

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

API 47 - 085 - 10375 County Ritchie District Murphy
Quad Smithville, WV 7.5' Pad Name Goodnight 1402 Field/Pool Name _____
Farm name Goodnight Well Number 1402 N-3H
Operator (as registered with the OOG) HG Energy LLC
Address 5260 Dupont Rd. City Parkersburg State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4324574.10 Easting 492550.30
Landing Point of Curve Northing 4324811.80 Easting 492663.10
Bottom Hole Northing 4327497.70 Easting 491691.20

Elevation (ft) 738 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)
Air/ OBM
KCL, Barite, Lime, CaCL, base oil, clay, sulfatone, petrogel, LCM

Date permit issued 1/10/2019 Date drilling commenced 4/16/2019 Date drilling ceased 8/16/2019
Date completion activities began 9/11/2019 Date completion activities ceased 1/27/2020
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 Not observed Open mine(s) (Y/N) depths N
Salt water depth(s) ft Not observed Void(s) encountered (Y/N) depths N
Coal depth(s) ft Not observed Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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APR 17 2020
WV Department of
Environmental Protection

Reviewed by:
DMH
12-7-20

API 47-085 - 10375 Farm name Goodnight Well number 1402 N-3H

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	20"	20"	120'	New	J55 90 lbs/ft		N
Surface	17.5"	13.375"	827'	New	I-55 54.5 lbs/ft		Yes
Coal							
Intermediate 1	12.25"	9.625"	5730'	New	40lbs/ft L-80		Yes
Intermediate 2							
Intermediate 3							
Production	8.5"	5.5"	15018'	New	P-110 23 lbs/ft		Yes
Tubing	5.5"	2.875"	6218.7'	New	5 lbs/ft J55 EL		not cemented
Packer type and depth set		stage tool @3826' on 9.625" string					

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	Drilled in						
Surface	Class A	707	15.6	1.20	151 bbls	Surface	8
Coal							
Intermediate 1	Class A	684/800	15.6/12.0	1.19/1.89	144/270	Surface	24
Intermediate 2							
Intermediate 3							
Production	Class A	1266/2773	15.6/15.6	1.83/1.19	323/553	Surface	8
Tubing	not cemented						

Drillers TD (ft) 15518' MD Loggers TD (ft) _____

Deepest formation penetrated Marcellus Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) 5786'

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 _____

13.375" casing string: centralizers run 1 every 3 joint to surface

9.625" casing string: centralizers run 1 every 3 joints to surface

5.5" casing string: centralizers placed every other joint to intermediate casing then centralizers every 3 joints to surface

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____ APR 17 2020

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____ WV Department of Environmental Protection

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

**Goodnight 1402 2H well
Stimulation Record**

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APR 17 2020

Stage #	Date	Ave pump rate (BPM)	Ave Treatment Press (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant (LBS)	Water (BBLs)
1	12/9/2019	80.1	8442	10528	2288	269700	14,199
2	12/9/2019	87.0	8,661	9,445	2,380	704200	13,390
3	12/9/2019	89.5	9,183	9,637	5,293	567600	14,047
4	12/10/2019	87.6	9,015	9,488	3,318	702900	14,150
5	12/10/2019	90.5	9,269	9,747	5,497	705800	13,485
6	12/11/2019	86.9	9,154	10,205	3,795	621900	14,681
7	12/11/2019	78.8	8,802	11,019	4,399	698500	14,319
8	12/11/2019	83.9	8,267	9,165	3,284	704000	14,247
9	12/11/2019	86.6	8,799	9,982	3,171	701800	13,361
10	12/12/2019	82.0	8,264	8,742	3,824	701900	13,210
11	12/12/2019	83.0	8,467	9,353	4,868	489900	13,618
12	12/12/2019	85.9	8,273	9,031	5,078	700500	13,565
13	12/13/2019	85.2	8,498	9,593	5,606	528400	12,195
14	12/13/2019	86.5	8,429	9,286	6,032	525000	12,417
15	12/13/2019	88.0	8,406	9,577	N/A	450800	11,737
16	12/22/2019	38.9	10,580	11,737	4,792	22000	3,796
17	12/23/2019	85.4	7,783	8,352	3,235	704600	13,996
18	12/23/2019	84.8	7,767	8,337	3,039	701900	16,338
19	12/24/2019	83.2	7,973	8,695	4,175	474600	14,156
20	12/25/2019	82.7	7,798	8,398	2,946	695980	16,595
21	12/25/2019	75.6	8,019	9,490	SO	377600	13,365
22	12/27/2019	83.5	7,794	8,177	4,871	409940	15,113
23	12/27/2019	83.0	7,715	8,265	4,065	452980	12,516
24	12/27/2019	82.4	7,690	8,160	4,399	545340	14,006
25	12/28/2019	82.5	7,579	8,060	3,827	467900	12,525
26	12/28/2019	88.8	7,893	8,849	3,663	760820	13,027
27	12/28/2019	86.6	7,839	8,357	3,738	700240	15,984
28	12/28/2019	88.1	8,013	9,128	4,652	571300	13,809
29	12/29/2019	86.7	8,557	9,267	5,269	422300	12,862
30	12/29/2019	86.0	8,152	8,598	5,439	356540	11,580
31	12/30/2019	85.8	7,727	8,430	3,994	706180	14,891
32	12/30/2019	81.4	8,482	9,105	5,078	226740	10,379
33	12/30/2019	85.4	8,209	8,972	5,481	406500	12,725
34	12/31/2019	83.2	7,958	8,765	4,451	461940	13,405
35	12/31/2019	83.6	7,271	8,145	2,834	702800	15,918
36	12/31/2019	87.1	7,548	8,462	3,033	700300	13,960
37	1/1/2020	83.0	7,271	7,913	3,491	556300	14,176
38	1/1/2020	88.2	7,392	8,080	3,305	705100	16,866
39	1/2/2020	87.9	7,468	8,270	3,553	704900	16,486
40	1/3/2020	92.1	7,607	8,481	3,393	704500	16,440
41	1/3/2020	93.5	7,560	8,546	3,273	695900	16,154
42	1/4/2020	93.9	8,017	9,402	3,224	702600	17,320
43	1/4/2020	88.1	7,843	8,614	2,951	703700	16,251
44	1/5/2020	89.1	7,440	9,049	3,036	646500	15,481
45	1/5/2020	91.9	7,249	8,188	3,545	720100	15,952
46	1/6/2020	85.0	7,355	9,192	4,948	538300	15,406
47	1/6/2020	88.4	7,464	8,094	3,617	579300	14,644
48	1/7/2020	86.5	7,492	8,196	4,088	640400	15,389
49	1/8/2020	86.0	7,670	8,215	3,989	537800	15,243
50	1/8/2020	82.1	7,218	7,845	3,608	704800	16,912
51	1/9/2020	92.0	7,554	8,776	8,512	410200	13,068
52	1/9/2020	97.9	7,296	7,836	2,998	704800	16,686
53	1/10/2020	99.0	7,626	8,757	6,893	397600	11,460
54	1/10/2020	94	8,087	8,994	5,514	607560	16,613
55	1/11/2020	98	7,648	8,204	4,904	537400	14,815
56	1/11/2020	92.5	7,668	10,573	5,663	383340	11,695
57	1/12/2020	97.1	7,548	9,094	5,268	570100	15,529
58	1/12/2020	98	7,104	7,528	5,409	710380	16,374
59	1/13/2020	95.4	6,855	8,647	5,772	561100	15,121
60	1/14/2020	98.4	7,605	8,220	6,701	664820	15,765
61	1/14/2020	98.9	7,204	7,711	5,664	698200	16,317
62	1/14/2020	99	7,119	7,993	3,399	699840	14,903
63	1/15/2020	97	7,109	7,789	3,077	706500	15,538
64	1/16/2020	100	6,676	7,214	3,399	705180	14,945

WV 7132
Environmental
Protection

Goodnight 1402 3H well
Perforation Record

Stage #	Perf Date	Perf from depth	Perf to depth	Number of perfs	Formation
1	12/9/2019	14916	14869	2-Sleeves	Marcellus
2	12/9/2019	14,836	14,661	48	Marcellus
3	12/9/2019	14,635	14,460	48	Marcellus
4	12/23/2019	14,434	14,259	48	Marcellus
5	12/23/2019	14,233	14,058	48	Marcellus
6	12/24/2019	14,032	13,857	48	Marcellus
7	12/25/2019	13,831	13,656	48	Marcellus
8	12/26/2019	13,630	13,455	48	Marcellus
9	12/27/2019	13,429	13,254	48	Marcellus
10	12/27/2019	13,228	13,053	48	Marcellus
11	12/28/2019	13,027	12,852	48	Marcellus
12	12/28/2019	12,826	12,651	48	Marcellus
13	12/29/2019	12,625	12,450	48	Marcellus
14	12/29/2019	12,424	12,249	48	Marcellus
15	12/30/2019	12,223	12,048	48	Marcellus
16	12/31/2019	12,022	11,847	48	Marcellus
17	1/1/2020	11,821	11,646	48	Marcellus
18	1/2/2020	11,620	11,445	48	Marcellus
19	1/2/2020	11,415	11,244	60	Marcellus
20	1/2/2020	11,195	11,042	60	Marcellus
21	1/3/2020	11,017	10,842	56	Marcellus
22	1/4/2020	10,816	10,641	56	Marcellus
23	1/5/2020	10,615	10,440	56	Marcellus
24	1/5/2020	10,414	10,239	48	Marcellus
25	1/5/2020	10,213	10,038	48	Marcellus
26	1/5/2020	9,902	9,812	56	Marcellus
27	1/6/2020	9,793	9,636	56	Marcellus
28	1/6/2020	9,610	9,435	56	Marcellus
29	1/7/2020	9,409	9,234	56	Marcellus
30	1/8/2020	9,208	9,033	56	Marcellus
31	1/8/2020	9,007	8,832	56	Marcellus
32	1/8/2020	8,806	8,631	56	Marcellus
33	1/9/2020	8,605	8,430	56	Marcellus
34	1/10/2020	8,404	8,229	56	Marcellus
35	1/10/2020	8,203	8,028	56	Marcellus
36	1/11/2020	8,002	7,827	56	Marcellus
37	1/12/2020	7,801	7,626	56	Marcellus
38	1/12/2020	7,600	7,440	70	Marcellus
39	1/13/2020	7,399	7,224	70	Marcellus
40	1/13/2020	7,198	7,023	70	Marcellus
41	1/13/2020	6,997	6,822	70	Marcellus
42	1/14/2020	6,796	6,621	70	Marcellus
43	1/15/2020	6,595	6,420	70	Marcellus
44	1/15/2020	6,394	6,219	70	Marcellus

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Goodnight 1402 3H Formations

	Top		Base		
	MD	TVD	MD	TVD	
Big Lime	1767	1766	1825	1824 Limestone	No water shows observed, No coal observed
Big Injun	1825	1824	1910	1909 Sandstone	
Weir	1952	1951	1970	1969 Sandstone	
Berea	2224	2223	2234	2233 Sandstone/Siltstone/Shale	
Gordon	2594	2593	2606	2605 Shale/Siltstone	
Warren	3294	3292	3336	3334 Shale/Siltstone	
Balltown	3904	3903	3935	3923 Shale	
Riley	4193	4173	4215	4194 Shale/Siltstone	
Java (Bensc	4252	4230	4268	4245 Siltstone/Shale	
Upper Alex	4721	4683	4796	4756 Shale/Siltstone	
Lower Alex	4796	4756	4812	4771 Shale/Siltstone	
Rhinestre	5099	5044	5099	5044 Shale	
Elk	5231	5169	5248	5184 Sandstone	
Cashagua	5811	5640	5925	5714 Shale	1282 units background gas
Middlesex	5925	5714	5950	5729 Shale	2545 units background gas
Burket	5950	5729	6051	5782 Shale	
Tully	6051	5782	6055	5784 Shale/Limestone	
Hamilton	6055	5784	6127	5814 Shale	
Marcellus	6127	5814	15518	5786 Shale	4900 units background, while on air (to 6734' MD), 7168' MD begin taking losses

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BHL is located on topo map 10,355 feet south of Latitude: 39°07'30"
 SHL is located on topo map 4,771 feet south of Latitude: 39°05'00"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

	SURFACE OWNER	DIST-TM/PAR
1	KENNETH PAUL GOODNIGHT	07-26/55
2	AYERS CEMETERY	07-26/55.1
3	DAVID F. CUNNINGHAM	07-26/21
4	J. D. CUNNINGHAM	07-26/11.1
5	JENNINGS DARWIN CUNNINGHAM II	07-26/11
6	ALFAB INCORPORATED	07-26/6
7	ALFAB INCORPORATED	07-26/7
8	C. M. ELLIOTT HRS (CHAS. M.) C/O MARY CARPENTER	07-18/30
	C. W. ELLIOTT HRS C/O MARY C. OLDAKER	
	LONNIE W. ELLIOTT HRS C/O JANET SUE ELLIOTT	
	LUVINA J. ELLIOTT	
	DAVID P., JR. & JANET SUE ELLIOTT	
	RAY ELLIOTT	
	JOHN J., II & ELLYSON MARY OLDAKER C/O MARY C. OLDAKER	
	ELZONA PROST HRS	
	KENNETH H. PARKS, WILLIAM TYRAN & MARY PARKS	
	C/O BARBARA J. BARKER AND ROBERT H. PARKS	
	LYDIA M. PARKS EST & F. EUSTACE C/O LYDIA ENOS	
	HAUGHT FARM LLC	
	E. CLIFFORD WOLFE	
	WILLIAM B. ELLIOTT	
	TIMOTHY AMOS CLAYTON & JOE L. SWEETCRAFT,	
	CATHY ANN TRUESDELL	
	ERNEST J. DYE, NORMA J. COTRILL & LOIS C. PORTER	
	EDWARD LEE PORTER JR., EDWIN LEE PORTER SR.,	
	GARY MICHAEL & STEVEN TODD PORTER	
	JUDY L. MILLER	
	MARY LOU NATH	
	EDDIE C. WATSON	
	IRENA W. CONLEY	
	EDNA HARDMAN	
	ERNEST L. HARTSHORN	
	MARY ELIZABETH HILTON CARPENTER	
	SUE ELLIOTT NORRIS	
9	A. J. SCOTT	07-18/19
10	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/18
11	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/15
12	KEVIN SCOTT SIMMONS & LISA MICHELLE HONAKER	07-18/8
13	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/7

AS-DRILLED
 SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83(M)
 N:4324574.10
 E:492550.30
 UTM 17-NAD83(ET)
 N:14188206.86
 E:1615975.34
 LAT/LON DATUM-NAD83
 LAT:39.070234
 LON:-81.086118

AS-DRILLED
 APPROX. LANDING POINT
 UTM 17-NAD83(M)
 N:4324811.80
 E:492663.10
 UTM 17-NAD83(ET)
 N:14188986.57
 E:1616345.39
 LAT/LON DATUM-NAD83
 LAT:39.072377
 LON:-81.084817

AS-DRILLED
 BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83(M)
 N:4327497.70
 E:491691.20
 UTM 17-NAD83(ET)
 N:14197798.72
 E:1613156.80
 LAT/LON DATUM-NAD83
 LAT:39.096571
 LON:-81.096085



BHL is located on topo map 3,619 feet west of Longitude: 81°05'00"
 SHL is located on topo map 791 feet west of Longitude: 81°05'00"

	LESSOR	DIST-TM/PAR
A	M. A. AYERS	07-26/55
B	WILSON	07-26/21
C	PARKS/ WILSON	07-26/11.1
D	HAUGHT/ EVANS	07-26/11
E	S. H. WESTFALL	07-26/6
F	MARY ELLIOT HEIRS	07-26/7
G	MARY E. SCOTT	07-18/30
H	A. ELLIOTT	07-18/19
I	R. JOHNSON	07-18/18
J	R. JOHNSON	07-18/15
K	HEDGE	07-18/8
L	PARKS	07-18/7

THRASHER

THE THRASHER GROUP INC.

CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831

FILE #: GOODNIGHT 1402 N-3H
 DRAWING #: GOODNIGHT 1402 N-3H
 SCALE: 1" = 2000'
 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: *Joseph H. Lowther*
 R.P.E.: _____ L.L.S.: P.S. No. 2346



PLACE SEAL HERE

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



DATE: APRIL 8, 2020
 OPERATOR'S WELL #: GOODNIGHT 1402 N-3H
 API WELL #: 47 85 10375
 STATE COUNTY PERMIT

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

WATERSHED: SOUTH FORK HUGHES RIVER ELEVATION: 739'±

COUNTY/DISTRICT: RITCHIE / MURPHY QUADRANGLE: SMITHVILLE, WV 7.5'

SURFACE OWNER: KENNETH PAUL GOODNIGHT ACREAGE: 239.924±

OIL & GAS ROYALTY OWNER: M. A. AYERS ACREAGE: 1032.649±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: AS-DRILLED TVD: 5.786± TMD: 15.518±

WELL OPERATOR HG ENERGY II APPALACHIA, LLC

DESIGNATED AGENT DIANE C. WHITE

Address 5260 DUPONT ROAD

Address 5260 DUPONT ROAD

City PARKERSBURG State WV Zip Code 26101

City PARKERSBURG State WV Zip Code 26101

AS DRILLED PLAT

GOODNIGHT 1402 N-3H

PAGE 2 OF 2

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. 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 record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	S 84°54'03" W	159.45'
R2	N 68°46'07" W	191.05'
R3	N 56°23'39" W	184.04'
R4	S 59°54'08" W	1553.24'
R5	S 59°37'00" E	1910.24'
R6	S 05°49'05" E	2998.53'

AS-DRILLED SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83(M)
 N:4324574.10
 E:492550.30
 UTM 17-NAD83(FT)
 N:14188206.86
 E:1615975.34
 LAT/LON DATUM-NAD83
 LAT:39.070234
 LON:-81.086118

AS-DRILLED APPROX. LANDING POINT
 UTM 17-NAD83(M)
 N:4324811.80
 E:492663.10
 UTM 17-NAD83(FT)
 N:14188986.57
 E:1616345.39
 LAT/LON DATUM-NAD83
 LAT:39.072377
 LON:-81.084817

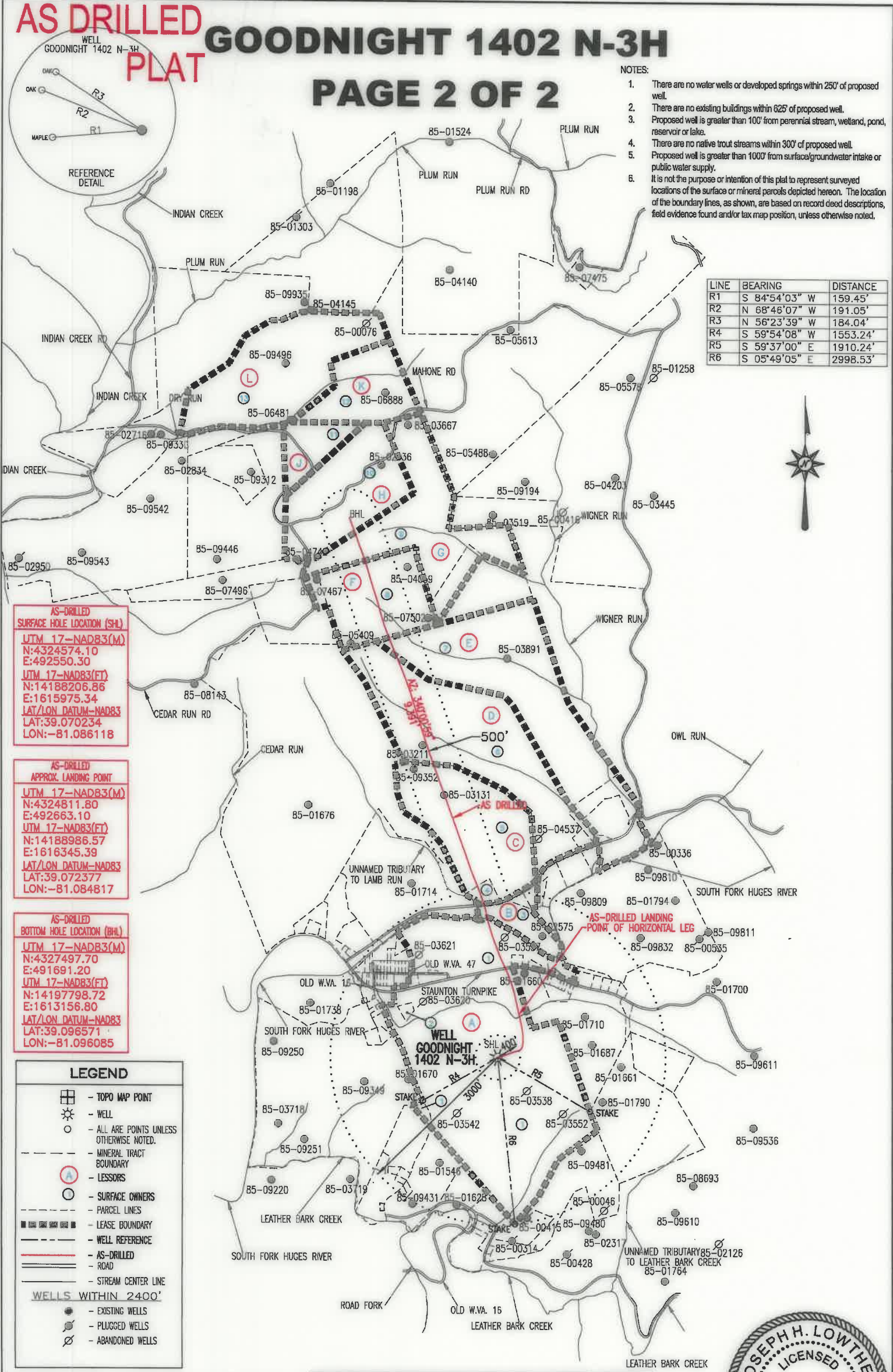
AS-DRILLED BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83(M)
 N:4327497.70
 E:491691.20
 UTM 17-NAD83(FT)
 N:14197798.72
 E:1613156.80
 LAT/LON DATUM-NAD83
 LAT:39.096571
 LON:-81.096085

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- LESSORS
- SURFACE OWNERS
- PARCEL LINES
- LEASE BOUNDARY
- WELL REFERENCE
- AS-DRILLED
- ROAD
- STREAM CENTER LINE

WELLS WITHIN 2400'

- EXISTING WELLS
- PLUGGED WELLS
- ABANDONED WELLS



THERE ARE NO DEEP WELLS WITHIN 3000'

APRIL 8, 2020

THRASHER
 THE THRASHER GROUP INC.
 CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831



BHL is located on topo map 10,355 feet south of Latitude: 39°07'30"
 SHL is located on topo map 4,771 feet south of Latitude: 39°05'00"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

	SURFACE OWNER	DIST-TM/PAR
1	KENNETH PAUL GOODNIGHT	07-26/55
2	AYERS CEMETERY	07-26/55.1
3	DAVID F. CUNNINGHAM	07-26/21
4	J. D. CUNNINGHAM	07-26/11.1
5	JENNINGS DARWIN CUNNINGHAM II	07-26/11
6	ALFAB INCORPORATED	07-26/6
7	ALFAB INCORPORATED	07-26/7
8	C. M. ELLIOTT HRS (CHAS. M.) C/O MARY CARPENTER	07-18/30
	C. W. ELLIOTT HRS C/O MARY C. OLDAKER	
	LONNIE W. ELLIOTT HRS C/O JANET SUE ELLIOTT	
	LUVINA J. ELLIOTT	
	DAVID P., JR. & JANET SUE ELLIOTT	
	RAY ELLIOTT	
	JOHN J., II & ELLYSON MARY OLDAKER C/O MARY C. OLDAKER	
	ELZONA PROST HRS	
	KENNETH H. PARKS, WILLIAM TYRAN & MARY PARKS	
	C/O BARBARA J. BARKER AND ROBERT H. PARKS	
	LYDIA M. PARKS EST & F. EUSTACE C/O LYDIA ENOS	
	HAUGHT FARM LLC	
	E. CLIFFORD WOLFE	
	WILLIAM B. ELLIOTT	
	TIMOTHY AMOS CLAYTON & JOE L. SWEETCRAFT,	
	CATHY ANN TRUESDELL	
	ERNEST J. DYE, NORMA J. COTRILL & LOIS C. PORTER	
	EDWARD LEE PORTER JR., EDWIN LEE PORTER SR.,	
	GARY MICHAEL & STEVEN TODD PORTER	
	JUDY L. MILLER	
	MARY LOU NATH	
	EDDIE C. WATSON	
	IRENA W. CONLEY	
	EDNA HARDMAN	
	ERNEST L. HARTSHORN	
	MARY ELIZABETH HILTON CARPENTER	
	SUE ELLIOTT NORRIS	
9	A. J. SCOTT	07-18/19
10	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/18
11	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/15
12	KEVIN SCOTT SIMMONS & LISA MICHELLE HONAKER	07-18/8
13	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/7

AS-DRILLED
 SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83(M)
 N:4324574.10
 E:492550.30
 UTM 17-NAD83(FT)
 N:14188208.86
 E:1615975.34
 LAT/LON DATUM-NAD83
 LAT:39.070234
 LON:-81.086118

AS-DRILLED
 APPROX. LANDING POINT
 UTM 17-NAD83(M)
 N:4324811.80
 E:492663.10
 UTM 17-NAD83(FT)
 N:14188986.57
 E:1616345.39
 LAT/LON DATUM-NAD83
 LAT:39.072377
 LON:-81.084817

AS-DRILLED
 BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83(M)
 N:4327497.70
 E:491691.20
 UTM 17-NAD83(FT)
 N:14197798.72
 E:1613156.80
 LAT/LON DATUM-NAD83
 LAT:39.096571
 LON:-81.096085



BHL is located on topo map 3,619 feet west of Longitude: 81°05'00"
 SHL is located on topo map 791 feet west of Longitude: 81°05'00"

	LESSOR	DIST-TM/PAR
A	M. A. AYERS	07-26/55
B	WILSON	07-26/21
C	PARKS/ WILSON	07-26/11.1
		07-26/11
D	HAUGHT/EVANS	07-26/6
E	S. H. WESTFALL	07-26/7
F	MARY ELLIOT HEIRS	07-18/30
G	MARY E. SCOTT	07-18/19
H	A. ELLIOTT	07-18/18
J	R. JOHNSON	07-18/15
K	HEDGE	07-18/8
L	PARKS	07-18/7

THRASHER

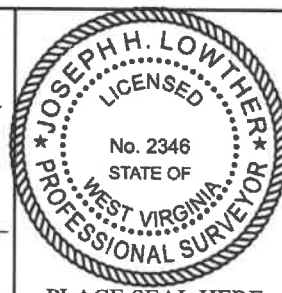
THE THRASHER GROUP INC.

CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831

FILE #: GOODNIGHT 1402 N-3H
 DRAWING #: GOODNIGHT 1402 N-3H
 SCALE: 1" = 2000'
 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: *Joseph H. Lowther*
 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: APRIL 8, 2020
 OPERATOR'S WELL #: GOODNIGHT 1402 N-3H
 API WELL #: 47 85 10375
 STATE COUNTY PERMIT

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

WATERSHED: SOUTH FORK HUGHES RIVER ELEVATION: 739'±

COUNTY/DISTRICT: RITCHIE / MURPHY QUADRANGLE: SMITHVILLE, WV 7.5'

SURFACE OWNER: KENNETH PAUL GOODNIGHT ACREAGE: 239.924±

OIL & GAS ROYALTY OWNER: M. A. AYERS ACREAGE: 1032.649±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: AS-DRILLED TVD: 5,786'± TMD: 15,518'±

WELL OPERATOR HG ENERGY II APPALACHIA, LLC DESIGNATED AGENT DIANE C. WHITE
 Address 5260 DUPONT ROAD Address 5260 DUPONT ROAD
 City PARKERSBURG State WV Zip Code 26101 City PARKERSBURG State WV Zip Code 26101

