

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

RECEIVED
Office of Oil and Gas

JUN 30 2017

WV Department of
Environmental Protection

API 47 - 33 - 05772 County Harrison District Union
Quad Mount Clare Pad Name Paletta Field/Pool Name _____
Farm name Domineck Paletta Estate C/O Tony Paletta, G. Diane Sullivan Well Number 7H
Operator (as registered with the OOG) PDC Mountaineer, LLC
Address 6031 Wallace Road Extension, Suite 300 City Wexford State PA Zip 15090

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4340246.476 Easting 554632.285
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,161.4 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)
Synthetic Oil-based Mud

APPROVED
NAME: Sam Ward
DATE: 8/19/2017

Date permit issued 9/20/2013 Date drilling commenced 6/27/2015 Date drilling ceased 7/5/2015
Date completion activities began 9/23/2015 Date completion activities ceased 8/30/2016
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 200' Open mine(s) (Y/N) depths N
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths N
Coal depth(s) ft _____ Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

BC

09/15/2017

API 47-33 - 05772 Farm name Domineck Paletta Estate C/O Tony Paletta, G. Diane Sullivan Well number 7H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	30"	20"	90'	New	94	N/A	Y
Surface	17.5"	13 3/8"	602'	New	54.5	N/A	Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,636'	New	40	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	11,950.0'	New	20	N/A	N
Tubing							
Packer type and depth set							

Comment Details Top of cement for production string brought to 2,450' MD

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CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WV Department of Environmental Protection (hrs)
Conductor	Grout					Surface	8
Surface	Class A 2% CaCl ₂	618	15.6	1.2	741	Surface	8
Coal							
Intermediate 1	Class A	536/172	14.50/15.70	1.55/1.29	1052.68	Surface	8
Intermediate 2							
Intermediate 3							
Production	Type 1 4% Gel/Type 1 2% Gel	704/1,055	13.80/15.00	1.64/1.32	2,547.16	2450'	8
Tubing							

Drillers TD (ft) 11,960' Loggers TD (ft) 11,960'

Deepest formation penetrated Marcellus Plug back to (ft) _____

Plug back procedure None

Kick off depth (ft) 6,557' MD

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 _____

13 3/8": 1 bow spring centralizer placed on every joint

9 5/8": 1 bow spring centralizer placed on every third joint

5 1/2": 1 rigid poly centralizer every joint in the lateral, 1 rigid poly centralizer every other joint through the curve, 1 rigid poly centralizer every third joint from kick off point to estimated TOC

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS The well was completed in 22 stages utilizing .45" entry hole 22.7 gram perforating charges

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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Well number 7H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	10/10/15	11864	11702	40	Marcellus
2	10/29/15	11664	11502	40	Marcellus
3	10/30/15	11464	11302	40	Marcellus
4	11/1/15	11264	11102	40	Marcellus
5	11/1/15	11064	10902	40	Marcellus
6	11/1/15	10864	10702	40	Marcellus
7	11/2/15	10664	10502	40	Marcellus
8	11/2/15	10464	10302	40	Marcellus
9	11/3/15	10264	10102	40	Marcellus
10	11/3/15	10064	9902	40	Marcellus
11	11/4/15	9864	9702	40	Marcellus
12	11/4/15	9664	9502	40	Marcellus
13	11/4/15	9464	9302	40	Marcellus
14	11/5/15	9264	9102	40	Marcellus
15	11/5/15	9064	8902	40	Marcellus
16	11/5/15	8864	8702	40	Marcellus

Please insert additional pages as applicable.

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STIMULATION INFORMATION PER STAGE

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Complete a separate record for each stimulation stage.

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Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	10/30/15	76	6975	9205	4225	409101	7651	0
2	10/30/15	81	7962	7335	4116	409821	10575	0
3	11/1/15	80	7717	7174	4967	402021	8015	0
4	11/1/15	80	7804	6866	5211	400501	7976	0
5	11/1/15	79	7863	6909	5701	401541	7526	0
6	11/2/15	80	7639	6000	4780	405941	7372	0
7	11/2/15	83	7668	6970	5018	401501	7617	0
8	11/3/15	78	7617	7120	4957	408661	9145	0
9	11/3/15	79	7617	6952	5572	404141	8702	0
10	11/4/15	81	7567	6233	5477	392501	7503	0
11	11/4/15	80	7520	6424	6026	400001	6972	0
12	11/4/15	80	7881	6448	5896	404241	6985	0
13	11/4/15	80	7435	6562	5529	404401	7825	0
14	11/5/15	80	7330	6001	5286	405141	7604	0
15	11/5/15	74	7535	6520	5286	403661	8572	0
16	11/6/15	85	7479	6584	5602	404701	7333	0

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

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Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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	
Sands, Silts, and Coals	0	1817	0	1820	Sand, Silt, and Coal
Big Lime	1817	1876	1820	1879	Sandstone
Balltown	3599	3641	3608	3650	Sandstone
Bradford	4332	4361	4341	4371	Sandstone
Benson	4906	4973	4915	4982	Sandstone
Elk	5190	5248	5199	5257	Siltstone
Burkett	6915	6938	6941	6968	Shale
Tully	6938	6992	6968	7031	Limestone
Mahantango	6992	7123	7031	7247	Shale- Gas Show at 7095' MD
Marcellus	7123	7214	7247	11960	Shale-Gas shows through lateral
Purcell	7186	7189	7479	7485	Limestone
Onondaga	7214	7233			Limestone
					*Onondaga MD not listed-lateral drilled in Marcellus**Onondaga top estimated from 4703305741 thickness
					**Big Lime through Elk from 4703305741, Burkett to Purcell taken from mudlog.

Please insert additional pages as applicable.

Drilling Contractor Sidewinder Drilling
Address 952 Echo Land, Suite 460 City Houston State TX Zip 77024

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company Universal Well Services
Address _____ City Buckhannon State WV Zip 26201

Stimulating Company USWS
Address 770 South Post Oak Lane, Suite 405 City Houston State TX Zip 77056

Please insert additional pages as applicable.

Completed by EDDIE CARDEA Telephone 724-940-1204
Signature [Signature] Title PERMITTING MANAGER Date 4-19-17

Submission of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/21/2015
Job End Date:	11/15/2015
State:	West Virginia
County:	Harrison
API Number:	47-033-05772-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	Paletta 7HM
Latitude:	39.20968100
Longitude:	-80.36740000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,165
Total Base Water Volume (gal):	7,173,474
Total Base Non Water Volume:	

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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
AI-302	U.S. Well Services, Inc.	Acid Corrosion Inhibitors					
				Listed Below			
Water	Arsenal Resources	Base Fluid					
				Listed Below			

Sand	U.S. Well Services, Inc.	Proppant					
				Listed Below			
SI-1100	U.S. Well Services, Inc.	Scale Inhibitor					
				Listed Below			
HCL Acid (12.6%-18.0%)	U.S. Well Services, Inc.	Bulk Acid					
				Listed Below			
HCL Acid (28%)	U.S. Well Services, Inc.	Bulk Acid					
				Listed Below			
HCL Acid (3%-7.5%)	U.S. Well Services, Inc.	Bulk Acid					
				Listed Below			
K-BAC 1020	U.S. Well Services, Inc.	Anti-Bacterial Agent					
				Listed Below			
WFRA-1000	U.S. Well Services, Inc.	Friction Reducer					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			H2O	7732-18-5	100.00000	86.05649	
			Crystalline Silica, Quartz	14808-60-7	100.00000	13.32186	
			Water	7732-18-5	97.00000	0.44658	
			Hydrogen Chloride	7647-01-0	7.50000	0.04009	
			Water	7732-18-5	87.50000	0.03525	

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			Water	7732-18-5	60.00000	0.03239
			2-Propenoic acid, polymer with propenamide	9003-06-9	30.00000	0.01620
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01328
			Water	7732-18-5	80.00000	0.00983
			Hydrogen Chloride	7647-01-0	18.00000	0.00842
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00426
			Ethylene Glycol	107-21-1	25.00000	0.00347
			Water	7732-18-5	72.00000	0.00290
			Deionized Water	7732-18-5	28.00000	0.00244
			Copolymer of Maleic and Acrylic Acid	52255-49-9	10.00000	0.00145
			Hydrogen Chloride	7647-01-0	28.00000	0.00131
			Potassium Salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	7.50000	0.00124
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00080
			Phosphino carboxylic acid polymer	71050-62-9	5.00000	0.00080
			Water	7732-18-5	95.00000	0.00053
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00032
			2-Propyn-1-olcompound with methyloxirane	38172-91-7	15.00000	0.00008

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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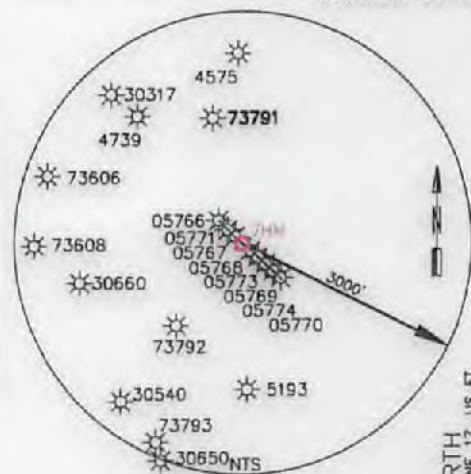
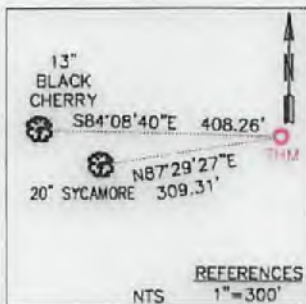
WV Department of
Environmental Protection

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.



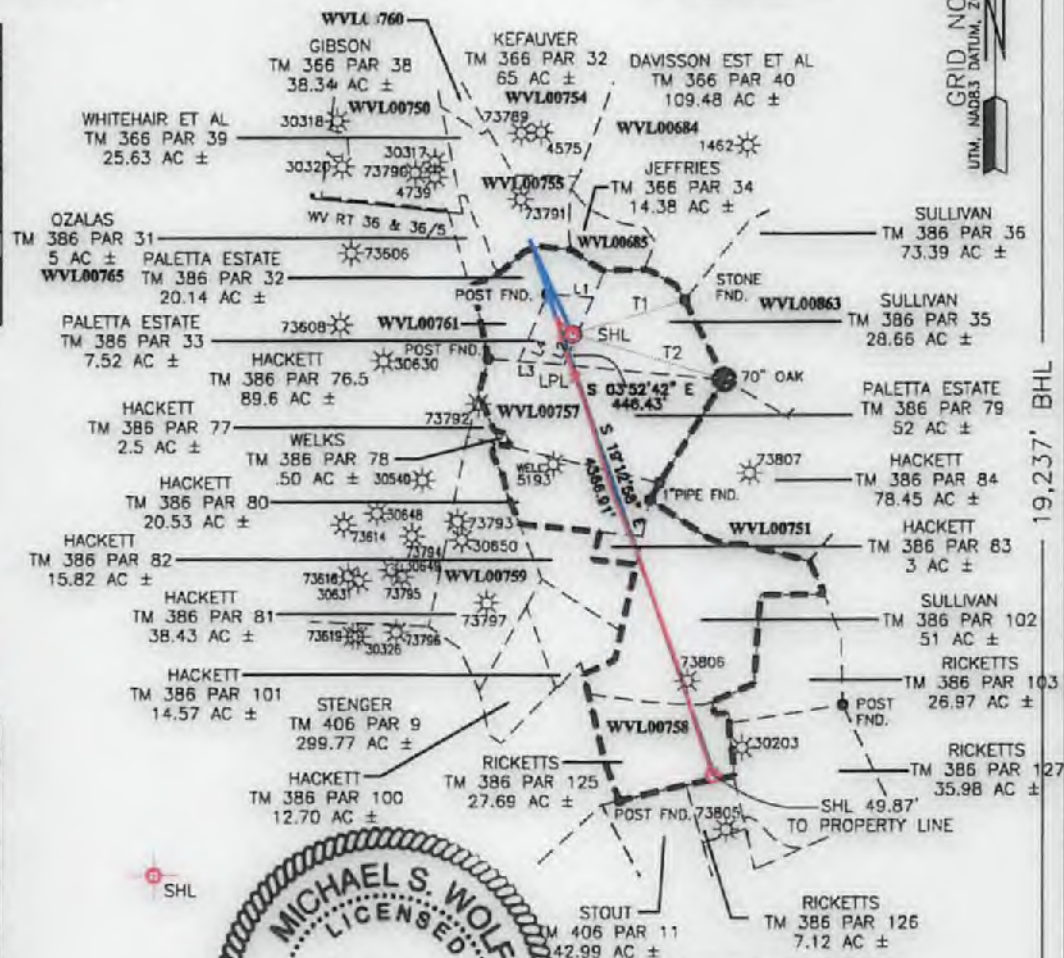
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Longitude: 80°20'00"

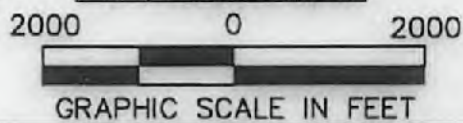
AS-DRILLED COORDINATES:	
SURFACE HOLE LOCATION (SHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,340,237.13	EASTING: 554,639.84
LANDING POINT LOCATION (LPL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,340,101.79	EASTING: 554,651.30
BOTTOM HOLE LOCATION (BHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,338,852.79	EASTING: 555,110.08



PROPOSED COORDINATES:	
SURFACE HOLE LOCATION (SHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,340,237.13	EASTING: 554,639.84
LANDING POINT LOCATION (LPL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,340,351.72	EASTING: 554,563.42
BOTTOM HOLE LOCATION (BHL):	
UTM (NAD83, ZONE 17, METERS):	
NORTHING: 4,338,853.77	EASTING: 555,114.87



LINE	BEARING	DISTANCE
L1	S85°10'43"E	487.67'
L2	S23°37'40"W	756.81'
L3	N85°48'29"W	478.81'
L4	N23°04'17"E	750.93'
T1	S73°23'20"W	1224.43'
T2	N73°35'50"W	1857.92'



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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2270 *M.S. Wolf 6/23/17*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)	OPERATOR'S WELL #: 7HM API WELL #: 47 033 05772 STATE COUNTY PERMIT
	WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW WATERSHED: WEST FORK RIVER DISTRICT: UNION COUNTY: HARRISON SURFACE OWNER: DOMINECK PALETTA, ESTATE OIL & GAS ROYALTY OWNER: DOMINECK PALETTA ESTATE C/O TONY PALETTA, DIANE G. SULLIVAN DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE X (SPECIFY) AS-DRILLED	PALETTA PAD ELEVATION: 1161.40' QUADRANGLE: MOUNT CLARE 7.5' ACREAGE: 7.52 ± ACREAGE: 323.71 ± (LEASE)

WELL OPERATOR: ARSENAL RESOURCES ADDRESS: 6031 WALLACE ROAD EXTENTION #300 CITY: WEXFORD STATE: WV ZIP CODE: 15090	DESIGNATED AGENT: WILLIAM VEIGEL ADDRESS: 65 PROFESSIONAL PLACE, SUITE 200 CITY: BRIDGEPORT STATE: WV ZIP CODE: 26330
--	---

LEGEND: ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ✱ EXISTING / PRODUCING WELLHEAD ✕ ABANDONED WELL ✕ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR - - - - - LEASE BOUNDARY - - - - - 500' DHP BUFFER - - - - - AS-DRILLED PATH - - - - - PROPOSED PATH	REVISIONS: DATE: 06-22-2017 DRAWN BY: R. DOERR SCALE: 1" = 2000' DRAWING NO: 030-3243 WELL LOCATION PLAT
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THRASHER

THE THRASHER GROUP, INC.
800 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-824-4108

NOTES ON SURVEY

1. COORDINATES SYSTEM IS TLM AND 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
3. THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS AND BUILDINGS WITHIN 825 FEET OF PROPOSED CENTER OF PAD.
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERMANENT STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 200 FEET OF LIMITS OF DISTURBANCE.



AS-DRIILLED COORDINATES:	
BOTTOM HOLE LOCATION (BHL):	UTM (NAD83, ZONE 17, METERS): NORTHING: 4338,822.77 EASTING: 252,114.87
LANDING POINT LOCATION (LPL):	UTM (NAD83, ZONE 17, METERS): NORTHING: 4340,251.72 EASTING: 254,252.42
LANDING POINT LOCATION (LPL):	UTM (NAD83, ZONE 17, METERS): NORTHING: 4340,251.72 EASTING: 254,252.42
SURFACE HOLE LOCATION (SHL):	UTM (NAD83, ZONE 17, METERS): NORTHING: 4340,251.72 EASTING: 254,252.42

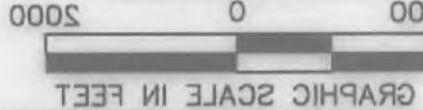


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LINE	BEARING	DISTANCE
L1	S88°10'43"E	487.87'
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L4	N23°04'17"E	280.92'
T1	S73°23'20"W	1254.43'
T2	N73°25'20"W	1027.92'



WV DEP OFFICE OF OIL & GAS 801 57TH STREET CHARLESTON, WV 25034		UNITED STATES TOPOGRAPHIC MAPS (+) DENOTES LOCATION OF WELL ON DEGREE OF ACCURACY: 1/200 BHL PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAD 88, US FT)	
OPERATOR'S WELL #: 47 COUNTY PERMIT #: 033 05772		WELL TYPE: OIL WATERSHED: WEST FORK RIVER DISTRICT: UNION SURFACE OWNER: DOMINECK PALETTA ESTATE OIL & GAS ROYALTY OWNER: DOMINECK PALETTA ESTATE C/O TONY PALETTA, DINE G SULLIVAN ACREAGE: 7.22 ± QUADRANGLE: MOUNT CLARE 7.5' ELEVATION: 1161.40' STORAGE: SHALLOW	
TARGET FORMATION: MARCELLUS DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER CHANGE (SPECIFY) AS-DRIILLED		WELL OPERATOR: ARSINAL RESOURCES ADDRESS: 8021 WALLACE ROAD EXTENSION #300 CITY: WEXFORD STATE: WV ZIP CODE: 15080 DESIGNATED AGENT: WILLIAM VEIGEL ADDRESS: 85 PROFESSIONAL PLACE, SUITE 200 CITY: BRIDGEPORT STATE: WV ZIP CODE: 26330	
ESTIMATED DEPTH: 1165' (VD 1165' TMD)		REVISIONS: DATE: 08-25-2017 DRAWN BY: R. DOERR SCALE: 1" = 2000' DRAWING NO: 030-3243 WELL LOCATION PLAN	



09/15/2017

14°08.5' SHL

16°52.1' BHL

Longitude: 80.50,00.00

Latitude: 39.15,00.00

8,062' BHL

9,272' SHL

THE THRASHER GROUP, INC.
 600 WHITE OAKS BLVD.
 BRIDGEPORT, WV 26330
 PHONE 304-624-4108

- NOTES ON SURVEY
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY
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 - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

AS-DRIILLED COORDINATES:

SURFACE HOLE LOCATION (SHL)	NORTHING: 4,340,237.13	EASTING: 554,593.84
LANDING POINT LOCATION (LPL)	NORTHING: 4,340,101.39	EASTING: 554,593.30
UTM (NAD83, ZONE 17, METERS)	NORTHING: 4,338,852.74	EASTING: 555,114.08
BOTTOM HOLE LOCATION (BHL)	NORTHING: 4,338,852.74	EASTING: 555,114.08

PROPOSED COORDINATES:

SURFACE HOLE LOCATION (SHL)	NORTHING: 4,340,237.34	EASTING: 554,593.84
LANDING POINT LOCATION (LPL)	NORTHING: 4,340,051.72	EASTING: 554,563.42
UTM (NAD83, ZONE 17, METERS)	NORTHING: 4,338,852.77	EASTING: 555,114.87

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2270



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25034

DEGREE OF ACCURACY: 1/200
 PROVEN SURVEY BHL
 SOURCE OF GRADE GPS
 ELEVATION: (NAD 88, US FT)

WELL TYPE: OIL WASTE DISPOSAL
 WATERSHED: WEST FORK RIVER
 DISTRICT: UNION
 SURFACE OWNER: DOMINECK PALETTA, ESTATE
 OIL & GAS ROYALTY OWNER: DOMINECK PALETTA, DANE G. SULLIVAN
 DRILL DEEPER REDRILL FRACTURE OR SIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 CONVERT PLUG & ABANDON CLEAN OUT & REFLUG OTHER CHANGE (SPECIFY) AS-DRIILLED
 TARGET FORMATION: MARCELLUS
 WELL OPERATOR: ARSENAL RESOURCES
 ADDRESS: 6031 WALLACE ROAD EXTENSION #300
 CITY: WEXFORD STATE: WV ZIP CODE: 15090
 DESIGNATED AGENT: WILLIAM VEIGEL
 ADDRESS: 65 PROFESSIONAL PLACE, SUITE 200
 CITY: BRIDGEPORT STATE: WV ZIP CODE: 26330

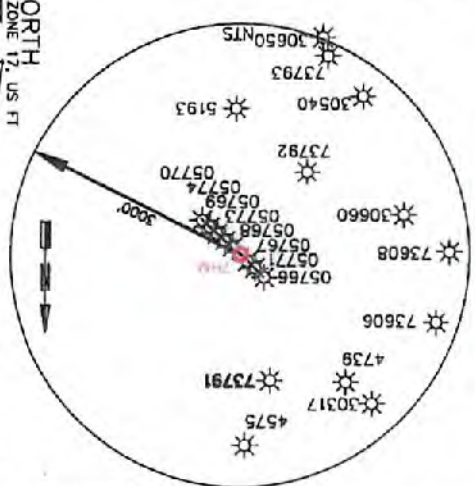
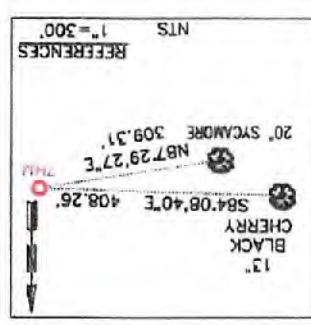
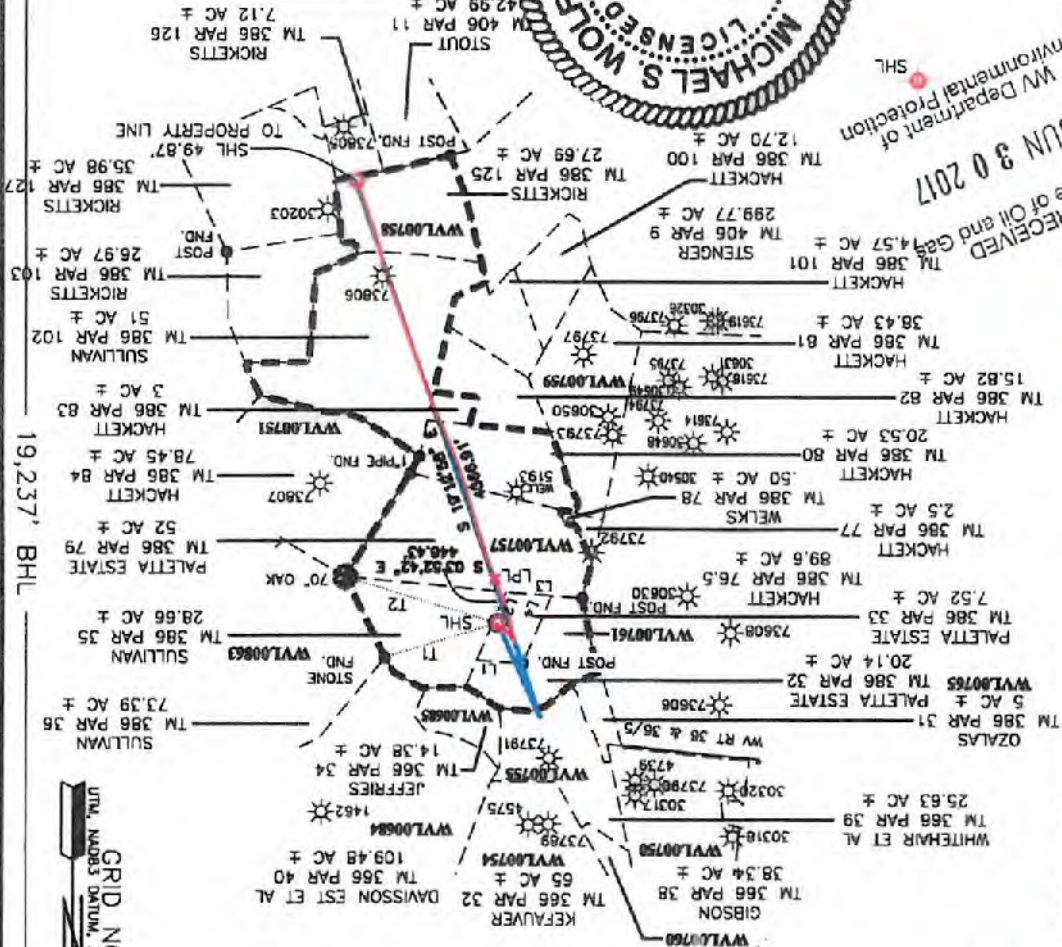
REVISIONS: DATE: 06-22-2017

WELL LOCATION PLAT	AS-DRIILLED PATH
DRAWING NO: 030-3243	500' DHP BUFFER
SCALE: 1" = 200'	LEASE BOUNDARY
DRAWN BY: R. DOERR	EXISTING / PRODUCING WELLS
	ABANDONED WELL
	PLUGGED & ABANDONED WELL
	CUT CONDUCTOR



GRAPHIC SCALE IN FEET
 0 2000 2000

LINE	BEARING	DISTANCE
L1	S86°10'43"E	467.67
L2	S23°37'40"W	756.81
L3	N85°48'29"W	478.81
L4	N23°04'17"E	750.93
L5	S73°23'20"W	1224.43
L6	N73°35'50"W	1657.92



GRID NORTH
 UTM, NAD83 DATUM, ZONE 17, US FT
 Longitude: 80°20'00"
 Latitude: 39°15'00"

19,237' BHL
 14,682' SHL