

GEO COPY



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

Well Record

(2) Graphs + Sperry Drilling
Services Combo Report

DEP USE ONLY	
Site ID	Client Id
Client Id	Sub Facility Id

WELL INFORMATION												
Well Operator Chesapeake Appalachia, L.L.C.			DEP ID# 246326		Well API # 37-007-20357-00-00			Well Farm Name McMasters BEA		Well # 3H		
Address P.O. Box 18496			LAT 40° 36' 55.7"		LONG - 80° 28' 50.5"		NAD 83		Project Number		Serial # 834910	
City Oklahoma City			State OK		Zip 73154		Municipality Greene			County Beaver		
Phone 405-935-4073			Fax 405-849-4073		Email Kyle.Gagliardi@chk.com			USGS 7.5 min. quadrangle map Hookstown			Section 1	

Check the appropriate Submission: ☒ Original Well Record ☐ Amended Well Record											
Well Type ☒ Gas ☐ Oil ☐ Combination Oil & Gas ☐ CBM ☐ Injection ☐ Disposal ☐ Storage								Wellbore Conditioning: See attached sheet			
Well Orientation ☐ Vertical ☒ Deviated from Vertical (Top & Side views & Deviation Survey must be attached)											
Drill Method(s) ☐ Rotary - Air ☒ Rotary - Mud 0'-TD ☐ Cable Tool ☐ Other											
Drilling Started 09/27/2012 Surface Elev. 1129 ft. GW Depth see attached sheet ft.											
Drilling Complete 11/19/2012 True Vertical Depth 9260 ft. Depth of DFGW ft. 320											
Date Well Completed 11/21/2012 Total Measured Depth 13784 ft. DFGW decided by: 5											

CEMENT									
Cement returned on surface casing? ☒ Yes ☐ No			If No, provide depth to top of cement and method used to determine:						
Cement returned on coal protective casing? ☐ Yes ☐ No			If No, provide depth to top of cement and method used to determine: ☒ NA						
Cement returned on intermediate casing? ☒ Yes ☐ No			If No, provide depth to top of cement and method used to determine: ☐ NA						
Casing String	Type/Class of Cement (Lead/Tail)	Slurry Temp F°	Amount of Cement (sks) (Lead/Tail/Total)		WOC hrs	WT PPG	Yld ft³/sk	Gas Migration Controls Used	
Conductor	Class A /	85 °	191 sx / / 191 sx		8	15.7	1.18	What controls were used if any (additives/hardware. Specify type and depth applicable).	
Surface	/ Class A	50 °	/ 468 sx / 468 sx		8	15.6	1.21	See attached sheet	
Coal Protective	/	°	/ /						
Intermediate	/ Class A	50 °	/ 665 sx / 665 sx		8	15.6	1.24		
Production	Class A / Class A	58 °	1500 sx / 1285 sx / 2785 sx		8	14.8	1.48		
	/	°	/ /		Tail	15.8	1.16		
If additional strings attach form(s)			Total		4109 sx				

CASING AND TUBING											
Hole Size	Pipe Size	Wt. #/ft.	Grade Casing / Tubing Type	Thread / Weld - New/ Used	Amount in Well (ft.)	CO	R	Hardware - Baskets / Packer / Centralizers (Total/String)			Date Run
								Type	Size	Depth	
24	20	94	J-55	-	126	CA	Y	See	Attached	Sheet	09/29/12
17 1/2	13 3/8	54.50	J-55	STC-N	504	CA	Y				11/04/12
12 1/4	9 5/8	40	J-55	LTC-N	1804	CA	Y				11/07/12
8 1/2	5 1/2	20	P-110-HC	CDC-N	13784	US	Y	DEP SOUTH WEST REGION OIL & GAS			11/20/12

If any casing is welded, provide the name(s) of the welder(s): N/A

PLUG-BACK/WELLBORE ALTERATION

Fill Material & Plugs	Depth		Date	Casing & Tubing		
	From	To		Size	Pulled	Left

LOG OF FORMATIONS

Well API#: 37-007-20357-00-00

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Lithology	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
~ 60-70% sandstone	0	500			Water @ 320'	OHL
Big Injun	534	640			None Reported	OHL
grey shale	640	1092	706,878		None Reported	OHL
Berea	1092	1175			None Reported	OHL
Grey shale	1175	1480	1180,1446		None Reported	Mud Log
sandstone	1480	1770	1712		None Reported	Mud Log
Dark grey shale	1770	4284	2166,2220,3606		None Reported	Mud Log
Rhinestreet	4284	4846	4840		None Reported	Mud Log
Marcellus	4846	4875			None Reported	Mud Log
Onondaga	4875	5090			None Reported	Mud Log
Oriskany	5090	5280			None Reported	Mud Log
Helderberg Limestone	5280	5400			None Reported	Mud Log
Salina	5400	6325			None Reported	Mud Log
Lockport	6325	6880			None Reported	Mud Log
Rochester Shale	6880	7020			None Reported	Mud Log
Packer Shell	7020	7152			None Reported	Mud Log
None Reported	None Reported	None Reported	None Reported	None Reported	None Reported	None Reported
Queenston	7334	8228			None Reported	Mud Log
Utica	9114		Avg. ~1000 units in lateral		None Reported	MWD
Heel	9314 MD/9203 TVD				None Reported	MWD
Toe	13784 MD/9260 TVD				None Reported	MWD
TD	13784 MD/9260 TVD				None Reported	MWD

DEC 28 2012

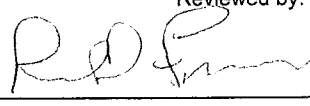
DEPT. OF COMMERCE
OIL & GAS

If no show of oil, gas or water, explain why:

WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Casing Source	Cementing Company	Hardware Supplier	Logging Company
Name Ken Miller Supply / Pipeco	Name Allied / Schlumberger	Name Blackhawk ST	Name Baker Hughes
Address 1537 Blachley ville Rd / 20333 State Hwy 249, Suite 470	Address P.O. Box 406 / P.O. Box 201193	Address 285 Marcellus Dr.	Address 1150 Crestwood Dr
City - State - Zip Wooster, Ohio 44691 / Houston, TX 77070	City - State - Zip Muncy, PA 17756 / Houston, TX 77216	City - State - Zip Muncy, PA 17756	City - State - Zip Mountain Top, PA 18707
Phone 330-264-9146 / 281-955-3500	Phone 817-727-7232 / 405-840-1621	Phone 570-323-7100	Phone 570-403-5600

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. In addition, I do hereby certify that any casing which is attached to a blow-out preventer with a pressure rating greater than 3,000 psi has passed a pressure test in accordance with 25 Pa. Code §78.84(f). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Driller	Well Operator's Signature	DEP USE ONLY
Name NOMAC	 Printed Name / Title: Kyle Gagliardi / Regulatory Analyst I	Reviewed by: 
Rig 245		Comments:
Address 3400 South Radio Rd		
City - State - Zip El Reno, OK 73036		
Phone 405-422-2754	Date: 12/11/2012	

007 - 20357

Note**

GW Depth: The depth of the shallowest ground water cannot be determined due to the use of fresh water-based drilling mud while drilling the surface hole section of this well.

DEC 28 2012

DEP, SOUTHWEST REGION
OIL & GAS

Wellbore Conditioning Attachment

13-3/8" Surface Casing: Circulate with 8.6 ppg water based mud with casing on bottom for 0.75 hrs.

Pump 25 bbls bentonite gel spacer + 10 bbls freshwater spacer ahead of cement.

9-5/8" Intermediate Casing: Circulate with 8.4 ppg water based mud with casing on bottom for 4 hrs.

Pump 25 bbls bentonite gel spacer @ 4.3 bpm + 10 bbls freshwater spacer @ 4.6 bpm ahead of cement.

5-1/2" Production Casing: Circulate with 10.8 ppg SOBM mud with casing on bottom for 5.25 hrs.

Pump 67 bbl of Mud Push II ahead of cement.

OCT 12 2017

DEP, SOUTHWEST REGION
OIL & GAS

Gas Migration Controls Used Attachment

13-3/8" Surface Casing:

Single system cement to surface
Gas Migration Additives: None

9-5/8" Intermediate Casing:

Single system cement to surface
Gas Migration Additives: None

5-1/2" Production Casing:

Additives: None

DEP, 11/13/2012

DEP, SOUTHWEST REGION
OIL & GAS

007 - 20357

Casing & Tubing Hardware Attachment

13-3/8" Casing

Centralizers – 13-3/8" x 17-1/2" – 460 ft lowest – 80 ft highest - 5 centralizers

Float Collar – 13-3/8" – 417 ft

Float Shoe – 13-3/8" – 504 ft

9-5/8" Casing

Centralizers – 9-5/8" x 12-1/4" – 1759 ft lowest – 84 ft highest - 15 centralizers

Float Collar – 9-5/8" – 1715 ft

Float Shoe – 9-5/8" – 1804 ft

5-1/2" Casing

Centralizers – 8" – 13781 ft lowest – 887 ft highest - 98 centralizers

Float Collar – 5-1/2" – 13691 ft

Float Shoe – 5-1/2" – 13784 ft

DEC 3 4 2012

DEPT. OF ENERGY



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program
WELL LOCATION PLAT

DEP Application Tracking # **CC-877294**
Permit # **007-20315**
Project #

G: **W**
C: **KP**



Denotes location of well on topo map.

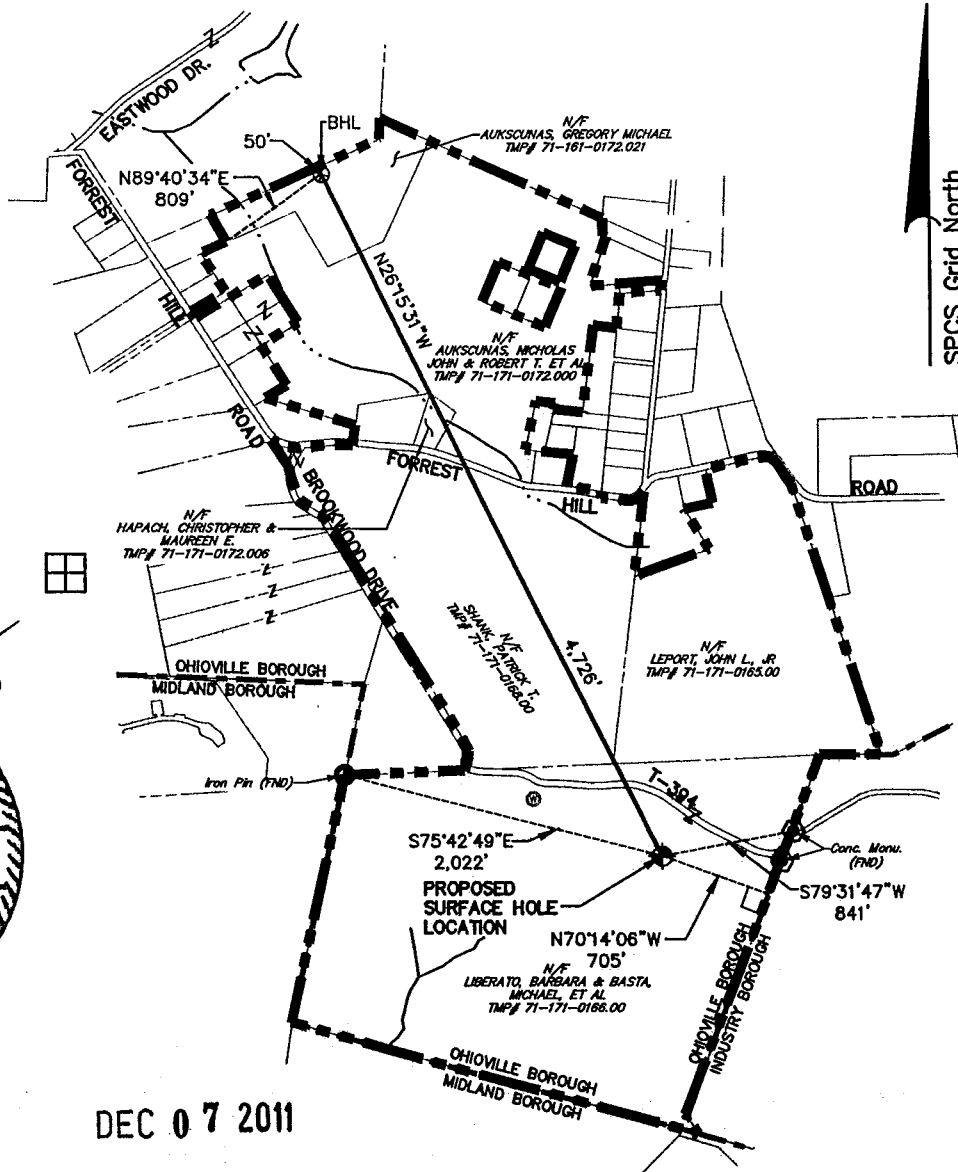
True Latitude: NORTH (NAD 83)

40°38'56.0"

True Longitude: WEST (NAD 83)

80°27'14.8"

Well is located on topo map **6,476** feet south of latitude **40° 40' 00"**



SPCS Grid North
PA South Zone

Well is located on topo map

10,388

feet west of longitude

80° 25'

00"



DEC 07 2011

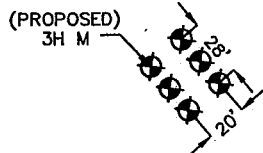
DEP, SOUTHWEST REGION
OIL & GAS

LEGEND

- PROPOSED GAS WELL
- EXISTING WATER WELL
- PROPOSED BORE
- PROPERTY CORNER TIE LINE
- OIL & GAS LEASE BOUNDARY
- MUNICIPAL LINE

NOTE:
THIS MAP IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND BOUNDARY LINES IMPORTANT TO THE LOCATION OF THE WELL WERE LOCATED BY ACTUAL SURVEY; OTHER BOUNDARY LINES ARE FROM TAX MAPS.

WELL DETAIL
NTS



Surveyor or Engineer
RETIUE ASSOCIATES, INC.

Phone #

(800) 738-8395

Dwg. #

085418005_WELL PLAT

Date

09/22/2011

Scale

1"=1,200'

Tract Acreage

±315.72 ACRES

Lat. & Long Metadata
Method **GPS** Accuracy **±3** ft. Datum **NAD 83**

Elevation Metadata Method
GPS Accuracy **±3** ft. Datum **NAVD88** Survey Date **08/08/2011**

Applicant / Well Operator Name
CHESAPEAKE APPALACHIA, LLC.

Well(Farm) Name
LIBERATO BEA Well # **3H M** Serial #

Address
101 N. MAIN STREET, ATHENS, PA 18810

County - Code
BEAVER - 04 Municipality
CHIOVILLE BOROUGH Well Type
GAS

Surface Landowner / Lessor
LIBERATO, BARBARA & BASTA, MICHAEL, ET AL

USGS 7 1/2 Quadrangle Map Name
MIDLAND (1302) Map Section
8 Surface Elevation
1,159' ft.

Target Formation(s)
MARCELLUS

Angle & Course of Deviation (Drilling)
N26°15'31"W 4,726' Anticipated Total Depth
TVD 4,868 TMD 8,625

LIBERATO, BARBARA & BASTA, MICHAEL, ET AL **N65°45'30"W 861'**

LIBERATO, BARBARA & BASTA, MICHAEL, ET AL

LOWER KITTANING SEAM

Liberato Bea 3H M
Vertical Cross-Section

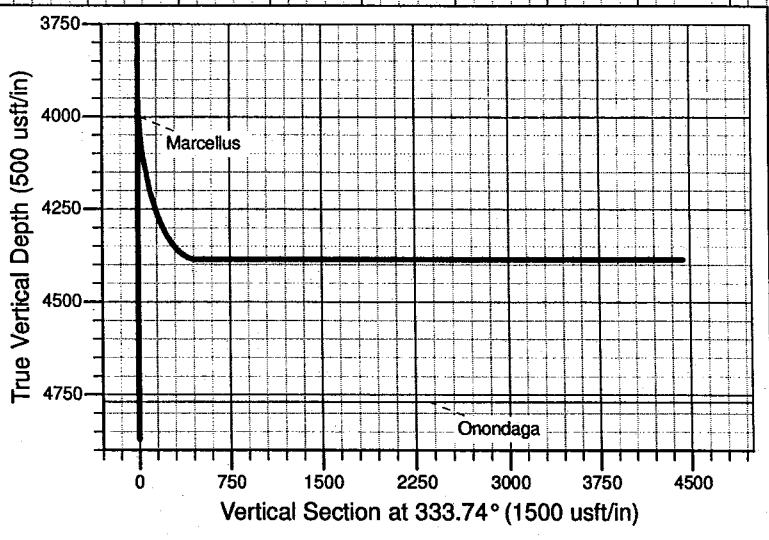
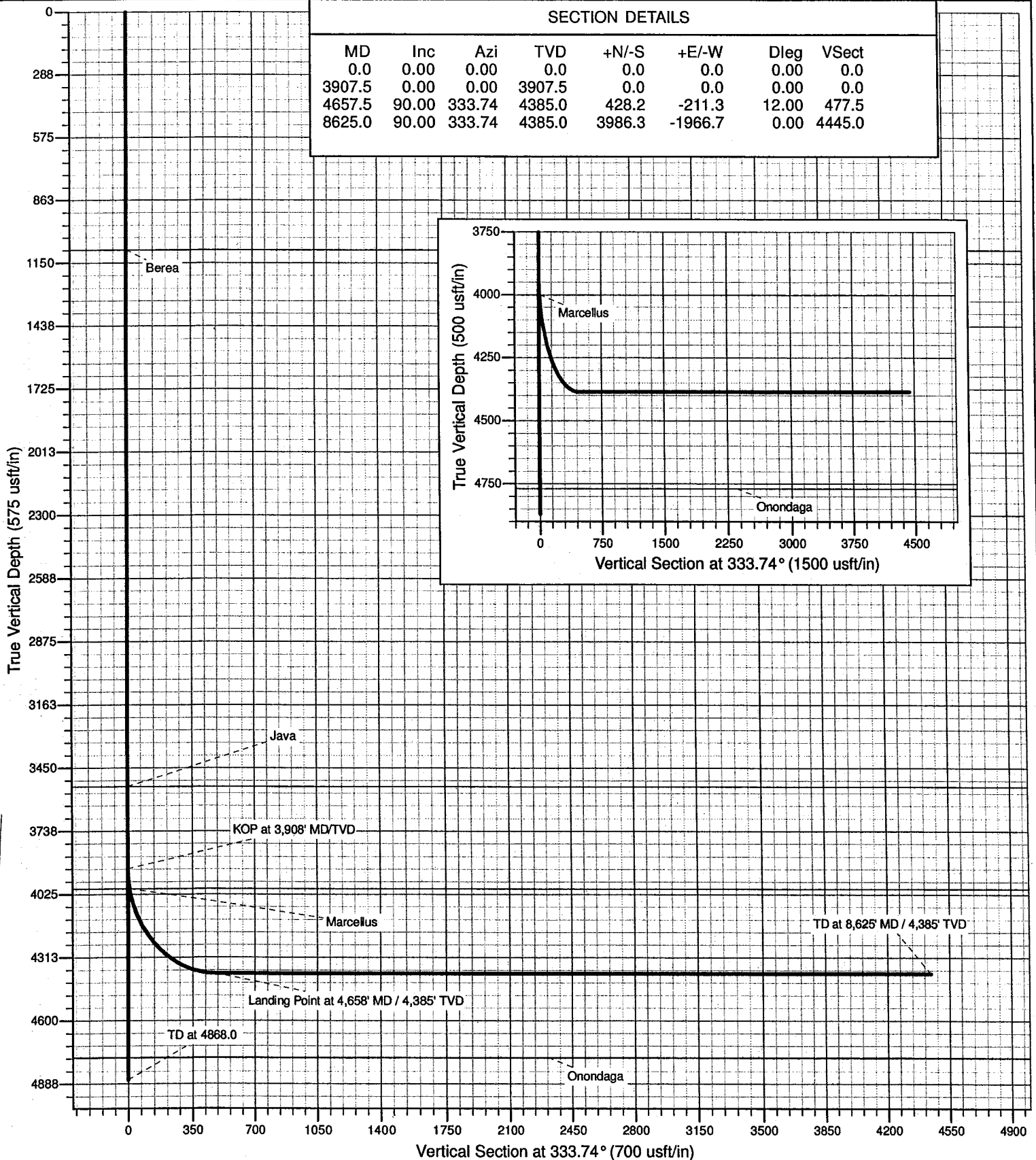
OCT 18 2011

DEP, SOUTHWEST REGION
OIL & GAS



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
3907.5	0.00	0.00	3907.5	0.0	0.0	0.00	0.0
4657.5	90.00	333.74	4385.0	428.2	-211.3	12.00	477.5
8625.0	90.00	333.74	4385.0	3986.3	-1966.7	0.00	4445.0





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program
WELL LOCATION PLAT

DEP Application Tracking#	C-921214	G:	212
Permit#	007-20348	04-K-12	
Project#			



Denotes location of well on topo map.

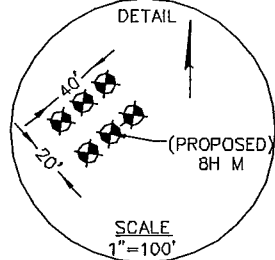
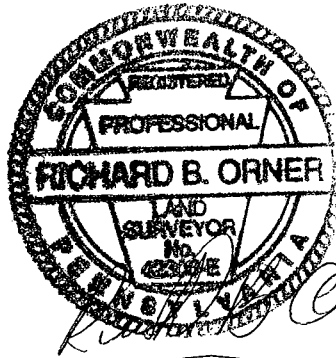
True Latitude: NORTH (NAD 83)

40°41'15.6"

True Longitude: WEST (NAD 83)

80°24'10.7"

Well is located on topo map 7,528 feet south of latitude 40° 42' 30"

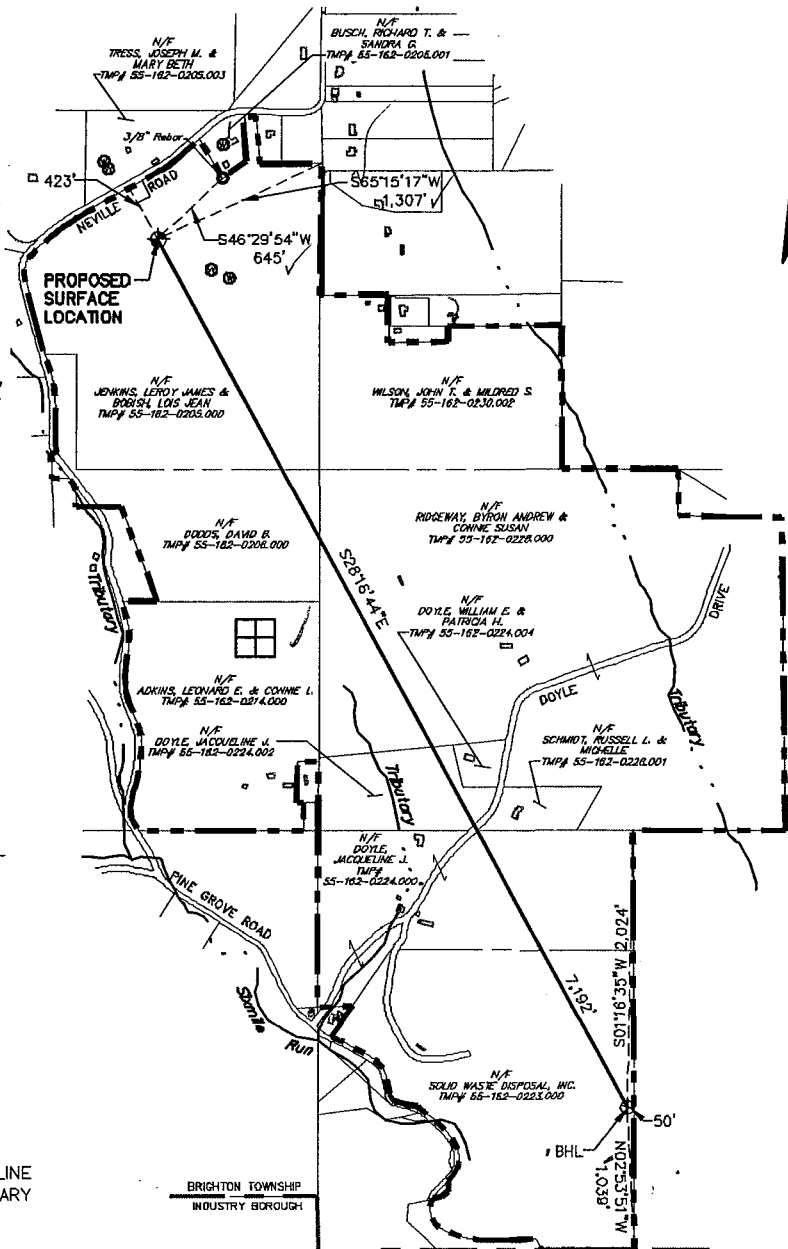


NOTE: THE AREA OF THE PROPOSED WELL CLUSTER ON THE PAD IS LESS THAN 5,000 SQUARE FEET.

NOTE: THIS MAP IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND BOUNDARY LINES IMPORTANT TO THE LOCATION OF THE WELL WERE LOCATED BY ACTUAL SURVEY; OTHER BOUNDARY LINES ARE FROM TAX MAPS.

LEGEND

- PROPOSED GAS WELL
- EXISTING WATER WELL
- PROPOSED BORE
- PROPERTY CORNER TIE LINE
- OIL & GAS LEASE BOUNDARY
- MUNICIPAL LINE



SPCS Grid North
PA South Zone

Well is located on topo map

7,756

feet west of longitude

80° 22' 30"

MAR 28 2012

DEP SOUTHWEST REGION
OIL & GAS

Surveyor or Engineer RETTEW ASSOCIATES, INC.	Phone# (800) 738-8395	Dwg. # 085416017_WELL PLAT	Date 11/11/2011	Scale 1"=1,400'	Tract Acreage ±554.14 ACRES
Lat. & Long Metadata Method GPS Accuracy ±3 ft. Datum NAD 83	Elevation Metadata Method GPS Accuracy ±3 ft. Datum NAVD 88	Survey Date 08/23/2011			
Applicant / Well Operator Name CHESAPEAKE APPALACHIA, LLC		DEP ID# 246326	Well(Farm) Name JENKINS BEA	Well # 8H M	Serial#
Address 101 N. MAIN STREET, ATHENS, PA 18810		County - Code BEAVER - 04	Municipality BRIGHTON TOWNSHIP	Well Type GAS	
Surface Landowner / Lessor JENKINS, LEROY JAMES & BOBISH, LOIS JEAN		USGS 7 1/2 Quadrangle Map Name MIDLAND (1302)		Map Section 6	Surface Elevation 1,208' ft.
Target Formation(s) MARCELLUS		Angle & Course of Deviation (Drilling) S28°16'44"E 7,192'		Anticipated Total Depth TVD 4,505 TMD 11,376	
Surface Owner of Water Right with a Water Supply right (UGA)		Approximate Course and Distance to Water Supply		Owner / Lessee of Oil/Gas Right Water Right Course and Distance	
BUSCH, RICHARD T. & SANDRA G.		N34°14'30"E 830'		JENKINS, LEROY JAMES & BOBISH, LOIS JEAN	
JENKINS, LEROY JAMES & BOBISH, LOIS JEAN		S61°11'24"E 590'			
JENKINS, LEROY JAMES & BOBISH, LOIS JEAN		S59°55'58"E 444'			
TRESS, JOSEPH M. & MARY BETH		N34°52'58"W 686'			
TRESS, JOSEPH M. & MARY BETH		N35°12'49"W 626'			

Jenkins 8H M
Vertical Cross-Section

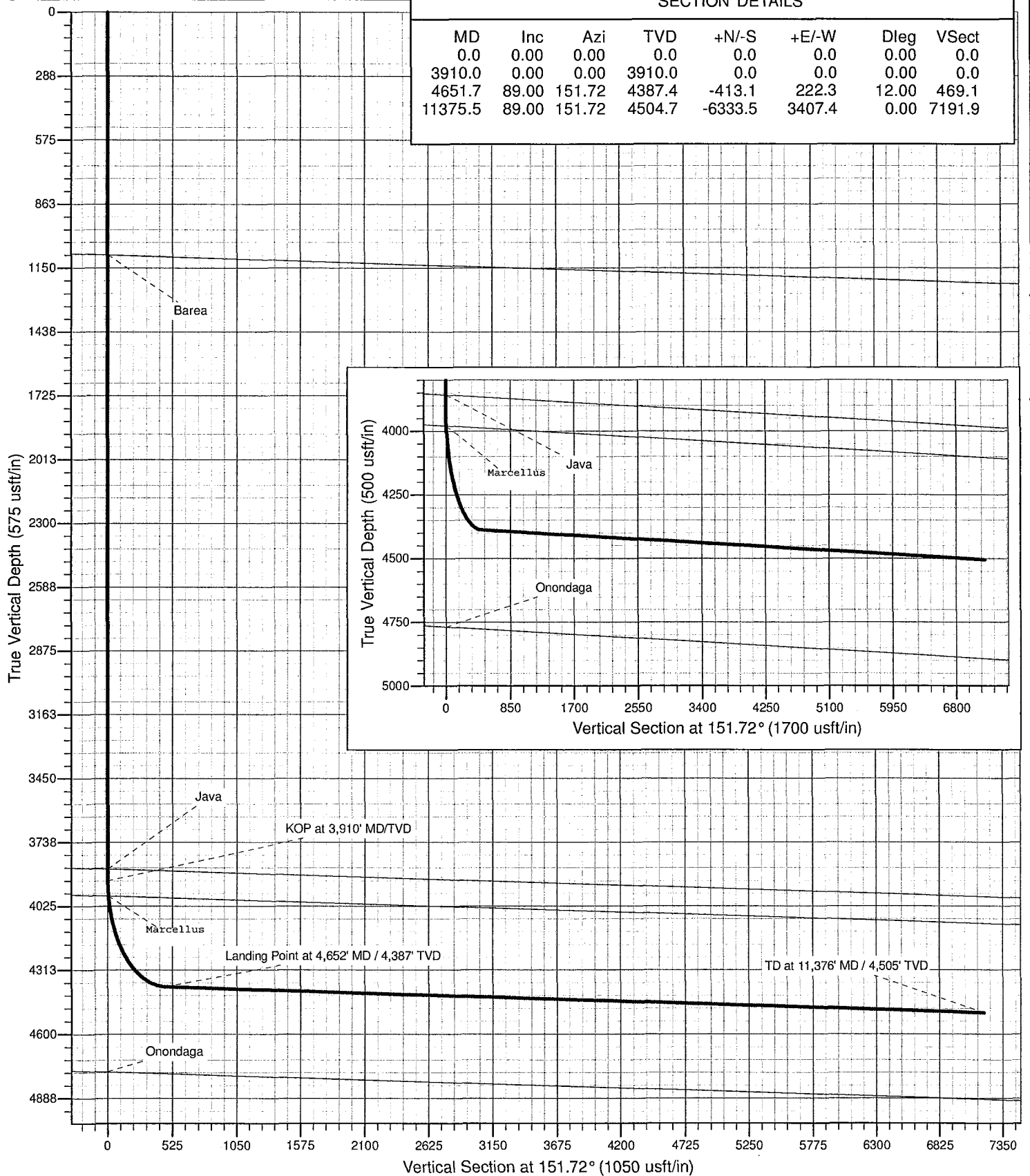
APR 13 2012

DEP, SOUTHWEST REGION
OIL & GAS



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	V Sect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
3910.0	0.00	0.00	3910.0	0.0	0.0	0.00	0.0
4651.7	89.00	151.72	4387.4	-413.1	222.3	12.00	469.1
11375.5	89.00	151.72	4504.7	-6333.5	3407.4	0.00	7191.9





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program
WELL LOCATION PLAT

DEP USE ONLY	DEP Application Tracking #	C-921223	G:	RS
	Permit #	007-20349	C:	LR
	Project #			

Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)

40° 39' 12.6"

True Longitude: WEST (NAD 83)

80° 26' 42.5"

Well is located on topo map 4,800 feet south of latitude 40° 40' 00"

Well is located on topo map

7,910

feet west of longitude

80°

25

00°



BRUCE E. AND ANGELA L. FERREBEE
180.5 TOTAL ACRES
TAX MAP AND PARCEL
71-171-0162

MELANIE A. AND WILLIAM B. GAMBLE
6.68 TOTAL ACRES
TAX MAP AND PARCEL
71-171-0162.001

BRUCE E. AND ANGELA L. FERREBEE
3.788 TOTAL ACRES
TAX MAP AND PARCEL
71-171-0162.004

RALPH, JR. AND ROBERTA M. FERREBEE
4.0 TOTAL ACRES
TAX MAP AND PARCEL
71-171-0162.002

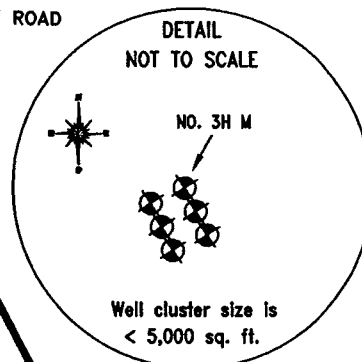
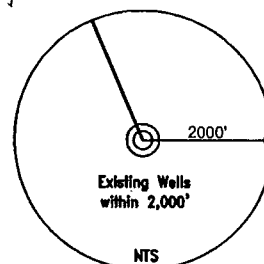
KELLY ROAD

N 00°18'16" W 1.043'

FERREBEE BEA 3H M

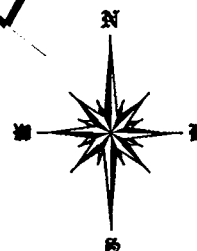
WOLF RUN ROAD

S 45°46'50" W 1.510'



MAR 28 2012

DEP SOUTHWEST REGION
OIL & GAS



SYMBOLS

- PROPOSED WELL
- PROPOSED BOTTOM HOLE
- EXISTING WATER WELL

LINE TYPES

- STREAMS, PONDS
- TIE LINES
- UNIT BOUNDARY LINE
- PROPERTY LINES
- BORE PATH

NOTE:

It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted herein. The location of the boundary lines, as shown are based on recorded deed descriptions, field evidence found, aerial mapping and/or tax map position, unless otherwise noted.

Surveyor or Engineer BOORD, BENCHEK and ASSOC.
DONALD P. BOORD P.L.S.

Phone # 724-746-1055

Dwg. # 1859

DATE: FEBRUARY 7, 2012

Scale 1" = 1000'

Tract ACREAGE 184.5 +/-

Lat. & Long Metadata				Elevation Metadata				Survey Date					
Method	GPSKN	Accuracy	4'	Datum	NAD83	Method	GPSKN	Accuracy	6'	Datum	NAVD88	MARCH 29, 2010	
Applicant / Well Operator Name				DEP. ID		Well(Farm) Name				Well #		Serial #	
CHESAPEAKE APPALACHIA, LLC				#246326		FERREBEE BEA				3H M			
Address				County - Code		Municipality				WELL TYPE			
101 NORTH MAIN STREET ATHENS, PA 18810				BEAVER-04		OHIOVILLE BOROUGH				GAS			
Surface Landowner/Lessor				USGS 71/2 Quadrangle Map Name				Map Section		Surface Elevation			
BRUCE E. AND ANGELA L. FERREBEE				MIDLAND				8		1,160 ft.			
Target Formation(s)				Angle & Course of Deviation (Drilling)				Anticipated Total Depth					
MARCELLUS				HORIZONTAL-90 N 22°43'01" W @ 4.337'				TVD: 4.550' TMD: 8.682'					
Surface Owner or Water Purveyor with a Water Supply within 1,000 ft.				Approximate Course and Distance to Water Supply				Owner, Lessee, or Operator of Workable Coal Seam				Name of Coal Seam Owned, Leased, or Operated	
1. CHARLES H. LEPORT				S 12° 28' 31" W 791'				BRUCE E. AND ANGELA L. FERREBEE				ALL SEAMS	

Ferrebee BEA 3H M Vertical Cross-Section

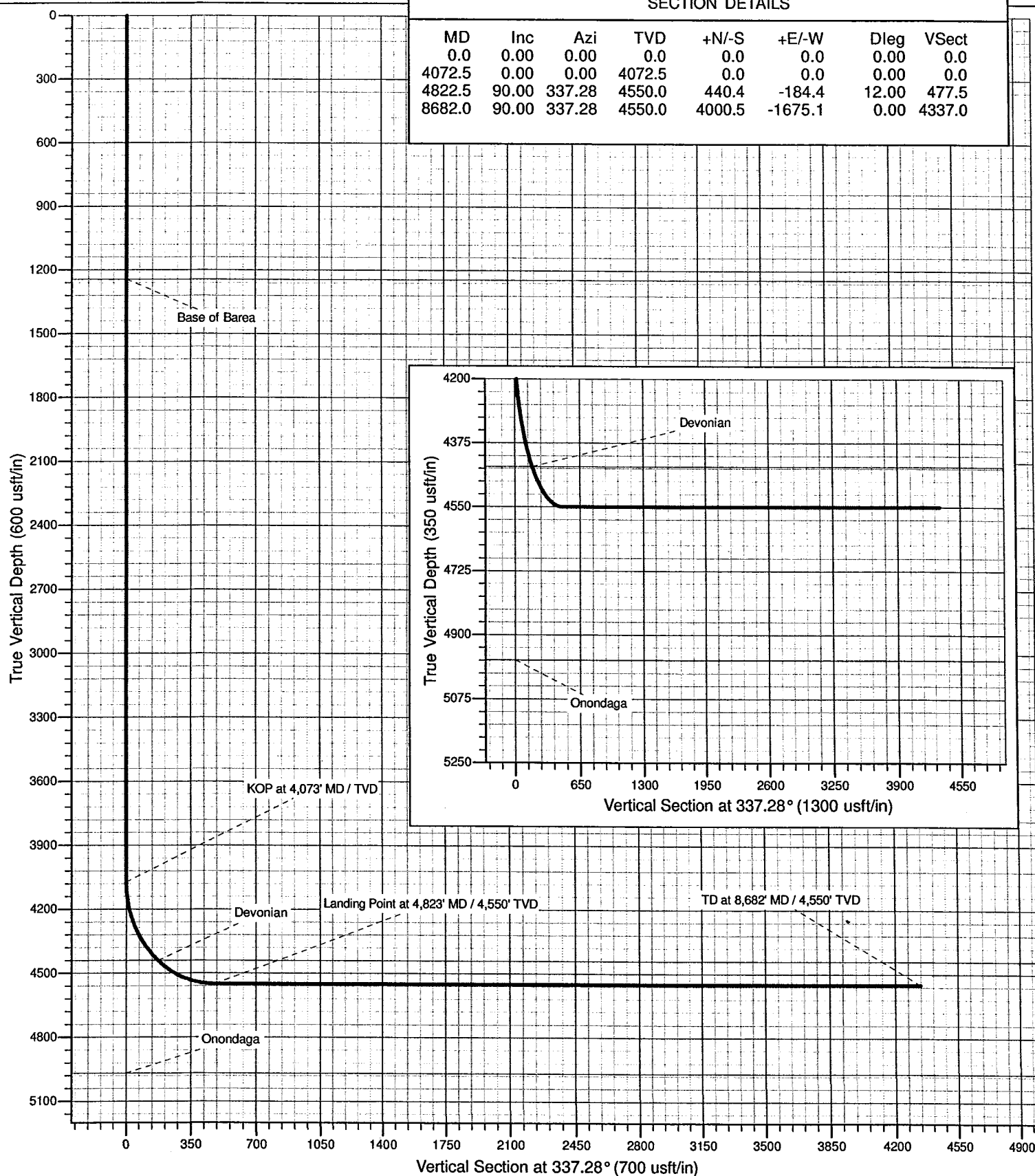
MAR 28 2012

DEP, SOUTHWEST REGION
OIL & GAS



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
4072.5	0.00	0.00	4072.5	0.0	0.0	0.00	0.0
4822.5	90.00	337.28	4550.0	440.4	-184.4	12.00	477.5
8682.0	90.00	337.28	4550.0	4000.5	-1675.1	0.00	4337.0





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Oil and Gas Management Program
WELL LOCATION PLAT

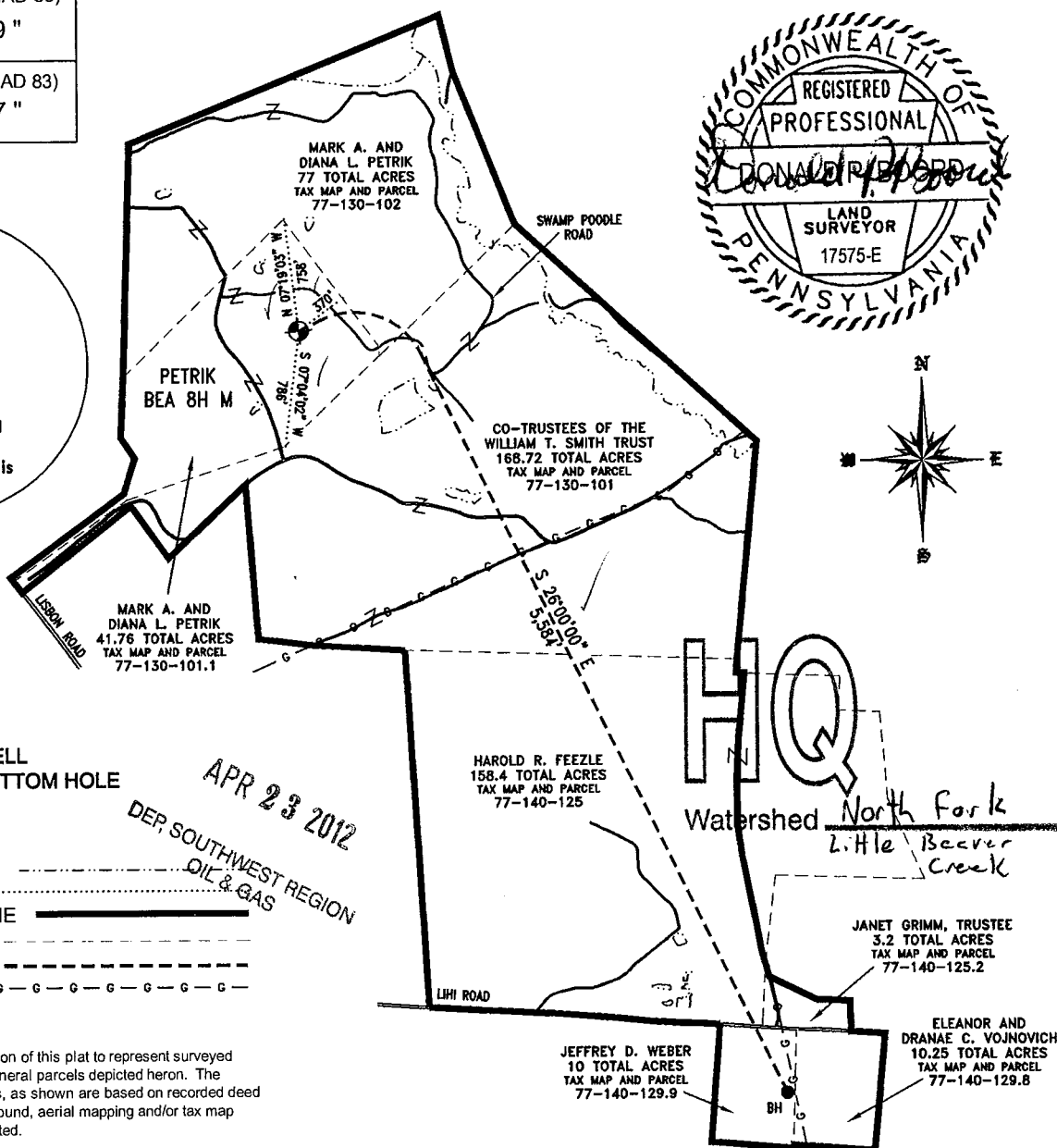
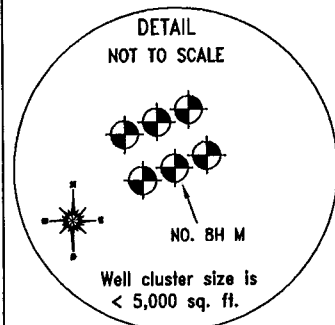
DEP USE ONLY	DEP Application Tracking #	C-921232	G: RR
	Permit #	007-20350	04-24-12
	Project #		RD

Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)
 40° 44' 55.9"

True Longitude: WEST (NAD 83)
 80° 30' 38.7"

Well is located on topo map 410 feet south of latitude 40° 45' 00"



Well is located on topo map 2,980 feet west of longitude

SYMBOLS

- PROPOSED WELL
 PROPOSED BOTTOM HOLE

LINE TYPES

- STREAMS, PONDS
 TIE LINES
 UNIT BOUNDARY LINE
 PROPERTY LINES
 BORE PATH
 GAS LINE

NOTE:

It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown are based on recorded deed descriptions, field evidence found, aerial mapping and/or tax map position, unless otherwise noted.

Surveyor or Engineer **BOORD, BENCHEK and ASSOC.**
DONALD P. BOORD P.L.S.

Phone # 724-746-1055

Dwg. # 1878

DATE: FEBRUARY 9, 2012

Scale 1" = 1200'

Tract ACREAGE 455.88 +/-

Lat. & Long Metadata Method GPSKN Accuracy 4' Datum NAD83				Elevation Metadata Method GPSKN Accuracy 6' Datum NAVD88				Survey Date SEPTEMBER 29, 2011	
Applicant / Well Operator Name CHESAPEAKE APPALACHIA, LLC				DEP. ID #246326		Well(Farm) Name PETRIK BEA		Well # 8H-M	
Address 101 NORTH MAIN STREET ATHENS, PA 18810				County - Code BEAVER-04		Municipality SOUTH BEAVER TOWNSHIP		WELL TYPE GAS	
Surface Landowner/Lessor MARK A. AND DIANA L. PETRIK				USGS 7 1/2 Quadrangle Map Name EAST LIVERPOOL NORTH		Map Section 3		Surface Elevation 1,080 ft.	
Target Formation(s) MARCELLUS				Angle & Course of Deviation (Drilling) HORIZONTAL-90 S 26°00'00" E @ 5,584'		Anticipated Total Depth TVD: 4,200' TMD: 10,199'			
Surface Owner or Water Purveyor with a Water Supply within 1,000 ft.				Approximate Course and Distance to Water Supply		Owner, Lessee, or Operator of Workable Coal Seam		Name of Coal Seam Owned, Leased, or Operated	
NONE						MARK A. AND DIANA L. PETRIK		ALL SEAMS	

Petrik BEA 8H M
Vertical Cross-Section

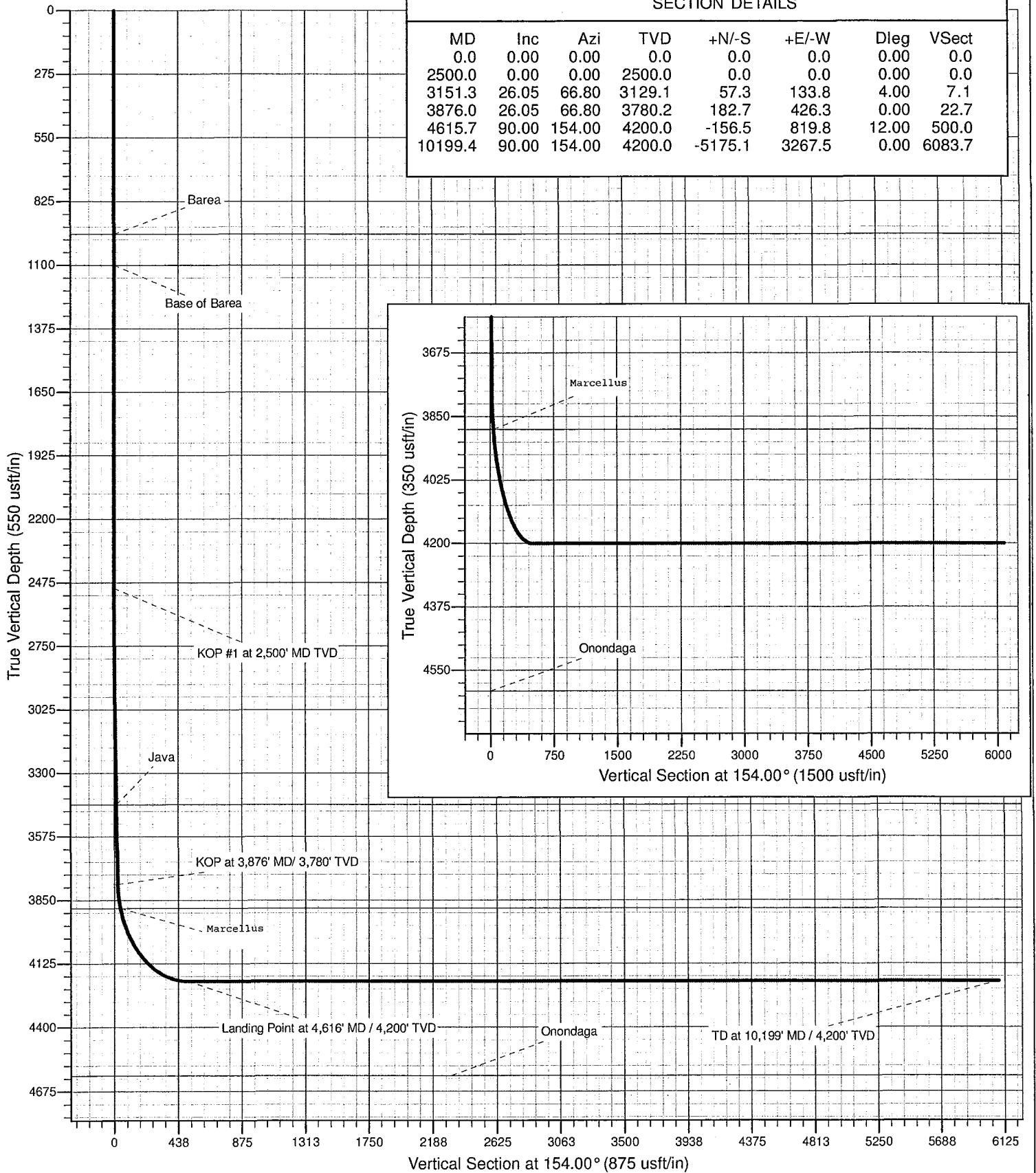
APR 13 2012

DEP, SOUTHWEST REGION
OIL & GAS



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.0
3151.3	26.05	66.80	3129.1	57.3	133.8	4.00	7.1
3876.0	26.05	66.80	3780.2	182.7	426.3	0.00	22.7
4615.7	90.00	154.00	4200.0	-156.5	819.8	12.00	500.0
10199.4	90.00	154.00	4200.0	-5175.1	3267.5	0.00	6083.7





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program
WELL LOCATION PLAT

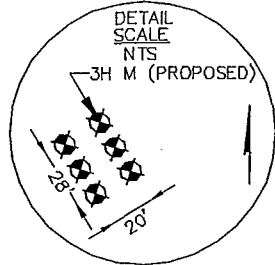
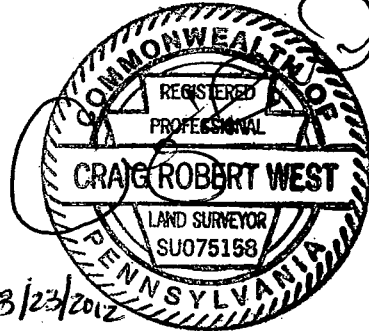
DEP USE ONLY	DEP Application Tracking#	C-922054	G: Rn
	Permit#	007-20351	04-18-12
	Project#		C: RP

Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)
40°50'08.4"

True Longitude: WEST (NAD 83)
80°23'14.8"

Well is located on topo map 14,330 feet south of latitude 40° 52' 30"



WELL DETAIL NOTE:
THE AREA OF THE PROPOSED WELL CLUSTER ON THE PAD IS LESS THAN 5,000 SQUARE FEET.

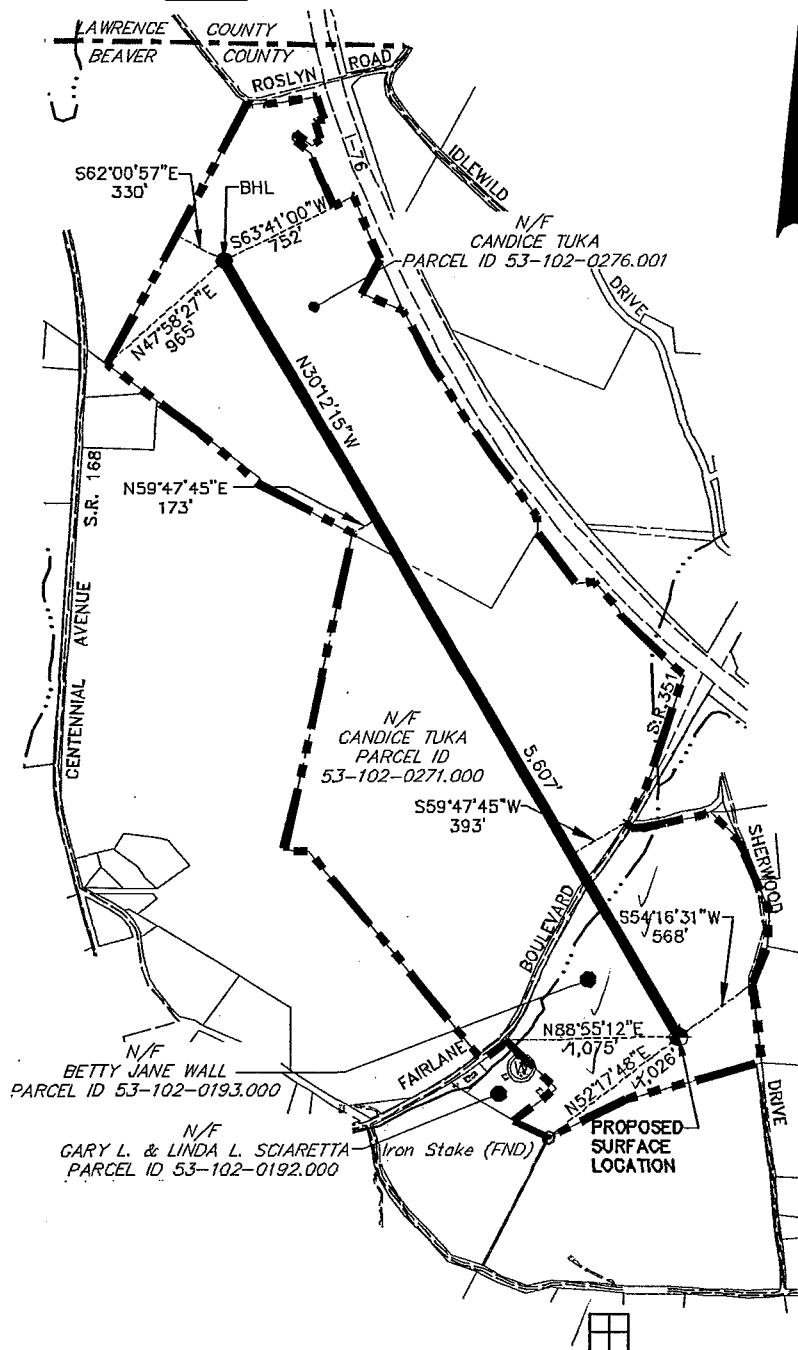
APR 05 2012

DEP, SOUTHWEST REGION
OIL & GAS

NOTE:
THIS MAP IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND BOUNDARY LINES IMPORTANT TO THE LOCATION OF THE WELL WERE LOCATED BY ACTUAL SURVEY; OTHER BOUNDARY LINES ARE FROM TAX MAPS.

LEGEND

- PROPOSED GAS WELL
- WATER WELL
- PROPOSED BORE
- OIL & GAS LEASE BOUNDARY
- MUNICIPAL LINE
- PROPERTY LINE
- STREAM LINE



Well is located on topo map
SPCS Grid North
PA South Zone

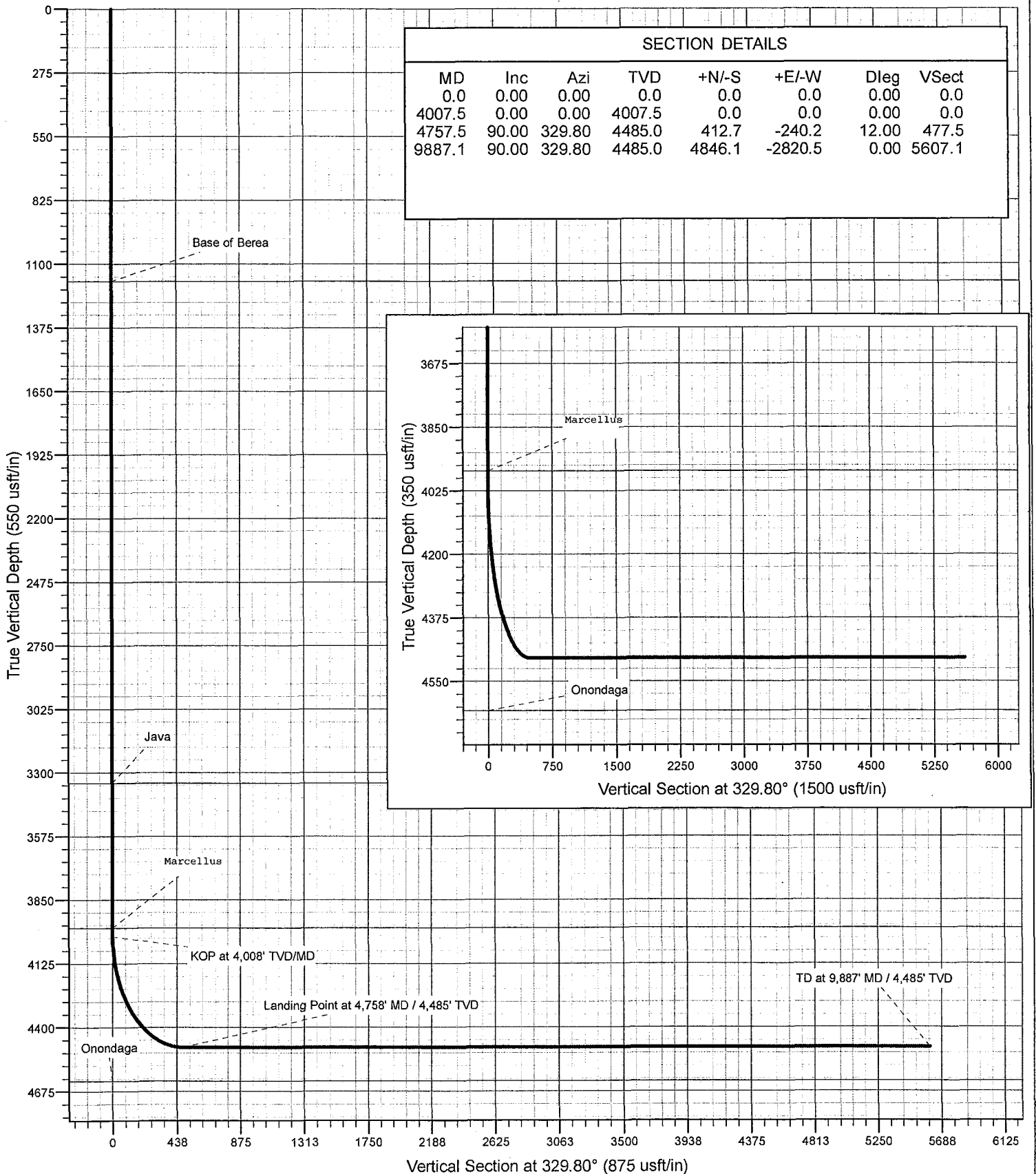
Well is located on topo map 3,443 feet west of longitude 80° 22' 30"

Surveyor or Engineer RETTEW ASSOCIATES, INC.		Phone # (800) 738-8395	Dwg. # 08541-6125_WELL PLAT	Date 03/23/2012	Scale 1"=1,200'	Tract Acreage ±249.21 ACRES
Lat. & Long Metadata Method GPS Accuracy ±3 ft. Datum NAD 83		Elevation Metadata Method GPS Accuracy ±3 ft. Datum NAVD 88		Survey Date 02/08/2012		
Applicant / Well Operator Name CHESAPEAKE APPALACHIA, LLC		DEP ID# 246326	Well (Farm) Name WALL BEA		Well # 3H M	Serial #
Address 101 N. MAIN STREET, ATHENS, PA 18810		County - Code BEAVER - 04	Municipality BIG BEAVER BOROUGH		Well Type GAS	
Surface Landowner / Lessor BETTY JANE WALL		USGS 71/2 Quadrangle Map Name NEW GALILEE (1202)		Map Section 3	Surface Elevation 1,185' ft.	
Target Formation(s) MARCELLUS		Angle & Course of Deviation (Drilling) N30°12'15"W 5,607'		Anticipated Total Depth TVD 4,485' TMD 9,887'		
Surface Owner or Water Surveyor with a Water Supply within 1,000 ft.		Approximate Course and Distance to Water Supply		Owner, Lessee, or Operator of Workable Coal Seam		Name of Coal Seam Owned, Leased, or Operated
GARY L. & LINDA L. SCIARETTA		S78°53'50"W 999'		BETTY JANE WALL		ALL SEAMS

Wall 3H M
Vertical Cross-Section

APR 13 2012

DEA SOUTHWEST REGION
OIL & GAS





pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

WELL LOCATION PLAT
Surface Location

DEF USE ONLY	Auth ID #	C 958413	G:	AS
	Permit #	007-20378-00	C:	RD
	Project #			



Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)
40°44'15.42"

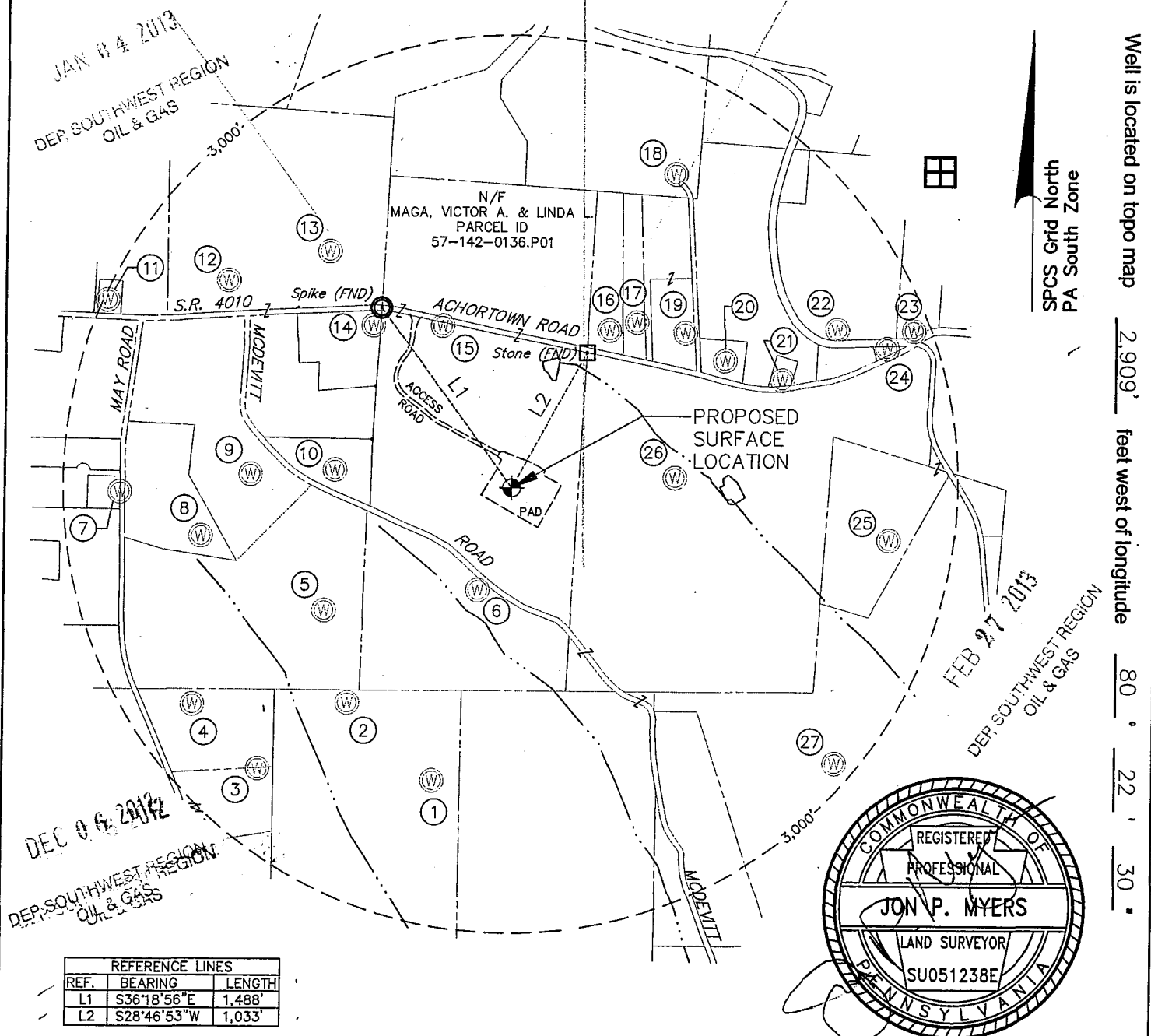
True Longitude: WEST (NAD 83)
80°23'07.81"

Well is located on topo map 4,513' feet south of latitude 40° 45' 00"

GENERAL NOTE:
THIS MAP IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND BOUNDARY LINES IMPORTANT TO THE LOCATION OF THE WELL WERE LOCATED BY ACTUAL SURVEY; OTHER BOUNDARY LINES ARE FROM TAX MAPS.

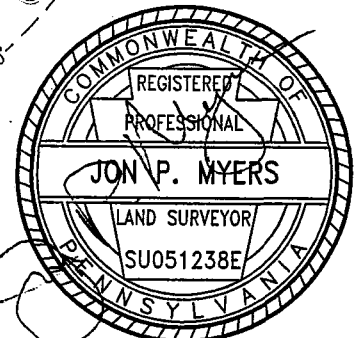
LEGEND

- PROPOSED GAS WELL
- EXISTING WATER WELL
- TIE LINE
- PROPERTY LINE
- STREAM LINE



Well is located on topo map 2,909' feet west of longitude 80° 22' 30"

SPCS Grid North
PA South Zone



REFERENCE LINES		
REF.	BEARING	LENGTH
L1	S36°18'56"E	1,488'
L2	S28°46'53"W	1,033'

Applicant / Well Operator Name: CHESAPEAKE APPALACHIA, LLC		DEP ID #: 246326		Well (Farm) Name: MAGA BEA		Well #: BH M		Serial #:	
Address: 101 N. MAIN STREET, ATHENS, PA 18810		County: BEAVER - 04		Municipality: CHIPPEWA TOWNSHIP		Well Type: GAS			
911 address of well site:		USGS 7 1/2" Quadrangle Map Name: MIDLAND (1302)		Map Section: 3		Surface Elevation: 1,243' ft.			
Surveyor or Engineer: RETTEW ASSOCIATES, INC.		Phone #: (800) 738-8395		Dwg #: 08541-8006_Well Plat		Date: 10-31-2012		Scale: 1"=1,000'	
Lat. & Long Metadata Method: GPS		Accuracy: ±3 ft.		Datum: NAD 83		Elevation Metadata Method: GPS		Accuracy: ±3 ft.	
						Tract Acreage: 383± ACRES		Datum: NAVD 88	
								Survey Date: 08/11/2011	

WELL LOCATION PLAT

007-20378-00

Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with the development of oil and gas resources is 1-866-255-5158.

Applicant / Well Operator Name CHESAPEAKE APPALACHIA, LLC		DEP ID# 246326	Well (Farm) Name MAGA BEA		Well# 8H M	Serial#
Surface Landowner / Lessor: MAGA, VICTOR A. & LINDA L.			Angle & Course of Deviation (Drilling): S28°17'24"E 6,428'		Anticipated True Vertical Depth Feet (TVD): 4,242'	Anticipated True Measured Depth Feet (TMD): 10,465'
Target Formation (s): MARCELLUS			Deepest Formation to be penetrated: MARCELLUS		Number of Laterals: 01	Total footage to be drilled all laterals: 10,465'
Surface Owner / Water Purveyor w/ Water Supply within 1,000' / 3,000'			Parcel ID		Latitude Longitude of Water Supply (NAD 83)	
1. BURKE, MARSHALL L. & BETTY T.			57-142-0143.P00		40°43'56.0"N 80°23'13.7"W	
2. BURKE, MARSHALL L. & BETTY T.			57-142-0143.P00		40°44'00.9"N 80°23'21.4"W	
3. MAY, KEVIN L. & BARBARA A.			57-142-0148.003		40°43'56.3"N 80°23'29.0"W	
4. MAY, RONALD A. & LOIS A.			57-142-0148.001		40°44'00.4"N 80°23'34.9"W	
5. GUSTAFSON, GENE E. & KATHLEEN E.			57-142-0150.P03		40°44'06.9"N 80°23'23.7"W	
6. JENKINS, ROBERT B.			57-142-0136.P00		40°44'08.6"N 80°23'10.4"W	
7. MATTHEWS, DAVID C.			57-142-0149.005		40°44'14.3"N 80°23'41.9"W	
8. MAY, ROBERT E. & LOIS A.			57-142-0150.004		40°44'11.6"N 80°23'34.7"W	
9. KEDNO PROPERTIES			57-142-0150.P07		40°44'15.7"N 80°23'30.6"W	
10. HAWKINS, GEORGE H. & MILDRED C.			57-142-0138.000		40°44'16.2"N 80°23'23.3"W	
11. O'HARA, PATRICIA J. & ROBERT			57-142-0108.001		40°44'26.9"N 80°23'43.6"W	
12. JONES, ROBERT L., JR. & KERRY B.			57-142-0108.P03		40°44'28.4"N 80°23'33.2"W	
13. JONES, ROBERT L., JR. & KERRY B.			57-142-0108.P03		40°44'30.6"N 80°23'24.4"W	
14. HELTZER, CAROLYN E.			57-142-0137.000		40°44'25.8"N 80°23'20.4"W	
15. MAGA, VICTOR A. & LINDA L.			57-142-0136.P01		40°44'26.0"N 80°23'14.4"W	
16. SMILEY, IRENE			57-142-0111.000		40°44'26.0"N 80°22'59.8"W	
17. MCCRAKEN, RANDY E. & KATHRYN E.			57-142-0111.001		40°44'26.6"N 80°22'57.4"W	
18. HAWKINS, RUSSELL G.			57-132-0140.P00		40°44'36.5"N 80°22'54.6"W	
19. SMILEY, WILLIAM D.			57-142-0112.000		40°44'26.1"N 80°22'53.2"W	
20. CHRISTIE, SUZANNE			57-142-0113.001		40°44'24.3"N 80°22'49.7"W	
21. SMILEY, WILLIAM G. & SHARON L.			57-142-0114.000		40°44'23.2"N 80°22'44.6"W	
22. URBACH, JAMES L.			57-142-0116.000		40°44'26.6"N 80°22'40.0"W	
23. KROLL, WILLIAM H.			57-142-0117.000		40°44'26.7"N 80°22'33.3"W	
24. LEE, EARL F.			57-142-0115.000		40°44'25.5"N 80°22'35.6"W	
25. MCKELVY, THOMAS J.			57-142-0134.P00		40°44'12.8"N 80°22'34.8"W	
26. ZUBERBUHLER, HARRY RICHARD			57-142-0135.P00		40°44'16.5"N 80°22'53.6"W	
27. WAGNER, CHARLES W., III & THOMPSON, ELLEN			57-142-0131.P00		40°43'58.0"N 80°22'38.8"W	
Municipality, where the well will be drilled, adjacent to the well, or within 3,000 feet						
CHIPPEWA TOWNSHIP (DRILLED)			WEST MAYFIELD BOROUGH (ADJACENT)			
BRIGHTON TOWNSHIP (ADJACENT)			WHITE TOWNSHIP (ADJACENT)			
SOUTH BEAVER TOWNSHIP (ADJACENT)			PATTERSON TOWNSHIP (ADJACENT)			
DARLINGTON TOWNSHIP (ADJACENT)			Coal related parties			
BIG BEAVER BOROUGH (ADJACENT)			MAGA, VICTOR A. & LINDA A. - ALL SEAMS			

WELL LOCATION PLAT

007-20378-00

Plan View of Deviated Well Bore

If well has a lateral other than vertical show the bottom hole location on the plat drawing as ⊗ and include the Coordinates in the provided section at the bottom of the drawing area. The top hole and bottom hole locations are to be connected by a bolded line this is to depict the proposed course of the actual wellbore to be drilled.

Applicant / Well Operator Name CHESAPEAKE APPALACHIA, LLC	DEP ID # 246326	Well (Farm) Name MAGA BEA	Well: 8H M	Well: 1"=1,400'
--	--------------------	------------------------------	---------------	--------------------

GENERAL NOTE:
THIS MAP IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND BOUNDARY LINES IMPORTANT TO THE LOCATION OF THE WELL WERE LOCATED BY ACTUAL SURVEY; OTHER BOUNDARY LINES ARE FROM TAX MAPS.

SURFACE LOCATION / KOP

True Latitude: NORTH (NAD 83)
40°44'15.42"

True Longitude: WEST (NAD 83)
80°23'07.81"

LANDING POINT

True Latitude: NORTH (NAD 83)
40°44'11.31"

True Longitude: WEST (NAD 83)
80°23'04.69"

BOTTOM HOLE LOCATION

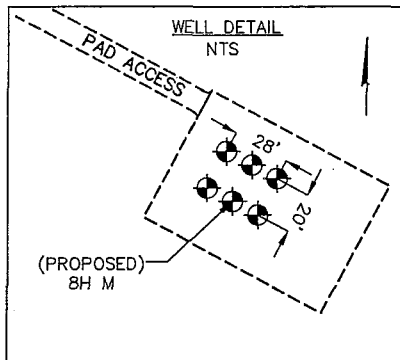
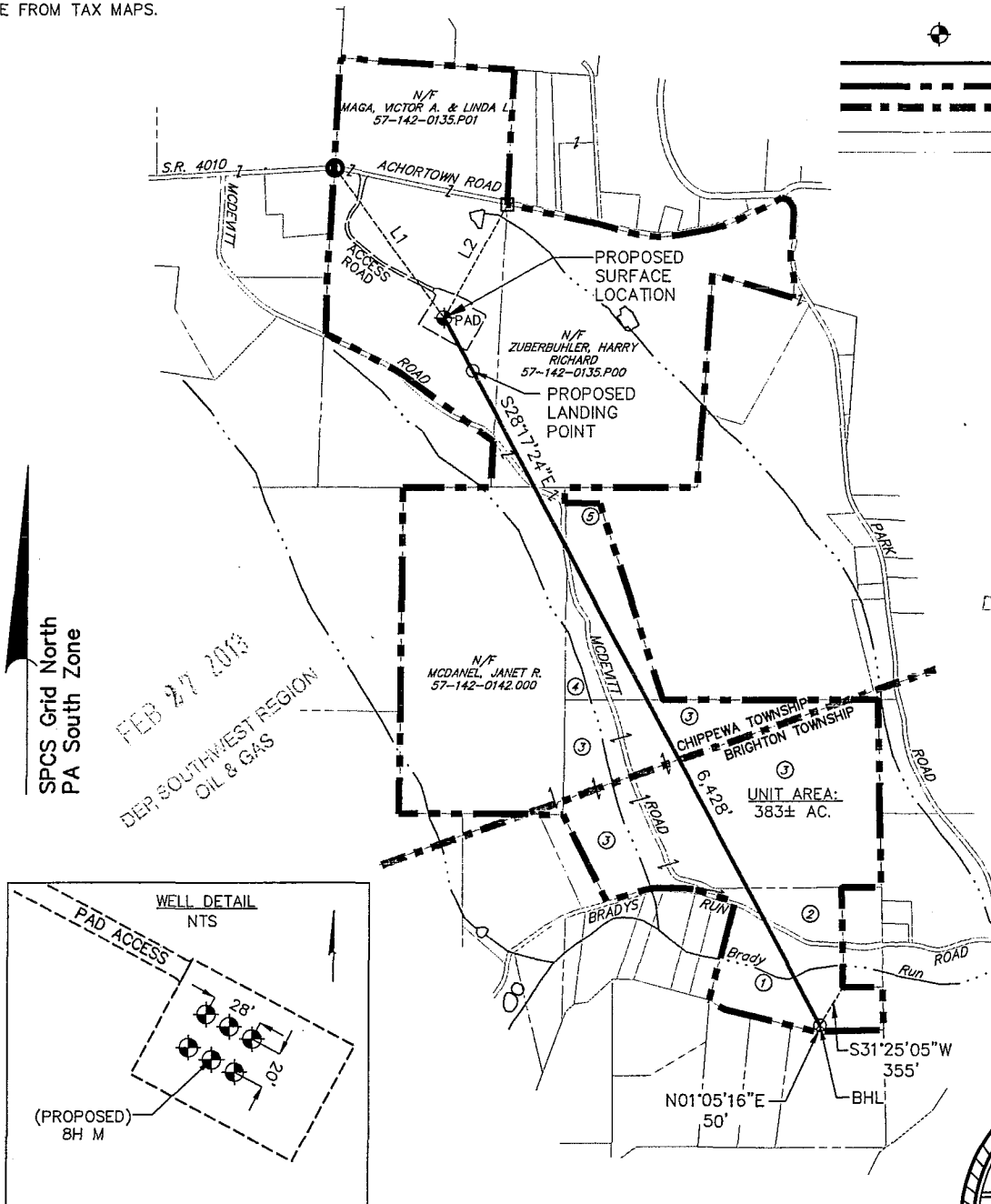
True Latitude: NORTH (NAD 83)
40°43'20.41"

True Longitude: WEST (NAD 83)
80°22'26.07"

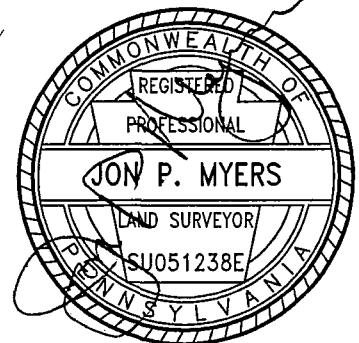
LEGEND

- PROPOSED GAS WELL
- PROPOSED BORE
- OIL & GAS LEASE BOUNDARY
- MUNICIPAL LINE
- PROPERTY LINE
- STREAM LINE

REFERENCE LINES		
REF.	BEARING	LENGTH
L1	S36°18'56"E	1,488'
L2	S29°35'05"W	1,013'



REF.	PROPERTY OWNER	PARCEL ID
1	O'BRIEN, WILLIAM T.	55-142-0174.000
2	O'BRIEN, WILLIAM T.	55-142-0173.000
3	MANSELL, JAMES E. JR. & PAMELA A.	57-142-0140.000
4	ZUBERBUHLER, JAMES; ROBERT & HARRY RICHARD	57-142-0141.000
5	MAY, ROBERT A.	57-142-0139.000



WELL LOCATION PLAT

FEB 27 2013

Page 4 Cross Section

DEP SOUTHWEST REGION

Applicant / Well Operator Name
CHESAPEAKE APPALACHIA, LLCDEP ID#
246326Well (Farm) Name
MAGA BEA

OIL & GAS

Well #
8H M

WELL PLAN

DEP Use Only	Permit # 007- 20378-00
--------------	------------------------------

Operator Name: CHESAPEAKE APPALACHIA, LLC.

Well / Farm Name: MAGA BEA 8H M

KOP:	TVD: 3765 ft.	TMD: 3765 ft.	Latitude (NAD 83) 40° 44' 15.42 N	Longitude (NAD 83) 80° 23' 07.81 W
Landing Point:	TVD: 4242 ft.	TMD: 4515 ft.	40° 44' 11.31 N	80° 23' 04.69 W

Notes: Elk Formation not present

SECTION DETAILS (NAD 27)

	TVD	MD	Inc	Azi	+N/-S	+E/-W	Dleg	TFace	VFace
Surface Location	0	0	0	0	0	0	0	0	0
KOP	3765	3765	0	0	0	0	0	0	0
Landing Point	4242	4515	90	152	-420	226	12	152	477
PBHL	4242	10465	90	152	-5660	3047	0	0	6428

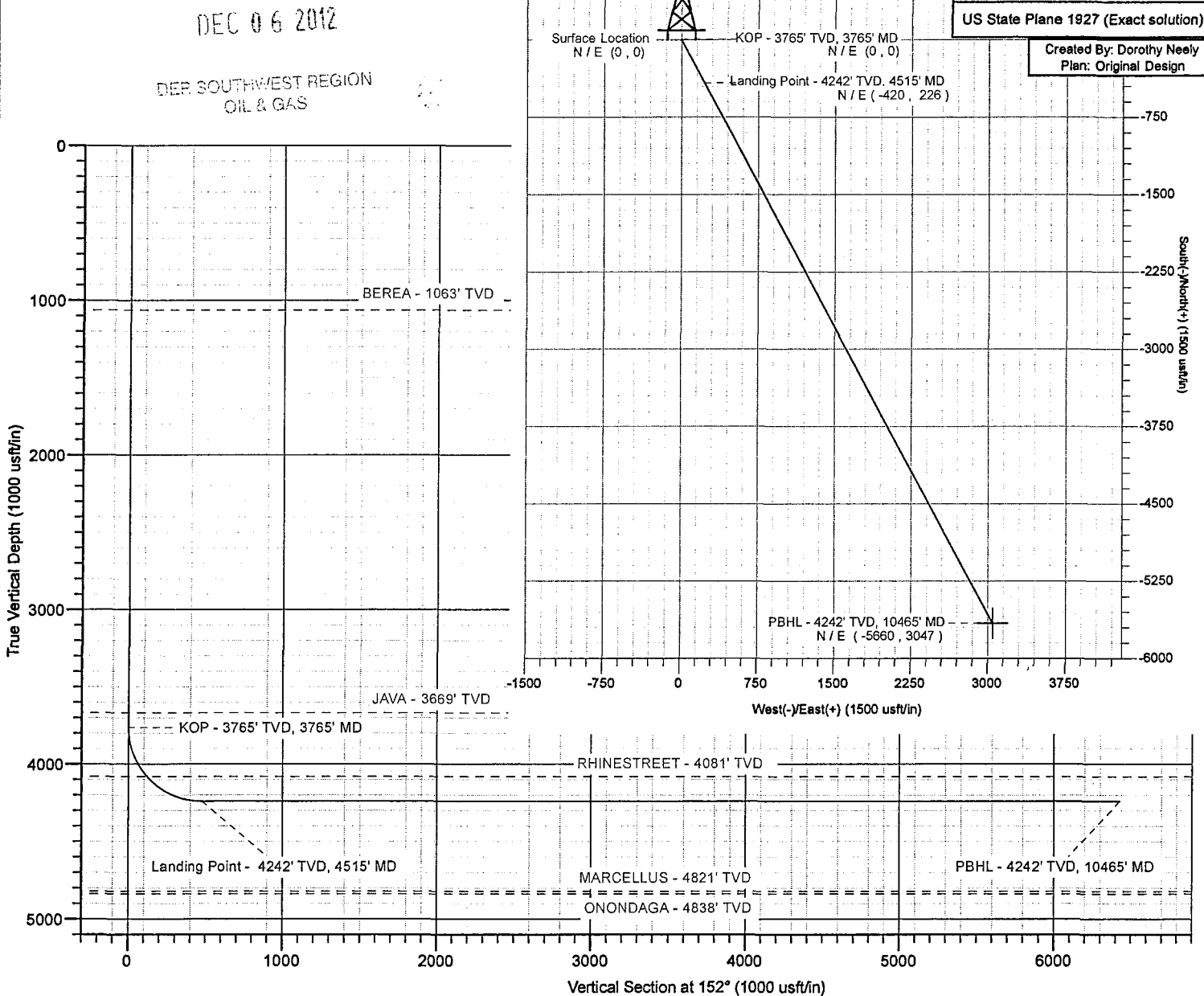


Azimuths to Grid North
True North: 1.71°
Magnetic North: -7.33°

Magnetic Field
Strength: 53167.6snT
Dip Angle: 68.04°
Date: 11/01/2012
Model: IGRF2010

US State Plane 1927 (Exact solution)

Created By: Dorothy Neely
Plan: Original Design



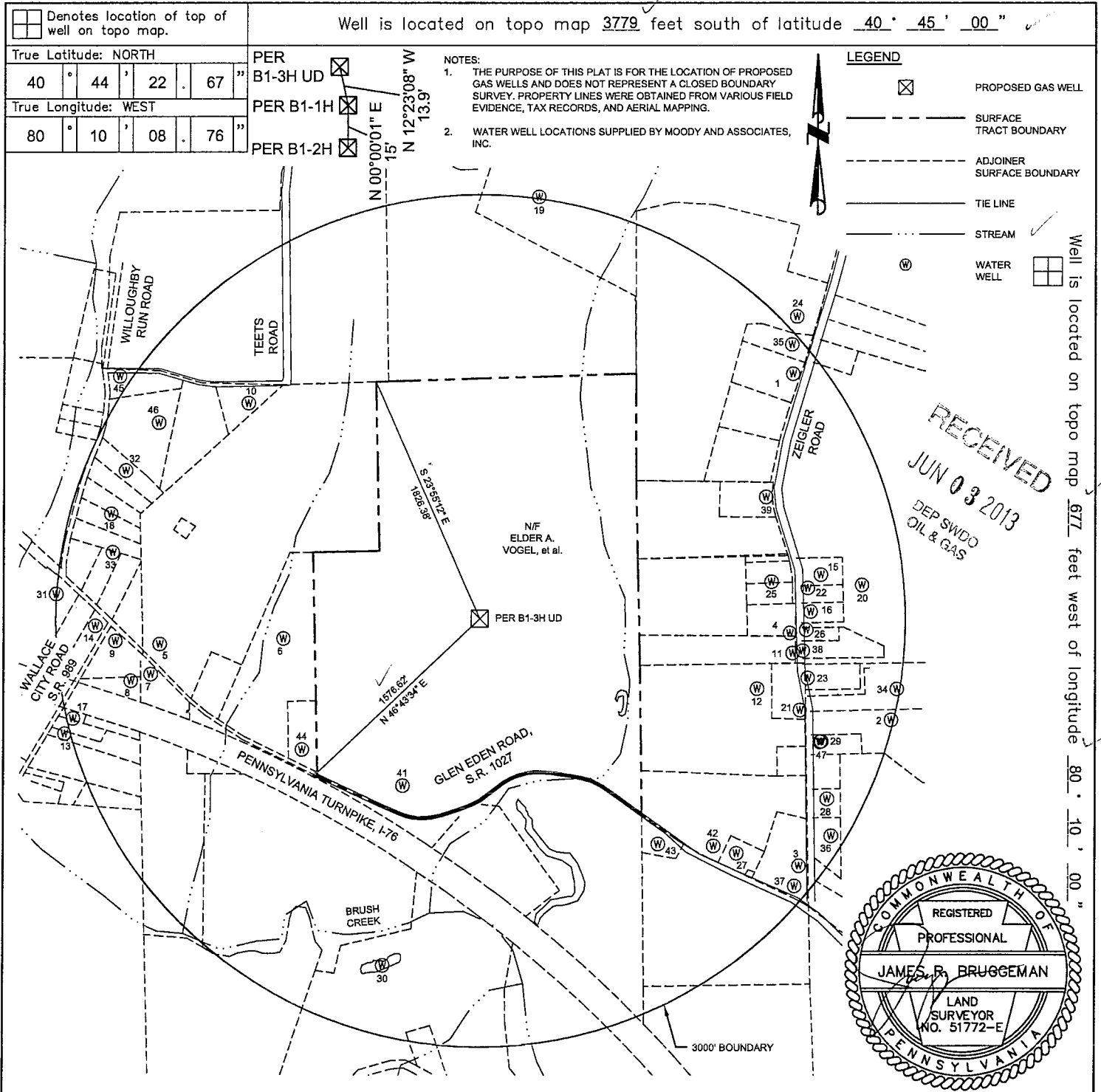


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

GEO COPY

PAGE 1 Surface Location

DEP	Auth ID #CNC 980727F	6-26-13
USE	Permit # 059-20326	
ONLY	Project #:	



Applicant/Well Operator Name: PennEnergy Resources, LLC		DEP ID # 294943	Well (Farm) Name: B1		Well #: PER B1-3H UD	Serial #: N/A
Address: 1000 Commerce Drive, Park Place One, Suite 100, Pittsburgh, PA 15275			County: Beaver	Municipality: New Sewickley Twp.	Well Type: Gas	
911 address of well site: 471 Glen Eden Road, Rochester, PA 15074			USGS 7½' Quadrangle Map Name: Baden, PA	Map Section: 2	Surface Elevation: 1197 ft.	
Surveyor or Engineer: James R. Bruggeman	Phone #: 412-429-2324	Dwg #: 122-545-SRV	Date: 4/16/2013	Scale: 1"=1000'	Tract Acreage: 852.6	
Lat. & Long Metadata Method: GPS		Accuracy: 3± ft.	Datum: NAD 83	Elevation Metadata Method: GPS	Accuracy: 3± ft.	Datum: NAVD 88
						Survey Date: 1/7/2013

Page 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

Applicant / Well Operator Name PennEnergy Resources, LLC	DEP ID# 294943	Well (Farm) Name B1	Well # PER B1-3H UD	Serial # N/A
Surface Landowner / Lessor Elder A. & June E. Vogel		Angle & Course of Deviation (Drilling): S 48°49'20" E – 6110'	Anticipated True Vertical Depth Feet (TVD): 5,156'	Anticipated Total Measured Depth Feet (TMD): 11,140'
Target Formation(s): Genesee		Deepest Formation to be penetrated: Genesee	Number of laterals: 1	Total footage to be drilled all laterals: 11,140'
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude Longitude of Water Supply		
1-ADAM BACH		40.7445333 -80.1613111		
2-LEONARD N & LINDA L BAILEY		40.7378944 -80.1585611		
3-RONALD A & PATRICIA R BONZO		40.7350306 -80.1608028		
4-GARY E BRAUN		40.7395194 -80.1612028		
5-DANIEL G & JOYCE L BRENNER		40.7389722 -80.1772444		
6-KEITH D & CRYSTAL M BRENNER		40.7391444 -80.1741139		
7-TIM R BROWN SR		40.7383861 -80.17745		
8-TIM R BROWN SR		40.7382472 -80.1779472		
9-MICHELLE C & THOMAS M CHESEBRO		40.7390083 -80.1783722		
10-DANIEL E & DEBORAH A DROZ		40.743675 -80.1751806		
11-ANDREA L BRAUN		40.7391333 -80.1611194		
12-ANDREA L BRAUN		40.738425 -80.162		
13-JAMES D & CATHERINE M FARLOW		40.7371944 -80.1796		
14-JAMES R & LORRAINE FRASER JR		40.7392917 -80.1788972		
15-DAVID & TARA HARTZELL		40.7406639 -80.1604528		
16-MARK S & KIMBERLY A HERDA		40.7399444 -80.1606861		
17-STEPHEN & LINDA HURBANEK		40.7374917 -80.1793944		
18-RONALD J JANICKI		40.7414639 -80.1785778		
19-DEAN W & KATHY S JENNY		40.7478139 -80.1679194		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
Conway Borough		Marshall Township		
Cranberry Township		New Sewickley Township		
Economy Borough		North Sewickley Township		
Freedom Borough		Coal related parties		
Rochester Township				
Daugherty Township				
Jackson Township				
Marion Township				

007-20396-00

Page 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

Applicant / Well Operator Name PennEnergy Resources, LLC	DEP ID# 294943	Well (Farm) Name B1	Well # PER B1-3H UD	Serial # N/A
Surface Landowner / Lessor Elder A. & June E. Vogel		Angle & Course of Deviation (Drilling): S 48°49'20" E – 6110'	Anticipated True Vertical Depth Feet (TVD): 5,156'	Anticipated Total Measured Depth Feet (TMD): 11,140'
Target Formation(s): Genesee		Deepest Formation to be penetrated: Genesee	Number of laterals: 1	Total footage to be drilled all laterals: 11,140'
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude Longitude of Water Supply		
20-ELIZABETH ANN & GREGORY PAUL JOYCE		40.7404861 -80.1594028		
21-GREGORY & MARY SUE JOYCE		40.7380361 -80.1608889		
22-MICHAEL W & JENNIFER M KARNER		40.7404 -80.160775		
23-KEVIN M & SONIA L KLEIN		40.7386611 -80.1607139		
24-DONALD J & REBECCA A KRETSCHMANN		40.7456444 -80.16125		
25-JOSEPH E & KATHY M LANDIS		40.7405 -80.1617139		
26-JOSEPH LEHOCKEY JR		40.7395889 -80.1607861		
27-JACK & JUDY LEMON		40.7352389 -80.1624028		
28-ANTHONY J & CAROL A MARKOVICH		40.7363361 -80.1601333		
29-ANTHONY J & CAROL A MARKOVICH		40.7374444 -80.1603167		
30-EDWIN G MCCABE JR		40.7328861 -80.171325		
31-EDWARD W MCKINNEY & MARK G LEWIS		40.7398861 -80.1799167		
32-MICHAEL E MURPHY		40.7423083 -80.1782306		
33-RICHARD RANDEL NUSSBAUMER		40.7407194 -80.1785083		
34-MICHAEL A DUNNE & DARLENE PARISI-DUNNE		40.7384944 -80.1584361		
35-DUNCAN R. & MONICA B SMITH		40.7451 -80.1613583		
36-TERESA E SOMMERVILLE		40.735625 -80.1600056		
37-DANIEL W SPILSBURY		40.7346361 -80.1609		
38-DAVID A STEPHEN & JANE ZENO		40.7391861 -80.1608583		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
		Coal related parties		

RECEIVED
JUN 03 2013
DEP SWEC
OIL & GAS

[illegible]

WELL LOCATION PLAT

PAGE 3 Plan View of Deviated Well Bore

007-20396-00

Applicant/Well Operator Name:
PennEnergy Resources, LLCDEP ID #
294943Well (Farm) Name:
B1Well #:
PER B1-3H UD

True Latitude: NORTH

40 ° 44 ' 22 . 67 "

True Longitude: WEST

80 ° 10 ' 08 . 76 "

Horizontal Coordinate
System: NAD 83

NOTE:

1. TRACT BOUNDARY PROVIDED BY
PENNERGY RESOURCES, LLC.

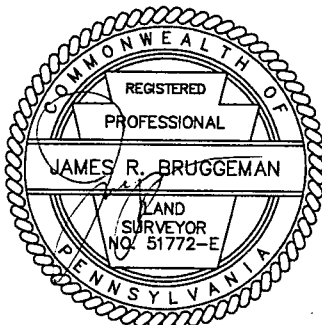
RECEIVED

JUN 08 2013

DEP SWDC
OIL & GASBOTTOM HOLE
LAT:40°45'01.156" N
LON:80°11'09.922" WTEETS
ROADS 23°55'12" E
1826.38'
(TIE)S 48°49'20" E
6110'
(DEVIATION)(TIE)
N 25°45'22" E
2516.96'WILLOUGHBY
RUN ROADLANDING POINT
LAT:40°44'23.737" N
LON:80°10'16.108" WPROPOSED
ACCESS
ROADWALLACE
CITY ROAD
S.R. 989PENNSYLVANIA
TURNPIKE, I-76GLEN EDEN
ROAD,
S.R. 1027N 46°43'34" E
1576.62'
(TIE)N 64°44'37" E
1199.28'
(TIE)TOP HOLE/
KICK OFF POINT 1
LAT:40°44'22.670" N
LON:80°10'08.760" WKICK OFF POINT 2
LAT:40°44'20.975" N
LON:80°10'09.299" WTRACT BOUNDARY
852.6 ACRES

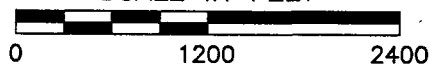
MATCHLINE

MATCHLINE

PER B1-3H UD
PER B1-1H
PER B1-2H

PROPOSED PAD LAYOUT

SCALE IN FEET



WELL LOCATION PLAT

PAGE 4 Cross Section

007-20396-00

Applicant/Well Operator Name:
PennEnergy Resources, LLCDEP ID #
294943Well (Farm) Name:
B1Well #:
PER B1-3H UD

WELL PLAN

SURFACE DETAILS

Ground Level: 1197.00

KB Elev @ (TBD)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	521484.02	1298228.99	40° 44' 22.670 N	80° 10' 8.760 W

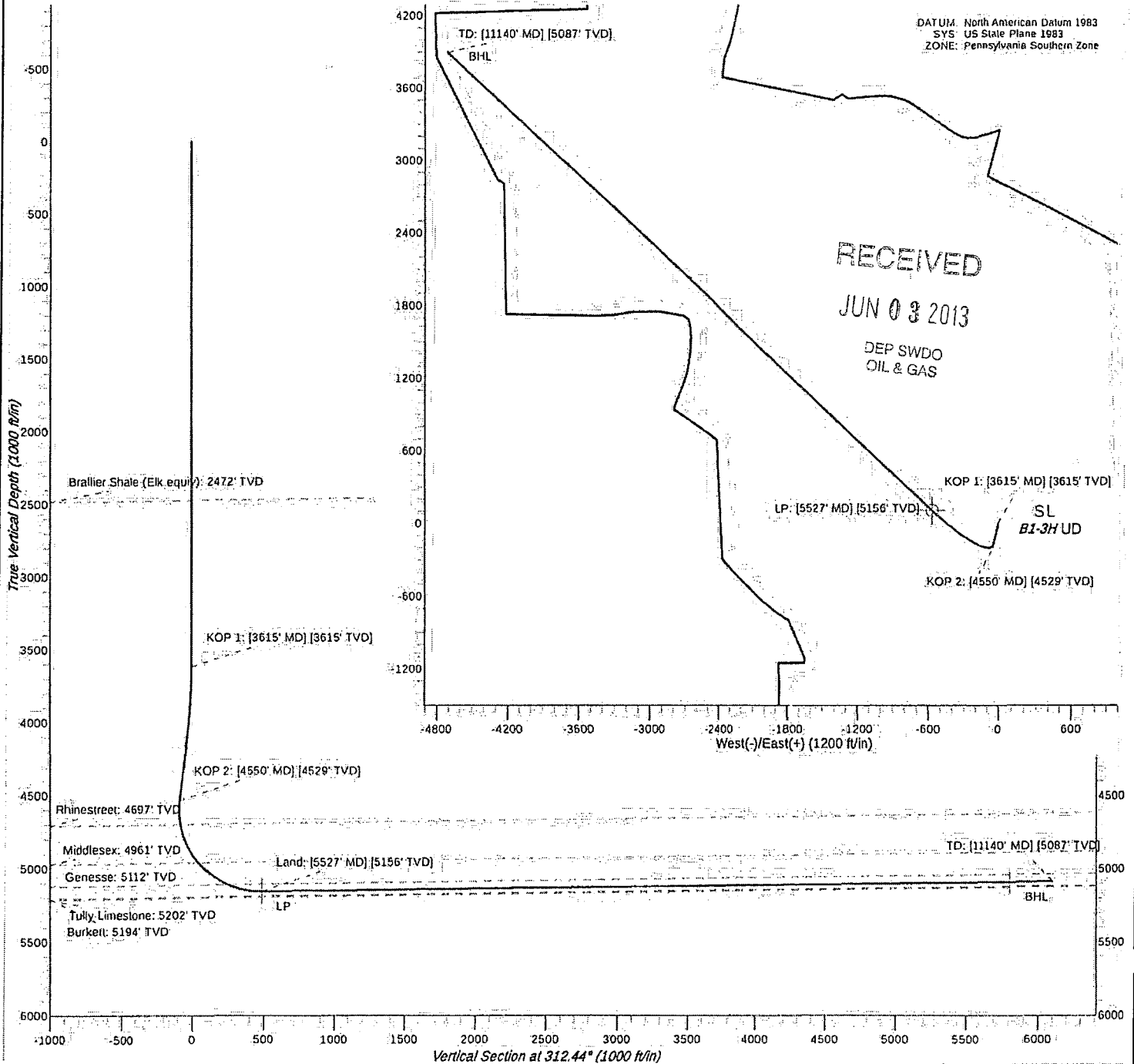
B1-3H, Plan 1

TARGET	MD	TVD	LAT	LONG
SHL	0	0	40° 44' 22.670 N	80° 10' 8.760 W
KOP 1	3615	3615	40° 44' 22.670 N	80° 10' 8.760 W
KOP 2	4550	4529	40° 44' 20.975 N	80° 10' 9.299 W
LP	5527	5156	40° 44' 23.737 N	80° 10' 16.108 W
PTD	11140	5087	40° 45' 1.156 N	80° 11' 9.922 W

Azimuths to True North
Magnetic North: -9.21°

Magnetic Field
Strength: 53088.2snT
Dip Angle: 67.97°
Date: 4/15/2013
Model: IGRF2010

DATUM: North American Datum 1983
SYS: US State Plane 1983
ZONE: Pennsylvania Southern Zone



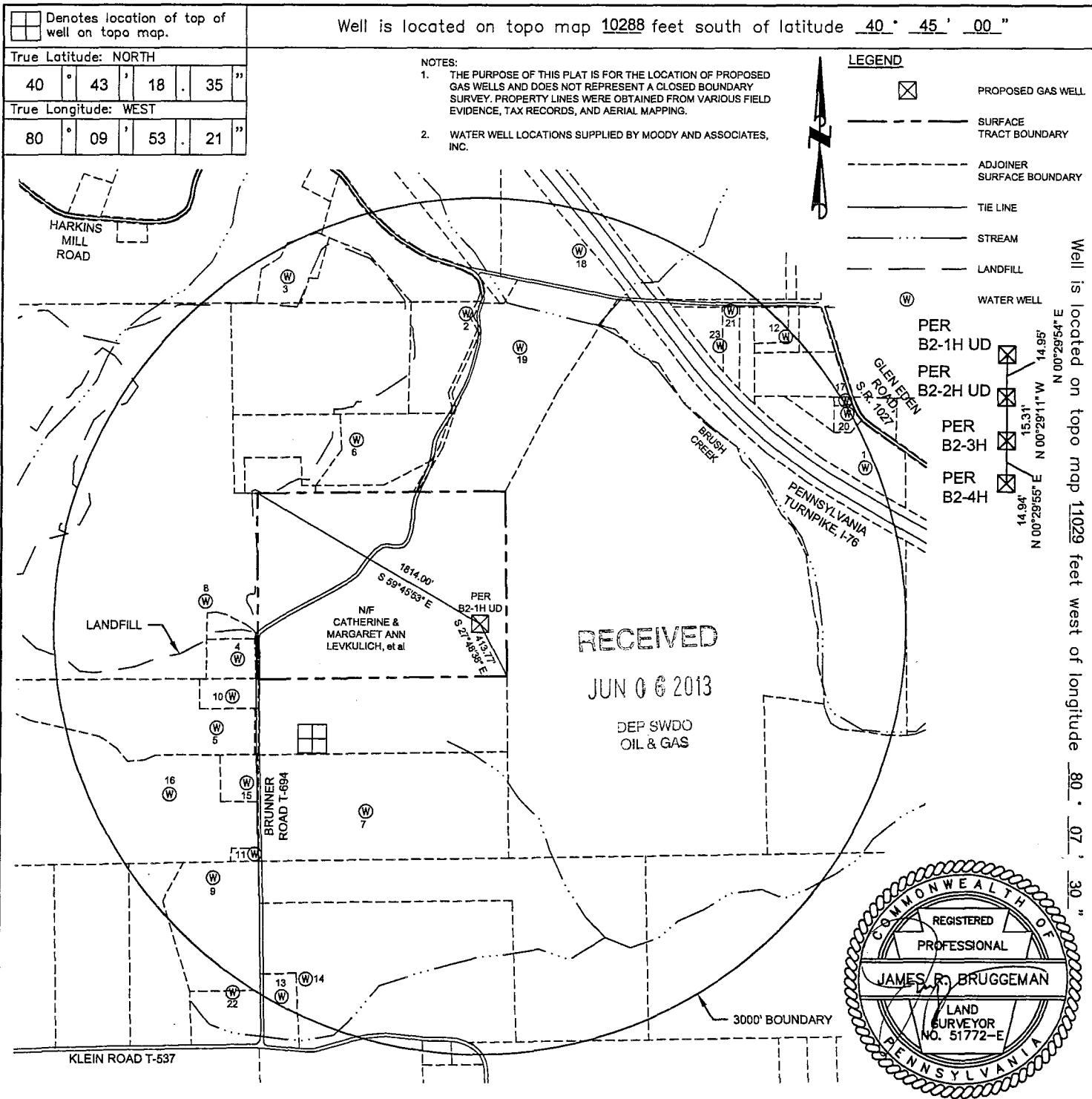


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #C 98085
USE	Permit # 67-2039
ONLY	Project #



Applicant/Well Operator Name: PennEnergy Resources, LLC		DEP ID # 294943	Well (Farm) Name: B2		Well # PER B2-1H UD	Serial # N/A
Address: 1000 Commerce Drive, Park Place One, Suite 100, Pittsburgh, PA 15275			County: Beaver	Municipality: New Sewickley Twp.	Well Type: Gas	
911 address of well site: 166 Brunner Road, Zelienople, PA 16063			USGS 7½' Quadrangle Map Name: Baden, PA	Map Section: 3	Surface Elevation: 1168 ft.	
Surveyor or Engineer: James R. Bruggeman, P.L.S.	Phone #: 412-429-2324	Dwg #: 122-546-SRV	Date: 2/12/2013	Scale: 1"=1000'	Tract Acreage: 1,068.2	
Lat. & Long Metadata Method: GPS	Accuracy: 3± ft.	Datum: NAD 83	Elevation Metadata Method: GPS	Accuracy: 3± ft.	Datum: NAVD 88	Survey Date: 1/17/2013

Page 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

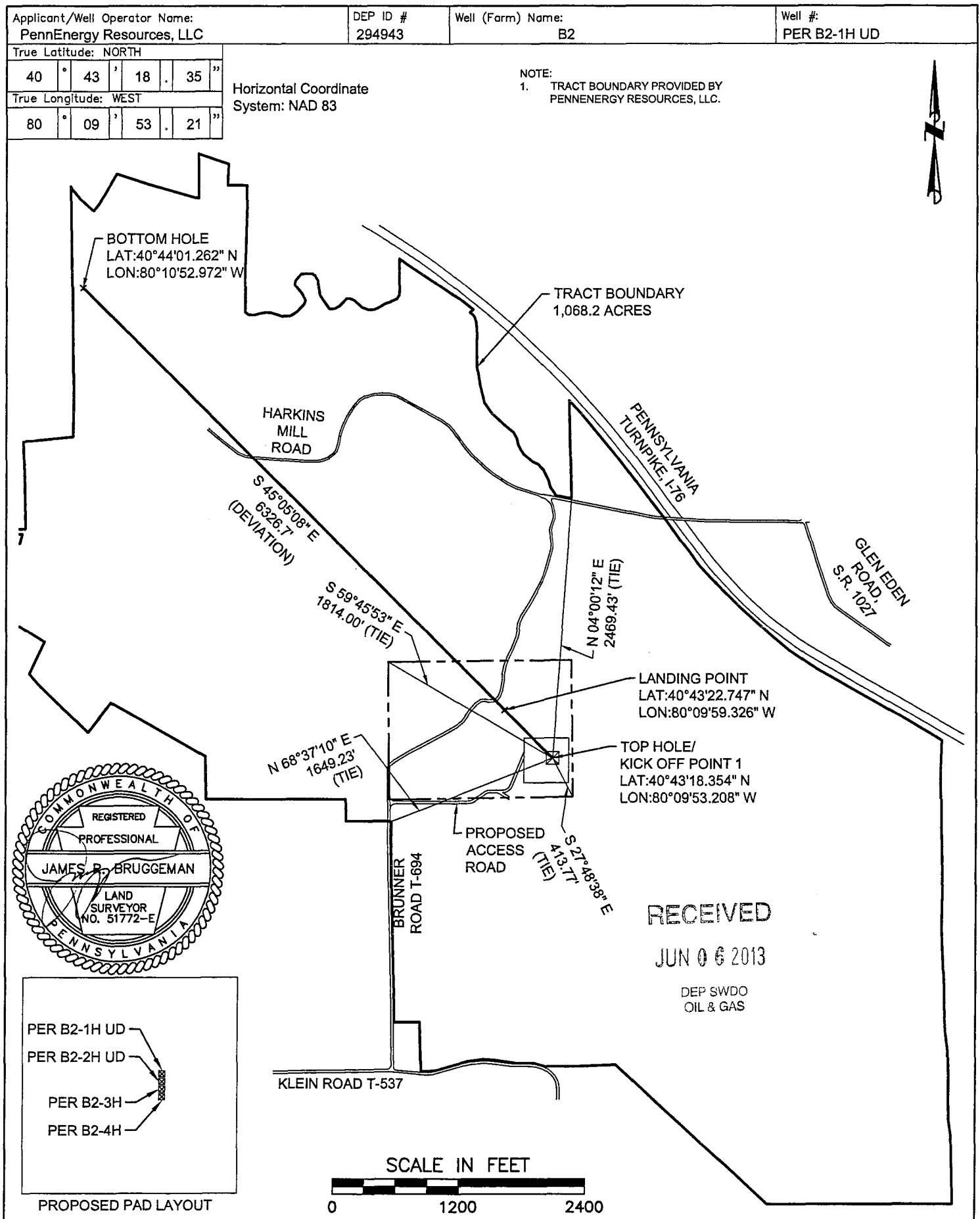
Applicant / Well Operator Name PennEnergy Resources, LLC	DEP ID# 294943	Well (Farm) Name B2	Well # PER B2-1H UD	Serial # N/A
Surface Landowner / Lessor Catherine & Margaret Ann Levkulich, et al		Angle & Course of Deviation (Drilling): S 45°05'08" E - 6326.7'	Anticipated True Vertical Depth Feet (TVD): 5205'	Anticipated Total Measured Depth Feet (TMD): 11259'
Target Formation(s): BURKETT		Deepest Formation to be penetrated: BURKETT	Number of laterals: 1	Total footage to be drilled all laterals: 11259'
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude Longitude of Water Supply		
1 - THOMAS C & MARY ANN BRECKLE		40.72498 -80.155116		
2 - BRUNNER ENTERPRISES LP		40.7277306 -80.1653944		
3 - BRUNNER ENTERPRISES LP		40.7283333 -80.1699333		
4 - JOSEPH J & PATRICIA BRUNNER		40.7209528 -80.1708944		
5 - JOSEPH J BRUNNER JR		40.7196222 -80.1713778		
6 - STEVEN M BRUNNER		40.7252333 -80.1680472		
7 - MORRIS E & PAULA J HILLIARD		40.7181 -80.1675083		
8 - JOSEPH J BRUNNER INC		40.7220472 -80.1717667		
9 - CATHERINE LUCAS		40.7167417 -80.1713389		
10 - GEORGE & PATSY MUELLER		40.7202306 -80.1709917		
11 - MARY ANN MYERS		40.7172194 -80.1703028		
12 - OAK GROVE LUTHERAN CHURCH		40.7274556 -80.1572417		
13 - DAVID R & MARY SUSAN RAPE		40.7145 -80.1694944		
14 - DAVID R & MARY SUSAN RAPE		40.7148444 -80.1688972		
15 - RONALD H ROMBOLD		40.7185806 -80.1705611		
16 - RONALD H & CRAIG L ROMBOLD		40.7183194 -80.1725278		
17 - SHELLY A SHIDEMANTLE		40.7262611 -80.1556722		
18 - LYNNMARIE A SNYDER		40.7289972 -80.1625583		
19 - LYNNMARIE A SNYDER		40.7271111 -80.1639889		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
Conway Borough ,		Marshall Township ,		
Cranberry Township ,		New Sewickley Township ,		
Economy Borough ,		North Sewickley Township ,		
Freedom Borough ,		Coal related parties		
Rochester Township ,				
Daugherty Township ,				
Jackson Township ,				
Marion Township ,				

RECEIVED
JUN 11 2013
DEP SWDO
OIL & GAS

WELL LOCATION PLAT

PAGE 3 Plan View of Deviated Well Bore

007-20399-00



WELL LOCATION PLAT

PAGE 4 Cross Section

Applicant/Well Operator Name: PennEnergy Resources, LLC	DEP ID # 294943	Well (Farm) Name: B2	Well #: PER B2-1H UD
--	--------------------	-------------------------	-------------------------

WELL PLAN

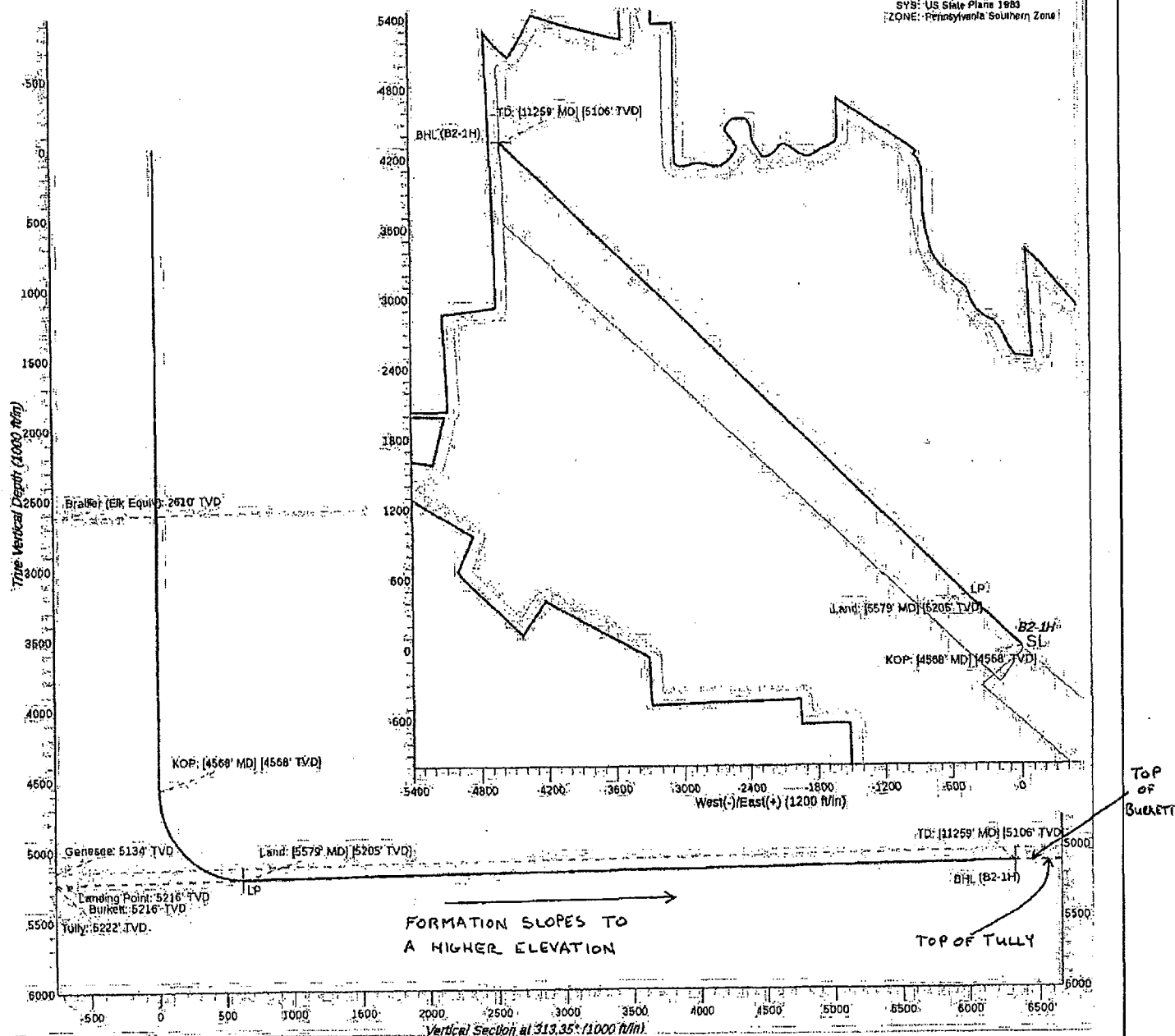
RECEIVED

JUN 11 2013

DEP SWDO
OIL & GAS

SURFACE DETAILS				Ground Level: 1168.00'	KB Elev (TGD)
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	514944.89	1299247.70	40.721765	-80.164780

B2-1H, Plan 1					
TARGET	MD	TVD	LAT	LONG	
SHL	0	0	40° 43' 18.354 N	80° 9' 53.208 W	
KOP-1	4568	4568	40° 43' 18.354 N	80° 9' 53.208 W	
LP	5579	5205	40° 43' 22.747 N	80° 9' 59.326 W	
PTD	11259	5106	40° 44' 11.262 N	80° 10' 52.972 W	

Azimuths to True North:
Magnetic North: -9.21°Magnetic Field:
Strength: 53074.3snT
Dip Angle: 67.95°
Date: 4/30/2013
Model: IGRF2010DATUM: North American Datum 1983
SYS: US State Plane 1983
ZONE: Pennsylvania Southern Zone



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT
WELL LOCATION PLAT

PAGE 1 Surface Location

DEP	Auth ID #	6-26-13
USE	Permit #	6-26-13
ONLY	Project #	

Well is located on topo map 10303 feet south of latitude 40° 45' 00" ✓

Denotes location of top of well on topo map.				
True Latitude: NORTH				
40	°	43	'	18 . 21 "
True Longitude: WEST				
80	°	09	'	53 . 20 "

NOTES:

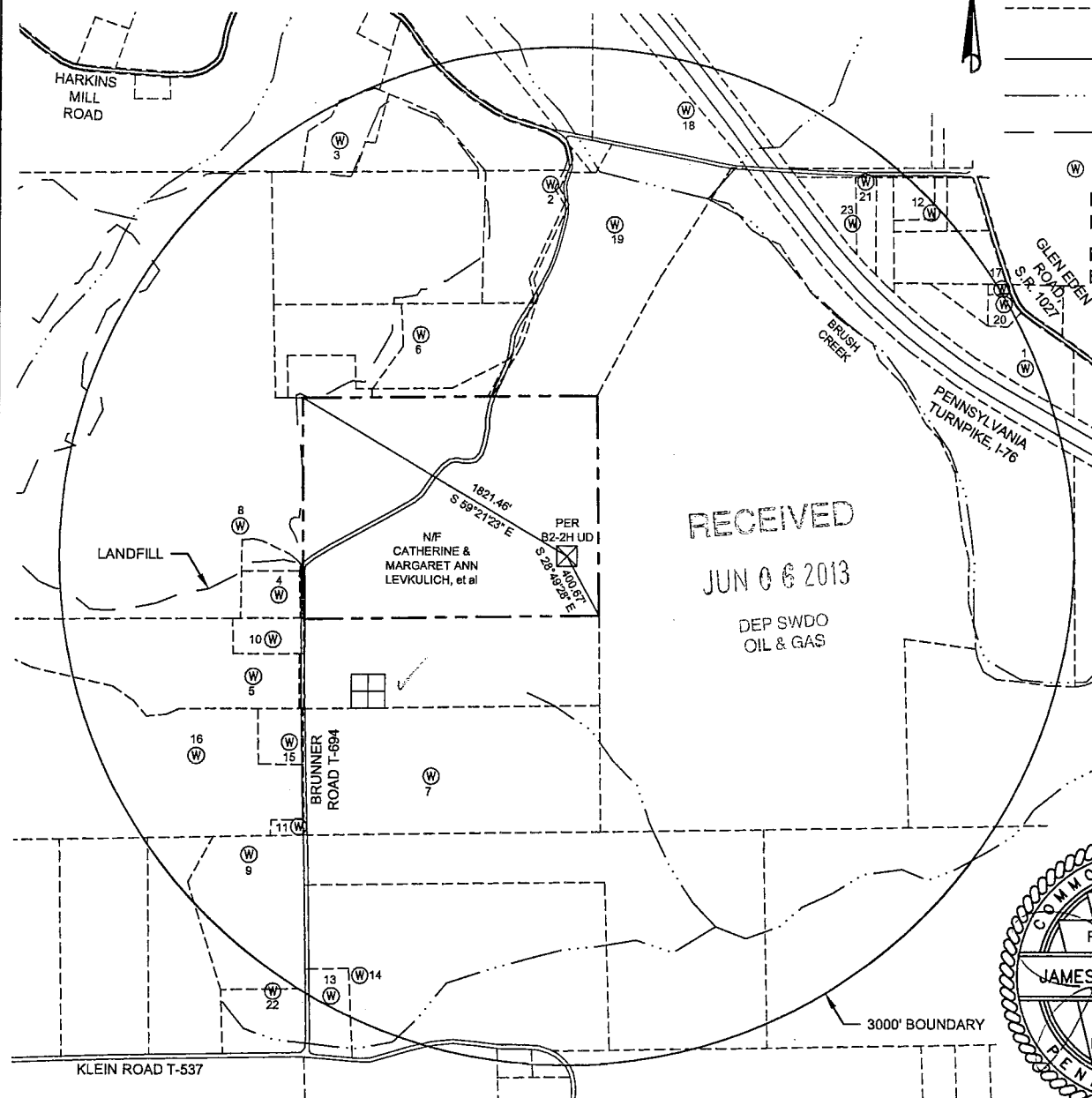
1. THE PURPOSE OF THIS PLAT IS FOR THE LOCATION OF PROPOSED GAS WELLS AND DOES NOT REPRESENT A CLOSED BOUNDARY SURVEY. PROPERTY LINES WERE OBTAINED FROM VARIOUS FIELD EVIDENCE, TAX RECORDS, AND AERIAL MAPPING.
2. WATER WELL LOCATIONS SUPPLIED BY MOODY AND ASSOCIATES, INC.

LEGEND

- ☒ PROPOSED GAS WELL
- SURFACE TRACT BOUNDARY
- ADJOINER SURFACE BOUNDARY
- TIE LINE
- STREAM
- LANDFILL

- WATER WELL
- PER B2-1H UD
- PER B2-2H UD
- PER B2-3H
- PER B2-4H
- 14.94' N 00°29'55"E
- 15.31' N 00°29'11"W
- 14.95' N 00°29'54"E

Well is located on topo map 11029 feet west of longitude 80° 07' 30" ✓



Applicant/Well Operator Name: PennEnergy Resources, LLC		DEP ID # 294943	Well (Farm) Name: B2		Well #: PER B2-2H UD	Serial #: N/A
Address: 1000 Commerce Drive, Park Place One, Suite 100, Pittsburgh, PA 15275			County: Beaver	Municipality: New Sewickley Twp.	Well Type: Gas	
911 address of well site: 166 Brunner Road, Zelienople, PA 16063			USGS 7½' Quadrangle Map Name: Baden, PA	Map Section: 3	Surface Elevation: 1168 ft.	
Surveyor or Engineer: James R. Bruggeman, P.L.S.	Phone #: 412-429-2324	Dwg #: 122-546-SRV	Date: 2/12/2013	Scale: 1"=1000'	Tract Acreage: 1,068.2	
Lat. & Long Metadata Method: GPS	Accuracy: 3± ft.	Datum: NAD 83	Elevation Metadata Method: GPS	Accuracy: 3± ft.	Datum: NAVD 88	Survey Date: 1/17/2013

Page 2 Notifications

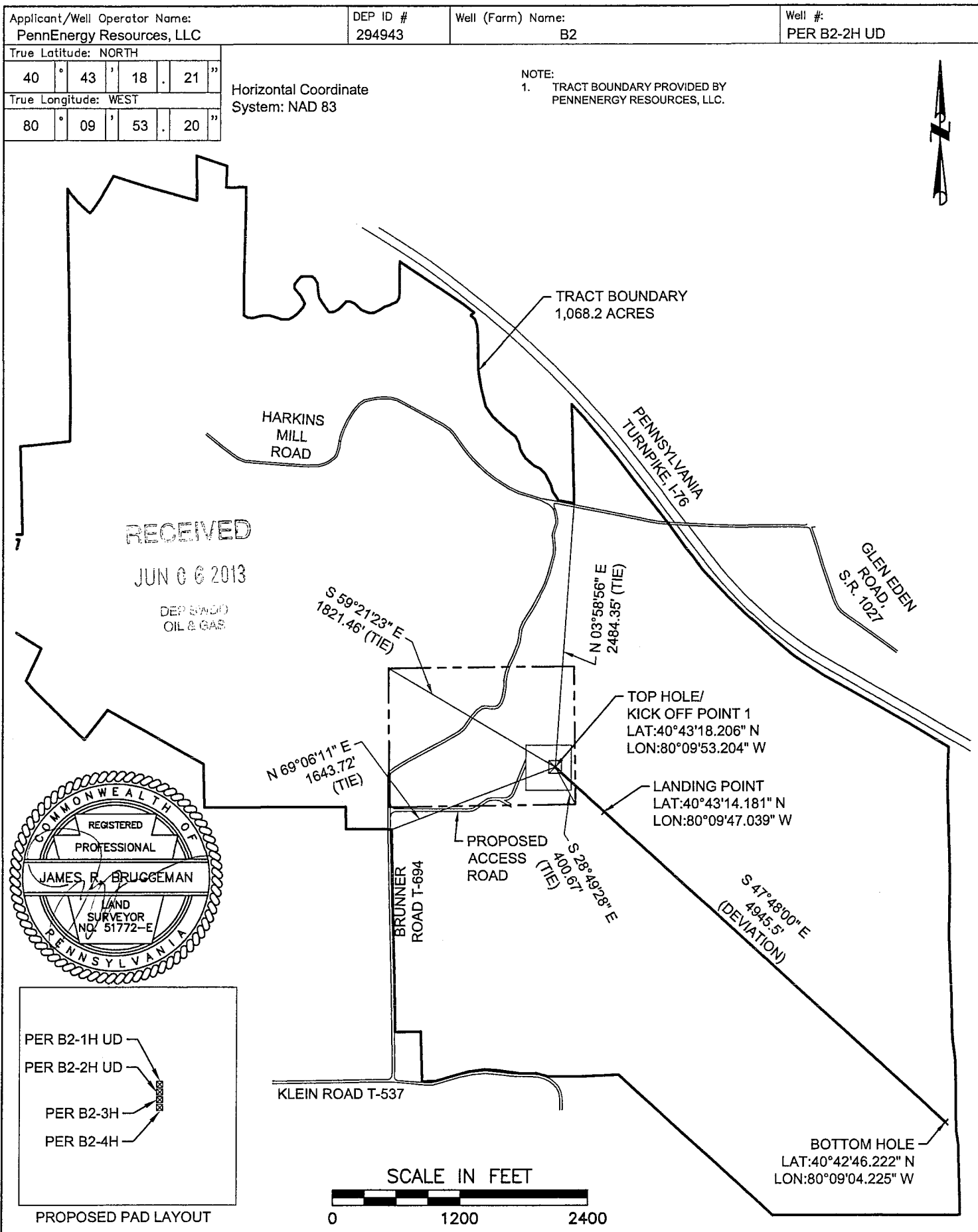
DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

Applicant / Well Operator Name PennEnergy Resources, LLC	DEP ID# 294943	Well (Farm) Name B2	Well # PER B2-2H UD	Serial # N/A
Surface Landowner / Lessor Catherine & Margaret Ann Levkulich, et al		Angle & Course of Deviation (Drilling): S 47°48'00" E - 4945.5'	Anticipated True Vertical Depth Feet (TVD): 5303'	Anticipated Total Measured Depth Feet (TMD): 9924'
Target Formation(s): BURKETT		Deepest Formation to be penetrated: BURKETT	Number of laterals: 1	Total footage to be drilled all laterals: 9924'
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude Longitude of Water Supply		
1 - THOMAS C & MARY ANN BRECKLE		40.72498 -80.155116		
2 - BRUNNER ENTERPRISES LP		40.7277306 -80.1653944		
3 - BRUNNER ENTERPRISES LP		40.7283333 -80.1699333		
4 - JOSEPH J & PATRICIA BRUNNER		40.7209528 -80.1708944		
5 - JOSEPH J BRUNNER JR		40.7196222 -80.1713778		
6 - STEVEN M BRUNNER		40.7252333 -80.1680472		
7 - MORRIS E & PAULA J HILLIARD		40.7181 -80.1675083		
8 - JOSEPH J BRUNNER INC		40.7220472 -80.1717667		
9 - CATHERINE LUCAS		40.7167417 -80.1713389		
10 - GEORGE & PATSY MUELLER		40.7202306 -80.1709917		
11 - MARY ANN MYERS		40.7172194 -80.1703028		
12 - OAK GROVE LUTHERAN CHURCH		40.7274556 -80.1572417		
13 - DAVID R & MARY SUSAN RAPE		40.7145 -80.1694944		
14 - DAVID R & MARY SUSAN RAPE		40.7148444 -80.1688972		
15 - RONALD H ROMBOLD		40.7185806 -80.1705611		
16 - RONALD H & CRAIG L ROMBOLD		40.7183194 -80.1725278		
17 - SHELLY A SHIDEMANTLE		40.7262611 -80.1556722		
18 - LYNNMARIE A SNYDER		40.7289972 -80.1625583		
19 - LYNNMARIE A SNYDER		40.7271111 -80.1639889		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
Conway Borough		Marshall Township		
Cranberry Township		New Sewickley Township		
Economy Borough		North Sewickley Township		
Freedom Borough		Coal related parties		
Rochester Township				
Daugherty Township				
Jackson Township				
Marion Township				

WELL LOCATION PLAT

PAGE 3 Plan View of Deviated Well Bore

007-20400-00



007-20400-00

WELL LOCATION PLAT

PAGE 4 Cross Section

Applicant/Well Operator Name: PennEnergy Resources, LLC	DEP ID # 294943	Well (Farm) Name: B2	Well #: PER B2-2H UD
--	--------------------	-------------------------	-------------------------

WELL PLAN

SURFACE DETAILS		Ground Level: 1168.00		RB Elev (T8b)	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	514929.84	1299247.57	40.721724	-80.164779

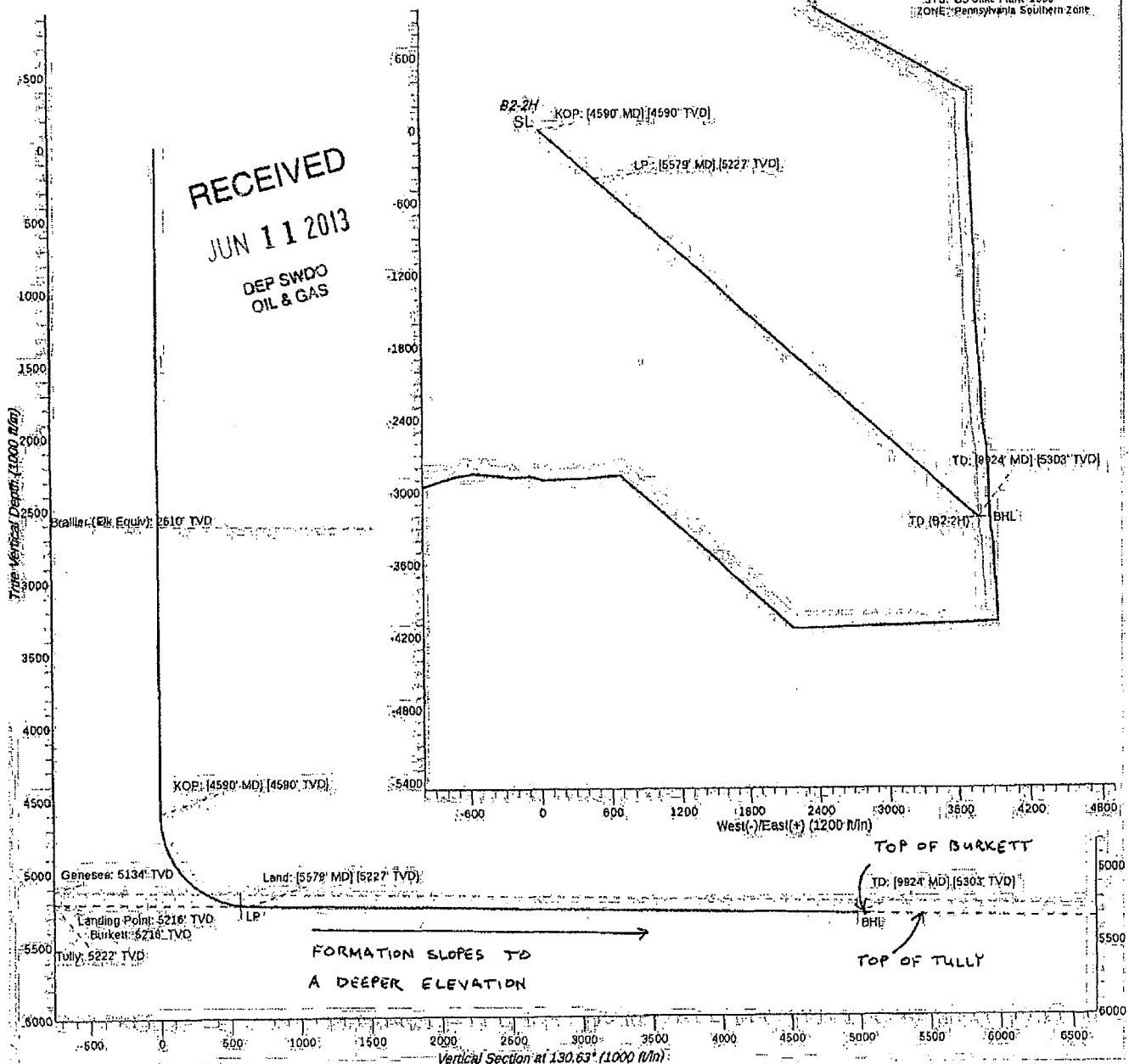
B2-2H, Plan 1					
TARGET	MD	TVD	LAT	LONG	
SHL	0	0	40° 43' 18.206 N	80° 9' 53.204 W	
KOP	4590	4590	40° 43' 18.206 N	80° 9' 53.204 W	
LP	5579	5227	40° 43' 14.181 N	80° 9' 47.039 W	
PTD	9924	5303	40° 42' 46.222 N	80° 9' 4.225 W	



Azimuths to True North
Magnetic North: -9.21°

Magnetic Field
Strength: 53074.3nT
Dip Angle: 67.95°
Date: 4/30/2013
Model: IGRF2010

DATUM: North American Datum 1983
SYS: US State Plane 1983
ZONE: Pennsylvania Southern Zone





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program
WELL LOCATION PLAT

DEP USE ONLY	DEP Application Tracking #	G. <i>ACO</i>
	Permit #	<i>11/18/11</i>
	Project #	<i>019-21792</i>

☐ Denotes location of well on topo map.

True Latitude: NORTH

40° 50' 33.54"

True Longitude: WEST

80° 02' 02.58"

Projected bottom hole

Latitude: NORTH

40° 49' 49.47"

Longitude: WEST

80° 01' 36.27"

Well is located on topo map 11786 feet south of latitude 40° 52' 30"

A - S 35°01'00" W 1106.70'
B - N 02°32'14" E 1209.61'
C - S 62°33'01" E 655.26'

NOTE:

THIS PLAT IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND LINES PERTINENT TO LOCATING THE PROPOSED WELL ARE FROM FIELD SURVEY. OTHER LINES AND FEATURES SHOWN ARE FROM TAX MAPS AND/OR DEEDS. THE INFORMATION PRESENTED SHOULD NOT BE UTILIZED FOR ANY OTHER PURPOSES. THIS PROPERTY IS SUBJECT TO ANY EASEMENTS, RIGHT-OF-WAY AND/OR ENCUMBRANCES BOTH APPARENT AND OF RECORD. NO TITLE SEARCH HAS BEEN MADE IN PREPARATION OF THIS WELL PLAT.

Well is located on topo map

9420

feet west of longitude

80°

00'

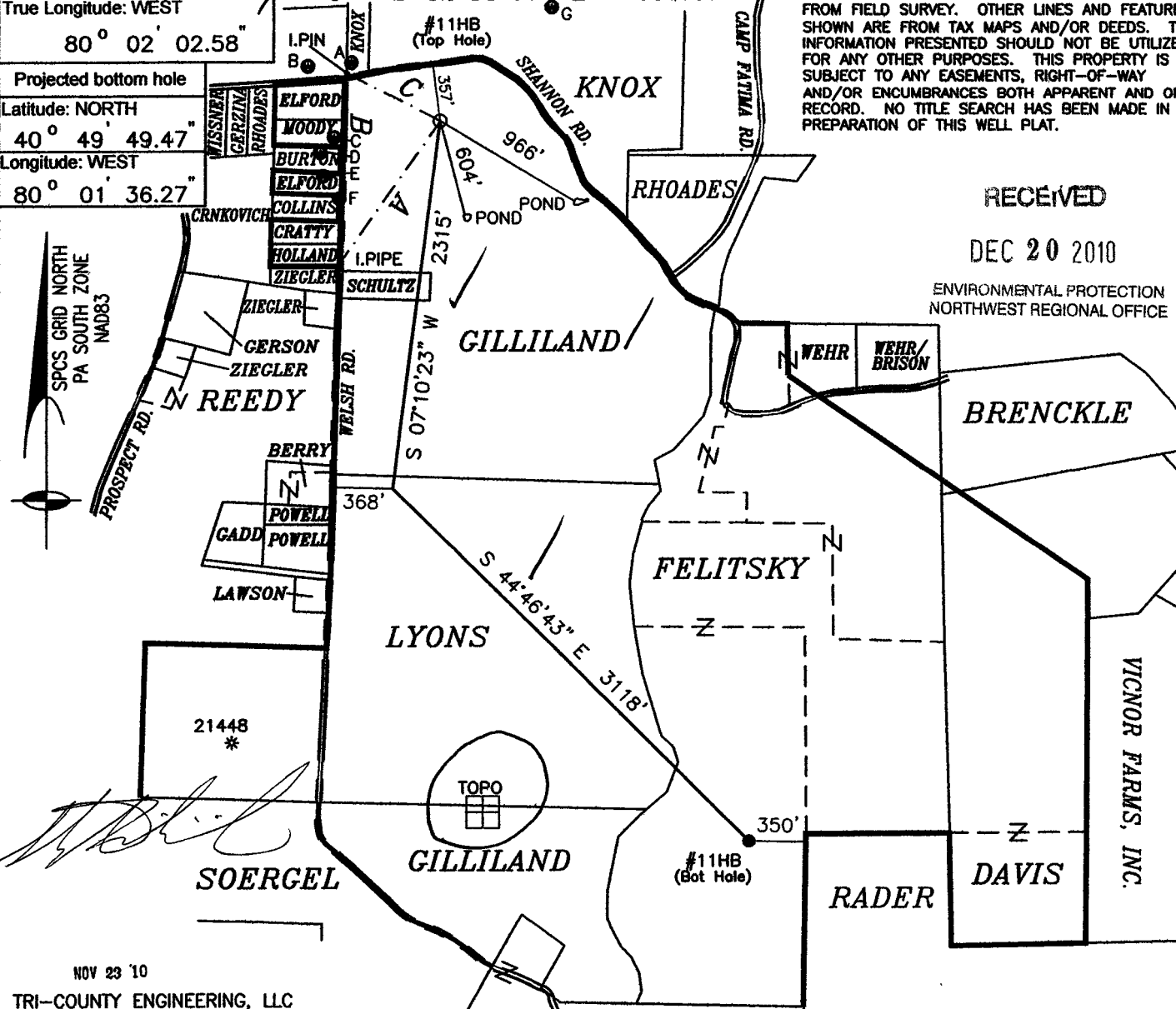
00"

00"

RECEIVED

DEC 20 2010

ENVIRONMENTAL PROTECTION
NORTHWEST REGIONAL OFFICE



NOV 23 '10

TRI-COUNTY ENGINEERING, LLC

Surveyor or
Engineer

Phone #

STEPHEN PILIPOVICH (724)832-8814

Dwg. #

REXOG24-7-11H

Date

11/22/2010

Scale

1" = 1000'

Tract

Acreage 633.14

Lat. & Long Metadata

Method Direct GPS Accuracy SUB-METER ft. Datum NAD 83

Elevation Metadata

Method DIRECT GPS Accuracy 2' ft. Datum NAVD88 Survey Date 3/22/2010

Applicant / Well Operator Name

REX ENERGY OPERATING Corp.

Well(Farm) Name

GILLILAND UNIT

Well #

11HB

Serial #

Address 476 ROLLING RIDGE DRIVE, Ste 300
STATE COLLEGE, PA 16801

County - Code

BUTLER - 10

Municipality

CONNOQUENESSING TOWNSHIP

Well Type

GAS

Surface Landowner / Lessor

EDWARD C. AND BERYL E. GILLILAND

USGS 7 1/2 Quadrangle Map Name

EVANS CITY

Map Section

3

Surface Elevation

1264

ft.

Target Formation(s)

BURKETT

Angle & Course of Deviation (Drilling)

DEVIATED - SEE ATTACHMENT

Anticipated Total Depth

TVD 5257

TMD 9980

Surface Owner or Water Purveyor
with a Water Supply within 1,000 ft.

Approximate Course and
Distance to Water Supply

Owner, Lessee, or Operator of
Workable Coal Seam

Name of Coal Seam
Owned, Leased, or Operated

SEE ATTACHMENT

WELL LOCATION PLAT

Auth ID #: 019-21792

[illegible]

019-21792

REX ENERGY

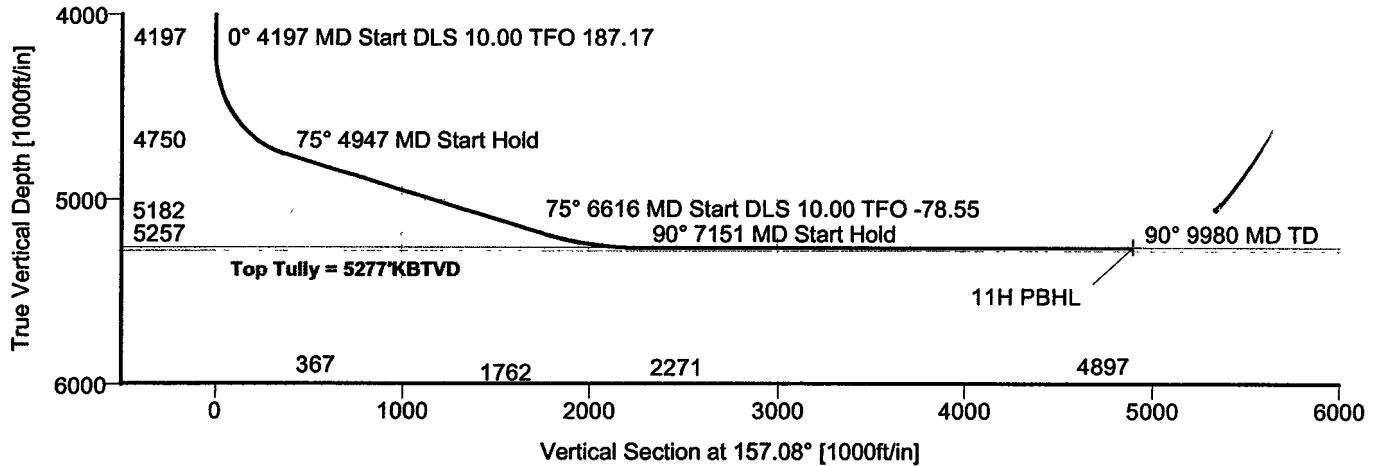
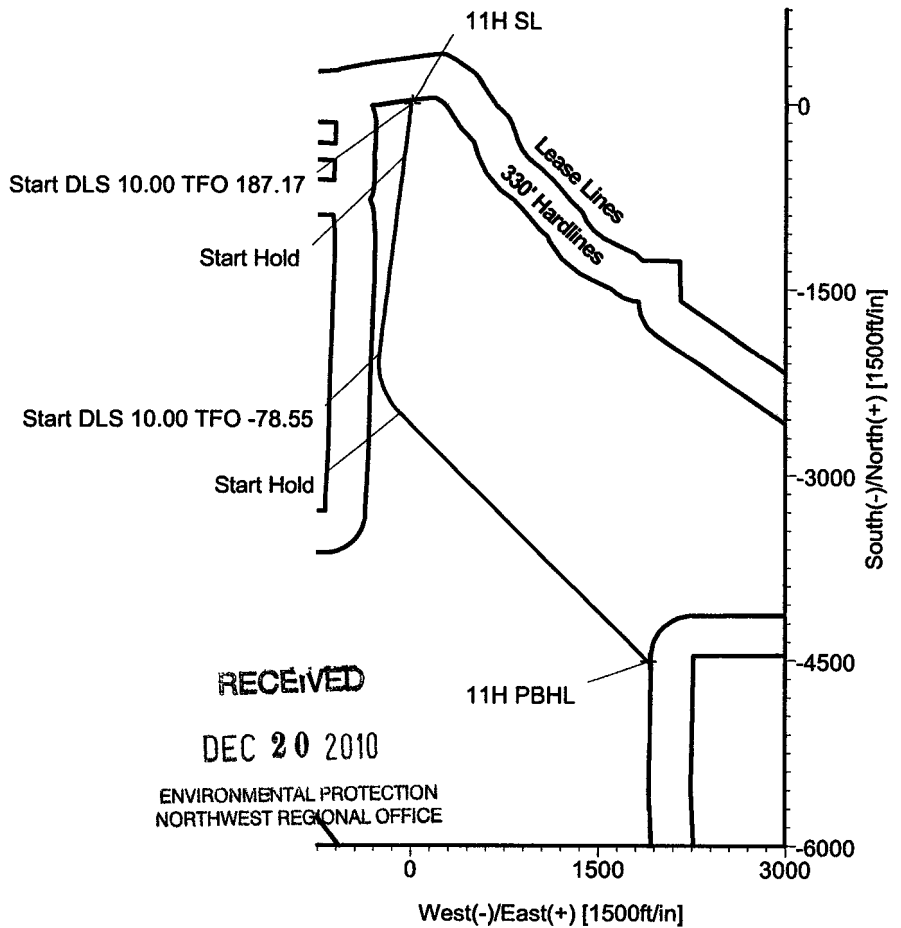
Field: Butler County, PA (NAD 83)
 Site: Gilliland Unit Pad A
 Well: #11HB
 Wellpath: Lateral
 Plan: Plan #1a



Azimuths to Grid North
 True North: 1.48°
 Magnetic North: -7.78°

Magnetic Field
 Strength: 53429nT
 Dip Angle: 68.26°
 Date: 10/26/2010
 Model: IGRF2010

Target Centerline - 5257'KBTVD w/0.00°Dip
 Top Tully - 5277'KBTVD



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
11H SL	0.00	0.00	0.00	40°50'33.538N	080°02'02.583W	Point
11H PBHL	5257.00	-4510.23	1907.05	40°49'49.474N	080°01'36.266W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	187.17	0.00	0.00	0.00	0.00	0.00	0.00	
2	4196.91	0.00	187.17	4196.91	0.00	0.00	0.00	187.17	0.00	
3	4946.91	75.00	187.17	4750.34	-421.34	-53.00	10.00	187.17	367.44	
4	6615.91	75.00	187.17	5182.31	-2020.87	-254.22	0.00	0.00	1762.31	
5	7150.56	90.00	135.22	5257.00	-2502.26	-85.73	10.00	-78.55	2271.31	
6	9979.55	90.00	135.22	5257.00	-4510.23	1907.05	0.00	0.00	4896.84	11H PBHL

ALLIS-CHALMERS DIRECTIONAL DRILLING SERVICES
 911 Regional Park Drive Houston, Texas 77060
 Phone: 713-934-9600 Fax: 713-934-9067



DIRECTIONAL
 DRILLING SERVICES

Plan: Plan #1a (#11HB/Lateral)

Created By: Mekka Williams

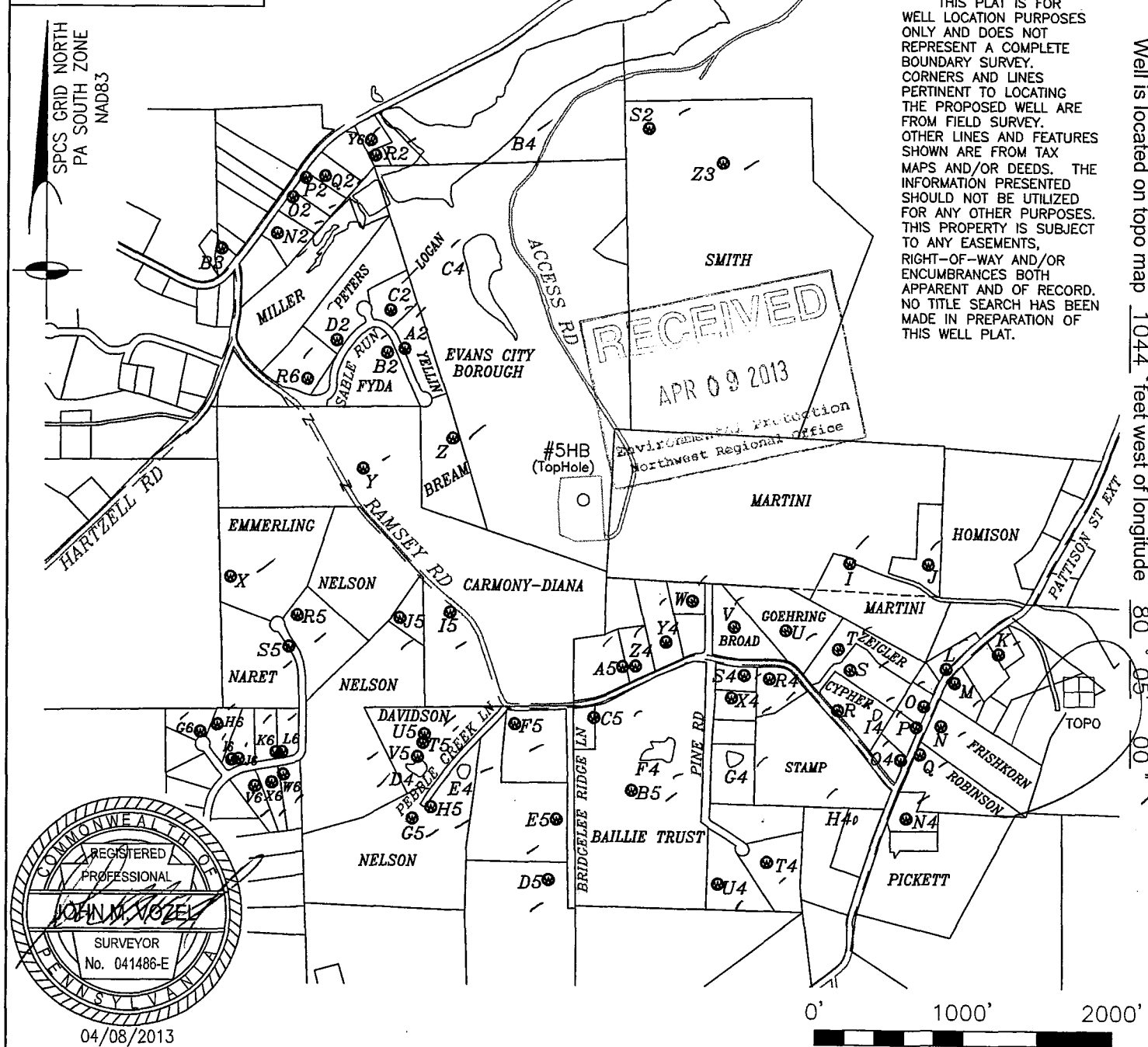
Date: 12/02/2010

Well is located on topo map 11295 feet south of latitude $40^{\circ} 47' 30''$

True Longitude: WEST (NAD83)
80° 05' 13.58"

LEGEND	
————	SURFACE BOUNDARY
○	PROPOSED GAS WELL TOPHOLE
*	EXISTING GAS WELL
⊙	SURFACE LANDOWNER - WATER SUPPLY

NOTE:
THIS PLAT IS FOR
WELL LOCATION PURPOSES
ONLY AND DOES NOT
REPRESENT A COMPLETE
BOUNDARY SURVEY.
CORNERS AND LINES
PERTINENT TO LOCATING
THE PROPOSED WELL ARE
FROM FIELD SURVEY.
OTHER LINES AND FEATURES
SHOWN ARE FROM TAX
MAPS AND/OR DEEDS. THE
INFORMATION PRESENTED
SHOULD NOT BE UTILIZED
FOR ANY OTHER PURPOSES.
THIS PROPERTY IS SUBJECT
TO ANY EASEMENTS,
RIGHT-OF-WAY AND/OR
ENCUMBRANCES BOTH
APPARENT AND OF RECORD.
NO TITLE SEARCH HAS BEEN
MADE IN PREPARATION OF
THIS WELL PLAT.



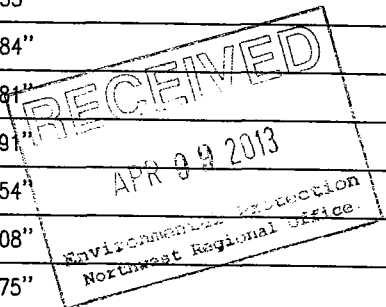
Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT		Well # : 5HB	Serial #:
Address: 476 ROLLING RIDGE DRIVE, SUITE 300 STATE COLLEGE, PA 16801		County: BUTLER - 10	Municipality: JACKSON TOWNSHIP		Well Type: GAS	
911 Address of Well Site: 568 LINDSAY ROAD, ZELIENOPLE, PA 16063		USGS 7 1/2' Quadrangle Map Name: EVANS CITY	Map Section: 7		Surface Elevation: 1155	
Surveyor or Engineer: JOHN M. VOZEL TRI-COUNTY ENGINEERING, LLC	Phone #: (724)635-0210	Dwg. #: REXOG41-7-5HB	Date: 04/06/2013	Scale: 1" = 1000'	Tract Acreage: 896.6847	
Lat. & Long Metadata Method: Direct GPS	Accuracy: SUB-METER	ft. Datum: NAD 83	Elevation Metadata Method: USGS TOPO	Accuracy: 5'	ft. Datum: NGVD 29	Survey Date:

WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 5HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH			Angle & Course of Deviation (Drilling): DEVIATED-SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 10436
Target Formation (s): BURKETT			Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 10436
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'			Latitude / Longitude of Water Supply		
I) JOSEPH C & DELORES M MARTINI			N40°45'34.76" W80°04'50.10"		
J) DANIEL A BOLENA			N40°45'34.87" W80°04'43.23"		
K) TAYLOR E & SARA A MISPLAY			N40°45'29.10" W80°04'36.89"		
L) WALTER & VIRGINIA KALTENBACH			N40°45'28.02" W80°04'41.41"		
M) WILLIAM E & NELLIE M MILLER			N40°45'27.11" W80°04'40.65"		
N) GEORGE J JR & DEBORAH L FRISHKORN			N40°45'24.22" W80°04'41.76"		
O) VICKI R SMITH			N40°45'25.49" W80°04'43.32"		
P) WALTER D IV & TINA BANACHOSKI			N40°45'24.10" W80°04'43.94"		
Q) THOMAS M & RUBY ROBINSON			N40°45'22.31" W80°04'43.53"		
R) WESLEY R & DEANNA L CYPHER			N40°45'25.04" W80°04'50.84"		
S) SHIRLEY J & DAVID L ZEIGLER			N40°45'27.71" W80°04'49.81"		
T) JENNIFER ZEIGLER			N40°45'29.07" W80°04'50.91"		
U) GARY R & JUDITH A GOEHRING			N40°45'30.19" W80°04'55.54"		
V) ROBERT W & MARY A BROAD			N40°45'30.33" W80°05'00.08"		
W) PAUL J & JACQUELINE N MARTINI			N40°45'31.93" W80°05'03.75"		
X) JOHN J & LAURA P EMMERLING			N40°45'32.54" W80°05'44.22"		
Y) MARY CARMODY-DIANA & FRANK DIANA			N40°45'39.99" W80°05'32.87"		
Z) SIDNEY E & MICHELE D BREAM			N40°45'42.15" W80°05'25.10"		
A2) MICHAEL E & JENNIFER L YELLIN			N40°45'47.98" W80°05'29.50"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
JACKSON TOWNSHIP - BUTLER COUNTY			EVANS CITY BOROUGH - BUTLER COUNTY		
LANCASTER TOWNSHIP - BUTLER COUNTY			HARMONY BOROUGH - BUTLER COUNTY		
CONNOQUENESSING TOWNSHIP - BUTLER COUNTY			ZELIENOPLE BOROUGH - BUTLER COUNTY		
FORWARD TOWNSHIP - BUTLER COUNTY			Coal related parties		
ADAMS TOWNSHIP - BUTLER COUNTY					
CRANBERRY TOWNSHIP - BUTLER COUNTY					
NEW SEWICKLEY TOWNSHIP - BEAVER COUNTY					
MARION TOWNSHIP - BEAVER COUNTY					
FRANKLIN TOWNSHIP - BEAVER COUNTY					

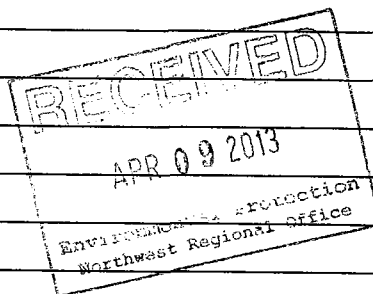


WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 5HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH			Angle & Course of Deviation (Drilling): DEVIATED—SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 10436
Target Formation (s): BURKETT			Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 10436
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'			Latitude / Longitude of Water Supply		
B2) JAMES F & JOANNE T FYDA			N40°45'47.69" W80°05'31.03"		
C2) DAVID H & LAURA LOGAN			N40°45'50.49" W80°05'30.87"		
D2) ERIC D & JOY M PETERS			N40°45'48.41" W80°05'35.51"		
N2) KEITH D & BONNIE J WEBB			N40°45'55.36" W80°05'41.08"		
O2) JENNIFER H & CHARLES R DAVISON III			N40°45'57.78" W80°05'39.81"		
P2) SANDRA J BEAHM			N40°45'59.08" W80°05'38.71"		
Q2) JOSEPH D & ELIZABETH J DIANA			N40°45'59.24" W80°05'36.98"		
R2) THOMAS & EDNA HARDIE			N40°46'00.71" W80°05'32.60"		
S2) CHARLENE D & KENNETH A NAGLE			N40°46'03.11" W80°05'08.70"		
B3) MARK P & MAURA J HENSLER			N40°45'54.21" W80°05'45.87"		
Z3) EDWARD L & AUDREY R SMITH			N40°46'00.97" W80°05'02.18"		
B4) EVANS CITY BOROUGH			N40°46'03.80" W80°05'21.04"		
C4) EVANS CITY BOROUGH			N40°45'53.54" W80°05'23.09"		
D4) WALTER L II & BONNIE M DAVIDSON			N40°45'20.30" W80°05'27.28"		
E4) HENRY E & KATHERINE A NELSON			N40°45'20.18" W80°05'23.31"		
F4) FRANCES P BAILLIE			N40°45'21.99" W80°05'06.18"		
G4) CHARLES M & LINDA M GROSS			N40°45'21.61" W80°04'59.75"		
H4) CHARLES T & LORRAINE F MAXWELL			N40°45'17.87" W80°04'49.01"		
I4) WESLEY R & DEANNA L CYPHER			N40°45'24.84" W80°04'47.39"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
			Coal related parties		



WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

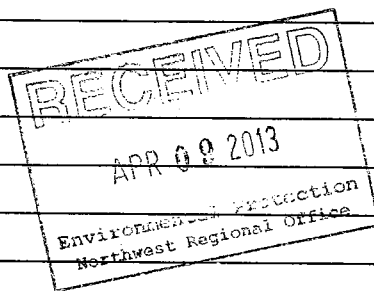
Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 5HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH		Angle & Course of Deviation (Drilling): DEVIATED-SEE ATTACHED		Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 10436
Target Formation (s): BURKETT		Deepest Formation to be Penetrated: BURKETT		Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 10436
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'			Latitude / Longitude of Water Supply		
N4) JOHN L & CLARA L MARBURGER			N40°45'18.05" W80°04'44.62"		
O4) KEVIN R & KATHERINE G LENZ			N40°45'21.90" W80°04'45.21"		
R4) RICHARD D & SALLY P PAINTER			N40°45'26.96" W80°04'56.85"		
S4) RICHARD D & SALLY P PAINTER			N40°45'27.15" W80°04'59.08"		
T4) CHERYL L HAYWOOD			N40°45'14.83" W80°04'56.70"		
U4) MICHAEL K HAPPOLD			N40°45'13.31" W80°05'00.91"		
X4) JENNIFER N EBAUGH			N40°45'25.63" W80°05'00.17"		
Y4) RONALD E JR & PAMELA M MARBURGER			N40°45'29.19" W80°05'05.99"		
Z4) GARY G & HELENA MORGAN			N40°45'27.52" W80°05'08.56"		
A5) RICHARD MORGAN			N40°45'27.46" W80°05'09.72"		
B5) FRANCES P BAILLIE			N40°45'19.31" W80°05'08.64"		
C5) FRANCES P BAILLIE			N40°45'24.06" W80°05'12.13"		
D5) BRIAN & SHERIE BRIDGEMAN			N40°45'13.22" W80°05'15.73"		
E5) JOSEPH G & MARY J LEE			N40°45'17.25" W80°05'15.18"		
F5) SHARON F & JAMES E MORFORD			N40°45'23.47" W80°05'19.04"		
G5) HENRY E & KATHERINE A NELSON			N40°45'16.99" W80°05'27.68"		
H5) HENRY E & KATHERINE A NELSON			N40°45'17.78" W80°05'26.08"		
I5) MARY CARMODY-DIANA & FRANK DIANA			N40°45'30.68" W80°05'24.89"		
J5) LEONARD E & MARY WILLIAMS			N40°45'30.19" W80°05'29.26"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
			Coal related parties		

WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

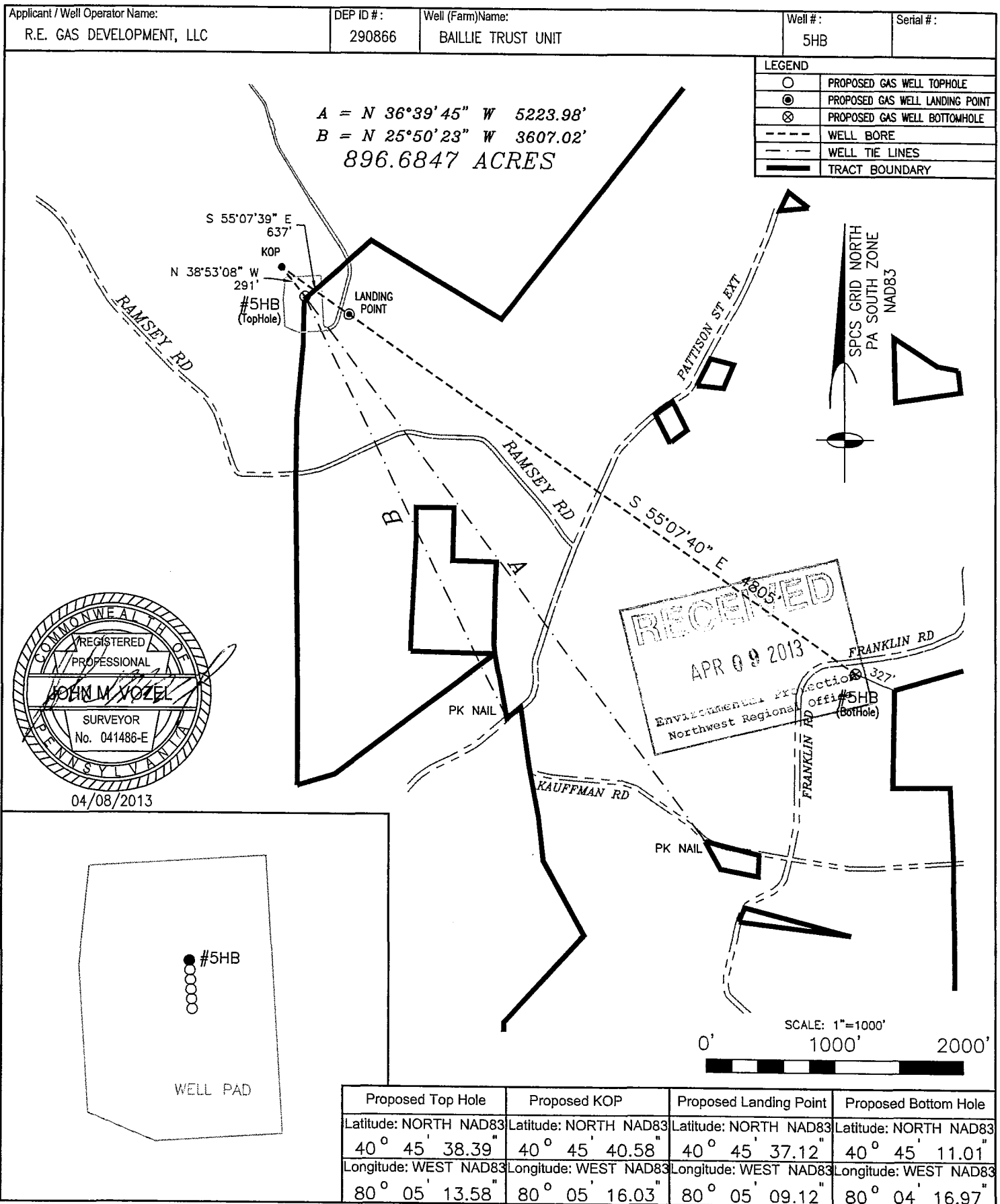
Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 5HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH		Angle & Course of Deviation (Drilling): DEVIATED—SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 10436
Target Formation (s): BURKETT		Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 10436
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude / Longitude of Water Supply		
R5) LAUREL C POLANICK		N40°45'30.14" W80°05'38.30"		
S5) JOSEPH J & SALLY A NARET		N40°45'28.07" W80°05'38.98"		
T5) WALTER L II & BONNIE M DAVIDSON		N40°45'22.01" W80°05'26.93"		
U5) WALTER L II & BONNIE M DAVIDSON		N40°45'22.58" W80°05'26.81"		
V5) WALTER L II & BONNIE M DAVIDSON		N40°45'21.07" W80°05'27.35"		
G6) SAMUEL & LISA FRAGALE		N40°45'22.26" W80°05'46.52"		
H6) JEFFREY J DEEGAN		N40°45'22.77" W80°05'45.02"		
I6) JEFFREY L & HOLLY A STAHL		N40°45'20.46" W80°05'43.63"		
J6) JEFFREY L & HOLLY A STAHL		N40°45'20.54" W80°05'43.04"		
K6) JOHN W & JOETTE A HARRIS		N40°45'21.08" W80°05'39.81"		
L6) ANDREW T & KATHERINE M KUTCHER		N40°45'21.10" W80°05'39.30"		
R6) GERALD A & PATRICIA A YENICK		N40°45'45.76" W80°05'37.99"		
V6) THOMAS M MAXIN JR		N40°45'18.77" W80°05'41.58"		
W6) JOHN H & FRANCES M MCELWAIN		N40°45'19.62" W80°05'39.14"		
X6) KENNETH P & LYDIA T SILVIS		N40°45'19.06" W80°05'40.15"		
Y6) KEVIN F & RUTH E CRADDOCK		N40°46'01.72" W80°05'33.00"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
		Coal related parties		



WELL LOCATION PLAT

PAGE 3 Plan View Of Deviated Well Bore

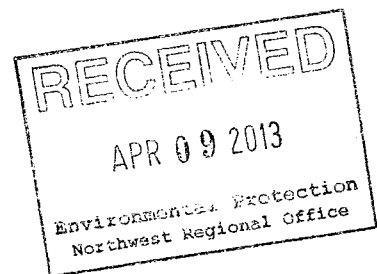
If well has a lateral other than vertical show the bottom hole location on the plat drawing as ⊗ and include the Coordinates in the provided section at the bottom of the drawing area. The top hole and bottom hole locations are to be connected by a bolded line this is to depict the proposed courses of the actual wellbore to be drilled.

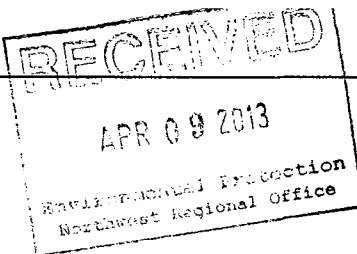


WELL LOCATION PLAT
PAGE 4 Cross Section

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 5HB
--	---------------------	---	----------------

SEE ATTACHMENT



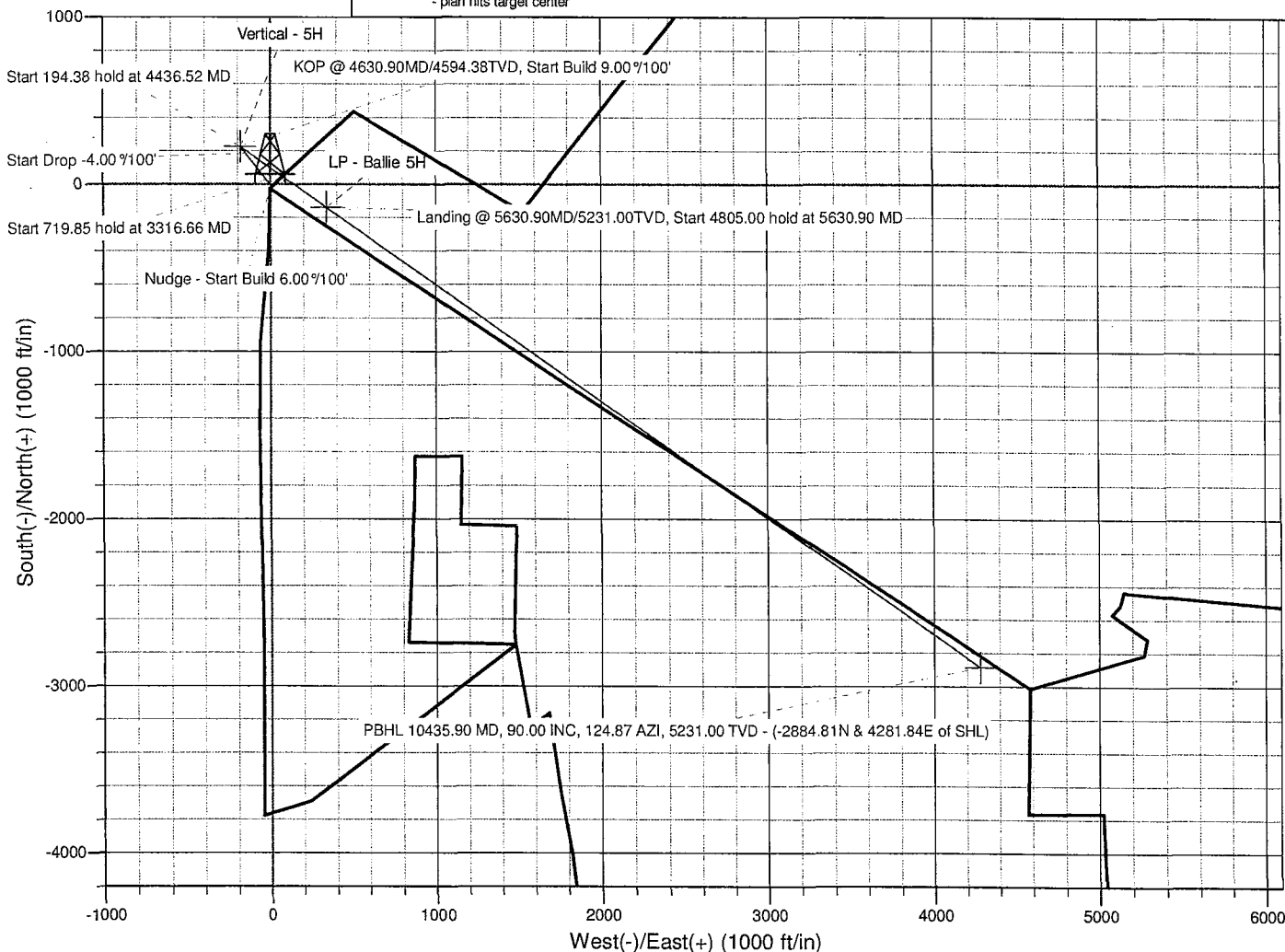


Azimuths to Grid North
 True North: 1.52°
 Magnetic North: -8.09°
 Magnetic Field
 Strength: 53038.0snT
 Dip Angle: 67.89°
 Date: 03/13/2013
 Model: USER DEFINED

Project: Butler County, PA
 Site: Baillie Trust Unit
 Well: Baillie Trust 5H
 Wellbore: Orig Hole
 Design: Plan #1 - 3-13-13

WELL DETAILS: Baillie Trust 5H					
+N/-S	+E/-W	Northing	Ground Level: Easting	1155.00 Latitude	Longitude
0.00	0.00	528534.47	1321149.87	40° 45' 38.390 N	80° 5' 13.580 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Vertical - 5H	4400.00	226.44	-182.62	528760.91	1320967.25	40° 45' 40.579 N	80° 5' 16.030 W
- plan hits target center							Point
LP - Baillie 5H	5231.00	-137.55	339.68	528396.92	1321489.55	40° 45' 37.120 N	80° 5' 9.120 W
- plan hits target center							Point
PBHL - Baillie 5H	5231.00	-2884.81	4281.84	525649.65	1325431.72	40° 45' 11.010 N	80° 4' 16.970 W
- plan hits target center							Point



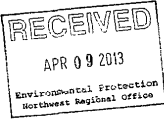
ANNOTATIONS									
TVD	TMD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
3050.00	3050.00	0.00	0.00	0.00	0.00	0.00	0.00	Nudge - Start Build 6.00°/100'	
3313.21	3316.66	16.00	321.11	28.79	-23.22	-35.35	36.99	Start 719.85 hold at 3316.66 MD	
4005.18	4036.52	16.00	321.11	183.24	-147.78	-224.95	235.41	Start Drop -4.00°/100'	
4400.00	4436.52	0.00	0.00	226.44	-182.62	-277.97	290.90	Start 194.38 hold at 4436.52 MD	
4594.38	4630.90	0.00	0.00	226.44	-182.62	-277.97	290.90	KOP @ 4630.90MD/4594.38TVD, Start Build 9.00°/100'	
5231.00	5630.90	90.00	124.87	-137.55	339.68	358.57	927.52	Landing @ 5630.90MD/5231.00TVD, Start 4805.00 hold at 5630.90 MD	
5231.00	5630.90	90.00	124.87	-137.55	339.68	358.57	927.52	PBHL 10435.90 MD, 90.00 INC, 124.87 AZI, 5231.00 TVD - (-2884.81N & 4281.84E of SHL)	

Plan: Plan #1 - 3-13-13 (Baillie Trust 5H Orig Hole)
 Created By: David L. Myers, Jr. Date: 11/17, March 13 2013

DDC, LLC
 646 Hall Road, Buckhannon, WV 26201
 Phone: (304) 473-1825 Fax: (304) 473-1826

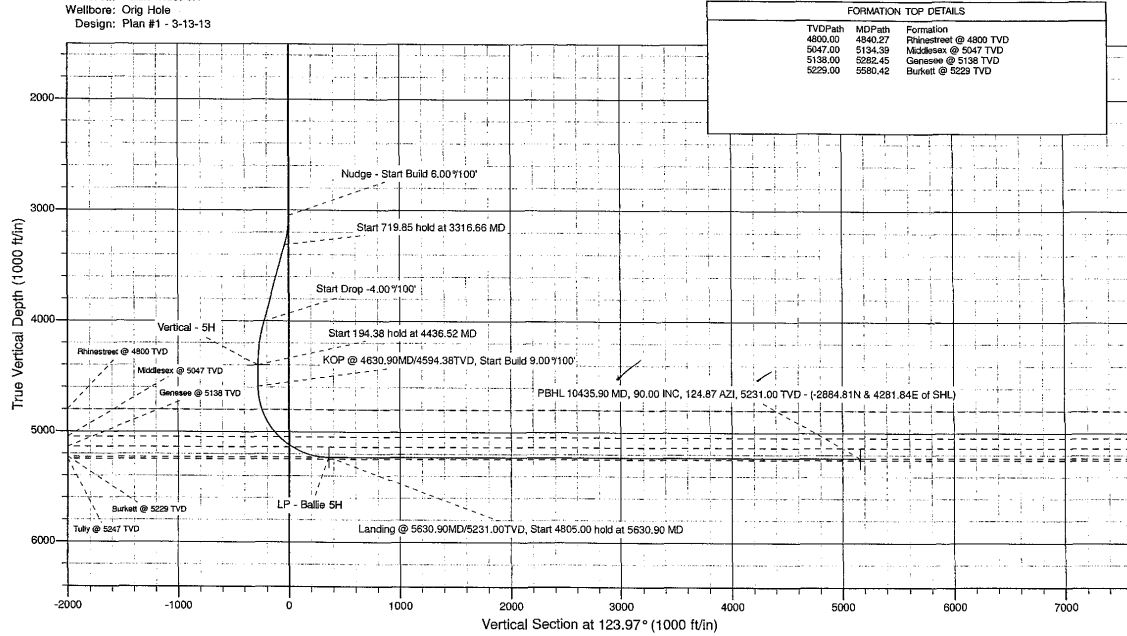
DDC
 Directional Drilling Contractors, LLC.
 An Archer Company

019-22066



DDC
 Drilling Design Consultants, LLC
 An Archer Company

Project: Butler County, PA
 Site: Baillie Trust Unit
 Well: Baillie Trust 5H
 Wellbore: Orig Hole
 Design: Plan #1 - 3-13-13





pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT
WELL LOCATION PLAT

PAGE 1 Surface location

DEP USE ONLY	Auth ID #:	G: <i>4/25/13</i> C:
	Permit #: <i>019-22067</i>	
	Project #:	

Denotes location of well on topo map

True Latitude: NORTH (NAD83)

40° 45' 38.24"

True Longitude: WEST (NAD83)

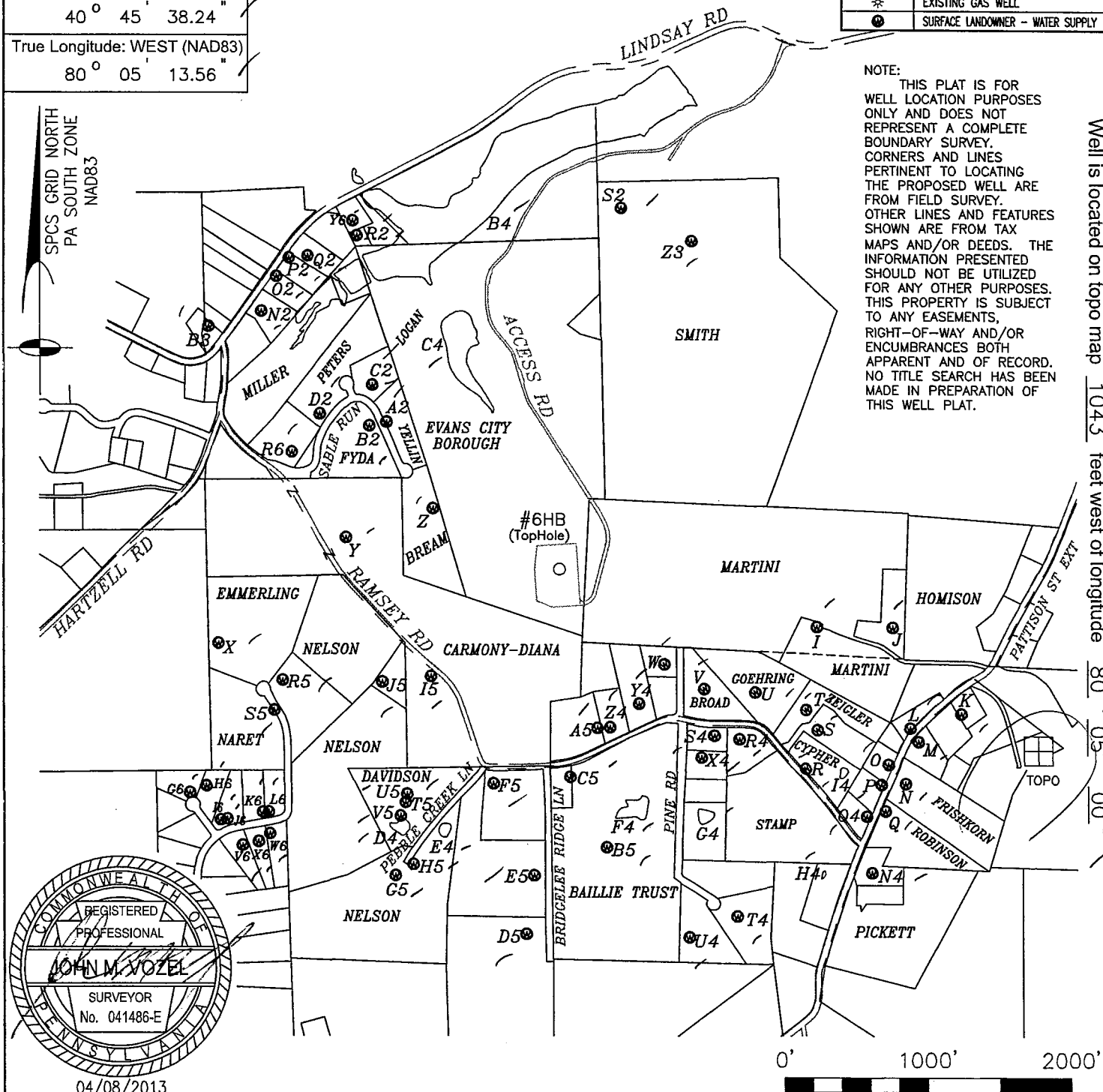
80° 05' 13.56"

Well is located on topo map 11310 feet south of latitude 40° 47' 30"

LEGEND	
	SURFACE BOUNDARY
	PROPOSED GAS WELL TOPHOLE
	EXISTING GAS WELL
	SURFACE LANDOWNER - WATER SUPPLY

NOTE:

THIS PLAT IS FOR WELL LOCATION PURPOSES ONLY AND DOES NOT REPRESENT A COMPLETE BOUNDARY SURVEY. CORNERS AND LINES PERTINENT TO LOCATING THE PROPOSED WELL ARE FROM FIELD SURVEY. OTHER LINES AND FEATURES SHOWN ARE FROM TAX MAPS AND/OR DEEDS. THE INFORMATION PRESENTED SHOULD NOT BE UTILIZED FOR ANY OTHER PURPOSES. THIS PROPERTY IS SUBJECT TO ANY EASEMENTS, RIGHT-OF-WAY AND/OR ENCUMBRANCES BOTH APPARENT AND OF RECORD. NO TITLE SEARCH HAS BEEN MADE IN PREPARATION OF THIS WELL PLAT.

Well is located on topo map 1043 feet west of longitude 80° 05' 00"

04/08/2013

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT		Well #: 6HB	Serial #:
Address: 476 ROLLING RIDGE DRIVE, SUITE 300 STATE COLLEGE, PA 16801			County: BUTLER - 10	Municipality: JACKSON TOWNSHIP	Well Type: GAS	
911 Address of Well Site: 568 LINDSAY ROAD, ZELIENOPLE, PA 16063			USGS 7 1/2' Quadrangle Map Name: EVANS CITY	Map Section: 7	Surface Elevation: 1155	
Surveyor or Engineer: JOHN M. VOZEL TRI-COUNTY ENGINEERING, LLC	Phone #: (724)635-0210	Dwg. #: REXOG41-7-6HB	Date: 04/06/2013	Scale: 1" = 1000'	Tract Acreage: 391.802	
Lat. & Long Metadata Method: Direct GPS	Accuracy: SUB-METER	ft. Datum: NAD 83	Elevation Metadata Method: USGS TOPO	Accuracy: 5'	ft. Datum: NGVD 29	Survey Date:

WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 6HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH	Angle & Course of Deviation (Drilling): DEVIATED—SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 11447	
Target Formation (s): BURKETT	Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 11447	
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude / Longitude of Water Supply		
I) JOSEPH C & DELORES M MARTINI		N40°45'34.76" W80°04'50.10"		
J) DANIEL A BOLENA		N40°45'34.87" W80°04'43.23"		
K) TAYLOR E & SARA A MISPLAY		N40°45'29.10" W80°04'36.89"		
L) WALTER & VIRGINIA KALTENBACH		N40°45'28.02" W80°04'41.41"		
M) WILLIAM E & NELLIE M MILLER		N40°45'27.11" W80°04'40.65"		
N) GEORGE J JR & DEBORAH L FRISHKORN		N40°45'24.22" W80°04'41.76"		
O) VICKI R SMITH		N40°45'25.49" W80°04'43.32"		
P) WALTER D IV & TINA BANACHOSKI		N40°45'24.10" W80°04'43.94"		
Q) THOMAS M & RUBY ROBINSON		N40°45'22.31" W80°04'43.53"		
R) WESLEY R & DEANNA L CYPHER		N40°45'25.04" W80°04'50.84"		
S) SHIRLEY J & DAVID L ZEIGLER		N40°45'27.71" W80°04'49.81"		
T) JENNIFER ZEIGLER		N40°45'29.07" W80°04'50.91"		
U) GARY R & JUDITH A GOEHRING		N40°45'30.19" W80°04'55.54"		
V) ROBERT W & MARY A BROAD		N40°45'30.33" W80°05'00.08"		
W) PAUL J & JACQUELINE N MARTINI		N40°45'31.93" W80°05'03.75"		
X) JOHN J & LAURA P EMMERLING		N40°45'32.54" W80°05'44.22"		
Y) MARY CARMODY—DIANA & FRANK DIANA		N40°45'39.99" W80°05'32.87"		
Z) SIDNEY E & MICHELE D BREAM		N40°45'42.15" W80°05'25.10"		
A2) MICHAEL E & JENNIFER L YELLIN		N40°45'47.98" W80°05'29.50"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
JACKSON TOWNSHIP — BUTLER COUNTY		EVANS CITY BOROUGH — BUTLER COUNTY		
LANCASTER TOWNSHIP — BUTLER COUNTY		HARMONY BOROUGH — BUTLER COUNTY		
CONNOQUENESSING TOWNSHIP — BUTLER COUNTY		ZELIENOPLE BOROUGH — BUTLER COUNTY		
FORWARD TOWNSHIP — BUTLER COUNTY		Coal related parties		
ADAMS TOWNSHIP — BUTLER COUNTY				
CRANBERRY TOWNSHIP — BUTLER COUNTY				
NEW SEWICKLEY TOWNSHIP — BEAVER COUNTY				
MARION TOWNSHIP — BEAVER COUNTY				
FRANKLIN TOWNSHIP — BEAVER COUNTY				

WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm)Name: BAILLIE TRUST UNIT	Well #: 6HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH		Angle & Course of Deviation (Drilling): DEVIATED-SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 11447	
Target Formation (s): BURKETT		Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 11447	
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'			Latitude / Longitude of Water Supply		
B2) JAMES F & JOANNE T FYDA			N40°45'47.69" W80°05'31.03"		
C2) DAVID H & LAURA LOGAN			N40°45'50.49" W80°05'30.87"		
D2) ERIC D & JOY M PETERS			N40°45'48.41" W80°05'35.51"		
N2) KEITH D & BONNIE J WEBB			N40°45'55.36" W80°05'41.08"		
O2) JENNIFER H & CHARLES R DAVISON III			N40°45'57.78" W80°05'39.81"		
P2) SANDRA J BEAHM			N40°45'59.08" W80°05'38.71"		
Q2) JOSEPH D & ELIZABETH J DIANA			N40°45'59.24" W80°05'36.98"		
R2) THOMAS & EDNA HARDIE			N40°46'00.71" W80°05'32.60"		
S2) CHARLENE D & KENNETH A NAGLE			N40°46'03.11" W80°05'08.70"		
B3) MARK P & MAURA J HENSLER			N40°45'54.21" W80°05'45.87"		
Z3) EDWARD L & AUDREY R SMITH			N40°46'00.97" W80°05'02.18"		
B4) EVANS CITY BOROUGH			N40°46'03.80" W80°05'21.04"		
C4) EVANS CITY BOROUGH			N40°45'53.54" W80°05'23.09"		
D4) WALTER L II & BONNIE M DAVIDSON			N40°45'20.30" W80°05'27.28"		
E4) HENRY E & KATHERINE A NELSON			N40°45'20.18" W80°05'23.31"		
F4) FRANCES P BAILLIE			N40°45'21.99" W80°05'06.18"		
G4) CHARLES M & LINDA M GROSS			N40°45'21.61" W80°04'59.75"		
H4) CHARLES T & LORRAINE F MAXWELL			N40°45'17.87" W80°04'49.01"		
I4) WESLEY R & DEANNA L CYPHER			N40°45'24.84" W80°04'47.39"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
			Coal related parties		

WELL LOCATION PLAT

PAGE 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC		DEP ID #: 290866	Well (Farm)Name: BAILLIE TRUST UNIT		Well #: 6HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH			Angle & Course of Deviation (Drilling): DEVIATED—SEE ATTACHED	Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 11447	
Target Formation (s): BURKETT			Deepest Formation to be Penetrated: BURKETT	Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 11447	
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'			Latitude / Longitude of Water Supply			
N4) JOHN L & CLARA L MARBURGER			N40°45'18.05" W80°04'44.62"			
O4) KEVIN R & KATHERINE G LENZ			N40°45'21.90" W80°04'45.21"			
R4) RICHARD D & SALLY P PAINTER			N40°45'26.96" W80°04'56.85"			
S4) RICHARD D & SALLY P PAINTER			N40°45'27.15" W80°04'59.08"			
T4) CHERYL L HAYWOOD			N40°45'14.83" W80°04'56.70"			
U4) MICHAEL K HAPPOLD			N40°45'13.31" W80°05'00.91"			
X4) JENNIFER N EBAUGH			N40°45'25.63" W80°05'00.17"			
Y4) RONALD E JR & PAMELA M MARBURGER			N40°45'29.19" W80°05'05.99"			
Z4) GARY G & HELENA MORGAN			N40°45'27.52" W80°05'08.56"			
A5) RICHARD MORGAN			N40°45'27.46" W80°05'09.72"			
B5) FRANCES P BAILLIE			N40°45'19.31" W80°05'08.64"			
C5) FRANCES P BAILLIE			N40°45'24.06" W80°05'12.13"			
D5) BRIAN & SHERIE BRIDGEMAN			N40°45'13.22" W80°05'15.73"			
E5) JOSEPH G & MARY J LEE			N40°45'17.25" W80°05'15.18"			
F5) SHARON F & JAMES E MORFORD			N40°45'23.47" W80°05'19.04"			
G5) HENRY E & KATHERINE A NELSON			N40°45'16.99" W80°05'27.68"			
H5) HENRY E & KATHERINE A NELSON			N40°45'17.78" W80°05'26.08"			
I5) MARY CARMODY—DIANA & FRANK DIANA			N40°45'30.68" W80°05'24.89"			
J5) LEONARD E & MARY WILLIAMS			N40°45'30.19" W80°05'29.26"			
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet			
			Coal related parties			

WELL LOCATION PLAT

PAGE 2 Notifications

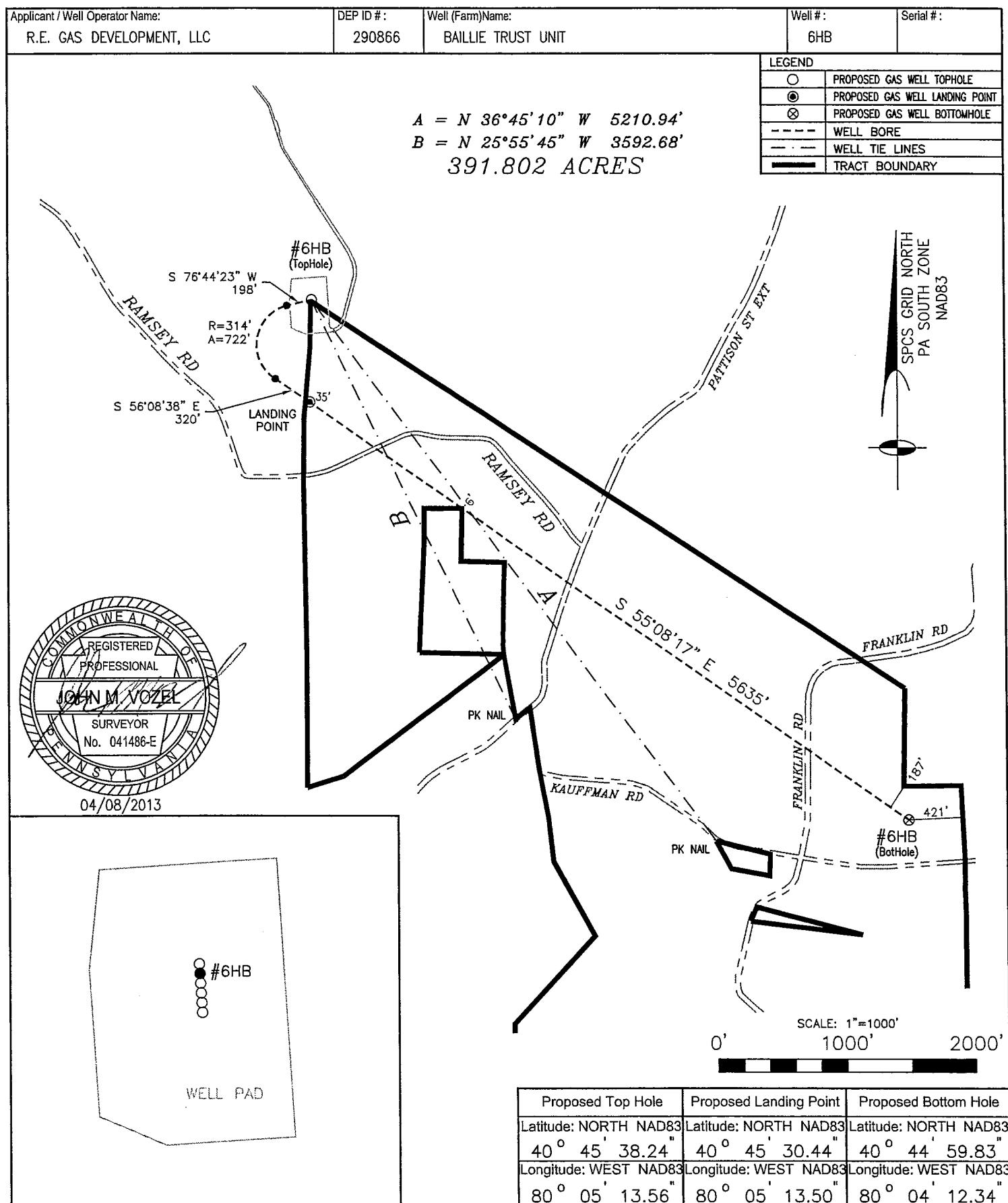
DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil & gas resources is **1-866-255-5158**.

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID #: 290866	Well (Farm) Name: BAILLIE TRUST UNIT	Well #: 6HB	Serial #:
Surface Landowner / Lessor: EVANS CITY BOROUGH	Angle & Course of Deviation (Drilling): DEVIATED-SEE ATTACHED		Anticipated True Vertical Depth Feet (TVD): 5231	Anticipated Total Measured Depth Feet (TMD): 11447
Target Formation (s): BURKETT	Deepest Formation to be Penetrated: BURKETT		Number of laterals: 1	Total Wellbore Footage to be drilled all laterals: 11447
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude / Longitude of Water Supply		
R5) LAUREL C POLANICK		N40°45'30.14" W80°05'38.30"		
S5) JOSEPH J & SALLY A NARET		N40°45'28.07" W80°05'38.98"		
T5) WALTER L II & BONNIE M DAVIDSON		N40°45'22.01" W80°05'26.93"		
U5) WALTER L II & BONNIE M DAVIDSON		N40°45'22.58" W80°05'26.81"		
V5) WALTER L II & BONNIE M DAVIDSON		N40°45'21.07" W80°05'27.35"		
G6) SAMUEL & LISA FRAGALE		N40°45'22.26" W80°05'46.52"		
H6) JEFFREY J DEEGAN		N40°45'22.77" W80°05'45.02"		
I6) JEFFREY L & HOLLY A STAHL		N40°45'20.46" W80°05'43.63"		
J6) JEFFREY L & HOLLY A STAHL		N40°45'20.54" W80°05'43.04"		
K6) JOHN W & JOETTE A HARRIS		N40°45'21.08" W80°05'39.81"		
L6) ANDREW T & KATHERINE M KUTCHER		N40°45'21.10" W80°05'39.30"		
R6) GERALD A & PATRICIA A YENICK		N40°45'45.76" W80°05'37.99"		
V6) THOMAS M MAXIN JR		N40°45'18.77" W80°05'41.58"		
W6) JOHN H & FRANCES M MCELWAIN		N40°45'19.62" W80°05'39.14"		
X6) KENNETH P & LYDIA T SILVIS		N40°45'19.06" W80°05'40.15"		
Y6) KEVIN F & RUTH E CRADDOCK		N40°46'01.72" W80°05'33.00"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
		Coal related parties		

WELL LOCATION PLAT

PAGE 3 Plan View Of Deviated Well Bore

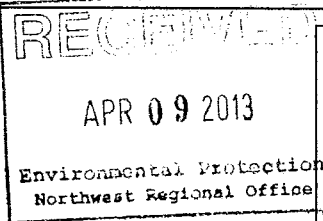
If well has a lateral other than vertical show the bottom hole location on the plat drawing as $\otimes$ and include the Coordinates in the provided section at the bottom of the drawing area. The top hole and bottom hole locations are to be connected by a bolded line this is to depict the proposed courses of the actual wellbore to be drilled.



WELL LOCATION PLAT
PAGE 4 Cross Section

Applicant / Well Operator Name: R.E. GAS DEVELOPMENT, LLC	DEP ID # : 290866	Well (Farm)Name: BAILLIE TRUST UNIT	Well # : 6HB
--	----------------------	--	-----------------

SEE ATTACHMENT



Azimuths to Grid North
 True North: 1.52°
 Magnetic North: -8.09°
 Magnetic Field
 Strength: 53038.0snT
 Dip Angle: 67.89°
 Date: 03/13/2013
 Model: USER DEFINED

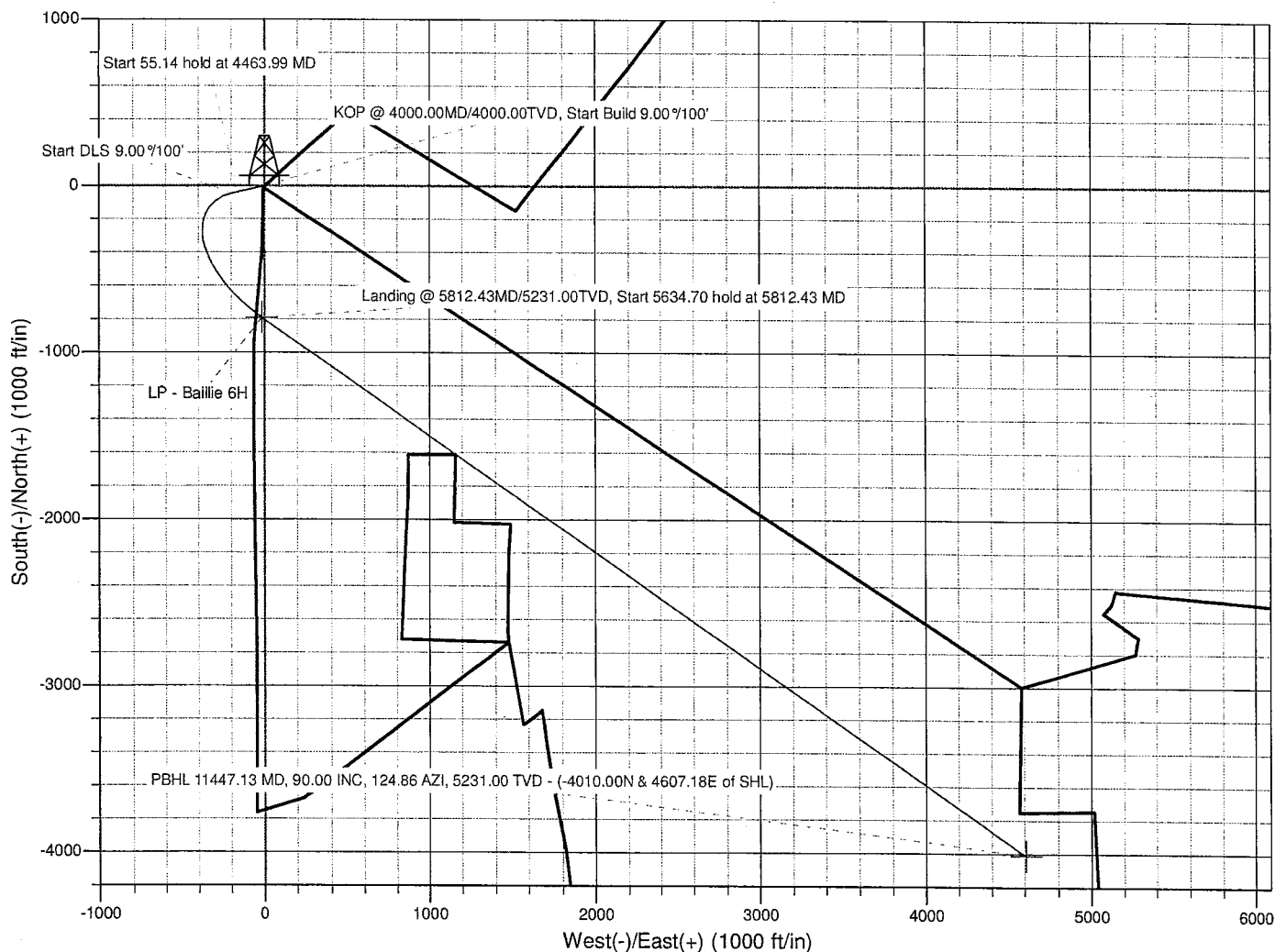
Project: Butler County, PA
 Site: Baillie Trust Unit
 Well: Baillie Trust 6H
 Wellbore: Orig Hole
 Design: Plan #1 - 3-13-13

WELL DETAILS: Baillie Trust 6H

+N/-S	+E/-W	Northing	Ground Level: Easting	1155.00 Latitude	Longitude
0.00	0.00	528519.26	1321151.00	40° 45' 38.240 N	80° 5' 13.560 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP - Baillie 6H	5231.00	-789.21	-16.27	527730.04	1321134.73	40° 45' 30.440 N	80° 5' 13.500 W	Point
- plan hits target center								
PBHL-Baillie 6H	5231.00	-4010.00	4607.18	524509.25	1325758.20	40° 44' 59.830 N	80° 4' 12.340 W	Point
- plan hits target center								



ANNOTATIONS

TVD	TMD	Inc	Azi	+N/-S	+E/-W	V/Sect	Departure	Annotation
4000.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 4000.00MD/4000.00TVD, Start Build 9.00°/100'
4423.99	4463.99	41.76	256.74	-37.09	-157.42	-94.39	161.73	Start 55.14 hold at 4463.99 MD
4465.12	4519.13	41.76	256.74	-45.52	-193.16	-115.82	198.45	Start DLS 9.00°/100'
5231.00	5812.43	90.00	124.86	-789.21	-16.27	505.86	1344.28	Landing @ 5812.43MD/5231.00TVD, Start 5634.70 hold at 5812.43 MD
5231.00	11447.13	90.00	124.86	-4010.00	4607.18	6107.88	6978.98	PBHL 11447.13 MD, 90.00 INC, 124.86 AZI, 5231.00 TVD - (-4010.00N & 4607.18E of SHL)

019-22067



REX ENERGY



DDC
Downstream Drilling Contractors, LLC
An Arctic Energy Company

Project: Butler County, PA
Site: Bailie Trust Unit
Well: Bailie Trust 6H
Wellbore: Orig Hole
Design: Plan #1 - 3-13-13

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4800.00	4932.22	Rhinestreet @ 4800 TVD
5047.00	5255.36	Madison @ 5047 TVD
5138.00	5429.61	Genesee @ 5138 TVD
5229.00	5757.12	Burkett @ 5229 TVD

