

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-069-00155 County Ohio District Richland
Quad Wheeling Pad Name Timmy Minch OHI Field/Pool Name _____
Farm name Timmy Minch OHI 3H Well Number 836500
Operator (as registered with the OOG) Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496 City Oklahoma City State OK Zip 73154-0496

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4437304.2 Easting 530150.7
Landing Point of Curve Northing 4437488.9 Easting 530060.9
Bottom Hole Northing 4440141.4 Easting 528704.7

Elevation (ft) 1208 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

Date permit issued 2/8/2014 Date drilling commenced 3/15/2014 Date drilling ceased 4/8/2014
Date completion activities began 7/20/2014 Date completion activities ceased 8/3/2014
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 390' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1250' Void(s) encountered (Y/N) depths Y 450'
Coal depth(s) ft 518' Cavern(s) encountered (Y/N) depths N

APPROVED
NAME: Eric Blend
DATE: 9-23-16

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JUN 21 2016
Reviewed by: EL
10/28/2016
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API 47-069 - 00155 Farm name Timmy Minch OHI 3H Well number 836500

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	122'	New	K-55		Y
Surface	17 1/2"	13 3/8"	561'	New	J-55 54.50#		Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2005'	New	J-55 40#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4" / 8 1/2"	5 1/2"	16206'	New	P-110 20#		Y
Tubing		2 3/8"	6330'	New			
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Premium	175	15.60	1.18	206.5	Surface	8
Surface	A	384	15.60	1.18	453.12	Surface	8
Coal							
Intermediate 1	A	726	15.60	1.19	863.94	Surface	8
Intermediate 2							
Intermediate 3							
Production	A	3280	15.30 / 15.60	1.31 / 1.19	4006.4	862'	8
Tubing							

Drillers TD (ft) 16207 Loggers TD (ft) 16207
 Deepest formation penetrated Marcellus Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
Surface / Coal - Run centralizers in the middle and top of the first joint, top of the third joint and every 4th joint to surface.
 Production - Run 1st centralizer 3' from Shoe, 2nd at top of the first joint and then one every 3rd joint to TOC.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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PRODUCING FORMATION(S)	DEPTHS			
Marcellus	6344'	TVD	16045'	MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1460 psi Bottom Hole 3949 psi DURATION OF TEST 72 hrs

OPEN FLOW Gas 1794 mcfpd Oil 265 bpd NGL 0 bpd Water 371 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
Big Injun		1819		1819	
Geneseo	5912	5934	5976	6010	
Tully	5934	5978	6010	6085	
Hamilton	5978	6061	6085	6260	
Marcellus	6061	6075	6260	6306	
Purcell	6075		6306		

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Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Logging Company Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Cementing Company Schlumberger
Address 1080 U.S. 33 City Weston State WV Zip 26452

Stimulating Company Schlumberger
Address 1080 U.S. 33 City Weston State WV Zip 26452

Please insert additional pages as applicable.

Completed by Jessica Greathouse Telephone 304-353-5240
Signature [Signature] Title Manager - Regulatory Operations Date 6/14/2016

PERFORATION RECORD ATTACHMENT

Well Name and Number: Timmy Minch OHI 3H

API No. 47-069-00155

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Stage	PERFORATION RECORD				STIMULATION RECORD						Average Injection Rate	
	Date	Interval Perforated		Total Number Of Shots	Interval Treated		Fluid		Propping Agent			
		From	To		Date	Interval Treated	Type	Amount	Type	Amount		
1	7/20/2014	15,844	16045	30	7/20/2014	15,844	16045	SLK Wtr	8745	Sand	400780	79
2	7/20/2014	15,594	15795	30	7/20/2014	15,594	15795	SLK Wtr	8091	Sand	401190	80.1
3	7/21/2014	15,344	15545	30	7/21/2014	15,344	15545	SLK Wtr	7765	Sand	396390	76.4
4	7/21/2014	15,094	15295	30	7/21/2014	15,094	15295	SLK Wtr	8157	Sand	401180	78.6
5	7/22/2014	14,844	15045	30	7/22/2014	14,844	15045	SLK Wtr	8030	Sand	400560	80
6	7/22/2014	14,594	14795	30	7/22/2014	14,594	14795	SLK Wtr	7871	Sand	401280	79.4
7	7/22/2014	14,344	14545	30	7/22/2014	14,344	14545	SLK Wtr	7773	Sand	400120	79.8
8	7/23/2014	14,094	14295	30	7/23/2014	14,094	14295	SLK Wtr	8023	Sand	401000	76.9
9	7/23/2014	13,844	14045	30	7/23/2014	13,844	14045	SLK Wtr	7773	Sand	401220	75.3
10	7/23/2014	13,594	13795	30	7/23/2014	13,594	13795	SLK Wtr	7667	Sand	403760	77.4
11	7/24/2014	13,344	13945	30	7/24/2014	13,344	13945	SLK Wtr	7833	Sand	403940	80
12	7/24/2014	13,094	13295	30	7/24/2014	13,094	13295	SLK Wtr	8120	Sand	403700	80.4
13	7/24/2014	12,844	13045	30	7/24/2014	12,844	13045	SLK Wtr	7683	Sand	401740	77.8
14	7/24/2014	12,594	12795	30	7/24/2014	12,594	12795	SLK Wtr	7691	Sand	400540	77.5
15	7/25/2014	12,344	12545	30	7/25/2014	12,344	12545	SLK Wtr	7782	Sand	399160	80.5
16	7/25/2014	12,094	12295	30	7/25/2014	12,094	12295	SLK Wtr	7738	Sand	397280	80.4
17	7/25/2014	11,844	12045	30	7/25/2014	11,844	12045	SLK Wtr	7601	Sand	400200	77
18	7/25/2014	11,594	11795	30	7/25/2014	11,594	11795	SLK Wtr	7129	Sand	373018	77.1
19	7/29/2014	11,344	11545	30	7/29/2014	11,344	11545	SLK Wtr	7875	Sand	400440	80.1
20	7/30/2014	11,094	11295	30	7/30/2014	11,094	11295	SLK Wtr	7646	Sand	400960	76.4
21	7/30/2014	10,844	11045	30	7/30/2014	10,844	11045	SLK Wtr	7852	Sand	401160	80.4
22	7/30/2014	10,594	10795	30	7/30/2014	10,594	10795	SLK Wtr	7633	Sand	400620	76.4
23	7/30/2014	10,344	10545	30	7/30/2014	10,344	10545	SLK Wtr	7613	Sand	399500	76.4
24	7/31/2014	10,094	10295	30	7/31/2014	10,094	10295	SLK Wtr	7578	Sand	400460	80.1
25	7/31/2014	9,844	10045	30	7/31/2014	9,844	10045	SLK Wtr	7493	Sand	399080	80
26	7/31/2014	9,594	9795	30	7/31/2014	9,594	9795	SLK Wtr	7472	Sand	398820	77.5
27	7/31/2014	9,344	9545	30	7/31/2014	9,344	9545	SLK Wtr	7531	Sand	403440	77.7
28	7/31/2014	9,094	9295	30	7/31/2014	9,094	9295	SLK Wtr	7440	Sand	401380	80
29	8/1/2014	8,844	9045	30	8/1/2014	8,844	9045	SLK Wtr	7329	Sand	401420	80

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30	8/1/2014	8594	8795	30	8/1/2014	8594	8795	SLK Wtr	7374	Sand	400400	80
31	8/1/2014	8344	8545	30	8/1/2014	8344	8545	SLK Wtr	7340	Sand	399840	77.9
32	8/1/2014	8094	8295	30	8/1/2014	8094	8295	SLK Wtr	7569	Sand	400660	78
33	8/2/2014	7844	8045	30	8/2/2014	7844	8045	SLK Wtr	7469	Sand	400340	80
34	8/2/2014	7594	7795	30	8/2/2014	7594	7795	SLK Wtr	4309	Sand	25760	49
35	8/2/2014	7344	7545	30	8/2/2014	7344	7545	SLK Wtr	7708	Sand	400480	75
36	8/2/2014	7094	7295	30	8/2/2014	7094	7295	SLK Wtr	7331	Sand	402020	78.1
37	8/2/2014	6844	7045	30	8/2/2014	6844	7045	SLK Wtr	7289	Sand	400460	80.2
38	8/3/2014	6594	6795	30	8/3/2014	6594	6795	SLK Wtr	7426	Sand	397360	80.6
39	8/3/2014	6344	6545	30	8/3/2014	6344	6545	SLK Wtr	7878	Sand	394820	78.5

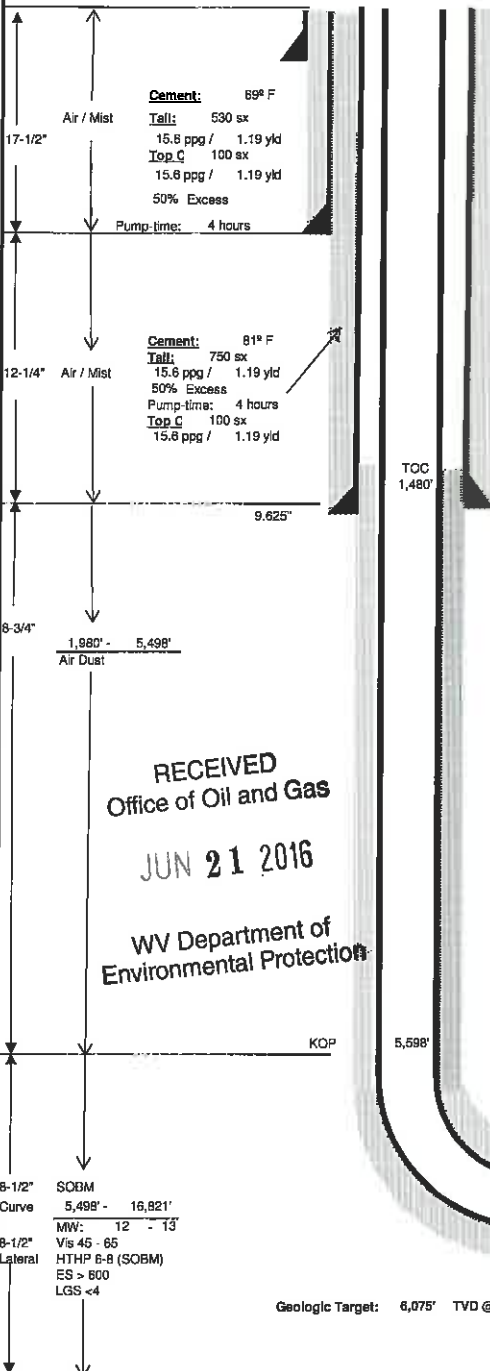
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		Well Name: Timmy Minch OHI 3H	Drilling Rig: N/A
			Directional Drilling: N/A
Drilling Engineer: TBD	Formation: Marcellus		Drilling Mud: N/A
Superintendent: N/A	County, State: Ohio, WV		Cement Surface: N/A
Asset Manager: N/A	Surface Latitude: 40.085409	Surface Longitude: -80.646543	Cement Longstrings: N/A
Geologist: N/A	BH Latitude: 40.110985	BH Longitude: -80.66344	Wellhead: N/A
Land: N/A	KB Elevation: 1228'	Ground Elevation: 1208'	AFE #: N/A



Wellhead Equipment	
Tree Description	
Tubing Head **	Blanking Cap
'B' Section	11" x 5M x 7-1/16" 10M
'A' Section	8-5/8" SOW x 11" 5M

Casing Detail						
	Size	WT	Grd	Conn.	From:	To:
Surface	13.375	54.5 #	J-55	STC	0'	566'
Interm	9.625	40 #	J-55	LTC	0'	1,980'
Prod	5.5	20 #	P-110	GBCD	0'	16,821'

Casing Design						
	Size	ID	Coll	Burst	Tens	MU torq
Surface	13.375	12.615	1130	2740	514	5140
Interm	9.625	8.835	2570	3950	520	5200
Prod	5.5	4.778	12200	12360	641	6630

BIG INJUN
1,828' KBTVD
BASE BIG INJUN
1,828' KBTVD

Directional Drilling Details								
Section	TMD	Inc.	Azimuth	TVD	BUR	DLS	+N-S	+E-W
Surface	0.00'	0.00'	0.00'	0.00'	0.00'	0.00'	0.0'	0.0'
Surface	100'	0.00'	0.00'	100'	0.00'	0.00'	0.0'	0.0'
Surface	200'	0.00'	0.00'	200'	0.00'	0.00'	0.0'	0.0'
Surface	300'	0.00'	0.00'	300'	0.00'	0.00'	0.0'	0.0'
Surface	525'	0.00'	0.00'	525'	0.00'	0.00'	0.0'	0.0'
Hold	700'	0.00'	0.00'	700'	0.00'	0.00'	0.0'	0.0'
Hold	2,500'	0.00'	0.00'	2,500'	0.00'	0.00'	0.0'	0.0'
KOP	5,598'	0.00'	0.00'	5,598'	0.00'	0.00'	0.0'	0.0'
Landing Pt	6,348'	90.00'	333.84'	6,075'	12.00'	12.00'	428.6'	-210.5'
TD	16,821'	90.00'	333.84'	6,075'	0.00'	0.00'	9,826.9'	-4,827.9'
VS Plane	333.84'						VS Length	10,950.64'
							Lateral Length	10,473.18'

Plot Date: 8/17/13

Logging Program		
Run	Log Type	Interval
1	TBD	TBD
2	TBD	TBD

Mudlogger operational at Surface

Formation Depths (TVD)	
BASE BIG INJUN	1,828'
GENESECO	5,891'
TULLY	5,911'
HAMILTON	5,959'
MARCELLUS	6,045'
ONONDAGA	6,105'

Cement: 117° F
Lead: 970 sx
15.6 ppg / 1.20 yld
Tall: 2,510 sx
15.6 ppg / 1.20 yld
15% Excess
Pump-time: 6 hours

Geologic Target: 6,075' TVD @ 0° VS w/ 0.00 degrees/100 ft Up-dip

PBHL: 5.5"
TMD: 16,821'
TVD: 5,075'
Inclination: 90.00 deg

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**Gyro the 1st well on the pad at KOP.
Ensure all Surveys are referenced to Grid North!!**

Drawn by: TBD
Date: 8/21/2013

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	7/20/2014
State:	WEST VIRGINIA
County:	OHIO
API Number:	4706900155
Operator Name:	CHESAPEAKE APPALACHIA LLC TIMMY MINCH OHI
Well Name and Number:	3H
Longitude:	-80 646543
Latitude:	40 085409
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	6,094
Total Water Volume (gal):*	12,921,552

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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by Mass)**	Maximum Ingredient Concentration in HF Fluid (% by Mass)**	Comments
Fresh Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	86.21286%	
Recycled Produced Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	0.54974%	
EC6111A	NALCO	Anti-Bacterial Agent	Glutaraldehyde (Pentanediol)	000111-30-8	30.00%	0.00797%	
EC6486A	NALCO	Scale Inhibitor	Ethylene Glycol Proprietary Amine Triphosphate	000107-21-1 TRADE SECRET	30.00% 30.00%	0.00159% 0.00159%	
A264, J218, J580, J609, L058, Acid, Hydrochloric 15pct, Northern White Sand, 100 Mesh Sand	SCHLUMBERGER	Breaker, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Iron Control Agent	Crystalline silica	14808-60-7	98.15238%	12.94272%	
			Hydrogen chloride	7647-01-0	1.19402%	0.15745%	
			Guar gum	9000-30-0	0.44958%	0.05928%	
			Ammonium sulfate	7783-20-2	0.08137%	0.01073%	
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.06006%	0.00792%	
			Diammonium peroxodisulphate	7727-54-0	0.03025%	0.00399%	

10/28/2016

EC Number	Ingredient Name	MSDS Number	Concentration (%)
136793-29-8	Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate		0.00085%
6381-77-7	Sodium erythorbate		0.00455%
57-13-6	Urea		0.00395%
67-56-1	Methanol		0.00379%
61790-12-3	Fatty acids, tall-oil		0.00278%
68527-49-1	Thiourea, polymer with formaldehyde and 1-phenylethanone		0.00229%
7631-86-9	Non-crystalline silica		0.00205%
1332-77-0	Potassium borate		0.00164%
68951-67-7	Alcohols, C14-15, ethoxylated (7EO)		0.00107%
7757-82-6	Sodium sulfate		0.00092%
107-19-7	Prop-2-yn-1-ol		0.00071%
1310-58-3	Potassium hydroxide		0.00061%
56-81-5	Glycerol		0.00054%
64743-02-8	Alkenes, C>10 a-		0.00047%
79-06-1	2-propanamid		0.00020%
64-02-8	Tetrasodium		0.00010%
63148-62-9	Dimethyl siloxanes and silicones		0.00006%
25038-72-6	Vinylidene chloride/methylacrylate copolymer		0.00003%
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica		0.00001%
556-67-2	Octamethylcyclotetrasiloxane		0.00001%
541-02-6	Decamethyl cyclopentasiloxane		< 0.00001%
7758-98-7	Copper(II) sulfate		< 0.00001%
540-97-6	Dodecamethylcyclohexasiloxane		< 0.00001%
14807-96-6	Magnesium silicate hydrate (taic)		< 0.00001%
9002-84-0	poly(tetrafluoroethylene)		< 0.00001%

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Additional Ingredients Not Listed on MSDS

EC Number	Ingredient Name	MSDS Number	Concentration (%)
EC6111A, EC6486A	Anti-Bacterial Agent, Scale Inhibitor	NALCO	
	Diethylene Glycol	000111-46-6	0.00006%
	Proprietary Organic Acid Derivatives	TRADE SECRET	0.00181%
	Water	007732-18-5	0.03087%

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

"Additional Ingredients Not Listed on MSDS" component information was obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

TOP HOLE (UPM NAD 83)
N) 4437304.0
E) 530150.4

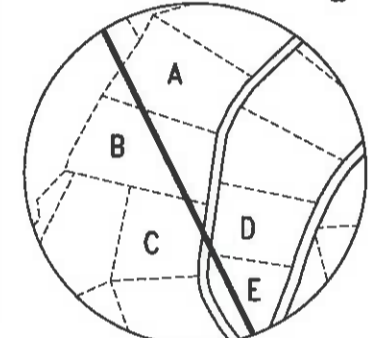
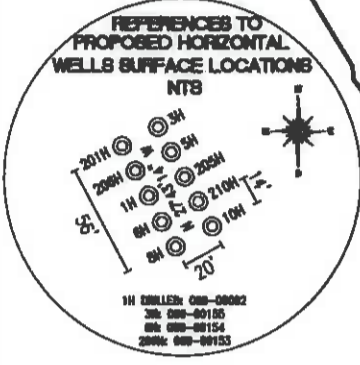
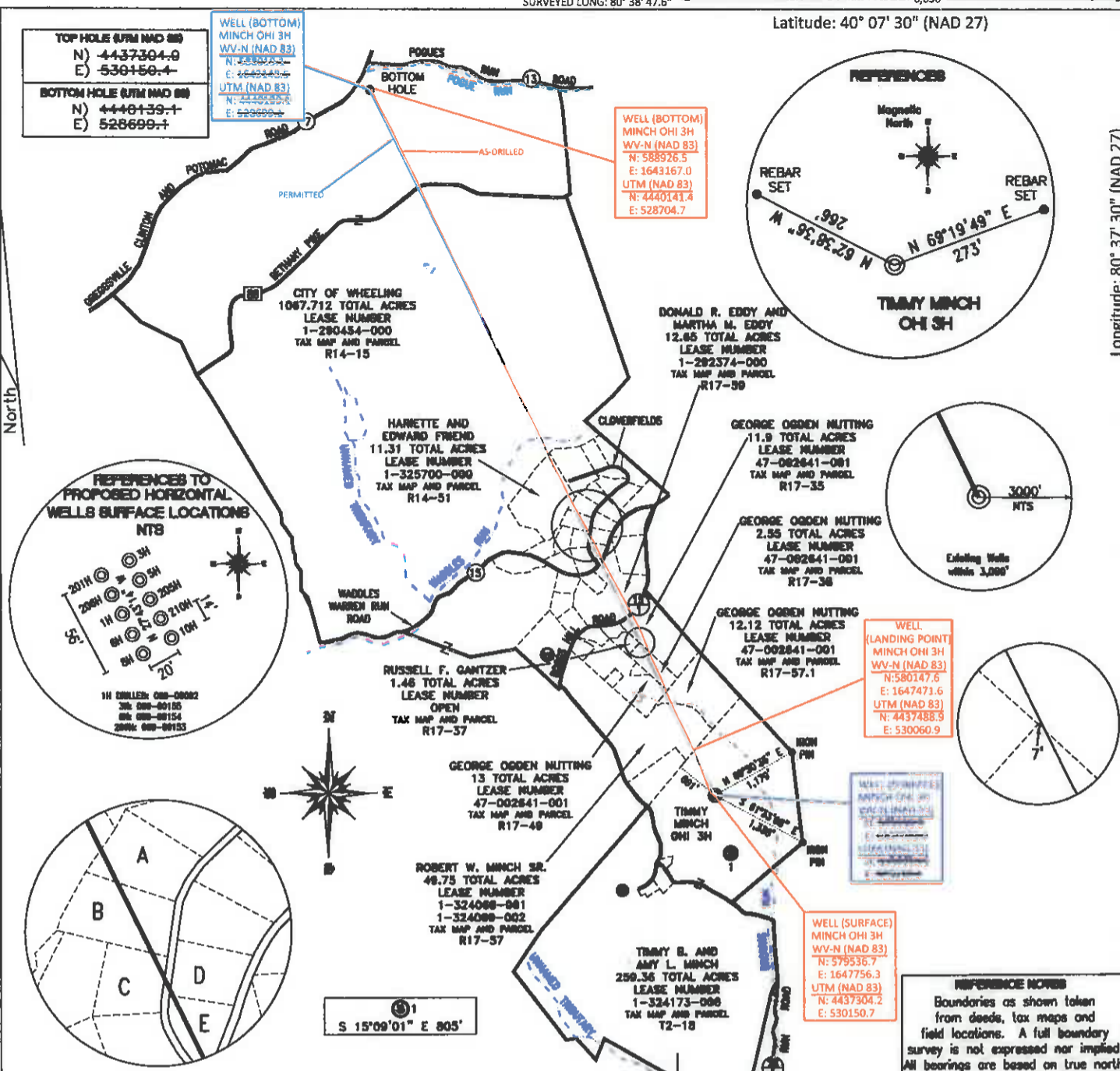
BOTTOM HOLE (UPM NAD 83)
N) 4440139.1
E) 528699.4

WELL (BOTTOM) MINCH OHI 3H
WV-N (NAD 83)
N: 588926.5
E: 1643167.0
UTM (NAD 83)
N: 4440141.4
E: 528704.7

WELL (BOTTOM) MINCH OHI 3H
WV-N (NAD 83)
N: 588926.5
E: 1643167.0
UTM (NAD 83)
N: 4440141.4
E: 528704.7

WELL (LANDING POINT) MINCH OHI 3H
WV-N (NAD 83)
N: 580147.6
E: 1647473.6
UTM (NAD 83)
N: 4437488.9
E: 530060.9

WELL (SURFACE) MINCH OHI 3H
WV-N (NAD 83)
N: 579536.7
E: 1647756.3
UTM (NAD 83)
N: 4437304.2
E: 530150.7



A JOSEPH BARK	R14-56	1.628 ACRES	1-303000-000
B MARK AND JODY McGRAL	R14-55	1.890 ACRES	1-310124-000
C PATRICIA A. PADDEN ET AL	R14-65	1.196 ACRES	1-308820-002
D DONALD E. AND LINDA A. HARSHMAN	R14-64	1.210 ACRES	1-295657-000
E MICHAEL D. AND MICHELLE F. MATTHEWS	R14-89	1.610 ACRES	1-313205-000

REFERENCE NOTES
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Ohio County, West Virginia JANUARY 2012 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS Drafted by: E.A.M.

FILE #: CHE 055
DRAWING #: 1999
SCALE: PLAT: 1"=2000'
TICK: 1"=2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE SUBMETER MAPPING OF ELEVATION: GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed:

L.I.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WYDEP

OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: WHEELING CREEK

COUNTY/DISTRICT: OHIO/TRIADELPHIA

SURFACE OWNER: TIMMY B. AND AMY L. MINCH

OIL & GAS ROYALTY OWNER: TIMMY B. AND AMY L. MINCH

LEASE NUMBERS:

DATE: MAY 10, 2016

OPERATOR'S WELL #: TIMMY MINCH OHI 3H AS-DRILLED

API WELL #: 47 69 00155
STATE COUNTY PERMIT

ELEVATION: 1,208' (AS-BUILT)

QUADRANGLE: WHEELING, WV

ACREAGE: 259.36 +/-

ACREAGE: 1,447.686 +/-

10/28/2016

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):

TARGET FORMATION: MARCELLUS

WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC.

ADDRESS: PO BOX 18496

CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496

AS-DRILLED DEPTH: TVD: 5,979.18' TMD: 16,207'

DESIGNATED AGENT: JESSICA GREATHOUSE

ADDRESS: PO Box 6070

CITY: CHARLESTON STATE: WV ZIP CODE: 25301

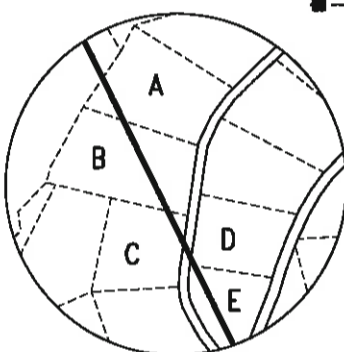
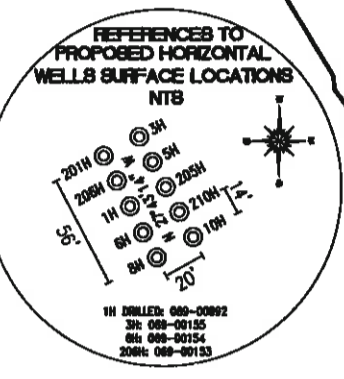
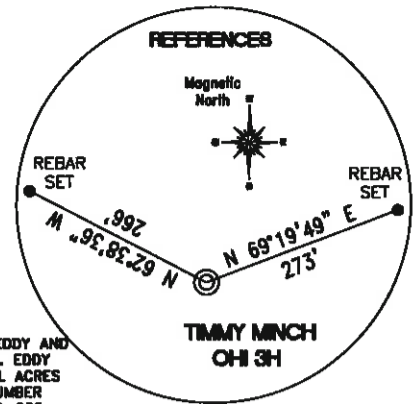
SURFACE HOLE DEC. LAT: 40.085409 SURVEYED LAT: 40° 05' 07.5"

TOP HOLE (UTM NAD 83)
N) 4437364.9
E) 536150.4

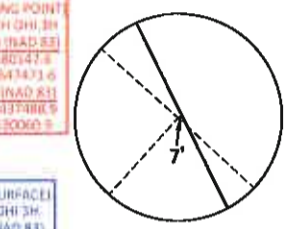
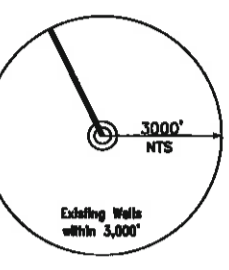
BOTTOM HOLE (UTM NAD 83)
N) 4440139.1
E) 528699.4

WELL (BOTTOM) MINCH OHI 3H
WV-N (NAD 83)
N: 4440139.1
E: 528699.4
UTM (NAD 83)
N: 4440139.1
E: 528699.4

WELL (BOTTOM) MINCH OHI 3H
WV-N (NAD 83)
N: 4440139.1
E: 528699.4
UTM (NAD 83)
N: 4440139.1
E: 528699.4



A JOSEPH BARK	R14-56	1.628 ACRES	1-303980-000
B MARK AND JODY McGRAIL	R14-55	1.690 ACRES	1-310124-000
C PATRICIA A. PADDEN ET AL	R14-65	1.196 ACRES	1-306820-002
D DONALD E. AND LINDA A. HARSHMAN	R14-64	1.210 ACRES	1-295657-000
E MICHAEL D. AND MICHELLE F. MATTHEWS	R14-89	1.610 ACRES	1-313205-000



REFERENCE NOTES
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Ohio County, West Virginia JANUARY 2012 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS Drafted by: EAM.

FILE #: CHE 055
DRAWING #: 1999
SCALE: PLAT: 1"=2000'
TICK: 1"=2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE SUBMETER MAPPING
OF ELEVATION: GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed:

L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: WHEELING CREEK ELEVATION: 1,208' (AS-BUILT)

COUNTY/DISTRICT: OHIO/TRIADELPHIA QUADRANGLE: WHEELING, WV

SURFACE OWNER: TIMMY B. AND AMY L. MINCH ACREAGE: 259.36 +/-

OIL & GAS ROYALTY OWNER: TIMMY B. AND AMY L. MINCH ACREAGE: 1,447.686 **10/28/2016**

LEASE NUMBERS:

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