

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

API 47 - 033 - 06087 County Harrison District Simpson
Quad Rosemont Pad Name J Osborn Field/Pool Name _____
Farm name Judy M Osborn (LE) Well Number 214
Operator (as registered with the OOG) Arsenal Resources
Address 6031 Wallace Road Ext., Ste. 200 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 4346634.300 Easting 567454.532
Landing Point of Curve Northing 4346776.863 Easting 567347.583
Bottom Hole Northing 4350311.347 Easting 566085.299

Elevation (ft) 1163.87 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

Date permit issued 03/12/2025 Date drilling commenced 03/27/2025 Date drilling ceased 10/05/2025
Date completion activities began 11/07/2025 Date completion activities ceased 04/18/2026
Verbal plugging (Y/N) N Date permission granted NA Granted by NA

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

Freshwater depth(s) ft none reported Open mine(s) (Y/N) depths N
Salt water depth(s) ft none reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft none reported Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Cyff Pappert

8-13-2026

08/21/2026

Reviewed
approved

API 47-033 - 06087

Farm name Judy M Osborn (LE)

Well number 214

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"	24"	100' GL	New	94	NA	Y
Surface	17.5"	13 3/8"	813' GL	New	54.50	94'	Y
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	12 1/4"	9 5/8"	1,519' GL	New	40	NA	Y
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	8 1/2"	5 1/2"	19,885' GL	New	20	NA	Y
Tubing	NA	NA	NA	NA	NA	NA	NA
Packer type and depth set		NA					

Comment Details Cement to surface on Conductor, Surface, Intermediate. Lap onto intermediate on production.

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	A	195	15.60	1.18	230	Surface	8+
Surface	A	720	15.60	1.2	867	Surface	8+
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	A	510	15.6	1.19	605	Surface	8+
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	A	1045/2865	14.5/15.0	1.29/1.141	1348/3269	581' GL	8+
Tubing	NA	NA	NA	NA	NA	NA	NA

Drillers TD (ft) 19,917' (GL)

Loggers TD (ft) NA

Deepest formation penetrated Marcellus

Plug back to (ft) NA

Plug back procedure NA

Kick off depth (ft) 6,570' (GL)

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

24" - No centralizers

13 3/8" - One (1) bow spring centralizer on every joint to Surface

9 5/8" - One (1) bow spring centralizer every joint from TD to surface

5 1/2" - One (1) Non-Weld Bowspring centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to TOC; there were no centralizers from TOC to surface

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS

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WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED

07 07 2026
WV Department of
Environmental Protection

08/21/2026

API 47- 033 - 06087 Farm name Judy M Osborn (LE) Well number 214

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
		See Attached			

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Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

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)
			See Attached					

Please insert additional pages as applicable.

08/21/2026

API 47- 033 - 06087

Farm name Judy M Osborn (LE)

Well number 214

PRODUCING FORMATION(S)

DEPTHS

Marcellus Shale	7,210 - 7,328'	TVD	7,369 - 19,866'	MD

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GAS TEST ☐ Build up ☐ Drawdown ☒ Open Flow

OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 12,732 mcfpd Oil 0 bpd NGL 0 bpd Water 819 bpd
GAS MEASURED BY ☐ Estimated ☒ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/Silt	0	220	0	220	No water reported.
Sand/Silt/Coal	220	1325	220	1325	Coal @ 225', 325', 400', 440', 530', 595', 615'; WVGES
Big Lime	1325	1506	1325	1506	Limestone
Sand/Silt/Shale	1506	2970	1506	2970	Sandstone, Siltstone, Shale
Burkett	2970	3020	2970	3020	Sandstone
Sand/Silt/Shale	3020	4300	3020	4300	Sandstone, Siltstone, Shale
Mahantango	4300	4370	4300	4370	Sandstone
Sand/Silt/Shale	4370	6936	4370	6970	Sandstone, Siltstone, Shale
Burkett	6936	6954	6970	6990	Shale
Tully	6954	7001	6990	7051	Limestone
Mahantango	7001	7155	7051	7312	Shale
Marcellus	7155	7205	7312	7477	Shale
Lower Marcellus	7205	7243*	7477	19911	Shale - Gas shows through lateral
Onondaga	7243*	NA	NA	NA	Limestone, *Onondaga not penetrated - top est. based on 033-05933 thickness

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling

Address 10350 Richmond Ave. Suite 700 City Houston State TX Zip 77042

Logging Company NA

Address _____ City _____ State _____ Zip _____

Cementing Company Halliburton

Address 4999 E Pointe Drive City Zanesville State OH Zip 43701

Stimulating Company ProFrac

Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Arsenal Resources

Signature Eugene J. Leik Title Geologist & Permitting Specialist Telephone 724-940-1100 Date 07/28/2026

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

08/21/2026

Well Header
Well Name: J Osborn 214
Orig KB Elev (ft): 1,192.00
County: Harrison
Datum:

AP/UWI: 4703306087
Water Depth (ft)
District:
Latitude (°): 39° 15' 59.328" N
Longitude (°): 80° 13' 5.563" W

Lease:
Lic Date
Division:
UTM E (m):

Pad Name: J Osborn
Spud Date: 9/29/2025
Division Code:
UTM N (m):

Operator: Arvenal Resources
RA Date: 10/5/2025
Well Type:
UTM N (m):

Well Subtype:

Job Cncl Completion/Workover
Job Type: Initial Completion
Start Date: 9/7/2025
End Date:

Perforations

Date	Top (ftKb)	Bottom (ftKb)	Entered Shot Total	Zone
4/18/2026	7,369.00	7,369.00	7,531.00	30 Marcellus
4/18/2026	7,569.00	7,569.00	7,731.00	30 Marcellus
4/18/2026	7,769.00	7,769.00	7,930.00	30 Marcellus
4/17/2026	7,969.00	7,969.00	8,131.00	30 Marcellus
4/17/2026	8,169.00	8,169.00	8,331.00	30 Marcellus
4/17/2026	8,369.00	8,369.00	8,531.00	30 Marcellus
4/17/2026	8,569.00	8,569.00	8,731.00	30 Marcellus
4/17/2026	8,772.00	8,772.00	8,931.00	30 Marcellus
4/16/2026	8,969.00	8,969.00	9,131.00	30 Marcellus
4/16/2026	9,171.00	9,171.00	9,331.00	30 Marcellus
4/16/2026	9,369.00	9,369.00	9,531.00	30 Marcellus
4/16/2026	9,569.00	9,569.00	9,731.00	30 Marcellus
4/16/2026	9,769.00	9,769.00	9,931.00	30 Marcellus
4/15/2026	9,969.00	9,969.00	10,131.00	30 Marcellus
4/15/2026	10,169.00	10,169.00	10,331.00	30 Marcellus
4/15/2026	10,369.00	10,369.00	10,531.00	30 Marcellus
4/15/2026	10,569.00	10,569.00	10,731.00	30 Marcellus
4/15/2026	10,769.00	10,769.00	10,931.00	30 Marcellus
4/14/2026	10,969.00	10,969.00	11,131.00	30 Marcellus
4/14/2026	11,169.00	11,169.00	11,330.00	30 Marcellus
4/14/2026	11,369.00	11,369.00	11,531.00	30 Marcellus
4/14/2026	11,569.00	11,569.00	11,731.00	30 Marcellus
4/14/2026	11,769.00	11,769.00	11,931.00	30 Marcellus
4/14/2026	11,969.00	11,969.00	12,131.00	30 Marcellus
4/13/2026	12,169.00	12,169.00	12,331.00	30 Marcellus
4/13/2026	12,369.00	12,369.00	12,531.00	30 Marcellus
4/12/2026	12,569.00	12,569.00	12,731.00	30 Marcellus
4/12/2026	12,769.00	12,769.00	12,931.00	30 Marcellus
4/12/2026	12,969.00	12,969.00	13,131.00	30 Marcellus
4/12/2026	13,169.00	13,169.00	13,331.00	30 Marcellus
4/12/2026	13,369.00	13,369.00	13,531.00	30 Marcellus
4/12/2026	13,569.00	13,569.00	13,731.00	30 Marcellus
4/11/2026	13,769.00	13,769.00	13,931.00	30 Marcellus
4/11/2026	13,969.00	13,969.00	14,131.00	30 Marcellus
4/11/2026	14,169.00	14,169.00	14,331.00	30 Marcellus
4/10/2026	14,369.00	14,369.00	14,531.00	30 Marcellus
4/10/2026	14,569.00	14,569.00	14,731.00	30 Marcellus
4/10/2026	14,769.00	14,769.00	14,931.00	30 Marcellus
4/10/2026	14,969.00	14,969.00	15,131.00	30 Marcellus
4/10/2026	15,169.00	15,169.00	15,331.00	30 Marcellus
4/9/2026	15,369.00	15,369.00	15,531.00	30 Marcellus
4/9/2026	15,569.00	15,569.00	15,731.00	30 Marcellus
4/9/2026	15,769.00	15,769.00	15,931.00	30 Marcellus
4/9/2026	15,969.00	15,969.00	16,131.00	30 Marcellus
4/8/2026	16,169.00	16,169.00	16,378.00	30 Marcellus
4/8/2026	16,369.00	16,369.00	16,531.00	30 Marcellus
4/8/2026	16,569.00	16,569.00	16,719.00	30 Marcellus
4/8/2026	16,769.00	16,769.00	16,931.00	30 Marcellus
4/8/2026	16,969.00	16,969.00	17,133.00	30 Marcellus
4/7/2026	17,168.00	17,168.00	17,331.00	30 Marcellus
4/7/2026	17,369.00	17,369.00	17,531.00	30 Marcellus
4/7/2026	17,569.00	17,569.00	17,731.00	30 Marcellus
4/7/2026	17,769.00	17,769.00	17,931.00	30 Marcellus
4/7/2026	17,969.00	17,969.00	18,131.00	30 Marcellus
4/7/2026	18,169.00	18,169.00	18,331.00	30 Marcellus
4/6/2026	18,369.00	18,369.00	18,531.00	30 Marcellus
4/6/2026	18,569.00	18,569.00	18,731.00	30 Marcellus
4/6/2026	18,769.00	18,769.00	18,930.00	30 Marcellus
4/6/2026	18,969.00	18,969.00	19,131.00	30 Marcellus
4/6/2026	19,169.00	19,169.00	19,330.00	30 Marcellus
4/5/2026	19,369.00	19,369.00	19,531.00	30 Marcellus
4/5/2026	19,569.00	19,569.00	19,731.00	30 Marcellus
11/7/2025	19,769.00	19,769.00	19,866.00	30 Marcellus

Simulations Summary

Start Date: 4/5/2026

Simulation Intervals

Interval Number	Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psl)	P Breakdown (psl)	ISIP (psl)	Proppant Total Gr (lbs)	Vol Clean Total (bbl)
1	4/5/2026	88.40	9,036.00		7,480.00	5,007.00	258,860.00
2	4/5/2026	89.90	9,180.00		5,915.00	5,824.00	503,420.00
3	4/5/2026	90.30	9,157.00		5,967.00	5,614.00	506,140.00
4	4/5/2026	90.10	9,110.00		5,975.00	5,493.00	496,700.00
5	4/6/2026	90.50	9,087.00		5,939.00	5,554.00	500,400.00
6	4/6/2026	90.30	9,055.00		6,747.00	5,623.00	500,460.00
7	4/6/2026	83.70	8,676.00		6,884.00	6,230.00	508,860.00
8	4/6/2026	90.50	9,053.00		6,570.00	5,853.00	500,460.00
9	4/7/2026	90.20	8,961.00		6,197.00	5,807.00	504,200.00
10	4/7/2026	90.30	9,134.00		7,552.00	5,807.00	501,340.00
11	4/7/2026	90.50	9,298.00		5,745.00	6,360.00	500,720.00
12	4/7/2026	90.50	9,656.00		6,050.00	6,235.00	495,280.00
13	4/7/2026	89.20	8,900.00		4,974.00	5,755.00	499,680.00
14	4/8/2026	90.40	8,905.00		6,552.00	6,094.00	499,800.00
15	4/8/2026	90.50	8,822.00		6,344.00	6,264.00	499,960.00
16	4/8/2026	90.10	8,591.00		6,522.00	6,154.00	505,320.00
17	4/8/2026	88.70	8,823.00		6,211.00	5,842.00	501,477.00
18	4/8/2026	90.70	8,856.00		6,787.00	5,539.00	500,600.00
							9,107.00

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15	4/9/2026	89.90	8,665.00	6,530.00	6,135.00	500,460.00	9,173.00
20	4/9/2026	88.70	9,079.00	5,335.00	4,972.00	497,200.00	8,987.00
21	4/9/2026	88.90	8,320.00	6,063.00	6,181.00	501,140.00	9,093.00
22	4/9/2026	88.70	8,338.00	6,051.00	6,129.00	500,840.00	9,255.00
23	4/10/2026	89.80	8,709.00	6,261.00	6,098.00	500,880.00	9,362.00
24	4/10/2026	89.80	8,867.00	6,361.00	5,247.00	502,120.00	9,566.00
25	4/10/2026	89.80	8,851.00	6,554.00	6,493.00	501,400.00	9,178.00
26	4/10/2026	89.80	8,867.00	6,544.00	6,389.00	500,920.00	9,165.00
27	4/10/2026	90.00	8,729.00	6,710.00	6,185.00	496,500.00	9,028.00
28	4/11/2026	90.60	8,597.00	6,280.00	5,707.00	499,680.00	9,108.00
29	4/11/2026	90.40	8,390.00	6,490.00	6,113.00	501,200.00	9,086.00
30	4/11/2026	89.90	8,464.00	6,547.00	6,490.00	500,080.00	9,011.00
31	4/11/2026	89.10	8,129.00	5,306.00	5,793.00	500,130.00	10,619.00
32	4/11/2026	90.40	8,788.00	6,340.00	6,290.00	500,710.00	9,108.00
33	4/12/2026	90.00	8,528.00	5,493.00	6,482.00	505,170.00	9,255.00
34	4/12/2026	90.50	8,604.00	5,597.00	6,561.00	497,960.00	8,940.00
35	4/12/2026	90.50	8,222.00	5,397.00	6,312.00	501,080.00	8,859.00
36	4/12/2026	89.70	8,104.00	6,366.00	6,195.00	501,370.00	9,216.00
37	4/13/2026	90.10	8,222.00	5,505.00	6,135.00	501,370.00	9,070.00
38	4/13/2026	90.00	8,341.00	6,426.00	6,149.00	499,060.00	9,070.00
39	4/14/2026	90.20	8,257.00	6,405.00	5,777.00	506,180.00	10,002.00
40	4/14/2026	90.10	8,323.00	6,373.00	6,217.00	497,460.00	9,114.00
41	4/14/2026	90.40	8,154.00	6,141.00	5,855.00	510,100.00	9,238.00
42	4/14/2026	89.60	7,892.00	6,282.00	5,840.00	509,680.00	9,151.00
43	4/14/2026	89.60	7,892.00	6,472.00	5,798.00	497,460.00	9,151.00
44	4/14/2026	89.60	8,173.00	6,736.00	5,709.00	500,900.00	9,068.00
45	4/14/2026	90.60	8,351.00	6,437.00	6,306.00	500,340.00	9,015.00
46	4/15/2026	90.00	8,339.00	5,886.00	5,335.00	499,880.00	8,898.00
47	4/15/2026	90.00	8,219.00	6,850.00	5,687.00	501,360.00	8,948.00
48	4/15/2026	89.80	7,928.00	6,080.00	5,708.00	500,520.00	9,015.00
49	4/15/2026	90.00	7,859.00	6,035.00	5,396.00	501,120.00	9,097.00
50	4/16/2026	87.70	8,184.00	6,720.00	5,496.00	499,480.00	8,929.00
51	4/16/2026	90.10	8,407.00	7,959.00	6,109.00	504,900.00	9,096.00
52	4/16/2026	89.50	8,278.00	7,374.00	6,059.00	500,580.00	8,958.00
53	4/16/2026	89.90	8,284.00	6,535.00	5,762.00	507,500.00	9,033.00
54	4/17/2026	90.20	8,260.00	6,667.00	5,565.00	498,151.00	8,980.00
55	4/17/2026	89.90	7,880.00	6,896.00	5,434.00	498,280.00	8,957.00
56	4/17/2026	90.10	7,887.00	6,799.00	5,706.00	500,380.00	9,065.00
57	4/17/2026	89.90	7,942.00	6,473.00	5,652.00	500,500.00	9,104.00
58	4/17/2026	89.30	7,871.00	6,625.00	5,986.00	500,280.00	8,993.00
59	4/17/2026	89.80	7,661.00	6,671.00	5,370.00	501,160.00	8,958.00
60	4/17/2026	89.50	7,665.00	6,370.00	5,637.00	501,420.00	8,953.00
61	4/18/2026	89.90	7,776.00	6,458.00	6,093.00	499,720.00	8,901.00
62	4/18/2026	89.90	7,767.00	7,049.00	5,399.00	499,720.00	9,029.00
63	4/18/2026	89.80	7,596.00	8,164.00	5,108.00	512,300.00	9,205.00

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	04/05/2026
Job End Date:	04/18/2026
State:	West Virginia
County:	Harrison
API Number:	47-033-06087-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	J Osborn 214
Latitude:	39.266427
Longitude:	-80.218069
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7241
Total Base Water Volume (gal)*:	25713534
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	100.00%

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Environmental Protection

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
Water	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	86.83624	None
Sand (100 Mesh Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.36508	None
Sand (40/70 White Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.31255	None
Hydrochloric Acid (7.5%)	Cooper Natural	Acidizing					
			Water	7732-18-5	92.50000	0.40158	None
			Hydrochloric Acid	7647-01-0	7.50000	0.03256	None
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	92.50000	0.40158	None

08/21/2026

			Water	7732-18-5	85.00000	0.01301	None
			Ammonium chloride	12125-02-9	5.00000	0.00285	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00285	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00285	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00103	None
			Ethylene glycol	107-21-1	42.00000	0.00091	None
			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00054	None
			Citric Acid	77-92-9	10.00000	0.00022	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00017	None
			Water	7732-18-5	5.00000	0.00011	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00009	None
			Methanol	67-56-1	2.00000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProSlick 773	ProFrac	Friction Reducer					
			Petroleum distillates, hydrotreated light	64742-47-8	30.00000	0.01712	None
			Ammonium chloride	12125-02-9	5.00000	0.00285	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00285	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00285	None
Hydrochloric Acid (15%)	Cooper Natural	Acidizing					
			Water	7732-18-5	85.00000	0.01301	None
			Hydrochloric Acid	7647-01-0	15.00000	0.00230	None
BioSuiteGQ123X	ProFrac	Biocide					
			glutaral	111-30-8	15.00000	0.00308	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00103	None
Acid Pack Pro LT	ProFrac	Acid Inhibitor					
			Ethylene glycol	107-21-1	42.00000	0.00091	None

08/21/2026

			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00054	None
			Ciric Acid	77-92-9	10.00000	0.00022	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00017	None
			Water	7732-18-5	5.00000	0.00011	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00009	None
			Methanol	67-56-1	2.00000	0.00004	None
			Isotridecanol, ethoxylated	69011-36-5	1.80000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProChek 170	ProFrac	Scale Inhibitor					
			Methyl alcohol	67-56-1	5.00000	0.00101	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

* 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%

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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08/21/2026

WR-36
Rev. 5/08

Date: 07/28/2026
Operators Well Number: J Osborn 214
API Well No: 47-033 - 06087

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of
Initial Gas-Oil Ratio

Well Operator Aresenal Resources LLC
Address 6031 Wallace Road Ext. Suite 200
Wexford, PA 15090

Designated Agent Eric Morris
Address 633 West Main Street
Bridgeport, WV 26330

Geological Target Formation: Marcellus

Depth 7,312 feet
Perforation Interval 7,369 - 19,866 feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

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TEST DATA

Start of Test Date 6/7/2026	Time 5:00 AM	End of Test Date 6/8/2026	Time 6:00 AM	Duration of Test 24 Hrs
Tubing Pressure NA	Casing Pressure 1102	Separator Pressure 297	Separator Temperature 79	
Oil Production During Test 0 BBLs	Gas Production During Test 12,732 MCF	Water Production During Test 819 BBLs 36870		
Oil Gravity NA	Producing Method (flowing, pumping, gas lift etc.) Flowing			

GAS PRODUCTION

Measurement Method Flange Tap ☒ Pipe Tap ☐ L-10 ☐		Positive Choke ☐
		Positive flow prover ☒
Orifice diameter	Pipe Diameter (inside)	Nominal Choke Size inches 48/64"
Differential Pressure range	Max. Static pressure range	Prover and Orifice diameter - inches 6.0" run with 3.0" orifice
Differential 166	Static	
Gas Gravity (Air = 1.0) Measured .572 Estimated	Flowing Temperature 79	Gas Temperature 105
24 Hour Coefficient	24 Hour coefficient pressure PSIA	

TEST RESULTS

Daily Oil 0	Daily Water 819 BBLs	Daily Gas 12,732 MCF	Gas-Oil Ratio NA
----------------	-------------------------	-------------------------	---------------------

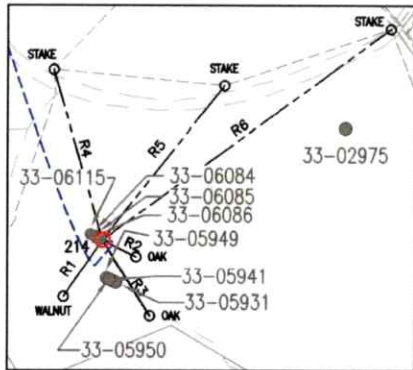
Aresenal Resources LLC

BY Eric Morris Well Operator

ITS: Geologist & Permitting Specialist

08/21/2026

BHL is located on topo map 12.263 feet south of Latitude: 39°20'00"
SHL is located on topo map 9.171 feet south of Latitude: 39°17'30"



REFERENCE DETAIL
SCALE 1"= 800'

LINE	BEARING	DISTANCE
R1	S 34°14'18" W	304.60'
R2	S 63°25'46" E	167.60'
R3	S 31°57'05" E	396.85'
R4	N 15°52'45" W	784.90'
R5	N 38°08'10" E	871.35'
R6	N 53°42'29" E	1577.00'

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- There are no existing buildings within 625' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
- 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 record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
- Well Spot Circle & Topo Mark Scale is 1"=2000'.

THRASHER

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

AS-DRILLED PLAT

J OSBORN HSOP 16 214 PERMITTED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346634.299	NORTHING: 279966.297	LAT-(N) 39.266427
EASTING: 567454.531	EASTING: 1765197.687	LONG-(W) 80.218099
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346777.132	NORTHING: 280439.527	LAT-(N) 39.267721
EASTING: 567363.981	EASTING: 1764908.351	LONG-(W) 80.219104
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350330.237	NORTHING: 292169.490	LAT-(N) 39.299834
EASTING: 566072.734	EASTING: 1760865.250	LONG-(W) 80.233723

J OSBORN HSOP 16 214 AS-DRILLED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346634.300	NORTHING: 279966.300	LAT-(N) 39.266427
EASTING: 567454.532	EASTING: 1765197.690	LONG-(W) 80.218070
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346776.863	NORTHING: 280439.940	LAT-(N) 39.267720
EASTING: 567347.583	EASTING: 1764854.530	LONG-(W) 80.219294
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M)	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350311.347	NORTHING: 292106.829	LAT-(N) 39.299663
EASTING: 566085.299	EASTING: 1760905.450	LONG-(W) 80.233579



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SEE PAGE 2 FOR PLAT

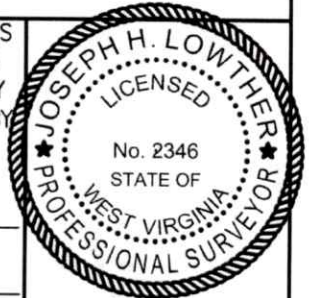
SEE PAGE 3 FOR SURFACE OWNER TABLE

FILE #: J OSBORN HSOP 16 214
DRAWING #: J OSBORN HSOP 16 214
SCALE: AS SHOWN
MINIMUM DEGREE
OF ACCURACY: 1/2500
PROVEN SOURCE
OF ELEVATION: U.S.G.S. MONUMENT
THOMAS 1498.81'

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:

R.P.E.:

L.L.S.: P.S. No. 2346

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

DATE: JULY 27, 2026OPERATOR'S WELL #: J OSBORN HSOP 16 214

API WELL #: 47 033 06087
STATE COUNTY PERMIT

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

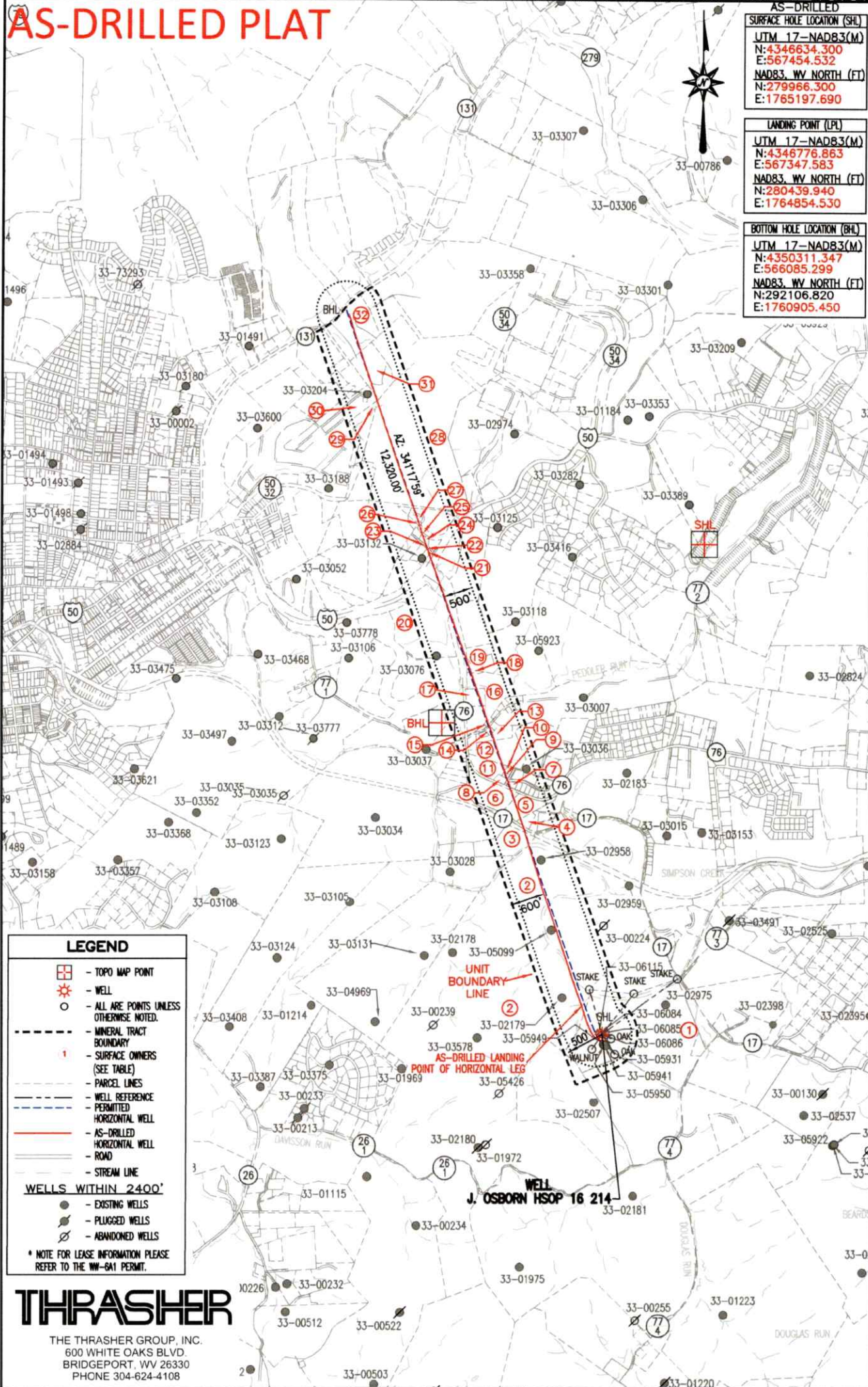
WATERSHED: SIMPSON CREEK ELEVATION: 1163.87'±COUNTY/DISTRICT: HARRISON / SIMPSON QUADRANGLE: ROSEMONT, WV 7.5'SURFACE OWNER: JUDY M OSBORN (LE) (JUDY M OSBORN IRREVOCABLE TRUST) ACREAGE: 70.00±OIL & GAS ROYALTY OWNER: GOBEL OSBORN, ET AL ACREAGE: 1,399.52±

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐
CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY): 08/21/2026

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7327.8'± TWD / 19,944.0' TMDWELL OPERATOR ARSENAL RESOURCESDESIGNATED AGENT ERIC MORRISAddress 6031 WALLACE ROAD EXTENSION, SUITE 200Address 633 WEST MAIN ST.City WEXFORD State PA Zip Code 15090City BRIDGEPORT State WV Zip Code 26330

BHL is located on topo map 12,263 feet south of Latitude: 39°20'00"
SHL is located on topo map 9,171 feet south of Latitude: 39°17'30"

AS-DRILLED PLAT



BHL is located on topo map 7,144 feet west of Longitude: 80°12'30"
SHL is located on topo map 2,829 feet west of Longitude: 80°12'30"

DATE: JULY 27, 2026		FILE #: J OSBORN HSOP 16 214
OPERATOR'S WELL #: J OSBORN HSOP 16 214		DRAWING #: J OSBORN HSOP 16 214
API WELL #: 47 033 06087		SCALE: 1" = 2000'
STATE COUNTY PERMIT	DESIGNATED AGENT ERIC MORRIS	
WELL OPERATOR ARSENAL RESOURCES	Address 633 WEST MAIN ST.	
Address 6031 WALLACE ROAD EXTENSION, SUITE 200	City BRIDGEPORT State WV Zip Code 26330	
City WEXFORD State PA Zip Code 15090		

J OSBORN HSOP 16 214 AS-DRILLED

15	PROPERTY	DEED NUMBER	ACREAGE
1	OSBORN JUDY M (LE) (JUDY M OSBORN IRREVOCABLE TRUST)	15-0330-0005	56.67
2	HARRON CAROLYN S	15-0330-0003	355.02
3	BENZAKEIN MARY ANN	15-0310-0063	7.35
RXR	CSX RAILROAD	N/A	N/A
4	ODELL LONNA J	15-0310-0047	0.86
5	WINDON CHARLES B	15-0310-0046	3.92
6	RICA DEVELOPERS LLC	15-0310-0044	7.15
ROAD	WV STATE ROUTE 76	N/A	N/A
7	VALLARTA KRISTINE	15-2321-0022	0.34
ROAD	LAKELAND PARK DRIVE	N/A	N/A
8	SIGLEY BARBARA L	15-2321-0001	0.51
9	KINTZ MARCUS & LORI S	15-2321-0002	0.22
10	WATSON MATTHEW L	15-2321-0003	0.27
11	ROBERTSON GREGORY D & SHELIA R	15-0310-0045	3.75
12	ROBERTSON GREGORY D & SHELIA R	15-0310-0024	7.14
13	ROBERTSON GREGORY D & SHELIA R	15-0310-0023	2.80
14	ROME JENNIFER E	15-0310-0080	0.29
ROAD	PEDDLER RUN ROAD	N/A	N/A
15	DEMARCO WILLIAM J & JANELLE M	15-0310-0073	0.31
16	G A L TOOL COMPANY	15-0310-0005-0001	6.00
17	G A L TOOL COMPANY	15-0310-0005-0013	2.21
16	G A L TOOL COMPANY	15-0310-0005-0001	6.00
18	ENERGY PLAZA PARTNERS LLC	15-0310-0005-0025	0.40
19	ENERGY PLAZA PARTNERS LLC	15-0310-0005-0002	7.41
ROAD	WV STATE ROUTE 76	N/A	N/A
20	ROUTE 76 ASSOCIATES	15-0310-0005	22.05
ROAD	WV STATE ROUTE 76	N/A	N/A
ROAD	US ROUTE 50	N/A	N/A
21	SPENCER TIMOTHY R	15-0310-0005-0019	0.69
22	CITY OF BRIDGEPORT	15-0310-0005-0022	0.01
23	HUFFMAN BETTY J	15-0310-0005-0014	0.50
24	BRIDGEPORT STORAGE LLC	15-0310-0005-0015	0.41
25	MAR KEY LLC	15-0310-0005-0016	0.59
26	CALLISON BEATRICE J	15-0290-0047-0001	0.21
27	CALLISON BEATRICE J	15-0290-0047	7.25
28	BENEDUM AIRPORT AUTHORITY	16-0290-0033	101.08
29	BENEDUM AIRPORT AUTHORITY	16-0290-0029-0004	2.93
30	BELASCO MOBILE HOME SALES	15-0290-0029	54.25
31	BENEDUM AIRPORT AUTHORITY	16-0290-0031	6.66
32	BENEDUM AIRPORT AUTHORITY	16-0290-0019	11.45

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

DATE: <u>JULY 27, 2026</u>		FILE #: <u>J OSBORN HSOP 16 214</u>
OPERATOR'S WELL #: <u>J OSBORN HSOP 16 214</u>		DRAWING #: <u>J OSBORN HSOP 16 214</u>
API WELL #: <u>47</u> <u>033</u> <u>06087</u> STATE COUNTY PERMIT		SCALE: <u>N/A</u>
WELL OPERATOR <u>ARSENAL RESOURCES</u> Address <u>6031 WALLACE ROAD EXTENSION, SUITE 200</u> City <u>WEXFORD</u> State <u>PA</u> Zip Code <u>15090</u>	STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	DESIGNATED AGENT <u>ERIC MORRIS</u> Address <u>633 WEST MAIN ST.</u> City <u>BRIDGEPORT</u> State <u>WV</u> Zip Code <u>26330</u>

J OSBORN HSOP 16 214