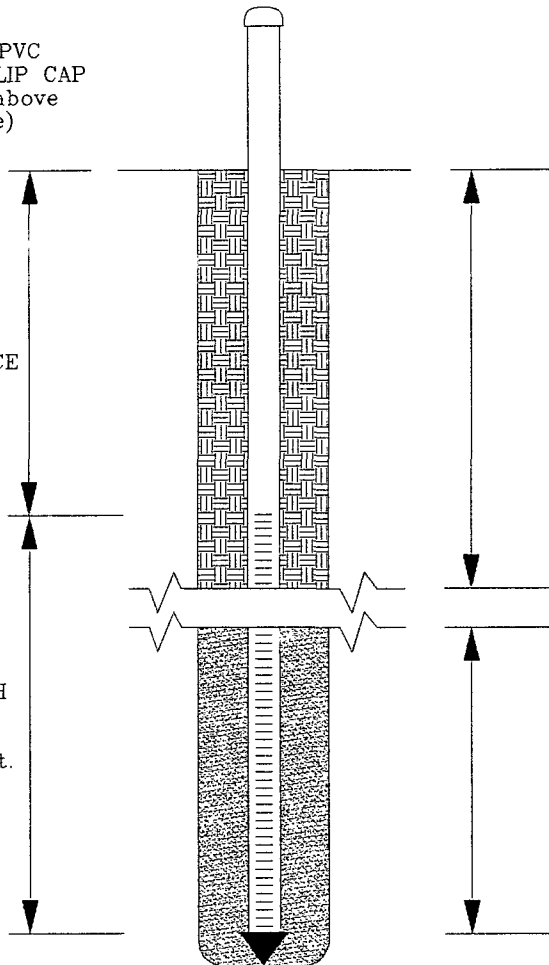
0.02 INCH SLOTTED
SCREEN SCH 40 WITH
POINTED ENC CAP
(5 ft. total length;
top of screen 0.93 ft.
above groundwater)

TOTAL DEPTH = 6.25 ft.
FROM GROUND SURFACE

BACK FILLED WITH
CLEAN NATIVE SOIL
TO SURFACE

WATER TABLE
APPROX. 2.18 ft. FROM
GROUND SURFACE
(measured 2/25/98).

4.07 ft. SCREEN INTERVAL
SET INTO EXISTING SOIL &
GROUNDWATER CONDITIONS



MONITOR WELL #2

2" DIA. SCH. 40 PVC
WELL CASING WITH SLIP CAP
(approx. 2.75 ft. above
ground surface)

TOTAL CASING
LENGTH = 2.25 ft.
FROM GROUND SURFACE
TO TOP OF SCREEN

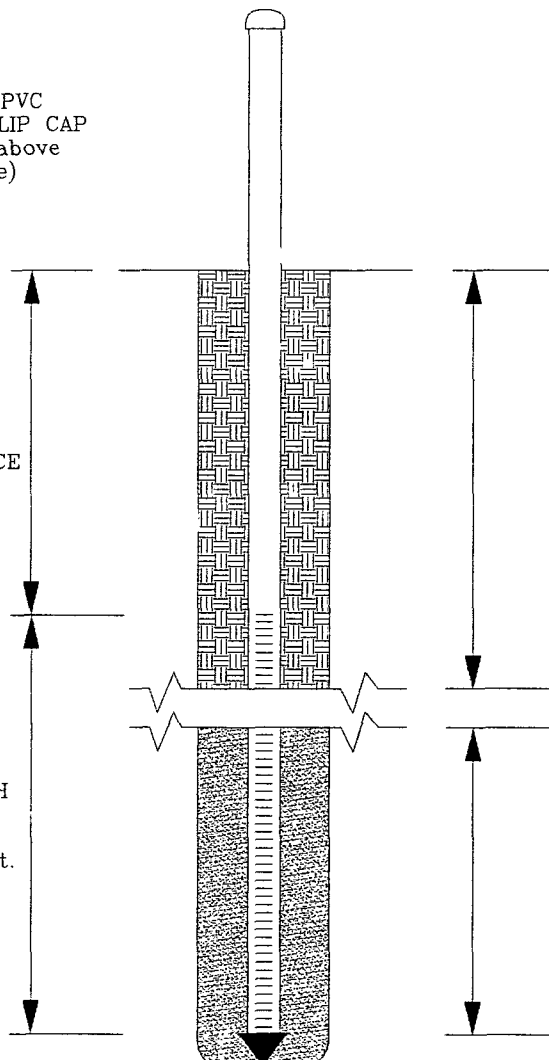
0.02 INCH SLOTTED
SCREEN SCH 40 WITH
POINTED ENC CAP
(5 ft. total length;
top of screen 0.93 ft.
above groundwater)

TOTAL DEPTH = 7.25 ft.
FROM GROUND SURFACE

BACK FILLED WITH
CLEAN NATIVE SOIL
TO SURFACE

WATER TABLE
APPROX. 3.18 ft. FROM
GROUND SURFACE
(measured 2/25/98).

4.07 ft. SCREEN INTERVAL
SET INTO EXISTING SOIL &
GROUNDWATER CONDITIONS



AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: FEB. '98

FILENAME: MW-2

MONITOR WELL #3

AMOCO PRODUCTION COMPANY
 VALENCIA GC B # 1M
 MONITOR WELL CONSTRUCTION & COMPLETION
 INSTALLED WITH BACKHOE

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

MONITOR WELL SCHEMATIC
 DRAFTED BY: NJV
 DATE: FEB. '98
 FILENAME: MW-3

2" DIA. SCH. 40 PVC
 WELL CASING WITH SLIP CAP
 (approx. 2.75 ft. above
 ground surface)

TOTAL CASING
 LENGTH = 2.25 ft.
 FROM GROUND SURFACE
 TO TOP OF SCREEN

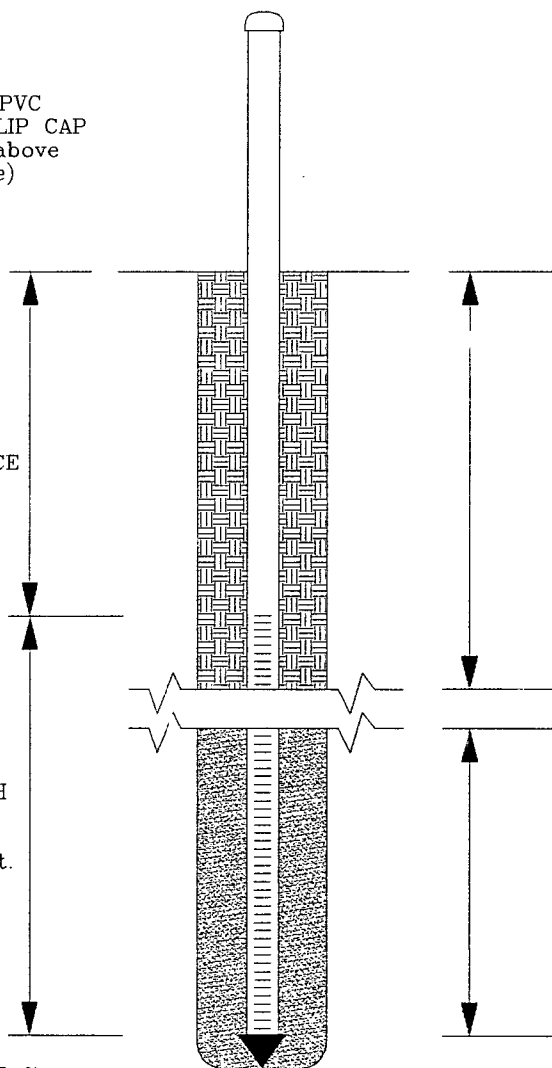
0.02 INCH SLOTTED
 SCREEN SCH 40 WITH
 POINTED ENC CAP
 (5 ft. total length;
 top of screen 0.04 ft.
 above groundwater)

TOTAL DEPTH = 7.25 ft.
 FROM GROUND SURFACE

BACK FILLED WITH
 CLEAN NATIVE SOIL
 TO SURFACE

WATER TABLE
 APPROX. 2.29 ft. FROM
 GROUND SURFACE
 (measured 2/25/98).

4.96 ft. SCREEN INTERVAL
 SET INTO EXISTING SOIL &
 GROUNDWATER CONDITIONS



MONITOR WELL #4

2' DIA. SCH. 40 PVC
WELL CASING WITH SLIP CAP
(approx. 3.10 ft. above
ground surface)

TOTAL CASING
LENGTH = 1.90 ft.
FROM GROUND SURFACE
TO TOP OF SCREEN

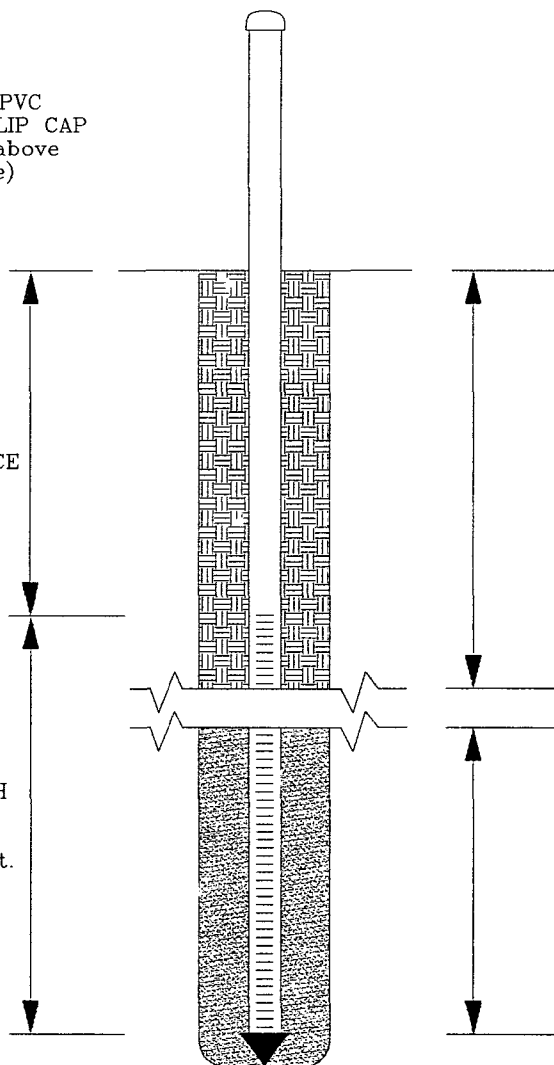
0.02 INCH SLOTTED
SCREEN SCH 40 WITH
POINTED ENC CAP
(5 ft. total length;
top of screen 0.48 ft.
above groundwater)

TOTAL DEPTH = 6.90 ft.
FROM GROUND SURFACE

BACK FILLED WITH
CLEAN NATIVE SOIL
TO SURFACE

WATER TABLE
APPROX. 2.38 ft. FROM
GROUND SURFACE
(measured 2/25/98).

4.52 ft. SCREEN INTERVAL
SET INTO EXISTING SOIL &
GROUNDWATER CONDITIONS



AMOCO PRODUCTION COMPANY

VALENCIA GC B # 1M

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: FEB. '98

FILENAME: MW-4

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : AMOCO PRODUCTION CO.CHAIN-OF-CUSTODY # : 57215730

VALENCIA GC B # 1M - SEP. PIT

LABORATORY (S) USED : ENVIROTECH, INC.

UNIT K, SEC. 18, T29N, R9W

Date : February 25, 1998SAMPLER : N J VFilename : 02-25-98.WK3PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING	pH TIME	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.65	95.72	3.93	8.00	1145	7.4	2,000	2.00	-
2	101.47	95.54	5.93	10.00	1205	7.8	2,500	2.00	-
3	100.42	95.38	5.04	10.00	1055	7.7	2,900	2.50	-
4	100.78	95.30	5.48	10.00	1115	7.8	3,100	2.25	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$ (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2"MW #'s 1 & 2 sampled on Feb. 2, 1998 . Collected BTEX and Anion / Cation samples for allMW's listed above . DTW for MW #'s 1 = 4.04 ft. & 2 = 6.03 ft. during 2 / 2 / 98 sampling.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #1	Date Reported:	02-03-98
Chain of Custody:	5721	Date Sampled:	02-02-98
Laboratory Number:	C867	Date Received:	02-02-98
Sample Matrix:	Water	Date Analyzed:	02-03-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	btex-tmb
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	1.8	1	0.2
o-Xylene	0.4	1	0.1

Total BTEX 2.2

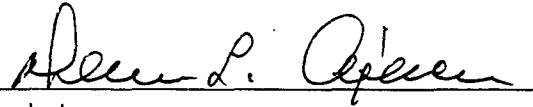
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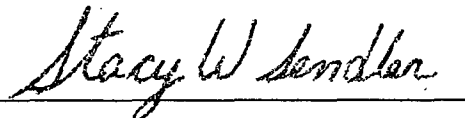
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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: Valencia GC B #1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #2	Date Reported:	02-03-98
Chain of Custody:	5721	Date Sampled:	02-02-98
Laboratory Number:	C868	Date Received:	02-02-98
Sample Matrix:	Water	Date Analyzed:	02-03-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	btex-tmb
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	0.9	1	0.2
Toluene	7.6	1	0.2
Ethylbenzene	10.9	1	0.2
p,m-Xylene	143	1	0.2
o-Xylene	23.8	1	0.1

Total BTEX 187

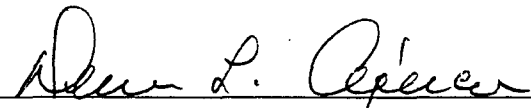
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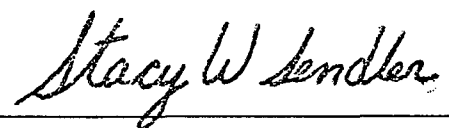
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	101 %

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: Valencia GC B #1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW # 3	Date Reported:	02-26-98
Chain of Custody:	5730	Date Sampled:	02-25-98
Laboratory Number:	C946	Date Received:	02-25-98
Sample Matrix:	Water	Date Analyzed:	02-26-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	btex-mtbe
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	0.7	1	0.2
o-Xylene	0.3	1	0.1

Total BTEX 1.0

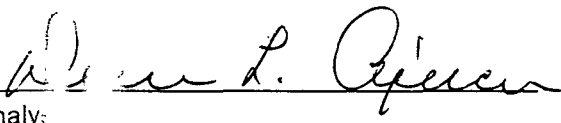
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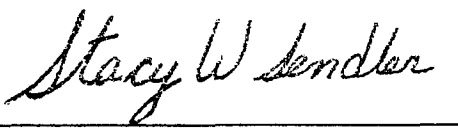
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	101 %

Reference: 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: Valencia GC B # 1M.


Analy:


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW # 4	Date Reported:	02-26-98
Chain of Custody:	5730	Date Sampled:	02-25-98
Laboratory Number:	C947	Date Received:	02-25-98
Sample Matrix:	Water	Date Analyzed:	02-26-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	btex-mtbe
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.7	1	0.2
Toluene	2.0	1	0.2
Ethylbenzene	1.2	1	0.2
p,m-Xylene	12.2	1	0.2
o-Xylene	3.1	1	0.1

Total BTEX 20.2

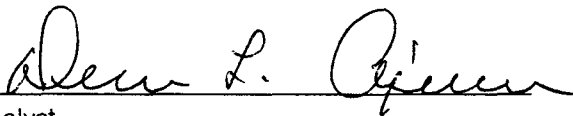
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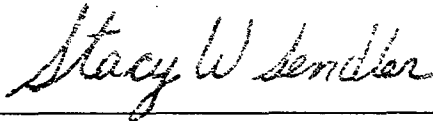
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

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: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

CATION / ANION ANALYSIS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

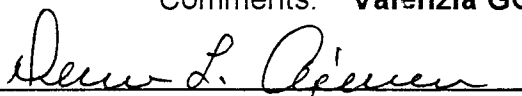
Client: Blagg / AMOCO
Sample ID: MW # 1
Laboratory Number: C867
Chain of Custody: 5721
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

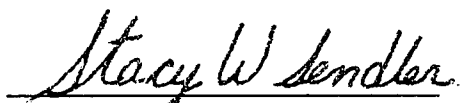
Project #: 04034-10
Date Reported: 02-03-98
Date Sampled: 02-02-98
Date Received: 02-02-98
Date Extracted: N/A
Date Analyzed: 02-03-98

Parameter	Analytical Result	Units	Units
pH	7.43	s.u.	
Conductivity @ 25° C	3,695	umhos/cm	
Total Dissolved Solids @ 180C	1,850	mg/L	
Total Dissolved Solids (Calc)	1,846	mg/L	
SAR	9.8	ratio	
Total Alkalinity as CaCO3	354	mg/L	
Total Hardness as CaCO3	402	mg/L	
Bicarbonate as HCO3	354	mg/L	5.80 meq/L
Carbonate as CO3	<1	mg/L	0.00 meq/L
Hydroxide as OH	<1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.1	mg/L	0.00 meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00 meq/L
Chloride	38.0	mg/L	1.07 meq/L
Fluoride	1.00	mg/L	0.05 meq/L
Phosphate	2.1	mg/L	0.07 meq/L
Sulfate	992	mg/L	20.65 meq/L
Calcium	117	mg/L	5.84 meq/L
Magnesium	26.8	mg/L	2.21 meq/L
Potassium	4.3	mg/L	0.11 meq/L
Sodium	450	mg/L	19.58 meq/L
Cations			27.73 meq/L
Anions			27.65 meq/L
Cation/Anion Difference			0.29%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Valenzia GC B #1M.


Analyst


Review

ENVIROTECH LABS

CATION / ANION ANALYSIS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Client: Blagg / AMOCO
Sample ID: MW # 2
Laboratory Number: C868
Chain of Custody: 5721
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

Project #: 04034-10
Date Reported: 02-03-98
Date Sampled: 02-02-98
Date Received: 02-02-98
Date Extracted: N/A
Date Analyzed: 02-03-98

Parameter	Analytical Result	Units		Units
pH	7.59	s.u.		
Conductivity @ 25° C	3,910	umhos/cm		
Total Dissolved Solids @ 180C	1,950	mg/L		
Total Dissolved Solids (Calc)	1,945	mg/L		
SAR	3.9	ratio		
Total Alkalinity as CaCO3	396	mg/L		
Total Hardness as CaCO3	858	mg/L		
Bicarbonate as HCO3	396	mg/L	6.49	meq/L
Carbonate as CO3	<1	mg/L	0.00	meq/L
Hydroxide as OH	<1	mg/L	0.00	meq/L
Nitrate Nitrogen	31.6	mg/L	0.51	meq/L
Nitrite Nitrogen	0.203	mg/L	0.00	meq/L
Chloride	312	mg/L	8.80	meq/L
Fluoride	1.07	mg/L	0.06	meq/L
Phosphate	5.8	mg/L	0.18	meq/L
Sulfate	706	mg/L	14.70	meq/L
Calcium	239	mg/L	11.93	meq/L
Magnesium	63.5	mg/L	5.23	meq/L
Potassium	80.4	mg/L	2.06	meq/L
Sodium	265	mg/L	11.53	meq/L
Cations			30.74	meq/L
Anions			30.74	meq/L
Cation/Anion Difference			0.03%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Valenzia GC B #1M.

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

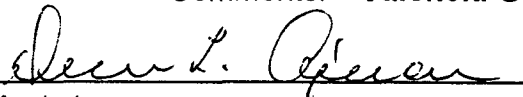
Client: Blagg / AMOCO
Sample ID: MW # 3
Laboratory Number: C946
Chain of Custody: 5730
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

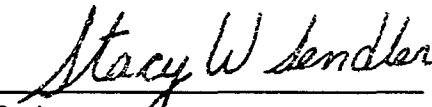
Project #: 04034-10
Date Reported: 02-26-98
Date Sampled: 02-25-98
Date Received: 02-25-98
Date Extracted: N/A
Date Analyzed: 02-26-98

Parameter	Analytical Result	Units	Units
pH	7.37	s.u.	
Conductivity @ 25° C	6,000	umhos/cm	
Total Dissolved Solids @ 180C	2,985	mg/L	
Total Dissolved Solids (Calc)	2,966	mg/L	
SAR	10.6	ratio	
Total Alkalinity as CaCO3	522	mg/L	
Total Hardness as CaCO3	752	mg/L	
Bicarbonate as HCO3	522	mg/L	8.56 meq/L
Carbonate as CO3	<1	mg/L	0.00 meq/L
Hydroxide as OH	<1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.2	mg/L	0.00 meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00 meq/L
Chloride	108	mg/L	3.05 meq/L
Fluoride	1.80	mg/L	0.09 meq/L
Phosphate	4.1	mg/L	0.13 meq/L
Sulfate	1,572	mg/L	32.73 meq/L
Calcium	243	mg/L	12.13 meq/L
Magnesium	35.2	mg/L	2.90 meq/L
Potassium	14.5	mg/L	0.37 meq/L
Sodium	670	mg/L	29.15 meq/L
Cations			44.54 meq/L
Anions			44.56 meq/L
Cation/Anion Difference			0.05%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW # 4	Date Reported:	02-26-98
Laboratory Number:	C947	Date Sampled:	02-25-98
Chain of Custody:	5730	Date Received:	02-25-98
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-26-98
Condition:	Cool & Intact		

Parameter	Analytical Result	Units	Units
pH	7.5	s.u.	
Conductivity @ 25° C	3,000	umhos/cm	
Total Dissolved Solids @ 180C	2,000	mg/L	
Total Dissolved Solids (Calc)	2,730	mg/L	
SAR	1.4	ratio	
Total Alkalinity as CaCO3	500	mg/L	
Total Hardness as CaCO3	356	mg/L	
Bicarbonate as HCO3	500	mg/L	8.20 meq/L
Carbonate as CO3	<1	mg/L	0.00 meq/L
Hydroxide as OH	<1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.3	mg/L	0.00 meq/L
Nitrite Nitrogen	0.001	mg/L	0.00 meq/L
Chloride	112	mg/L	3.16 meq/L
Fluoride	1.83	mg/L	0.10 meq/L
Phosphate	1.0	mg/L	0.03 meq/L
Sulfate	1,510	mg/L	31.44 meq/L
Calcium	184	mg/L	9.18 meq/L
Magnesium	23.4	mg/L	1.93 meq/L
Potassium	11.5	mg/L	0.29 meq/L
Sodium	725	mg/L	31.54 meq/L
Cations			42.94 meq/L
Anions			42.93 meq/L
Cation/Anion Difference			0.03%

Reference: U.S. EPA, 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Valued via GC B # 1M.

[Signature]
Analyst

[Signature: Stacy W. Sandler]
Review

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

12ap coc 5729-5730

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION

Client:	N/A	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-03-98
Laboratory Number:	02-03-BTEX.BLANK	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-03-98
Condition:	N/A	Analysis Requested:	BTEX

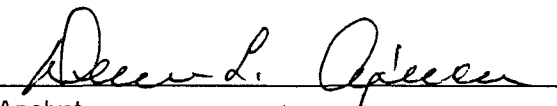
Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
p,m-Xylene	ND	0.2
o-Xylene	ND	0.1

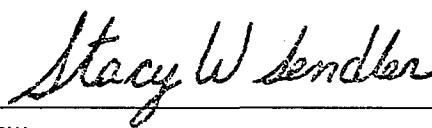
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	99 %
	Bromofluorobenzene	100 %

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 samples C864 - C868 and C870.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-03-98
Laboratory Number:	C865	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	HgCl and Cool	Date Analyzed:	02-03-98
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Sample Result (ug/L)	Duplicate Result (ug/L)	Percent Diff.	Det. Limit (ug/L)	Dilution Factor
Benzene	2,620	2,570	2.0%	0.9	5
Toluene	12.5	11.4	1.0%	0.8	5
Ethylbenzene	787	775	1.0%	0.8	5
p,m-Xylene	2,050	2,025	1.4%	1.1	5
o-Xylene	1,850	1,835	1.0%	0.5	5

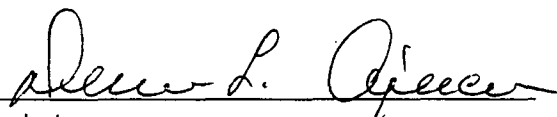
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8020 Compounds	30 %

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 samples C864 - C866 and C870.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-03-98
Laboratory Number:	C865	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Analyzed:	02-03-98
Condition:	Cool and Intact		

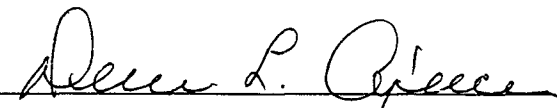
Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	2,620	50.0	2,670	0.9	100%	39-150
Toluene	12.5	50.0	62.4	0.8	99%	46-148
Ethylbenzene	787	50.0	836	0.8	100%	32-160
p,m-Xylene	2,050	100	2,150	1.1	100%	46-148
o-Xylene	1,850	50.0	1,900	0.5	100%	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 samples C864 - C868 and C870.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	02-26-BTEX QA/QC	Date Reported:	02-26-98
Laboratory Number:	C946	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	6.8842E-05	7.1785E-05	4.28%	ND	0.2
Toluene	7.5643E-05	7.8386E-05	3.63%	ND	0.2
Ethylbenzene	8.8155E-05	9.1637E-05	3.95%	ND	0.2
p,m-Xylene	6.5684E-05	6.7715E-05	3.09%	ND	0.2
o-Xylene	8.7047E-05	9.0580E-05	4.06%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	0.7	0.7	0.0%	0 - 30%
o-Xylene	0.3	0.3	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	ND	50.0	50.0	100.0%	39 - 150
Toluene	ND	50.0	50.1	100.3%	46 - 148
Ethylbenzene	ND	50.0	50.1	100.2%	32 - 160
p,m-Xylene	0.7	100.0	100.7	100.0%	46 - 148
o-Xylene	0.3	50.0	50.3	100.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Recovery Acceptance Range = 80% - 115%.

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 samples C946 - C949.

Analyst

Review

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO.

CHAIN-OF-CUSTODY # : 6004

VALENCIA GC B #1M - SEP. PIT

LABORATORY (S) USED : ENVIROTECH, INC.

UNIT K, SEC. 18, T29N, R9W

Date : May 29, 1998

SAMPLER : N J V

Filename : 05-29-98.WK3

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING	pH TIME	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.65	95.78	3.87	8.00	-	-	-	-	-
2	101.47	95.68	5.79	10.00	1215	8.0	1,400	2.10	-
3	100.42	95.08	5.34	10.00	-	-	-	-	-
4	100.78	94.87	5.91	10.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$

(i.e. 2" MW $r = (1/12) \text{ ft. } h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft. } h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3/4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2".

Collected BTEX for MW #2 only.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #2	Date Reported:	06-01-98
Chain of Custody:	6004	Date Sampled:	05-29-98
Laboratory Number:	D317	Date Received:	06-01-98
Sample Matrix:	Water	Date Analyzed:	06-01-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	3.4	1	0.2
Toluene	1.6	1	0.2
Ethylbenzene	3.0	1	0.2
p,m-Xylene	37.4	1	0.2
o-Xylene	6.7	1	0.1

Total BTEX 52.1

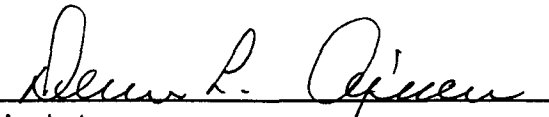
ND - Parameter not detected at the stated detection limit.

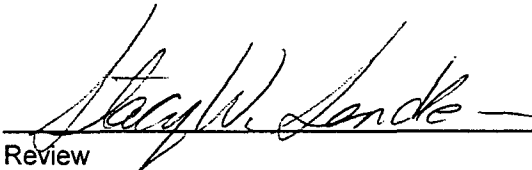
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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: Valencia GC B #1M.


Analyst


Review

6004

[illegible]

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	06-01-BTEX QA/QC	Date Reported:	06-01-98
Laboratory Number:	D317	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-01-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	C-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	1.4863E-02	1.5028E-02	1.11%	ND	0.2
Toluene	2.2878E-02	2.2993E-02	0.50%	ND	0.2
Ethylbenzene	1.0578E-02	1.0663E-02	0.81%	ND	0.2
p,m-Xylene	8.4559E-03	8.5672E-03	1.32%	ND	0.2
o-Xylene	8.7385E-03	8.8357E-03	1.11%	ND	0.1
1,3,5-trimethylbenzene	6.2277E-03	6.2402E-03	0.20%	ND	0.2
1,2,4-trimethylbenzene	7.3319E-03	7.3687E-03	0.50%	ND	0.2

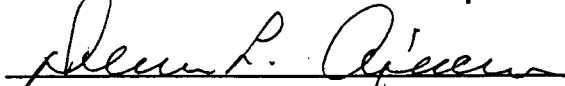
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	3.4	3.3	2.9%	0 - 30%
Toluene	1.6	1.6	0.0%	0 - 30%
Ethylbenzene	3.0	3.0	0.0%	0 - 30%
p,m-Xylene	37.4	36.9	1.3%	0 - 30%
o-Xylene	6.7	6.7	0.0%	0 - 30%

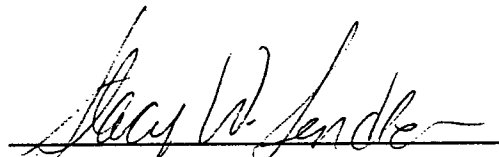
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	3.4	50.0	53.2	100%	39 - 150
Toluene	1.6	50.0	51.5	100%	46 - 148
Ethylbenzene	3.0	50.0	52.9	100%	32 - 160
p,m-Xylene	37.4	100.0	135.2	98%	46 - 148
o-Xylene	6.7	50.0	56.4	99%	46 - 148

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 samples D317 - D324.


Analyst


Review

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : **AMOCO PRODUCTION CO.**

CHAIN-OF-CUSTODY # : 6218

VALENCIA GC B # 1M - SEP. PIT

LABORATORY (S) USED : ENVIROTECH, INC.

JNIT K, SEC. 18, T29N, R9W

Date : September 25, 1998SAMPLER : N J VFilename : 09-25-98.WK3PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING	pH TIME	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.65	95.35	4.30	8.00	-	-	-	-	-
2	101.47	95.35	6.12	10.00	0940	7.6	1,300	2.00	-
3	100.42	94.64	5.78	10.00	-	-	-	-	-
4	100.78	94.57	6.21	10.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".Collected BTEX for MW #2 only .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #2	Date Reported:	09-26-98
Chain of Custody:	6218	Date Sampled:	09-25-98
Laboratory Number:	D977	Date Received:	09-25-98
Sample Matrix:	Water	Date Analyzed:	09-26-98
Preservative:	HgCl ₂ & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	0.5	1	0.2
Toluene	0.5	1	0.2
Ethylbenzene	0.3	1	0.2
p,m-Xylene	1.5	1	0.2
o-Xylene	1.9	1	0.1

Total BTEX 4.7

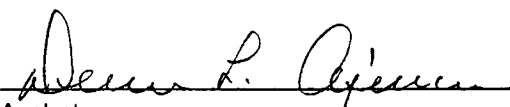
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	96 %
	Bromofluorobenzene	96 %

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: Valencia GC B #1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	09-26-BTEX QA/QC	Date Reported:	09-26-98
Laboratory Number:	D977	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-26-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept Range 0 - 15%			
Benzene	2.4349E-002	2.4428E-002	0.32%	ND	0.2
Toluene	1.1333E-002	1.1356E-002	0.20%	ND	0.2
Ethylbenzene	1.4295E-002	1.4355E-002	0.42%	ND	0.2
p,m-Xylene	1.1212E-002	1.1214E-002	0.02%	ND	0.2
o-Xylene	1.1772E-002	1.1807E-002	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	0.5	0.5	0.0%	0 - 30%
Toluene	0.5	0.5	0.0%	0 - 30%
Ethylbenzene	0.3	0.3	0.0%	0 - 30%
p,m-Xylene	1.5	1.5	0.0%	0 - 30%
o-Xylene	1.9	1.9	0.0%	0 - 30%

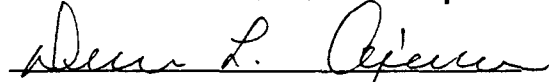
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	0.5	50.0	50.4	100%	39 - 150
Toluene	0.5	50.0	50.5	100%	46 - 148
Ethylbenzene	0.3	50.0	50.2	100%	32 - 160
p,m-Xylene	1.5	100	101	100%	46 - 148
o-Xylene	1.9	50.0	51.8	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

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 samples D977 - D985.


Analyst


Review

6218

[illegible]

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : **AMOCO PRODUCTION CO.**

CHAIN-OF-CUSTODY # : 6611

**VALENCIA GC B # 1M - SEP. PIT
UNIT K, SEC. 18, T29N, R9W**LABORATORY (S) USED : **ENVIROTECH, INC.**Date : *February 18, 1999*SAMPLER : **N J V**Filename : *02-18-99.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.65	95.62	4.03	8.00	-	-	-	-	-
2	101.47	95.45	6.02	10.00	1010	7.2	1,800	2.00	-
3	100.42	94.82	5.60	10.00	-	-	-	-	-
4	100.78	94.65	6.13	10.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) - (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected BTEX for MW #2 only .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW # 2	Date Reported:	02-19-99
Chain of Custody:	6611	Date Sampled:	02-18-99
Laboratory Number:	E676	Date Received:	02-18-99
Sample Matrix:	Water	Date Analyzed:	02-19-99
Preservative:	HgCl ₂ & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	3.2	1	0.2
Ethylbenzene	3.2	1	0.2
p,m-Xylene	8.5	1	0.2
o-Xylene	4.0	1	0.1

Total BTEX 18.9

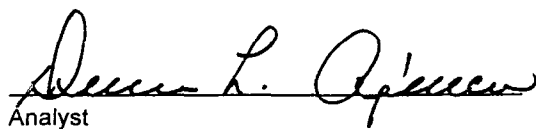
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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: Valencia GC B #1M.


Analyst


Review

6611

[illegible]

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	02-19-BTEX QA/QC	Date Reported:	02-19-99
Laboratory Number:	E674	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-19-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc.	Detect Limit
		Accept Range 0 - 15%			
Benzene	7.9975E-002	8.0232E-002	0.32%	ND	0.2
Toluene	7.5726E-002	7.5741E-002	0.02%	ND	0.2
Ethylbenzene	5.3049E-002	5.3112E-002	0.12%	ND	0.2
p,m-Xylene	4.6305E-002	4.6314E-002	0.02%	ND	0.2
o-Xylene	4.6122E-002	4.6261E-002	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	1.5	1.5	0.0%	0 - 30%
Toluene	1.5	1.4	6.7%	0 - 30%
Ethylbenzene	5.5	5.3	3.6%	0 - 30%
p,m-Xylene	45.7	45.8	0.2%	0 - 30%
o-Xylene	9.5	9.2	3.2%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	1.5	50.0	51.5	100%	39 - 150
Toluene	1.5	50.0	51.4	100%	46 - 148
Ethylbenzene	5.5	50.0	55.3	100%	32 - 160
p,m-Xylene	45.7	100.0	143.6	99%	46 - 148
o-Xylene	9.5	50.0	59.0	99%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

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 samples E674 - E678.

Analyst

Review

BLAGG ENGINEERING, INC.**MONITOR WELL SAMPLING DATA**CLIENT : AMOCO PRODUCTION CO.CHAIN-OF-CUSTODY # : 74547459

VALENCIA GC B # 1M - SEP. PIT

LABORATORY (S) USED : ENVIROTECH, INC.

UNIT K, SEC. 18, T29N, R9W

Date : December 16, 1999SAMPLER : N J VFilename : 12-16-99.WK4PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.66	95.77	3.89	8.00	1300	-	-	2.00	-
2	101.52	95.63	5.89	10.00	1200	-	-	2.00	-
3	100.47	95.45	5.02	10.00	1230	-	-	2.50	-
4	100.85	95.36	5.49	10.00	1300	-	-	2.25	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2"Collected BTEX for MW # 4 only . Collected chloride samples from all MW 's listed .Collected chloride sample from MW # 1 on 01/20/00 . DTW = 3.86 ft.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Amoco	Project #:	403410
Sample ID:	MW # 4	Date Reported:	12-17-99
Chain of Custody:	7454	Date Sampled:	12-16-99
Laboratory Number:	G623	Date Received:	12-16-99
Sample Matrix:	Water	Date Analyzed:	12-17-99
Preservative:	HgCl ₂ & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1
Total Xylene	ND		
Total BTEX	ND		

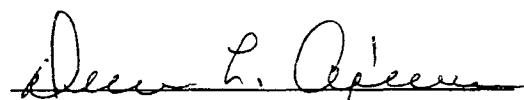
ND - Parameter not detected at the stated detection limit.

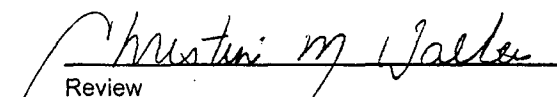
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	96 %
	Bromofluorobenzene	96 %

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: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Total Chloride

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW # 2	Date Reported:	12-17-99
Lab ID#:	G621	Date Sampled:	12-16-99
Sample Matrix:	Water	Date Received:	12-16-99
Preservative:	Cool	Date Analyzed:	12-17-99
Condition:	Cool and Intact	Chain of Custody:	7454

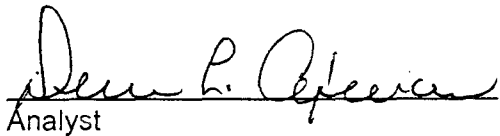
Parameter	Concentration (mg/L)
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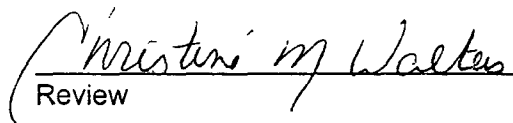
Total Chloride

7.6

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

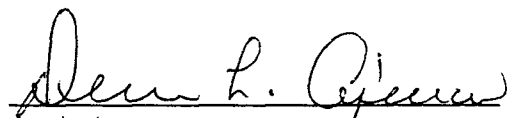
Total Chloride

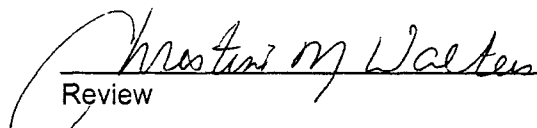
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW # 3	Date Reported:	12-17-99
Lab ID#:	G622	Date Sampled:	12-16-99
Sample Matrix:	Water	Date Received:	12-16-99
Preservative:	Cool	Date Analyzed:	12-17-99
Condition:	Cool and Intact	Chain of Custody:	7454

Parameter	Concentration (mg/L)
Total Chloride	7.2

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

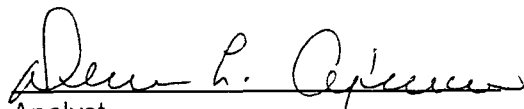
Total Chloride

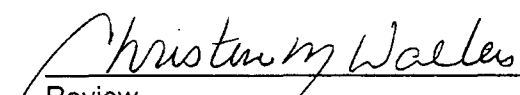
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW # 4	Date Reported:	12-17-99
Lab ID#:	G623	Date Sampled:	12-16-99
Sample Matrix:	Water	Date Received:	12-16-99
Preservative:	Cool	Date Analyzed:	12-17-99
Condition:	Cool and Intact	Chain of Custody:	7454

Parameter	Concentration (mg/L)
Total Chloride	11.2

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Valencia GC B # 1M.


Analyst


Review

CHAIN OF CUSTODY RECORD

7454

Client / Project Name		Project Location		ANALYSIS / PARAMETERS									
BAGG / Amoco		VALENCIA GC 8 #1M											
Sampler: NTV		Client No. 403410		Containers		CHLORIDE ONLY		BTEX (802)				Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	CHLORIDE ONLY	BTEX (802)						
MW # 2	12/16/99	1200	G621	WATER	1	✓		CHLORIDE SAMPLES					
MW # 3	12/16/99	1230	G622	WATER	1	✓		PRESERV. - COOL					
MW # 4	12/16/99	1300	G623	WATER	3	✓	✓	BTEX SAMPLE -					
								PRESERV. HgCl ₂ &					
								COOL					
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time			
John Vef		12/16/99		1537		Christine Wadsworth		12/16/99		1537			
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 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	12-17-BTEX QA/QC	Date Reported:	12-17-99
Laboratory Number:	G623	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-17-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	1.0442E+000	1.0475E+000	0.32%	ND	0.2
Toluene	4.0778E-001	4.0786E-001	0.02%	ND	0.2
Ethylbenzene	2.3280E-001	2.3308E-001	0.12%	ND	0.2
p,m-Xylene	2.5439E-001	2.5444E-001	0.02%	ND	0.2
o-Xylene	2.0205E-001	2.0266E-001	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

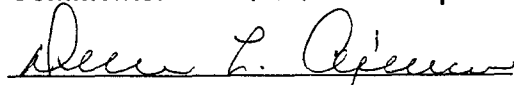
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	ND	50.0	50.0	100%	39 - 150
Toluene	ND	50.0	50.0	100%	46 - 148
Ethylbenzene	ND	50.0	50.0	100%	32 - 160
p,m-Xylene	ND	100.0	100.0	100%	46 - 148
o-Xylene	ND	50.0	50.0	100%	46 - 148

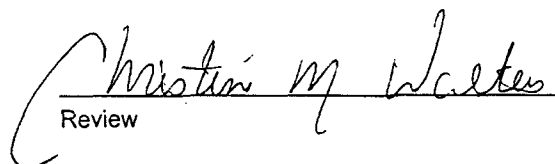
ND - Parameter not detected at the stated detection limit.

* - Administrative level set at 80 - 120.

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 G623.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

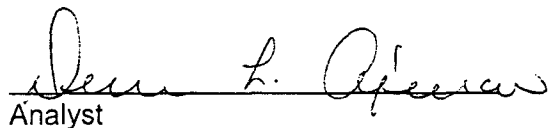
Total Chloride

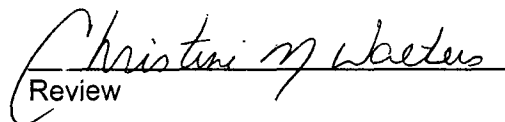
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW # 1	Date Reported:	01-24-00
Lab ID#:	G716	Date Sampled:	01-20-00
Sample Matrix:	Water	Date Received:	01-20-00
Preservative:	Cool	Date Analyzed:	01-21-00
Condition:	Cool and Intact	Chain of Custody:	7459

Parameter	Concentration (mg/L)
Total Chloride	4.5

Reference: Method 9077 Test Methods for Total Chlorine. USEPA SW-846, Sept. 1994.

Comments: Valencia GC B # 1M.


Analyst


Review

7459

[illegible]

BLAGG ENGINEERING, INC.
MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 7467

VALENCIA GC B # 1M - SEP. PIT
UNIT K, SEC. 18, T29N, R9W

LABORATORY (S) USED : ENVIROTECH

Date : April 27, 2000

SAMPLER : N J V

Filename : 04-27-00.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)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	99.66	95.79	3.87	8.00	1050	7.3	1,100	2.00	-
2	101.52	95.62	5.90	10.00	1110	7.3	1,900	2.00	-
3	100.47	95.42	5.05	10.00	1130	7.2	2,200	2.50	-
4	100.85	95.37	5.48	10.00	1150	7.3	1,400	2.25	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.

(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2".

Collected TDS & chloride from all M/W's listed above .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

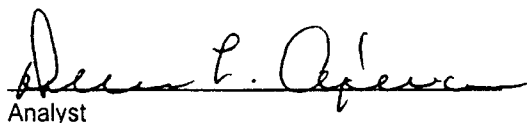
Water Analysis

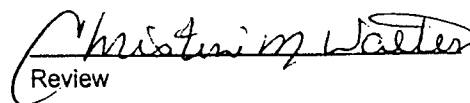
Client:	Blagg / BP Amoco	Project #:	403410
Sample ID:	MW #1	Date Reported:	04-28-00
Laboratory Number:	H154	Date Sampled:	04-27-00
Sample Matrix:	Water	Date Received:	04-27-00
Preservative:	Cool	Date Analyzed:	04-28-00
Condition:	Cool & Intact	Chain of Custody:	7467

Parameter	Analytical Result	Units
Total Dissolved Solids @ 180C	976	mg/L
Chloride	7.0	mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / BP Amoco	Project #:	403410
Sample ID:	MW #2	Date Reported:	04-28-00
Laboratory Number:	H155	Date Sampled:	04-27-00
Sample Matrix:	Water	Date Received:	04-27-00
Preservative:	Cool	Date Analyzed:	04-28-00
Condition:	Cool & Intact	Chain of Custody:	7467

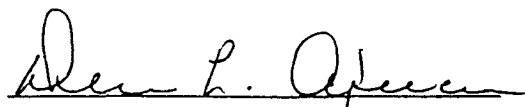
Parameter	Analytical Result	Units
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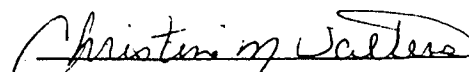
Total Dissolved Solids @ 180C	1,460	mg/L
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Chloride	116	mg/L
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Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Valencia GC B # 1M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / BP Amoco	Project #:	403410
Sample ID:	MW #3	Date Reported:	04-28-00
Laboratory Number:	H156	Date Sampled:	04-27-00
Sample Matrix:	Water	Date Received:	04-27-00
Preservative:	Cool	Date Analyzed:	04-28-00
Condition:	Cool & Intact	Chain of Custody:	7467

Parameter	Analytical Result	Units
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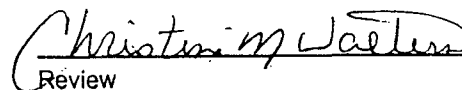
Total Dissolved Solids @ 180C	1,720	mg/L
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Chloride	15.2	mg/L
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Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Valencia GC B # 1M.


Analyst


Review

Client:	Blagg / BP Amoco	Project #:	403410
Sample ID:	MW #4	Date Reported:	04-28-00
Laboratory Number:	H157	Date Sampled:	04-27-00
Sample Matrix:	Water	Date Received:	04-27-00
Preservative:	Cool	Date Analyzed:	04-28-00
Condition:	Cool & Intact	Chain of Custody:	7467

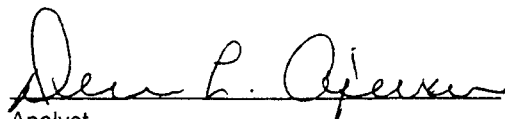
Parameter	Analytical Result	Units
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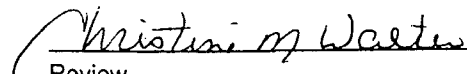
Total Dissolved Solids @ 180C	1,110	mg/L
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Chloride	11.1	mg/L
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Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Valencia GC B # 1M.


Analyst


Review

CHAIN OF CUSTODY RECORD

7467

Client / Project Name		Project Location		ANALYSIS / PARAMETERS																					
BAGG / BP Amoco		VALENCIA GC B # 1M																							
Sampler: NV		Client No. 403410																							
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TDS	CHLORIDE						Remarks												
MW # 1	4/27/00	1050	H154	WATER	1	✓	✓						ALL SAMPLES PRESERVED COOL												
MW # 2	4/27/00	1110	H155	WATER	1	✓	✓																		
MW # 3	4/27/00	1130	H156	WATER	1	✓	✓																		
MW # 4	4/27/00	1150	H157	WATER	1	✓	✓																		
Relinquished by: (Signature)		Date 4/27/00		Time 1339		Received by: (Signature)		Date 4-27-00		Time 1339															
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																									
<table border="1"> <tr> <td></td> <td>Y</td> <td>N</td> <td>N/A</td> </tr> <tr> <td>Received Intact</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Cool - Ice/Blue Ice</td> <td>✓</td> <td></td> <td></td> </tr> </table>															Y	N	N/A	Received Intact	✓			Cool - Ice/Blue Ice	✓		
	Y	N	N/A																						
Received Intact	✓																								
Cool - Ice/Blue Ice	✓																								

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Amoco Production Company

3. Address and Telephone No.

200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SE 1/4 SW 1/4, SEC. 18, T 29 N, R 9 W, NMPM

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA Agreement Designation

SW 267

8. Well Name and No.

VALENCIA GC B1M

9. API Well No.

3004524952

10. Field and Pool, or Exploratory Area

DAKOTA

11. County or Parish, State

SAN JUAN, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment☐ Recompletion☐ Plugging Back☐ Casing Repair☐ Altering Casing☒ Other Pit closure☐ Change of Plans☐ New Construction☐ Non-Routine Fracturing☐ Water Shut-Off☐ Conversion to Injection☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

SEPARATOR PIT - STEEL TANK INSTALLED

14. I hereby certify that the foregoing is true and correct

Signed

B. Shaw

Title

Enviro. Coordinator

Date

1/12/95

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICEPIT REMEDIATION AND CLOSURE REPORTOperator: Amoco Production Company Telephone: (505) - 326-9200Address: 200 Amoco Court, Farmington, New Mexico 87401Facility Or: VALENCIA GC 81 m
Well NameLocation: Unit or Qtr/Qtr Sec K Sec 18 T 29N R 9W County SAN JUANPit Type: Separator ☒ Dehydrator ☐ Other ☐Land Type: BLM ☐, State ☐, Fee ☐, Other COM. AGMT.Pit Location: Pit dimensions: length 49', width 39', depth 7'
(Attach diagram)Reference: wellhead ☒, other ☐Footage from reference: 120'Direction from reference: 85 Degrees ☒ East North ☐
of
☐ West South ☒

Depth To Ground Water:	Less than 50 feet	(20 points)
(Vertical distance from	50 feet to 99 feet	(10 points)
contaminants to seasonal	Greater than 100 feet	(0 Points) <u>20</u>
high water elevation of		
ground water)		

Wellhead Protection Area:	Yes (20 points)
(Less than 200 feet from a private	No (0 points) <u>20</u>
domestic water source, or; less than	
1000 feet from all other water sources)	

Distance To Surface Water:	Less than 200 feet	(20 points)
(Horizontal distance to perennial	200 feet to 1000 feet	(10 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	(0 points) <u>0</u>
irrigation canals and ditches)		

RANKING SCORE (TOTAL POINTS): 40

Date Remediation Started: _____ Date Completed: 1/12/95Remediation Method: Excavation ☒
(Check all appropriate sections)Approx. cubic yards 495Landfarmed ☒

Insitu Bioremediation _____

Other _____

Remediation Location: Onsite _____ Offsite ☒ Amoco's Crown Mesa Facility
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____

Excavation OF SOIL - CONTAMINATED WATER PUMPED

AND HAULED TO DISPOSAL FACILITY.

Ground Water Encountered: No _____ Yes ☒ Depth 5 1/2'

Final Pit:

Sample location see Attached Documents

Closure Sampling:

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

MULTIPLE SAMPLES

Sample depth _____

Sample date _____

Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes ☒ No _____ (If yes, attach sample results)

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

DATE 1/12/95

SIGNATURE

B. ShawPRINTED NAME
AND TITLEBuddy D. Shaw
ENVIRONMENTAL COORDINATOR

TRAVEL NOTES: CALLOUT: 12-20-94 @ 10:05 ONSITE: 0705 12-22-94

OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 12/15/94
Lab ID: 2325
Sample No. 4387
Job No. 2-1000

Project Name: *Valencia GC B 1 M*
Project Location: *1 @ 5 1/2' - Sep Pit*
Sampled by: *NV*
Analyzed by: *DLA*
Type of Sample: *Soil*

Date: 12/14/94 Time: 16:15
Date: 12/15/94

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
4387-2325	<i>Valencia GC B 1 M</i> <i>1 @ 5 1/2' - Sep Pit</i>	34 mg/kg

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *Ja G*

Date: 12/15/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *12/15/94*
Lab ID: *2325*
Sample ID: *4386*
Job No. *2-1000*

Project Name: *Valencia GC B 1 M*
Project Location: *PW 1 @ GW (6 1/2') - Sep Pit*
Sampled by: *NV* Date: *12/14/94*
Analyzed by: *DLA* Date: *12/15/94*
Sample Matrix: *Water*

Time: *16:30*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>223</i>	<i>0.2</i>
<i>Toluene</i>	<i>1,554</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>173</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>2,743</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>530</i>	<i>0.2</i>
<i>TOTAL</i>	<i>5,222 ug/L</i>	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *12/15/94*

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Jeff Blagg*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *12/22/94*
Lab ID: *2513*
Sample ID: *4497*
Job No. *2-1000*

Project Name: *Valencia GC B 1 M*
Project Location: *PW #2 @ 5' (Groundwater in Sep. Pit)*
Sampled by: *JCB* Date: *12/22/94*
Analyzed by: *DLA* Date: *12/22/94*
Sample Matrix: *Water*

Time: *7:45*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>11.1</i>	<i>0.2</i>
<i>Toluene</i>	<i>97.1</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>9.9</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>261.6</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>44.5</i>	<i>0.2</i>
<i>TOTAL 424.2 ug/L</i>		

ND - Not Detectable

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja K*
Date: *12/22/94*

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *12/30/94*
Lab ID: *2516*
Sample ID: *4551*
Job No. *2-1000*

Project Name: *Valencia GC B 1 M*
Project Location: *PW 3 @ GW (6 1/2') - Sep Pit*
Sampled by: *NV* Date: *12/29/94*
Analyzed by: *DLA* Date: *12/30/94*
Sample Matrix: *Water*

Time: *10:55*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>33.1</i>	<i>0.2</i>
<i>Toluene</i>	<i>277.0</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>28.7</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>593.5</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>95.8</i>	<i>0.2</i>
<i>TOTAL 1028.2 ug/L</i>		

ND - Not Detectable

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja G*

Date: *12/30/94*

P. O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *1/5/95*
Lab ID: *2521*
Sample ID: *4608*
Job No. *2-1000*

Project Name: *Valencia GC B 1 M*
Project Location: *PW 4 @ GW (4') - Sep. Pit*
Sampled by: *NV* Date: *1/4/95*
Analyzed by: *DLA* Date: *1/5/95*
Sample Matrix: *Water*

Time: *9:15*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	<i>22.0</i>	<i>0.2</i>
<i>Toluene</i>	<i>60.0</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>5.7</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>385.2</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>66.4</i>	<i>0.2</i>
<i>TOTAL 539.2 ug/L</i>		

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *1/5/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *1/12/95*
Lab ID: *2523*
Sample ID: *4709*
Job No. *2-1000*

Project Name: *Valencia GC B 1 M*
Project Location: *PW 5 @ GW (6') - Sep. Pit*
Sampled by: *NV* Date: *1/11/95*
Analyzed by: *DLA* Date: *1/12/95*
Sample Matrix: *Water*

Time: *16:25*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	<i>4.4</i>	<i>0.2</i>
<i>Toluene</i>	<i>9.3</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>2.9</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>50.2</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>7.8</i>	<i>0.2</i>
	<i>TOTAL 74.6 ug/L</i>	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *Ja K*
Date: *1/12/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

[illegible]

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499

LAB: (505) 325-5667 • FAX: (505) 325-6256

[illegible]

Distribution:	White -- On Site	Yellow -- LAB	Pink -- Sampler	Goldenrod -- Client
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CHAIN OF CUSTODY RECORD

ON SITE

2516

TECHNOLOGIES, LTD. 657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 12/29/94 Page 1 of 1

80190

Purchase Order No.:		Job No.		Name Nelson Vertz		Title PFS	
SEND INVOICE TO		Company SAME		Mailing Address SAME			
Address P.O. BOX 87		City, State, Zip SAME		Telephone No. 632-1199		Telefax No.	
City, State, Zip Radium, NM 87413		Sampling Location: WADSWORTH CC BUA		ANALYSIS REQUESTED			
Sampler: Nelson Vertz		Number of Containers					
SAMPLE IDENTIFICATION		SAMPLE DATE TIME		MATRIX		PRES.	
PWS @ GW (64%) - SEP. PIT		12/29/94 1055		PWS @ GW		LAB ID 4551-2516	
Relinquished by: Nelson Vertz		Date/Time 12/29/94 1438		Received by: Nelson Vertz		Date/Time 12/29/94 1438	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by:		(Client Signature Must Accompany Request)		Special Instructions:			

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

[illegible]

Distribution: White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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Purchase Order No.:		Job No.		Name		Title	
Company		Dept.		Company		Title	
Address				Mailing Address			
City, State, Zip				City, State, Zip			
Telephone No.				Telephone No.			
Telex No.				Telex No.			
FAX No.				FAX No.			
SEND INVOICE TO				RESULTS TO			
Name				Name			
Company				Company			
Address				Mailing Address			
City, State, Zip				City, State, Zip			
Telephone No.				Telephone No.			
Telex No.				Telex No.			
FAX No.				FAX No.			
Sampling Location:				ANALYSIS REQUESTED			
Sampler:				Number of Containers			
SAMPLE IDENTIFICATION				LAB ID			
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