

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

API 47 - 051 - 01901 County Marshall District Clay
Quad Glen Easton Pad Name Hicks Field/Pool Name _____
Farm name Thomas E. Hicks Well Number Hicks M06H
Operator (as registered with the OOG) Chevron Appalachia, LLC (49449935)
Address 700 Cherrington Parkway City Coraopolis State PA Zip 15108

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 50197.050 Easting 1626583.570
Landing Point of Curve Northing 499049.010 Easting 1624392.390
Bottom Hole Northing 491737.460 Easting 1630275.370

Elevation (ft) 1177 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
Barite, fluid loss, emulsifiers, rheological control

Date permit issued 2/23/2017 Date drilling commenced 10/18/2017 Date drilling ceased 7/26/2019
Date completion activities began 10/1/2019 Date completion activities ceased 3/4/2020
Verbal plugging (Y/N) 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 n/a Open mine(s) (Y/N) depths N
Salt water depth(s) ft n/a Void(s) encountered (Y/N) depths N
Coal depth(s) ft 698', 1290' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by:
John Theobald
4/15/2020

API 47-051 - 01901 Farm name Thomas E. Hicks Well number Hicks M06H

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	26"	20"	60'	N	X-52 / 78.67		Y
Surface	17-1/2"	13-3/8"	485'	N	J-55 / 54.50		Y
Coal							
Intermediate 1	2-1/4"	9-5/8"	1990'	N	L-80 / 40		Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	17737	N	P-110EC / 20		Y
Tubing							
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	Bulk Cement					Surface	8
Surface	Class A	394	15.6	1.20	473	Surface	8
Coal							
Intermediate 1	Class A	675	15.6	1.19	804	Surface	8
Intermediate 2							
Intermediate 3							
Production	Class A	2979	14.5	1.17	3498	Surface	8
Tubing							

Drillers TD (ft) ¹⁷⁶⁰⁵ _____ Loggers TD (ft) ¹⁷⁶⁰⁵ _____
 Deepest formation penetrated Marcellus Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) ⁷⁰⁶³ _____

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: (1) on shoe track with stop collar and (1) per joint over coupling to surface.
INTERMEDIATE: (1) on shoe track with stop collar and (1) per 3 joints over coupling.
PRODUCTION: (1) centralizer every joint in the lateral and curve and (1) every other joint from KOP to surface.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS SEE ATTACHED PERFORATION AND STIMULATION REPORTS

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6370'</u> TVD	<u>8131'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

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	
	0		0		
SEE	ATTACHED				

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHED
 Address _____ City _____ State _____ Zip _____
 Logging Company Stratagragh NE Inc
 Address 116 Ellsworth Avenue City Marietta State OH Zip 45750
 Cementing Company BJ Services
 Address 3415 Millennium Boulevard SE City Massillon State OH Zip 44646
 Stimulating Company Universal Pressure Pumping
 Address 18360 Technology Drive City Meadville State PA Zip 16335

Please insert additional pages as applicable.

Completed by Jackie M. Scholar Telephone 412-865-3422
 Signature [Signature] Title Regulatory Compliance Team Lead Date 3/9/2020

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PERFORATION RECORD					
Stage No.	Perforation Date	Perforated From TMD Ft.	Perforated To TMD Ft.	Number of Perforations	Formation(s)
1	1/2/2020	17504	17605	47	Marcellus
2	1/2/2020	17303	17463	47	Marcellus
3	1/3/2020	17103	17263	47	Marcellus
4	1/3/2020	16903	17063	47	Marcellus
5	1/4/2020	16703	16863	47	Marcellus
6	1/4/2020	16503	16663	47	Marcellus
7	1/6/2020	16303	16463	47	Marcellus
8	1/6/2020	16103	16263	47	Marcellus
9	1/6/2020	15903	16063	47	Marcellus
10	1/7/2020	15703	15863	47	Marcellus
11	1/7/2020	15503	15663	47	Marcellus
12	1/7/2020	15303	15463	47	Marcellus
13	1/8/2020	15103	15263	47	Marcellus
14	1/8/2020	14903	15063	47	Marcellus
15	1/8/2020	14703	14863	47	Marcellus
16	1/9/2020	14503	14663	47	Marcellus
17	1/9/2020	14303	14463	47	Marcellus
18	1/9/2020	14103	14263	47	Marcellus
19	1/10/2020	13903	14063	47	Marcellus
20	1/10/2020	13703	13863	47	Marcellus
21	1/10/2020	13503	13663	47	Marcellus
22	1/10/2020	13303	13463	47	Marcellus
23	1/11/2020	13103	13263	47	Marcellus
24	1/11/2020	12903	13063	47	Marcellus
25	1/12/2020	12703	12863	47	Marcellus
26	1/12/2020	12503	12663	47	Marcellus
27	1/12/2020	12303	12463	47	Marcellus
28	1/13/2020	12103	12263	47	Marcellus
29	1/13/2020	11903	12063	47	Marcellus
30	1/13/2020	11703	11863	47	Marcellus
31	1/13/2020	11503	11663	47	Marcellus
32	1/15/2020	11303	11463	47	Marcellus
33	1/16/2020	11103	11263	47	Marcellus
34	1/16/2020	10903	11063	47	Marcellus
35	1/16/2020	10703	10863	47	Marcellus
36	1/16/2020	10503	10663	47	Marcellus
37	1/17/2020	10303	10463	47	Marcellus
38	1/17/2020	10103	10263	47	Marcellus
39	1/17/2020	9903	10063	47	Marcellus
40	1/17/2020	9703	9863	47	Marcellus
41	1/18/2020	9503	9663	47	Marcellus
42	1/18/2020	9303	9463	47	Marcellus
43	1/18/2020	9103	9263	47	Marcellus
44	1/18/2020	8903	9063	47	Marcellus
45	1/18/2020	8703	8863	47	Marcellus
46	1/19/2020	8503	8663	47	Marcellus
47	1/19/2020	8303	8463	47	Marcellus
48	1/19/2020	8103	8263	47	Marcellus

Please insert additional copies of this page if additional rows/stages are needed.

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STIMULATION INFORMATION / STAGE								
Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).								
Stg No	Stimulation 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	1/2/2020	99.9	8962	4849	4357	400232	9400	n/a
2	1/2/2020	98.3	8996	4975	4174	400568	9948	n/a
3	1/3/2020	99.7	8719	5140	4859	400493	9801	n/a
4	1/3/2020	99.8	8885	3284	5356	400118	9873	n/a
5	1/4/2020	99.7	9024	6725	4720	399219	9822	n/a
6	1/4/2020	95.4	8755	5870	4633	399799	9743	n/a
7	1/6/2020	100.1	9082	5326	4593	404915	9849	n/a
8	1/6/2020	97.4	8798	5122	4724	402671	9640	n/a
9	1/6/2020	100.3	8548	6256	4904	400802	9771	n/a
10	1/7/2020	99.7	8547	5553	5000	400557	9705	n/a
11	1/7/2020	99.5	8414	5764	4685	399404	9656	n/a
12	1/7/2020	99.8	8379	5346	4632	404217	9849	n/a
13	1/8/2020	99.9	8388	6107	4811	400780	9620	n/a
14	1/8/2020	99.2	8572	5795	4883	400395	9712	n/a
15	1/8/2020	99	8152	4901	4798	400102	9680	n/a
16	1/9/2020	100	8375	5322	4925	400190	9652	n/a
17	1/9/2020	99.7	8442	4612	4919	401655	9695	n/a
18	1/9/2020	99.2	8340	5179	4796	400207	9664	n/a
19	1/10/2020	100.2	8220	5029	4694	399930	9604	n/a
20	1/10/2020	99.3	8225	5711	4921	400930	9595	n/a
21	1/10/2020	100.1	8104	4495	5179	400327	9570	n/a
22	1/10/2020	100.1	8091	4019	4811	400155	9447	n/a
23	1/11/2020	99.5	7930	4158	4924	400260	9679	n/a
24	1/11/2020	100.1	8266	4852	5559	400198	9570	n/a
25	1/12/2020	100.2	8127	6336	4560	400111	9496	n/a
26	1/12/2020	100.3	8144	5900	5071	402092	9623	n/a
27	1/12/2020	99.7	7769	4264	4755	399994	9577	n/a
28	1/13/2020	100.5	7862	5016	4988	400858	9456	n/a
29	1/13/2020	99.8	7891	5634	5120	400887	9538	n/a
30	1/13/2020	99.8	7824	5527	4635	400141	9455	n/a
31	1/13/2020	99.8	7794	5252	4758	400013	9423	n/a
32	1/15/2020	99.6	7711	5328	4578	400125	9436	n/a
33	1/16/2020	99.6	7877	6066	5238	400630	9374	n/a
34	1/16/2020	100	7763	5145	5060	400923	9554	n/a
35	1/16/2020	100.4	7659	5574	4921	401524	9468	n/a
36	1/16/2020	100.1	7547	5211	4963	400336	9423	n/a
37	1/17/2020	99.8	7669	5838	4995	400322	9696	n/a
38	1/17/2020	98.3	7540	5521	5124	400820	10356	n/a
39	1/17/2020	100.4	7607	5424	4707	400584	9355	n/a
40	1/17/2020	100.6	7499	4622	4875	401257	9428	n/a
41	1/18/2020	100.5	7539	5407	4975	400504	9515	n/a
42	1/18/2020	100.7	7743	4263	4921	401140	9415	n/a
43	1/18/2020	100	7602	5162	5019	400936	9330	n/a
44	1/18/2020	100.2	7154	4589	4943	403765	9234	n/a
45	1/18/2020	99.5	7111	4829	5223	399159	9295	n/a
46	1/19/2020	99.4	7238	5228	4898	401496	9396	n/a
47	1/19/2020	100.3	7253	5190	4687	400694	9324	n/a
48	1/19/2020	100.3	7258	5326	4897	402437	9268	n/a

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Farm Name: Thomas E. Hicks

Well Number: Hicks M06H

Lithology/Tops	MD Top	MD Base	TVD Top	TVD Base	Describe rock type and record quantity and type of fluid (Freshwater, Brine, Oil, Gas, H2S, Etc.)
Pittsburgh Coal	698	704	676	682	coal
Conemaugh	704	1096	704	1096	shale & siltstone transitioning to shale & limestone at base; gas shows
Allegheny	1096	1304	1096	1304	limey siltstones and shales; oil show
Clairion Coal	1290	1,297	1290	1297	coal
Salt Sands	1,304	1,545	1304	1544	interbedded sands and shales; gas shows
Mauch Chunk	1,545	1,666	1544	1665	sandy/silty shales
Big Lime	1,666	1,733	1665	1731	siltstone transitioning to limestone base
Burgoon	1,733	1,952	1731	1947	sandstone
Weir Shale	1,952	2,070	1947	2070	shale; brine
CHQA	7336.97	7495.42	6062.32	6139.14	siltstone/shale, gas shows
MDLX	7495.42	7536.53	6139.14	6161.96	shale
PYAN	7536.53	7590.99	6161.96	6192.51	siltstone/shale, gas show
BRKT	7590.99	7638.25	6192.51	6218.16	shale
BRKT.a	7638.25	7669.33	6218.16	6234.44	shale
TLLY	7669.33	7743.63	6234.44	6271.07	limestone, gas shows
S5	7743.63	7959.79	6271.07	6342.67	shale, gas shows
S3	7959.79	8067.91	6342.67	6361.89	shale, gas shows
STFD	8067.91	8075.38	6361.89	6362.99	limestone
S2.B	8075.38	8131.29	6362.99	6369.89	shale, gas shows
S2.A	8131.29		6369.89		shale, gas shows
PRCL					limestone, gas shows
S1.B					shale, gas shows
Alpha					shale, gas shows
TD	17782.00		6472.92		

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API: 47-051-01901	Farm Name: Thomas E. Hicks	Well Number: Hicks M06H
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DRILLING CONTRACTORS		
Driller	Driller	Driller
Name Rocky Mountain Drilling	Name Highlands Drilling LLC	Name Precision Drilling Holdings Company
Address 185 North Vernal Avenue, Suite 2	Address 900 Virginia Street East	Address 10350 Richmond Avenue, Suite 700
City - State - Zip Vernal, UT 84078	City - State - Zip Charlestown, WV 25301	City - State - Zip Houston, TX 77042

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Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	1/2/2020
Job End Date:	1/19/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-01901-00-00
Operator Name:	Chevron USA Inc.
Well Name and Number:	Hicks M06H
Latitude:	39.87164700
Longitude:	-80.78490700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,571
Total Base Water Volume (gal):	19,319,160
Total Base Non Water Volume:	0

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	Chevron	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.28198	None
Sand	UFP	Proppant	Crystalline Silica in the form of Quartz	14808-60-7	99.90000	10.52453	None
FR-11	UFP	Friction reducer	Water	7732-18-5	55.00000	0.04204	None
			CHEMPLEX-Polymer_00019	Trade Secret	25.00000	0.01911	None
			Hydrotreated Petroleum Distillate	84742-47-8	25.00000	0.01911	None
			Sodium Chloride	7647-14-5	15.00000	0.01147	None
			Alcohol Ethoxyate Surfactants	68551-12-2	3.00000	0.00229	None
			Oleic Acid Diethanolamide	93-83-4	3.00000	0.00229	None
			Ammonium Chloride	12125-02-9	2.00000	0.00153	None
			Polyoxyethylene Sorbitan Monooleate	9005-65-6	1.00000	0.00076	None
HCL Acid (7.5%)	UFP	Acidizing	Hydrochloric Acid	7647-01-0	7.50000	0.07849	None
K-BAC 1020	UFP	Biocide					

Submitted 1/27/20

Other Chemical(s)	Listed Above	See Trade Name(s) list										
			Polyethylene glycol	25322-68-3	50.00000	0.01037	None					
			Water	7732-18-5	30.00000	0.00622	None					
			2,2-Dibromo-3-nitriopropanamide	10222-01-2	21.00000	0.00435	None					
Scale Hib PE-18	Upp	Scale Inhibitor	Ethylene glycol	107-21-1	40.00000	0.00708	None					
			Proprietary Scale Inhibitor	Proprietary	30.00000	0.00531	None					
7L	Upp	Iron Control Agent	Ethylene Glycol	107-21-1	20.00000	0.00414	None					
			Ammonium glycolate	35249-89-9	20.00000	0.00414	None					
			Hydroxyacetic acid	79-14-1	5.00000	0.00103	None					
Uninib G	Upp	Acid Inhibitor	Butyl diglycol	112-34-5	75.00000	0.00062	None					
			Alcohols, C-10-16, ethoxylated	88002-97-1	50.00000	0.00041	None					
			Methanol	67-56-1	5.00000	0.00004	None					
			Formaldehyde	50-00-0	1.00000	0.00001	None					
			Thiourea	62-56-6	1.00000	0.00001	None					
Ingredients shown above are subject to 29 CFR 1910.1200(Q) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.												
			Water	7732-18-5	55.00000	0.04204						
			Hydrotreated Petroleum Distillate	64742-47-8	25.00000	0.01911						
			Sodium Chloride	7647-14-5	15.00000	0.01147						
			Polyethylene glycol	25322-68-3	50.00000	0.01037						
			Ethylene glycol	107-21-1	40.00000	0.00708						
			Water	7732-18-5	30.00000	0.00622						
			Ammonium glycolate	35249-89-9	20.00000	0.00414						
			Oleic Acid Diethanolamide	93-83-4	3.00000	0.00229						
			Alcohol Ethoxylate Surfactants	88551-12-2	3.00000	0.00229						
			Ammonium Chloride	12125-02-9	2.00000	0.00153						
			Hydroxyacetic acid	79-14-1	5.00000	0.00103						
			Polyoxyethylene Sorbitan Monoleate	9005-65-6	1.00000	0.00076						
			Alcohols, C-10-16, ethoxylated	88002-97-1	50.00000	0.00041						
			Methanol	67-56-1	5.00000	0.00004						
			Thiourea	62-56-6	1.00000	0.00001						
			Formaldehyde	50-00-0	1.00000	0.00001						

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* 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%
 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(Q) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

REFERENCE WELLPATH IDENTIFICATION

Operator CHEVRON APPALACHIA, LLC
 Area Marshall County, WV
 Field Marshall County
 Facility Hicks Pad
 Slot Slot #06
 Well Hicks M06H
 Wellbore Hicks M06H AWB
 Wellpath Hicks M06H AWP Proj: 17782'
 Sidetrack (none)

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REPORT SETUP INFORMATION

Projection : NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet
 North Refe TRUE
 Scale 0.99995
 Convergence 0.78° West
 Software S.WellArchitect® 5.1
 User Hilpithop
 Report Ger 06/Aug/2019 at 15:29
 Database:/WA_MPL_EASTERNNUS_Defn/ev170.xml

WELLPATH	Local	North	Local	East	Easting	Northing	Latitude	Longitude
	[ft]		[ft]		[US ft]	[US ft]		
Slot Locatic	-73.26		15.9		1626584	501917.1	39°52'17.9"	80°43'05.665"W
Facility Ref					1626569	501990.5	39°52'18.6"	80°43'05.869"W
Field Refer					1644569	516963.8	39°54'48.9"	80°39'17.476"W

WELLPATH DATUM

Calculation Minimum curvature
 Horizontal Slot
 Vertical Ref: Precision 560 (RKB)
 MD Refer: Precision 560 (RKB)
 Field Vertic Mean Sea Level
 Precision 5.25.00ft
 Precision 5.1165.00ft
 Precision 5.25.00ft
 Section Ori N 0.00, E 0.00 ft
 Section Azi 140.44°

WELLPATH DATA + = interpolated/extrapolated station

	MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dis	Closure Dir	DLS	Build Rate	Turn Rate
	[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]
+	0	0	111.75	0	0	0	0	1626584	501917.1	39°52'17.9"	80°43'05.6"	0	0	0	0	0

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1529	1.08	228.48	1528.88	2.01	-2.2	0.49	1626584	501914.8	39°52'17.9	80°43'05.6	2.26	167.475	0.76	0.74	9.13
1560	1.11	217.52	1559.87	2.09	-2.64	0.09	1626584	501914.4	39°52'17.9	80°43'05.6	2.64	178.086	0.68	0.1	-35.35
1591	1.3	214.12	1590.87	2.25	-3.17	-0.29	1626583	501913.9	39°52'17.8	80°43'05.6	3.18	185.271	0.65	0.61	-10.97
1622	1.45	213.89	1621.86	2.47	-3.78	-0.71	1626583	501913.3	39°52'17.8	80°43'05.6	3.85	190.602	0.48	0.48	-0.74
1653	1.05	217.19	1652.85	2.64	-4.33	-1.1	1626582	501912.7	39°52'17.8	80°43'05.6	4.47	194.221	1.31	-1.29	10.65
1684	0.9	196.53	1683.84	2.84	-4.79	-1.34	1626582	501912.3	39°52'17.8	80°43'05.6	4.98	195.61	1.22	-0.48	-66.65
1716	0.87	194.62	1715.84	3.13	-5.27	-1.47	1626582	501911.8	39°52'17.8	80°43'05.6	5.47	195.608	0.13	-0.09	-5.97
1747	0.69	184.55	1746.84	3.4	-5.68	-1.55	1626582	501911.4	39°52'17.8	80°43'05.6	5.89	195.221	0.73	-0.58	-32.48
1778	0.74	170.08	1777.84	3.7	-6.07	-1.53	1626582	501911	39°52'17.8	80°43'05.6	6.26	194.125	0.6	0.16	-46.68
1809	0.8	154.37	1808.83	4.09	-6.46	-1.4	1626582	501910.6	39°52'17.8	80°43'05.6	6.61	192.218	0.71	0.19	-50.68
1841	0.58	121.1	1840.83	4.46	-6.74	-1.16	1626582	501910.3	39°52'17.8	80°43'05.6	6.84	189.786	1.4	-0.69	-103.97
1872	0.66	49.17	1871.83	4.6	-6.71	-0.89	1626583	501910.4	39°52'17.8	80°43'05.6	6.77	187.589	2.36	0.26	-232.03
1903	1.05	41.58	1902.83	4.55	-6.38	-0.57	1626583	501910.7	39°52'17.8	80°43'05.6	6.4	185.108	1.31	1.26	-24.48
1934	1.48	40.23	1933.82	4.44	-5.86	-0.12	1626583	501911.2	39°52'17.8	80°43'05.6	5.86	181.204	1.39	1.39	-4.35
1965	1.75	36.73	1964.81	4.26	-5.18	0.42	1626584	501911.9	39°52'17.8	80°43'05.6	5.19	175.378	0.93	0.87	-11.29
1996	1.86	33.37	1995.79	4	-4.38	0.98	1626584	501912.7	39°52'17.8	80°43'05.6	4.48	167.4	0.49	0.35	-10.84
2099	1.2	41.03	2098.75	3.33	-2.17	2.61	1626586	501914.9	39°52'17.9	80°43'05.6	3.39	129.748	0.67	-0.64	7.44
2189	1.14	41.82	2188.73	3.04	-0.79	3.82	1626587	501916.2	39°52'17.9	80°43'05.6	3.9	101.665	0.07	-0.07	0.88
2278	6.32	234.53	2277.58	2.56	-2.97	0.42	1626584	501914.1	39°52'17.9	80°43'05.6	3	172.013	8.36	5.82	-187.97
2368	11.1	233.09	2366.52	1.8	-11.06	-10.55	1626573	501906.1	39°52'17.8	80°43'05.8	15.28	223.657	5.32	5.31	-1.6
2457	12.58	229.85	2453.62	1.51	-22.45	-24.81	1626558	501894.9	39°52'17.7	80°43'05.9	33.46	227.856	1.82	1.66	-3.64
2547	16.29	227.48	2540.77	2.26	-37.31	-41.61	1626541	501880.3	39°52'17.5	80°43'06.1	55.89	228.121	4.17	4.12	-2.63
2637	20.07	230.11	2626.26	3	-55.75	-62.77	1626520	501862.2	39°52'17.3	80°43'06.4	83.95	228.39	4.3	4.2	2.92
2726	23.51	234.2	2708.89	1.93	-75.93	-88.89	1626494	501842.3	39°52'17.1	80°43'06.8	116.91	229.496	4.22	3.87	4.6
2816	28.96	233.96	2789.59	-0.59	-99.27	-121.1	1626461	501819.4	39°52'16.9	80°43'07.2	156.59	230.656	6.06	6.06	-0.27
2905	33.18	230.48	2865.81	-1.93	-127.46	-157.33	1626425	501791.7	39°52'16.6	80°43'07.6	202.48	230.987	5.15	4.74	-3.91
2994	33.53	228.89	2940.15	-1.28	-159.12	-194.63	1626387	501760.6	39°52'16.3	80°43'08.1	251.4	230.733	1.06	0.39	-1.79
3084	39.74	228.88	3012.34	0.17	-194.42	-235.07	1626346	501725.9	39°52'16.0	80°43'08.6	305.05	230.407	6.9	6.9	-0.01
3174	43.66	229.26	3079.52	1.6	-233.63	-280.3	1626300	501687.3	39°52'15.6	80°43'09.2	364.9	230.189	4.36	4.36	0.42
3263	43.66	230.74	3143.91	2.07	-273.12	-327.37	1626253	501648.4	39°52'15.2	80°43'09.8	426.34	230.162	1.15	0	1.66
3352	43.66	231.84	3208.3	1.16	-311.55	-375.31	1626204	501610.6	39°52'14.8	80°43'10.4	487.77	230.304	0.85	0	1.24
3442	43.59	232.95	3273.45	-0.96	-349.44	-424.5	1626154	501573.4	39°52'14.4	80°43'11.1	549.83	230.54	0.85	-0.08	1.23
3531	43.66	234.51	3337.87	-4.48	-385.76	-474.01	1626104	501537.8	39°52'14.1	80°43'11.7	611.14	230.86	1.21	0.08	1.75
3621	43.64	233.72	3403	-8.47	-422.17	-524.34	1626054	501502.1	39°52'13.7	80°43'12.3	673.17	231.161	0.61	-0.02	-0.88
3710	43.68	231.96	3467.39	-11.04	-459.28	-573.3	1626004	501465.6	39°52'13.3	80°43'13.0	734.59	231.301	1.37	0.04	-1.98
3800	42.8	229.97	3532.95	-11.61	-498.1	-621.19	1625956	501427.4	39°52'13.0	80°43'13.6	796.23	231.276	1.8	-0.98	-2.21
3890	43.56	228.31	3598.58	-10.21	-538.4	-667.76	1625909	501387.8	39°52'12.6	80°43'14.2	857.77	231.122	1.52	0.84	-1.84
3980	43.46	227.66	3663.86	-7.56	-579.87	-713.8	1625862	501347	39°52'12.1	80°43'14.8	919.65	230.911	0.51	-0.11	-0.72
4069	43.62	227.57	3728.37	-4.53	-621.2	-759.08	1625816	501306.2	39°52'11.7	80°43'15.4	980.86	230.705	0.19	0.18	-0.1
4159	43.41	228.91	3793.64	-2.15	-662.47	-805.31	1625769	501265.6	39°52'11.3	80°43'15.9	1042.78	230.558	1.05	-0.23	1.49
4249	43.04	230.75	3859.22	-1.49	-702.23	-852.4	1625722	501226.5	39°52'10.9	80°43'16.5	1104.4	230.518	1.46	-0.41	2.04
4338	42.39	231.18	3924.61	-2.05	-740.25	-899.29	1625674	501189.1	39°52'10.6	80°43'17.1	1164.78	230.541	0.8	-0.73	0.48
4428	42.48	230.48	3991.04	-2.46	-778.61	-946.37	1625627	501151.4	39°52'10.2	80°43'17.8	1225.5	230.555	0.53	0.1	-0.78
4517	43.56	232.04	4056.11	-3.34	-816.6	-993.74	1625579	501114.1	39°52'09.8	80°43'18.4	1286.21	230.589	1.7	1.21	1.75
4607	43.65	234.43	4121.28	-6.36	-853.74	-1043.46	1625529	501077.6	39°52'09.4	80°43'19.0	1348.21	230.71	1.83	0.1	2.66
4696	43.65	237.22	4185.69	-12.13	-888.24	-1094.27	1625477	501043.8	39°52'09.1	80°43'19.6	1409.4	230.933	2.16	0	3.13
4786	43.61	237	4250.83	-19.34	-921.96	-1146.42	1625425	501010.8	39°52'08.8	80°43'20.3	1471.15	231.193	0.17	-0.04	-0.24
4875	43.79	233.37	4315.18	-24.42	-957.06	-1196.88	1625374	500976.4	39°52'08.4	80°43'21.0	1532.48	231.353	2.82	0.2	-4.08

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4965	43.93	231.53	4380.08	-26.61	-995.06	-1246.32	1625324	500939	39°52'08.0"80°43'21.6"	1594.82	231.396	1.43	0.16	-2.04
5055	43.88	231.24	4444.92	-27.64	-1034.01	-1295.08	1625275	500900.8	39°52'07.7"80°43'22.2"	1657.23	231.396	0.23	-0.06	-0.32
5144	43.84	231.36	4509.1	-28.56	-1072.57	-1343.21	1625226	500862.9	39°52'07.3"80°43'22.8"	1718.9	231.392	0.1	-0.04	0.13
5234	43.88	230.97	4573.99	-29.35	-1111.68	-1391.78	1625177	500824.4	39°52'06.9"80°43'23.5"	1781.26	231.384	0.3	0.04	-0.43
5323	43.91	231.55	4638.13	-30.24	-1150.29	-1439.92	1625128	500786.5	39°52'06.5"80°43'24.1"	1842.97	231.38	0.45	0.03	0.65
5412	43.83	233.19	4702.29	-32.31	-1187.95	-1488.76	1625079	500749.5	39°52'06.1"80°43'24.7"	1904.63	231.412	1.28	-0.09	1.84
5502	43.79	234.69	4767.24	-36.11	-1224.62	-1539.12	1625028	500713.5	39°52'05.8"80°43'25.4"	1966.88	231.492	1.15	-0.04	1.67
5591	43.78	236.06	4831.49	-41.41	-1259.61	-1589.8	1624977	500679.2	39°52'05.4"80°43'26.0"	2028.32	231.61	1.07	-0.01	1.54
5681	43.92	234.56	4896.4	-46.7	-1295.1	-1641.06	1624925	500644.4	39°52'05.1"80°43'26.7"	2090.54	231.72	1.17	0.16	-1.67
5770	44.14	233.6	4960.39	-50.63	-1331.39	-1691.15	1624875	500608.8	39°52'04.7"80°43'27.3"	2152.34	231.788	0.79	0.25	-1.08
5860	44.01	234.41	5025.05	-54.52	-1368.18	-1741.8	1624823	500572.7	39°52'04.4"80°43'28.0"	2214.9	231.851	0.64	-0.14	0.9
5949	44.15	235.42	5088.98	-59.35	-1403.76	-1792.47	1624772	500537.8	39°52'04.0"80°43'28.6"	2276.73	231.934	0.8	0.16	1.13
6039	43.98	235.45	5153.65	-64.8	-1439.28	-1844.01	1624720	500503	39°52'03.7"80°43'29.3"	2339.21	232.027	0.19	-0.19	0.03
6128	44.01	234.26	5217.68	-69.56	-1474.86	-1894.56	1624669	500468.1	39°52'03.3"80°43'29.9"	2400.95	232.1	0.93	0.03	-1.34
6218	43.96	233.19	5282.44	-73.14	-1511.84	-1944.95	1624618	500431.8	39°52'02.9"80°43'30.6"	2463.43	232.141	0.83	-0.06	-1.19
6307	44.08	231.65	5346.44	-75.28	-1549.56	-1993.96	1624569	500394.8	39°52'02.6"80°43'31.2"	2525.27	232.148	1.21	0.13	-1.73
6397	43.97	231.19	5411.15	-76.35	-1588.56	-2042.85	1624519	500356.4	39°52'02.2"80°43'31.8"	2587.81	232.131	0.38	-0.12	-0.51
6486	44.01	231.55	5475.18	-77.35	-1627.15	-2091.14	1624471	500318.5	39°52'01.8"80°43'32.4"	2649.62	232.113	0.28	0.04	0.4
6576	44.11	231.26	5539.86	-78.41	-1666.19	-2140.06	1624421	500280.1	39°52'01.4"80°43'33.1"	2712.2	232.097	0.25	0.11	-0.32
6665	44	231.49	5603.82	-79.42	-1704.82	-2188.4	1624372	500242.2	39°52'01.0"80°43'33.7"	2774.08	232.08	0.22	-0.12	0.26
6754	43.98	231.46	5667.85	-80.53	-1743.32	-2236.76	1624323	500204.3	39°52'00.7"80°43'34.3"	2835.89	232.067	0.03	-0.02	-0.03
6844	44.02	229.67	5732.6	-80.67	-1783.03	-2285.04	1624275	500165.3	39°52'00.3"80°43'34.9"	2898.39	232.035	1.38	0.04	-1.99
6933	44.02	226.33	5796.61	-78.04	-1824.41	-2330.99	1624228	500124.5	39°51'59.8"80°43'35.5"	2960.06	231.951	2.61	0	-3.75
7023	43.96	224.82	5861.36	-72.74	-1868.16	-2375.63	1624183	500081.4	39°51'59.4"80°43'36.1"	3022.19	231.819	1.17	-0.07	-1.68
7112	43.54	219.76	5925.67	-64.03	-1913.65	-2417.02	1624141	500036.5	39°51'59.0"80°43'36.6"	3082.86	231.63	3.96	-0.47	-5.69
7201	50.37	210.69	5986.45	-46.73	-1966.81	-2454.21	1624103	499983.8	39°51'58.4"80°43'37.1"	3145.07	231.291	10.68	7.67	-10.19
7291	57.94	206.22	6039.13	-19.32	-2030.94	-2488.81	1624068	499920.2	39°51'57.8"80°43'37.5"	3212.3	230.785	9.32	8.41	-4.97
7380	64.89	199.2	6081.73	17.13	-2102.98	-2518.79	1624037	499848.5	39°51'57.1"80°43'37.9"	3281.28	230.141	10.43	7.81	-7.89
7470	57.32	187.74	6125.3	64.14	-2179.3	-2537.36	1624017	499772.5	39°51'56.3"80°43'38.2"	3344.78	229.341	13.95	-8.41	-12.73
7559	55.57	175.64	6174.62	119.68	-2253.21	-2539.62	1624014	499698.6	39°51'55.6"80°43'38.2"	3395.09	228.42	11.49	-1.97	-13.6
7649	58.24	165.25	6223.85	184.88	-2327.37	-2527.03	1624025	499624.3	39°51'54.9"80°43'38.0"	3435.49	227.355	10.11	2.97	-11.54
7738	61.73	157.59	6268.41	256.77	-2400.3	-2502.42	1624049	499551	39°51'54.2"80°43'37.7"	3467.5	226.193	8.42	3.92	-8.61
7827	67.43	149.59	6306.65	334.96	-2472.13	-2466.61	1624084	499478.7	39°51'53.4"80°43'37.2"	3492.21	224.936	10.34	6.4	-8.99
7917	77.5	144.94	6333.75	420.04	-2544.15	-2420.19	1624129	499406.1	39°51'52.7"80°43'36.7"	3511.41	223.57	12.22	11.19	-5.17
8006	79.41	143.34	6351.56	507.05	-2614.81	-2369.11	1624179	499334.8	39°51'52.0"80°43'36.0"	3528.44	222.178	2.78	2.15	-1.8
8096	82.28	142.65	6365.88	595.81	-2685.76	-2315.64	1624232	499263.1	39°51'51.3"80°43'35.3"	3546.19	220.768	3.28	3.19	-0.77
8185	88.28	142.44	6373.2	684.41	-2756.13	-2261.72	1624285	499192	39°51'50.6"80°43'34.6"	3565.34	219.373	6.75	6.74	-0.24
8275	88.8	142.55	6375.49	774.32	-2827.51	-2206.94	1624339	499119.9	39°51'49.9"80°43'33.9"	3586.84	217.973	0.59	0.58	0.12
8364	88.55	141.5	6377.55	863.26	-2897.65	-2152.2	1624392	499049	39°51'49.2"80°43'33.2"	3609.47	216.603	1.21	-0.28	-1.18
8454	88.71	142.84	6379.7	953.19	-2968.71	-2097.01	1624447	498977.2	39°51'48.5"80°43'32.5"	3634.65	215.236	1.5	0.18	1.49
8543	88.46	141.78	6381.9	1042.12	-3039.11	-2042.62	1624500	498906.1	39°51'47.8"80°43'31.8"	3661.76	213.905	1.22	-0.28	-1.19
8632	89.14	139.84	6383.76	1131.09	-3108.08	-1986.39	1624555	498836.4	39°51'47.2"80°43'31.1"	3688.62	212.583	2.31	0.76	-2.18
8722	89.42	139	6384.89	1221.07	-3176.42	-1927.85	1624613	498767.2	39°51'46.5"80°43'30.3"	3715.68	211.255	0.98	0.31	-0.93
8811	89.51	142.12	6385.72	1310.05	-3245.15	-1871.32	1624669	498697.8	39°51'45.8"80°43'29.6"	3746.04	209.97	3.51	0.1	3.51
8901	89.69	141.05	6386.35	1400.03	-3315.66	-1815.4	1624723	498626.5	39°51'45.1"80°43'28.9"	3780.12	208.702	4.25	0.2	-1.19
8990	89.57	137.27	6386.93	1488.99	-3382.98	-1757.21	1624781	498558.4	39°51'44.4"80°43'28.1"	3812.13	207.449	4.25	-0.13	-4.25
9080	89.54	132.74	6387.63	1578.56	-3446.61	-1693.6	1624843	498493.9	39°51'43.8"80°43'27.3"	3840.23	206.169	5.03	-0.03	-5.03
9169	89.57	129.64	6388.32	1666.39	-3505.21	-1626.63	1624910	498434.4	39°51'43.2"80°43'26.5"	3864.25	204.894	3.48	0.03	-3.48

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9259	89.57	128.82	6388.99	1754.67	-3562.13	-1556.92	1624979	498376.6	39°51'42.7	80°43'25.6	3887.51	203.609	0.91	0	-0.91
9348	89.78	132.05	6389.5	1842.3	-3619.84	-1489.19	1625046	498317.9	39°51'42.1	80°43'24.7	3914.2	202.362	3.64	0.24	3.63
9437	89.6	139.93	6389.98	1930.96	-3683.8	-1427.4	1625106	498253.1	39°51'41.5	80°43'23.9	3950.68	201.18	8.86	-0.2	8.85
9527	89.51	145.19	6390.68	2020.87	-3755.23	-1372.71	1625160	498181	39°51'40.8	80°43'23.2	3998.26	200.08	5.85	-0.1	5.84
9616	89.75	141.09	6391.25	2109.75	-3826.43	-1319.34	1625213	498109.1	39°51'40.1	80°43'22.5	4047.49	199.024	4.61	0.27	-4.61
9705	89.45	145.18	6391.88	2198.63	-3897.61	-1265.95	1625265	498037.2	39°51'39.4	80°43'21.8	4098.05	197.994	4.61	-0.34	4.6
9795	89.63	147.25	6392.6	2288.16	-3972.41	-1215.91	1625314	497961.7	39°51'38.6	80°43'21.2	4154.33	197.019	2.31	0.2	2.3
9884	89.54	150.55	6393.24	2376.18	-4048.6	-1169.95	1625359	497884.9	39°51'37.9	80°43'20.6	4214.26	196.118	3.71	-0.1	3.71
9974	89.57	150.63	6393.94	2464.77	-4127	-1125.75	1625402	497805.9	39°51'37.1	80°43'20.1	4277.79	195.258	0.09	0.03	0.09
10063	89.69	150.11	6394.52	2552.43	-4204.36	-1081.75	1625445	497728	39°51'36.3	80°43'19.5	4341.3	194.429	0.6	0.13	-0.58
10153	89.75	150.43	6394.96	2641.11	-4282.51	-1037.12	1625489	497649.2	39°51'35.6	80°43'18.9	4406.31	193.614	0.36	0.07	0.36
10242	89.78	151.1	6395.32	2728.67	-4360.18	-993.66	1625531	497571	39°51'34.8	80°43'18.4	4471.97	192.838	0.75	0.03	0.75
10331	89.17	145.89	6396.14	2816.76	-4436.03	-947.17	1625576	497494.5	39°51'34.0	80°43'17.8	4536.02	192.053	5.89	-0.69	-5.85
10421	90.62	143.52	6396.3	2906.5	-4509.48	-895.17	1625627	497420.4	39°51'33.3	80°43'17.1	4597.47	191.228	3.09	1.61	-2.63
10510	88.52	137.51	6396.97	2995.45	-4578.13	-838.61	1625683	497351	39°51'32.6	80°43'16.4	4654.3	190.38	7.15	-2.36	-6.75
10600	89.57	132.22	6398.47	3084.98	-4641.59	-774.85	1625746	497286.6	39°51'32.0	80°43'15.6	4705.82	189.477	5.99	1.17	-5.88
10689	87.07	130.61	6401.08	3172.83	-4700.43	-708.14	1625812	497226.9	39°51'31.4	80°43'14.7	4753.47	188.567	3.34	-2.81	-1.81
10778	87.54	135.03	6405.27	3260.92	-4760.84	-642.95	1625876	497165.6	39°51'30.8	80°43'13.9	4804.06	187.691	4.99	0.53	4.97
10868	87.11	135.84	6409.47	3350.48	-4824.89	-579.87	1625938	497100.7	39°51'30.2	80°43'13.1	4859.61	186.853	1.02	-0.48	0.9
10957	88	134.17	6413.27	3439	-4887.77	-517	1626000	497037	39°51'29.6	80°43'12.2	4915.04	186.038	2.12	1	-1.88
11047	89.29	138.71	6415.4	3528.73	-4952.95	-455.01	1626061	496971	39°51'28.9	80°43'11.5	4973.81	185.249	5.24	1.43	5.04
11136	89.23	143.59	6416.55	3617.69	-5022.24	-399.21	1626116	496901	39°51'28.2	80°43'10.7	5038.08	184.545	5.48	-0.07	5.48
11226	89.23	144.12	6417.76	3707.52	-5094.91	-346.13	1626168	496827.6	39°51'27.5	80°43'10.1	5106.65	183.886	0.59	0	0.59
11315	89.23	145.4	6418.95	3796.25	-5167.59	-294.78	1626219	496754.2	39°51'26.8	80°43'09.4	5175.99	183.265	1.44	0	1.44
11404	89.32	146.03	6420.08	3884.87	-5241.12	-244.65	1626268	496680	39°51'26.1	80°43'08.8	5246.83	182.673	0.71	0.1	0.71
11493	89.29	140.68	6421.16	3973.72	-5312.5	-191.55	1626320	496607.9	39°51'25.4	80°43'08.1	5315.95	182.065	6.01	-0.03	-6.01
11583	89.66	135.59	6421.98	4063.61	-5379.5	-131.51	1626379	496540.1	39°51'24.7	80°43'07.3	5381.11	181.4	5.67	0.41	-5.66
11672	89.57	135.09	6422.58	4152.25	-5442.8	-68.95	1626441	496476	39°51'24.1	80°43'06.5	5443.24	180.726	0.57	-0.1	-0.56
11761	89.51	132.42	6423.3	4240.64	-5504.34	-4.68	1626504	496413.6	39°51'23.5	80°43'05.7	5504.35	180.049	3	-0.07	-3
11851	89.51	134.59	6424.07	4329.97	-5566.3	60.59	1626569	496350.7	39°51'22.9	80°43'04.8	5566.63	179.376	2.41	0	2.41
11940	89.94	138.43	6424.49	4418.74	-5630.85	121.83	1626629	496285.4	39°51'22.2	80°43'04.1	5632.17	178.76	4.34	0.48	4.31
12030	89.66	139.78	6424.81	4508.72	-5698.88	180.75	1626687	496216.5	39°51'21.6	80°43'03.3	5701.75	178.183	1.53	-0.31	1.5
12119	89.97	138.96	6425.09	4597.7	-5766.43	238.71	1626744	496148.2	39°51'20.9	80°43'02.6	5771.36	177.63	0.98	0.35	-0.92
12208	89.48	137.69	6425.52	4686.64	-5832.9	297.88	1626802	496081	39°51'20.2	80°43'01.8	5840.5	177.076	1.53	-0.55	-1.43
12298	89.48	137.15	6426.34	4776.51	-5899.17	358.77	1626862	496013.9	39°51'19.6	80°43'01.0	5910.07	176.52	0.6	0	-0.6
12387	89.2	138.76	6427.36	4865.42	-5965.25	418.37	1626921	495947	39°51'18.9	80°43'00.3	5979.91	175.988	1.84	-0.31	1.81
12477	89.23	140.35	6428.6	4955.39	-6033.74	476.75	1626978	495877.7	39°51'18.3	80°42'59.5	6052.54	175.482	1.77	0.03	1.77
12566	89.35	142.58	6429.7	5044.37	-6103.35	532.19	1627033	495807.4	39°51'17.6	80°42'58.8	6126.5	175.017	2.51	0.13	2.51
12656	89.32	144.91	6430.74	5134.2	-6175.91	585.41	1627085	495734.1	39°51'16.8	80°42'58.1	6203.59	174.585	2.59	-0.03	2.59
12745	89.88	148.77	6431.37	5222.63	-6250.4	634.08	1627133	495659	39°51'16.1	80°42'57.5	6282.48	174.207	4.38	0.63	4.34
12834	90.46	148.57	6431.1	5310.71	-6326.42	680.35	1627178	495582.3	39°51'15.4	80°42'56.9	6362.9	173.862	0.69	0.65	-0.22
12923	90.34	143.14	6430.48	5399.28	-6400.05	730.29	1627227	495508	39°51'14.6	80°42'56.3	6441.58	173.49	6.1	-0.13	-6.1
13013	89.78	142.25	6430.39	5489.21	-6471.64	784.83	1627281	495435.7	39°51'13.9	80°42'55.6	6519.05	173.085	1.17	-0.62	-0.99
13102	89.51	144.32	6430.94	5578.09	-6542.98	838.03	1627333	495363.7	39°51'13.2	80°42'54.9	6596.43	172.701	2.35	-0.3	2.33
13192	89.51	142.93	6431.71	5667.95	-6615.44	891.41	1627385	495290.5	39°51'12.5	80°42'54.2	6675.22	172.326	1.54	0	-1.54
13281	89.54	143.61	6432.45	5756.84	-6686.76	944.63	1627437	495218.4	39°51'11.8	80°42'53.5	6753.16	171.959	0.76	0.03	0.76
13371	89.54	144.12	6433.17	5846.67	-6759.45	997.7	1627489	495145.1	39°51'11.1	80°42'52.8	6832.68	171.604	0.57	0	0.57
13460	89.42	140.95	6433.98	5935.6	-6830.08	1051.83	1627543	495073.7	39°51'10.4	80°42'52.1	6910.59	171.245	3.56	-0.13	-3.56

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13549	89.51	138.41	6434.81	6024.58	-6897.93	1109.41	1627599	495005.1	39°51'09.7	80°42'51.4	6986.57	170.863	2.86	0.1	-2.85
13639	89.35	135.47	6435.7	6114.4	-6963.67	1170.85	1627660	494938.5	39°51'09.1	80°42'50.6	7061.42	170.456	3.27	-0.18	-3.27
13728	89.29	137.28	6436.76	6203.16	-7028.09	1232.25	1627720	494873.3	39°51'08.4	80°42'49.8	7135.3	170.055	2.03	-0.07	2.03
13818	89.32	138.89	6437.85	6293.08	-7095.06	1292.36	1627780	494805.5	39°51'07.8	80°42'49.0	7211.8	169.677	1.79	0.03	1.79
13907	88.98	139.06	6439.17	6382.04	-7162.19	1350.77	1627837	494737.6	39°51'07.1	80°42'48.3	7288.46	169.32	0.43	-0.38	0.19
13997	88.95	139.93	6440.8	6472.01	-7230.61	1409.22	1627895	494668.4	39°51'06.4	80°42'47.5	7366.66	168.972	0.97	-0.03	0.97
14086	89.17	142.18	6442.26	6560.99	-7299.82	1465.15	1627950	494598.4	39°51'05.7	80°42'46.8	7445.4	168.651	2.54	0.25	2.53
14176	89.02	143.2	6443.68	6650.91	-7371.39	1519.7	1628003	494526.1	39°51'05.0	80°42'46.1	7526.41	168.351	1.15	-0.17	1.13
14255	89.23	144.26	6445.04	6739.75	-7443.14	1572.34	1628055	494453.7	39°51'04.3	80°42'45.5	7607.4	168.072	1.21	0.24	1.19
14335	89.54	144.56	6446	6829.53	-7516.32	1624.72	1628106	494379.8	39°51'03.6	80°42'44.8	7689.91	167.803	4.62	0.34	0.33
14444	89.57	140.45	6446.69	6918.45	-7586.92	1678.88	1628159	494308.5	39°51'02.9	80°42'44.1	7770.45	167.522	1.55	0.03	-4.62
14534	89.66	139.06	6447.3	7008.44	-7655.61	1737.02	1628217	494239	39°51'02.2	80°42'43.3	7850.2	167.216	1.55	0.1	-1.54
14624	89.72	137.98	6447.79	7098.38	-7723.03	1796.63	1628275	494170.8	39°51'01.6	80°42'42.6	7929.26	166.904	1.2	0.07	-1.2
14713	90.18	136.47	6447.86	7187.24	-7788.36	1857.07	1628335	494104.6	39°51'00.9	80°42'41.8	8006.7	166.589	1.77	0.52	-1.7
14802	90	134.51	6447.72	7275.9	-7851.83	1919.46	1628396	494040.3	39°51'00.3	80°42'41.0	8083.04	166.263	2.21	-0.2	-2.2
14892	89.97	133.22	6447.75	7365.31	-7914.19	1984.34	1628460	493977.1	39°50'59.7	80°42'40.2	8159.17	165.924	1.43	-0.03	-1.43
14981	90.09	133.36	6447.7	7453.62	-7975.22	2049.13	1628524	493915.2	39°50'59.1	80°42'39.3	8234.26	165.59	0.21	0.13	0.16
15071	89.97	133.4	6447.65	7542.94	-8037.03	2114.54	1628589	493852.5	39°50'58.5	80°42'38.5	8310.55	165.26	0.14	-0.13	0.04
15161	89.75	133.25	6447.87	7632.24	-8098.78	2180.01	1628653	493789.9	39°50'57.8	80°42'37.7	8387.06	164.934	0.3	-0.24	-0.17
15250	89.66	137.92	6448.33	7720.9	-8162.34	2242.28	1628715	493725.5	39°50'57.2	80°42'36.9	8464.73	164.639	5.25	-0.1	5.25
15340	89.69	142.63	6448.84	7810.87	-8231.54	2299.78	1628771	493665.5	39°50'56.5	80°42'36.1	8546.77	164.39	5.23	0.03	5.23
15430	89.85	143.78	6449.2	7900.76	-8303.61	2353.69	1628824	493582.7	39°50'55.8	80°42'35.4	8630.74	164.174	1.29	0.18	1.28
15519	89.66	144.18	6449.59	7989.59	-8375.59	2406.03	1628876	493510.1	39°50'55.1	80°42'34.8	8714.32	163.972	0.5	-0.21	0.45
15609	89.38	145.18	6450.34	8079.34	-8449.02	2458.06	1628927	493435.9	39°50'54.4	80°42'34.1	8799.32	163.779	1.15	-0.31	1.11
15699	89.45	145.26	6451.26	8169.02	-8522.94	2509.39	1628977	493361.3	39°50'53.7	80°42'33.4	8884.68	163.594	0.12	0.08	0.09
15788	89.42	145.12	6452.14	8257.71	-8596.01	2560.2	1629027	493287.6	39°50'52.9	80°42'32.8	8969.17	163.415	0.16	-0.03	-0.16
15878	89.35	144.29	6453.1	8347.46	-8669.46	2612.19	1629078	493213.4	39°50'52.2	80°42'32.1	9054.45	163.232	0.93	-0.08	-0.92
15968	89.35	144.03	6454.12	8437.26	-8742.41	2664.89	1629130	493139.8	39°50'51.5	80°42'31.4	9139.55	163.048	0.29	0	-0.29
16058	89.42	143.41	6455.09	8527.11	-8814.96	2718.14	1629182	493066.5	39°50'50.8	80°42'30.8	9224.52	162.863	0.69	0.08	-0.69
16147	89.05	142.68	6456.28	8616.01	-8886.08	2771.64	1629234	492994.7	39°50'50.1	80°42'30.1	9308.29	162.677	0.92	-0.42	-0.82
16237	89.14	141.46	6457.7	8705.96	-8957.05	2826.95	1629289	492923	39°50'49.4	80°42'29.4	9392.58	162.484	1.36	0.1	-1.36
16326	89.29	140.42	6458.92	8794.95	-9026.15	2883.03	1629344	492853.1	39°50'48.7	80°42'28.7	9475.41	162.286	1.18	0.17	-1.17
16416	89.38	139.55	6459.96	8884.94	-9095.08	2940.89	1629401	492783.4	39°50'48.0	80°42'27.9	9558.73	162.081	0.97	0.1	-0.97
16505	89.45	139.61	6460.87	8973.92	-9162.83	2998.6	1629457	492714.9	39°50'47.3	80°42'27.2	9641.01	161.879	0.84	0.08	0.07
16594	89.29	140.34	6461.85	9062.91	-9230.98	3055.83	1629514	492646	39°50'46.7	80°42'26.4	9723.63	161.683	0.84	-0.18	0.82
16684	89.29	140	6462.97	9152.91	-9300.09	3113.47	1629570	492576.1	39°50'46.0	80°42'25.7	9807.41	161.491	0.38	0	-0.38
16773	89.45	139.19	6463.94	9241.89	-9367.86	3171.16	1629627	492507.6	39°50'45.3	80°42'25.0	9890.04	161.298	0.93	0.18	-0.91
16863	89.42	137.98	6464.83	9331.84	-9435.35	3230.69	1629686	492439.3	39°50'44.6	80°42'24.2	9973.12	161.099	1.34	-0.03	-1.34
16952	89.26	139.75	6465.86	9420.79	-9502.37	3289.23	1629743	492371.5	39°50'44.0	80°42'23.4	10055.55	160.907	2	-0.18	1.99
17042	89.26	137.86	6467.02	9510.74	-9570.08	3348.5	1629802	492302.9	39°50'43.3	80°42'22.7	10138.98	160.715	2.1	0	-2.1
17131	89.26	137.35	6468.17	9599.63	-9635.81	3408.5	1629861	492236.4	39°50'42.7	80°42'21.9	10220.89	160.52	0.57	0	-0.57
17221	89.23	136.34	6469.35	9689.44	-9701.45	3470.05	1629922	492169.9	39°50'42.0	80°42'21.1	10303.37	160.319	1.12	-0.03	-1.12
17310	89.69	134.36	6470.19	9778.08	-9764.76	3532.59	1629983	492105.8	39°50'41.4	80°42'20.3	10384.11	160.111	2.28	0.52	-2.22
17400	89.66	134.85	6470.7	9867.61	-9827.96	3596.67	1630046	492041.7	39°50'40.8	80°42'19.5	10465.41	159.899	0.55	-0.03	0.54
17489	89.6	137.16	6471.28	9956.34	-9891.98	3658.48	1630107	491976.9	39°50'40.1	80°42'18.7	10546.84	159.703	2.6	-0.07	2.6
17578	89.69	142.59	6471.83	10045.3	-9960.01	3715.82	1630164	491908.1	39°50'39.4	80°42'18.0	10630.57	159.541	6.1	0.1	6.1
17668	89.72	145.81	6472.29	10135.09	-10033	3768.46	1630215	491834.4	39°50'38.7	80°42'17.3	10717.38	159.414	3.58	0.03	3.58
17757	89.66	148.58	6472.78	10223.47	-10107.8	3816.67	1630263	491759	39°50'38.0	80°42'16.7	10804.37	159.314	3.11	-0.07	3.11

89.66 148.58 6472.92 10248.21 -10129.1 3829.7 1630275 491737.5 39°50'37.8" 80°42'16.5" 10828.93 159.289 0 0 0

AND CASING SECTIONS Ref Wellbore: Hicks M06H AWB Ref Wellpath: Hicks M06H AWP Proj: 17782'

String/Dian Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	Start E/W	End N/S	End E/W
[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]
26in Open	25	85	60	25	85	0	0	-0.04 0.11
20in Condu	25	85	60	25	85	0	0	-0.04 0.11
17.5in Ope	85	510	425	85	510	-0.04	0.11	-0.58 -0.68
13.375in C	25	510	485	25	510	0	0	-0.58 -0.68
12.25in Op	510	2053	1543	510	2052.77	-0.58	-3.01	1.93
9.625in Cas	25	2023	1998	25	2022.78	0	0	-3.68 1.45
8.5in Open	2053	17782	15729	2052.77	6472.92	-3.01	1.93	3829.7
5.5in Casin	25	17782	17757	25	6472.92	0	0	-10129.1 3829.7

TARGETS

Name	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape	Comment
	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			
Hicks M06i	6344	-10146.4	3825.98	1630271	491720.3	39°50'37.6" 80°42'16.6"		point	
Hicks M06i	6344	-2690.49	-2332.68	1624215	499258.6	39°51'51.3" 80°43'35.5"		point	
Hicks M06i	6375.54	-2690.49	-2332.68	1624215	499258.6	39°51'51.3" 80°43'35.5"		point	
Hicks Pad -	6385	271.54	92.77	1626680	502187.3	39°52'20.6" 80°43'04.4"		polygon	
Hicks M06i	6463.25	-10146.4	3825.98	1630271	491720.3	39°50'37.6" 80°42'16.6"		point	

WELLPATH COMPOSITION Ref Wellbore: Hicks M06H AWB Ref Wellpath: Hicks M06H AWP Proj: 17782'

Log Name/	Start MD	End MD	Pos	Unc	Model
[ft]	[ft]	[ft]			
01_SDI Gyr	25	458	SDI Keeper v1.04		
03_APS EM	458	1996	OWSG MWD rev2 + IFR1 + Multi-Station Correction		
04_BH AT (1996	17757	OWSG MWD rev2 + IFR1 + Multi-Station Correction		
Projection :	17757	17782	Blind Drilling (std)		

COMMENTS

Wellpath general comments
 API: 47-051-01901-0000
 BH Job #: 109836699
 Rig: Precision 560
 Duration: 7/20/2019 - 7/26/2019

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 WV Department of
 Environmental Protection

HOLE NO. 1778



Jackie M. Scholar
Regulatory Reporting Coordinator

March 9, 2020

CERTIFIED MAIL: 7016 0340 0000 4903 6942

WV DEP
Office of Oil and Gas
601 – 57th Street
Charleston, WV 25304

RE: Well Operator's Report of Well Work WR-35
Hicks M06H

Dear Sir/Madam,

Enclosed here within please find one (1) Well Operator's Report of Well Work WR-35, one (1) copy of the Plat on Mylar, one (1) copy of the FracFocus report, and one (1) copy of the Directional Survey for **Hicks M06H, (API 47-051-01901)**.

If you have any questions, please contact me at (412) 865-3422. Thank you.

Sincerely,
Chevron Appalachia, LLC

Jackie M. Scholar

Enclosures

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AS DRILLED PLAT

BHL is located on topo map 11,395 feet south of Latitude: 39° 52' 30"
 SHL is located on topo map 1,221 feet south of Latitude: 39° 52' 30"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS



LINE	BEARING	DISTANCE
R1	N 41°28'03" E	202.18'
R2	N 20°22'15" E	160.54'
R3	N 10°20'42" W	162.14'
R4	N 13°29'38" W	1348.17'
R5	N 45°10'53" E	1611.43'
R6	N 81°43'25" E	1946.17'



WELL PAD ORIENTATION DETAIL				
M01H	M14H	M15H	U28H	U29H
M02H	M13H	M16H	U27H	U30H
M03H	M12H	M17H	U26H	U31H
M04H	M11H	M18H	U25H	U32H
M05H	M10H	M19H	U24H	U33H
M06H	M09H	M20H	U23H	U34H
M07H	M08H	M21H	U22H	U35H

N.T.S.

PERMITTED SURFACE HOLE LOCATION (SHL)	PERMITTED APPROX. LANDING POINT
UTM 17-NAD83(M) N:4413549.456 E:524095.923	UTM 17-NAD83(M) N:4412727.48 E:523387.78
NAD83, WV NORTH N:501917.054 E:1626583.598	NAD83, WV NORTH N:499258.581 E:1624214.733
LAT/LON-NAD83 LAT:39°52'17.930" LON:80°43'05.665"	LAT/LON-NAD83 LAT:39°51'51.34" LON:80°43'35.58"

AS DRILLED SURFACE HOLE LOCATION (SHL)	AS DRILLED APPROX. LANDING POINT
UTM 17-NAD83(M) N:4413549.46 E:524095.91	UTM 17-NAD83(M) N:4412664.54 E:523442.97
NAD83, WV NORTH N:501917.050 E:1626583.570	NAD83, WV NORTH N:499049.010 E:1624392.390
LAT/LON-NAD83 LAT:39°52'17.930" LON:80°43'05.665"	LAT/LON-NAD83 LAT:39°51'49.293" LON:80°43'33.265"

PERMITTED BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4410461.75 E:525271.36
NAD83, WV NORTH N:491720.280 E:1630271.424
LAT/LON-NAD83 LAT:39°50'37.66" LON:80°42'16.61"

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- AS-DRILLED LATERAL
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE
- LESSORS
- SURFACE OWNERS
- LOCATE & AVOID

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS

AS DRILLED BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4410467.00 E:525272.47
NAD83, WV NORTH N:491737.460 E:1630275.370
LAT/LON-NAD83 LAT:39°50'37.825" LON:80°42'16.566"

- NOTES:
- There are no water wells or developed springs within 250' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wellhead, 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.
 - There are no existing buildings within 625' of proposed well.

THRASHER

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

FILE #: HICKS M06H-AS DRILLED
 DRAWING #: HICKS M06H-AS DRILLED
 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: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000

GEORGE D. SIX
 LICENSED
 No. 2000
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

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



DATE: JANUARY 31, 2020
 OPERATOR'S WELL #: HICKS M06H-AS DRILLED
 API WELL #: 47 51 01901
 STATE COUNTY PERMIT

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

WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1180.27'

COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: GLEN EASTON, WV 7.5'

SURFACE OWNER: THOMAS E. HICKS ACREAGE: 172.100±

OIL & GAS ROYALTY OWNER: CHRISTA DAWN HICKS, ET AL ACREAGE: 850.440±

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: TVD: 6,600'± TMD: 18,512.56'±

WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY
 Address 800 MOUNTAIN VIEW DRIVE Address 500 LEE STREET, EAST SUITE 1600
 City SMITHFIELD State PA Zip Code 15478 City CHARLESTON State WV Zip Code 25301-3202

BHL is located on topo map 10,710 feet west of Longitude: 80° 40' 00"
 SHL is located on topo map 2,781 feet west of Longitude: 80° 42' 30"

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HICKS M06H PAGE 2 OF 2

AS DRILLED PLAT

	LESSOR	DIST-TM/PAR
A	CHRISTA DAWN HICKS, ET AL.	4-8/37
B	SIDNEY P. POND, ET UX.	4-8/36.1
C	MABEL J. WILLIAMS	4-8/23
D	SIDNEY P. POND, ET UX.	4-8/36.2
E	LILLIE LAVERN GAREY	4-8/36
F	MARILYN MARTIN	4-8/23.3
G	MICHAEL R. ALLMAN	4-8/23.2
H	KERMIT E. PERSINGER, ET UX.	4-8/24
J	CNX GAS COMPANY, LLC.	4-12/25
K	DIOCESE OF WHEELING-CHARLESTON ROBERT S. WUERTHELE MARK K. WUERTHELE JEFFREY A. WUERTHELE MICHAEL D. WUERTHELE SISTERS OF ST. FRANCIS OF THE PROVIDENCE OF GOD MARY ANN BAKER ULMAN TRUST MARY ANN BAKER TRSTE SUSAN M. & BERNARD LUKE ZIDAR LAUREN M. TEKELY IRREVOCABLE TRUST	4-10/1
L	JAMES L. COSTER, ET AL. FLOYD G. GREATHOUSE, ET UX. PAUL R. BLAZER, ET UX. ROBERT A. HOWARD EDGE JR., ET UX. THOMAS A. MONTI, ET UX. G. JEANETTE SOUTH RONALD L. LANCH, ET UX. MICHAEL E. RHODEHAMEL, ET UX. EDWARD D. YEATER ROBERT A. EDGE, ET UX. KENNETH R. RUNYAN, ET UX. DANIEL G. MAY, ET UX. KEVIN R. DURBIN, ET UX. GARY D. HINERMAN, ET UX.	4-10/2
M	ELAINE A. FONTES THE DAKAN FAMILY REVOCABLE LIVING TRUST RONALD W. DAKAN DAVID H. DAKAN SUZANNE SWIFT BARBARA D. FURFARI DIANE WILLIS, ET VIR. LESLIE M. BUTTS	4-10/4
N	LESLIE M. BUTTS DIANE CLARE WILLIS, ET VIR. BARBARA D. FURFARI SUZANNE E. SWIFT DAVID H. DAKAN RONALD W. DAKAN ELAINE A. FONTES DIANA K. COSLICK LESLEY D. BALLA	4-10/8

	LESSOR	DIST-TM/PAR
P	ROY A. CLARK, ET UX.	4-10/9
Q	VIOLET P. STANDIFORD RONNIE LEE MCCAMAN SR., SANDRA JEAN OAKS SALLY BECK LEO A. MATTILIO MARJORIE ANN GIBAS RAYMOND DOUGLAS SMITH LINDA K. MATTILIO-YEOMANS FREDERICK EUGENE WHITEMAN VIOLET LENORE KELLEY CAROL JEAN ABBEY LYNN EDWARD WEBB MARTHA GAY BARRETT KENNETH EUGENE SMITH, ET UX. JIMMIE LEWIS SMITH, ET UX. GARY LEE SMITH GAIL LYNN BROWN DEBORAH SUE BRICELAND ERICH MICHAEL WHITEMAN PETE LOPEZ, IV TRACY SAMANTHA SMITH TERRY M. LOPEZ, ET UX. LLOYD SUMMER TABATHA JANE TOTH	4-10/10
R	JOSEPH W. GOULDSBERRY, ET UX.	4-10/11
S	JAMES STOUT, ET UX.	4-11/8.3
T	JAMES STOUT, ET UX.	4-11/8.2
U	MARGARET L. DAVIS	4-11/8.4
V	WILLIAM R. STANDIFORD II, ET UX.	4-11/8.5

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	SURFACE OWNER	DIST-TM/PAR
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2	VICKIE L. & SIDNEY P. POND	4-8/36.1
3	MABEL JUANITA WILLIAMS	4-8/23
4	SIDNEY P. POND ET UX	4-8/36.2
5	LILLIE LAVERN GAREY	4-8/36
6	MARILYN MARTIN	4-8/23.3
7	ANN M. STEVEY	4-8/23.2
8	KERMIT E. PERSINGER ET UX	4-8/24
9	CONSOLIDATION COAL COMPANY/MURRAY ENERGY C/O LAND DEPT.	4-12/25
10	CITY OF MOUNDSVILLE	4-10/1
11	JAMES L. COSTER	4-10/2
12	DENNIS D. WINGROVE ET UX	4-10/4
13	DENNIS D. WINGROVE ET UX	4-10/8
14	ROY A. & SANDRA F. CLARK	4-10/9
15	JAMES STOUT	4-10/10
16	JOSEPH W. GOULDSBERRY ET UX	4-10/11
17	JAMES STOUT	4-11/8.3
18	JAMES STOUT	4-11/8.2
19	MARGARET DAVIS	4-11/8.4
20	WILLIAM R. STANDIFORD II ET UX	4-11/8.5

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