

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, November 28, 2022 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

ARSENAL RESOURCES LLC 6031 WALLACE RD EXT., SUITE 101 WEXFORD, PA 15090

Re:

Permit Modification Approval for FIBER TFP22 201

47-091-01371-00-00

Cement Variance, Updated Casing Plan and Lease Chain

ARSENAL RESOURCES LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926-0450.

Operator's Well Number: FIBER TFP22 201

Farm Name: CFS FARMS LLC

U.S. WELL NUMBER: 47-091-01371-00-00

Horizontal 6A New Drill Date Modification Issued: 11/28/2022

Promoting a healthy environment.



west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 Phone (304) 926-0450 Harold D. Ward, Cabinet Secretary dep.wv.gov

BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

IN THE MATTER OF A VARIANCE FROM)		
LEGISLATIVE RULE 35CSR4)	ORDER NO.	2022-14
SECTION 11.5 AND LEGISLATIVE RULE)		
35CSR8 SECTION 9.2.h.8.,)		
RELATING TO THE CEMENTING)		
OF OIL AND GAS WELLS)		

REPORT OF THE OFFICE

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

FINDINGS OF FACT

- On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
- Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
- Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a
 variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in
 place of API Class A cement, relating to the construction of vertical wells.

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 On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

ORDER

It is ordered that the Class L cement product approved and monogramed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION OF THE STATE OF WEST VIRGINIA

James Martin, Chief Office of Oil and Gas





Certified Mail Fee 4.00 Extra Services & Fees (check box, edd fee as appropriate) Featurn Recelpt (electronic) \$ 2.5 Gertified Mail Restricted Delivery \$ 4 Adult Signature Restricted Delivery \$ 5 Adult Signature Restricted Delivery \$ 5 Ostage 1.44 otal Postage and Fees

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MAR KEY LLC

Organizatio	on Informa	ation						
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
LLC Limited Liability Company	7/11/2011		7/11/2011	Domestic	Profit			

Organization	n Information		
Business Purpose	2111 - Mining, Quarrying, Oil & Gas Extraction - Oil and Gas Extraction - Crude Oil and Natural Gas Extraction	Capital Stock	
Charter County		Control Number	99Q1F
Charter State _,	W	Excess Acres	
At Will Term	A	Member Managed	MBR
At Will Term Years		Par Value	
Authorized Shares		Young Entrepreneur	Not Specified

Addresses		
Туре	Address	
Designated Office Address	633 W. MAIN STREET BRIDGEPORT, WV, 26330	
Mailing Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA	
Notice of Process Address	CORPORATION SERVICE COMPANY 209 WEST WASHINGTON STREET CHARLESTON, WV, 25302	
Principal Office Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA	
Туре	Address	

Office	rs	
Туре		Name/Address
	Member	ARSENAL RESOURCES DEVELOPMENT LLC 6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090
	Organizer	PAUL M HERZING 560 EPSILON DR. PITTSBURGH, PA, 15238 USA
Туре		Name/Address

Annual Reports	
Filed For	
2020	
2019	
2018	

2017			
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Date filed		·	

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For more information, please contact the Secretary of State's Office at 304-558-8000.

Monday, March 1, 2021 — 9:37 AM

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SENECA-UPSHUR PETROLEUM, LLC

Organizati	on Inform	ation	·					
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
LLC Limited Liability Company	2/12/1973		2/12/1973	Domestic	Profit			

Organization	n Information		·
Business Purpose	2111 - Mining, Quarrying, Oil & Gas Extraction - Oil and Gas Extraction - Crude Oil and Natural Gas Extraction	Capital Stock	
Charter County		Control Number	0
Charter State	WV	Excess Acres	0
At Will Term	Α	Member Managed	MBR
At Will Term Years		Par Value	
Authorized Shares		Young Entrepreneur	Not Specified

Addresses	
Туре	Address
Designated Office Address	633 W. MAIN STREET BRIDGEPORT, WV, 26330
Mailing Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA
Notice of Process Address	CORPORATION SERVICE COMPANY 209 WEST WASHINGTON STREET CHARLESTON, WV, 25302
Principal Office Address	6031 WALLACE ROAD EXTENSION SUITE 300 WEXFORD, PA, 15090 USA
Туре	Address

Officers	
Туре	Name/Address
Member	RIVER RIDGE ENERGY, LLC 6031 WALLACE ROAD EXTENSION, SUITE 300 WEXFORD, PA, 15090
Organizer	TAMMY J OWEN 300 SUMMERS STREET, STE 1500 PO BOX 2107 CHARLESTON, WV, 25328 USA
Туре	Name/Address

DBA			•
DBA Name	Description	Effective Date	Termination Date
KEYSPAN PRODUCTION & DEVELOPMENT COMPANY	TRADENAME	6/11/2004	
NATIONAL GRID	TRADENAME	8/17/2007	

DBA Name	Description	Effective Date	Termination Date
NATIONAL GRID PRODUCTION AND DEVELOPMENT	TRADENAME	12/5/2008	5/9/2012

Name Changes		
Date	Old Name	
3/28/2011	SENECA-UPSHUR PETROLEUM, INC.	
Date	Old Name	

Date	Amendment
6/15/2016	AMENDMENT FILED CHANGING FROM A MANAGER-MANAGED CO. TO A MEMBER-MANAGED CO. >> REMOVED ROBERT KOZEL & STEPHEN A. BISHOP AS MANAGERS & ADDED SOLE MEMBER (C IMAGE).
3/28/2011	CONVERSION: FROM SENECA-UPSHUR PETROLEUM, INC. TO SENECA-UPSHUR PETROLEUM, LLC
7/25/1997	MERGER; MERGING LITTLE SWISS DRILLING COMPANY, A QUAL WV CORP AND PALACE VALLEY PETROLEUM COMPANY, A QUAL WV CORP WITH AND INTO SENECA-UPSHUR PETROLEUM, INC., A QUAL WV CORP, THE SURVIVOR.
Date	Amendment

Annual Report	ts			
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For more information, please contact the Secretary of State's Office at 304-558-8000.

Monday, March 1, 2021 — 9:40 AM

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API NO. 47- <u>091</u>	
OPERATOR WELL	NO. 201
Well Pad Name:	Fiber TFP22

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

1) Well Operator: Arsenal Resources	494519412	Taylor	Fleming	Rosemont
	Operator ID	County	District	Quadrangle
2) Operator's Well Number: 201	Well Pad	Name: Fiber	TFP22	
3) Farm Name/Surface Owner: CFS Farms LLC	Public Road	d Access: CR	3/13	
4) Elevation, current ground: 1,252 El	evation, proposed p	oost-construction	on: 1,240.	5
5) Well Type (a) Gas X Oil	Unde	rground Storag	e	
Other				
(b)If Gas Shallow X	Deep			
Horizontal X				
6) Existing Pad: Yes or No No but pad has bee	n 90% built			
7) Proposed Target Formation(s), Depth(s), Antic Target Formation - Marcellus Shale, Top - 7684 ft, Bot	•	-	• •	ted Pressure - 0.5 psi/ft
7.750.5%			,	
	Shalo			<u> </u>
9) Formation at Total Vertical Depth: Marcellus	o oriale			
10) Proposed Total Measured Depth: 32,216 ft				
11) Proposed Horizontal Leg Length: 23,897 ft				
12) Approximate Fresh Water Strata Depths:	20' , 40' , 55' , 11	10'		
13) Method to Determine Fresh Water Depths:	Offsetting wells reporte	ed water depths (091-00220, (091-00221, 091-00222)
14) Approximate Saltwater Depths: 1,110'				
15) Approximate Coal Seam Depths: Hartern-408.Bakerstown	496',Brush Creek-583', Upper Freeport-628	', Lower Freeport-690', Upper Kitt	anning-764', Middle Kittan	ening-808', Lower Kittanning-835', Clarion-881'
16) Approximate Depth to Possible Void (coal mi	ine, karst, other):	None Known		
17) Does Proposed well location contain coal sear directly overlying or adjacent to an active mine?	ms Yes	No	None Kno	own
(a) If Yes, provide Mine Info: Name:				
Depth:				
Seam:				
Owner:				

WW-6B	
(04/15)	

API NO. 47091	
OPERATOR WELL NO). 201
Well Pad Name: Fibe	er TFP22

18)

CASING AND TUBING PROGRAM

ТҮРЕ	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24	New	H-40	102.7	120	120	CTS
Fresh Water	13.375	New	J-55	54.5	300	300	CTS
Coal							
Intermediate	9.625	New	J-55	40	1,500	1,500	CTS
Production	5.5	New	P-110	20	32,216	32,216	TOC @ 1,350
Tubing							
Liners							

Kenneth Greynolds Co. Kerneth Greynods area in Karneth L. Greynods Co. Kerneth Greynods area in Karneth L. Greynolds Greynolds

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24	36			0	Class A/L, 3% CaCl2	1.2
Fresh Water	13.375	17.5	0.38	2,730	900	Class A/L, 3% CaCl2	1.2
Coal							
Intermediate	9.625	12.25	0.395	3,950	1,500	Class A/L, 3% CaCl2	1.29
Production	5.5	8.5-8.75	0.361	15,920	11,500	Class A/L Poz	1.29/1.34
Tubing					5,000		
Liners					N/A		

PACKERS

Kind:		
Sizes:		
Depths Set:		

WW-6B
(10/14)

API NO. 47- 091
OPERATOR WELL NO. 201
Well Pad Name: Fiber TFP22

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

The well will be started with a conductor rig drilling a 36" hole to Conductor programmed depth then running 24" casing and circulate cement back to surface. The conductor rig will move out and the drilling rig will move in and rig up. The drilling rig will then spud a 17 ½" hole and drill to fresh water casing (Surface) to the programmed depth, Run 13- 3/8" casing and cement to surface. The rig will continue drilling a 12- ¼" intermediate hole to the programmed depth, run 9- 5/8" casing and cement to surface. The rig with then continue to drill an 8- ¾" hole to a designed KOP. We will then start drilling the curve and lateral section to the programmed total measured depth, run 5 ½" casing and cement according to the program.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The well will be completed using a plug and perforation method and stimulated with a slickwater and sand slurry. The anticipated maximum rate will be 90 bpm and the maximum pressure will be 11,500 psi.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 17.050
- 22) Area to be disturbed for well pad only, less access road (acres): 5.389
- 23) Describe centralizer placement for each casing string:

24"- No centralizers 13 3/8" – one bow spring centralizer on every other joint 9 5/8" – one bow spring centralizer every third joint from TD to surface 5 $\frac{1}{2}$ " – one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to 1,700'; there will be no centralizers from 1,700' to surface.

24) Describe all cement additives associated with each cement type:

24" will be circulated to surface. The 13 3/8" casing will be cemented to surface with Class A/L cement and no greater than 3% CaCl (calcium chloride). The 9 5/8" casing will be cemented to surface with Class A/L cement, & no greater than 3% calcium chloride. The 5 1/2" production string will be cemented back to 1,350' (+/- 150' above the casing shoe for the 9 5/8") with Class A/L Poz cement retarded (to extend pumpability) cellophane flaked for fluid loss, Bentonite gel as an extender (increased pumpability and fluid loss), a defoaming agent to decrease cement foaming during mixing to insure the cement is of proper weight to placement and possibly gypsum gas blocking additive to aid in blocking/gas migration (in combination with other additive mentioned here, helps cement achieve a "right angle" set) during the plastic phase of the cement set-up.

25) Proposed borehole conditioning procedures:

Top holes will be drilled with fresh water KOP. At KOP, the wellbore will be loaded with synthetic oil based mud, barite-weighted mud system with such properties as to build a filter-cake on the face of the bore-hole. This will provide lubricity as well as stabilizing the well bore. We will begin rotating the drill string and mud will be circulated upon reaching TD until no further cuttings are observed coming across the shaker screens. Once clean mud is circulated back to surface, we will pull three stands of drill pipe, load the hole, pull three strands and load the hole. The weight indicator on the rig will be monitored for any occurrences of drag and if any are noticed, we will re-run the previous stand of pipe pulled across and circulate 2x bottoms up while watching shakers for signs of cuttings. Once at the base curve, the string will be continuously rotated while pumping 2x bottoms up. We will pull three stands and fill the hole until we reach the vertical section of the well.

*Note: Attach additional sheets as needed.



Click or tap to enter a date

Alliance Petroleum Corp 4150 Belden Village Ave. NW Ste 410 Canton, OH 44718-2553

RE: Fiber TFP 22 Pad

Dear Sir/Madam,

Arsenal Resources has developed a Marcellus pad, Fiber TFP22, well #201, located in Taylor County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 7,910 TVD) and existing conventional natural gas wells included in the attached well list for which you are believed to be the operator.

Arsenal Resources anticipates conducting hydraulic fracturing at the Fiber TFP22 pad, well #201, during the ^{2nd} Quarter of 2023. We have identified conventional natural gas wells operated by your company within 500' (lateral distance) of our newly planned wells. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during and after fracturing operations:

- 1. Inspect surface equipment, prior to fracturing, to establish integrity and establish well conditions.
- Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
- Inspect or install master valves rated to 3,000 psi or other necessary equipment for wellhead integrity.
- Notify the OOG and Arsenal Resources if any changes in water, gas production, pressure or other anomalies are identified.

Please feel free to contact me at 724-940-1218 with any questions or comments. You may also contact the WV Office of Oil and Gas at 304-926-0499.

Sincerely,

Ross Schweitzer

R. Schweitzer

Sr. Director of Drilling, Construction & Permitting

AOR - Attachment "B"

Area of Review Report - __Fiber TFP22_____ Pad, ____201__ Lateral, ____ Taylor, Barbour___ County, WV

Well Name	API Number	Operator Name / Address	Well Type	Latitude	Longitude	Total Depth	Perforated Formation(s)	Producing Zones not Perforated
Chester Sinsel 4	091-00221	Diversified Production LLC	Existing	39.253765	-80.151291	4761	Riley, Benson	NA
Chester Sinsel 3	091-00220	Diversified Production LLC	Existing	39.248208	-80.149424	4765	Riley, Benson	NA
Lillian W Post 1	001-00382	Diversified Production LLC	Existing	39.234236	-80.142953	4582	Benson	NA
Virginia C McDonald 3	001-00592	Diversified Production LLC	Existing	39.229128	-80.141605	4629	Benson	NA
Rosaltha Law 4	001-00569	Diversified Production LLC	Existing	39.224211	-80.141393	4698	Riley, Benson	NA
W B Smith et ux 292-CH	001-00622	EQT Production Company	Existing	39.215055	-80.137583	4900	Riley, Benson	NA
Kathleen Nutter 1	001-00140	Diversified Production LLC	Existing	39.19065	-80.123407	4310	Fifty Foot, Riley, Benson	NA
Unknown	001-00148	Chesser & O'Brien	Cancelled	unknown	unknown	NA	NA	NA
				4				
							14	



SITE SAFETY PLAN

FIBER TFP22 PAD, WELL #201

911 Address:

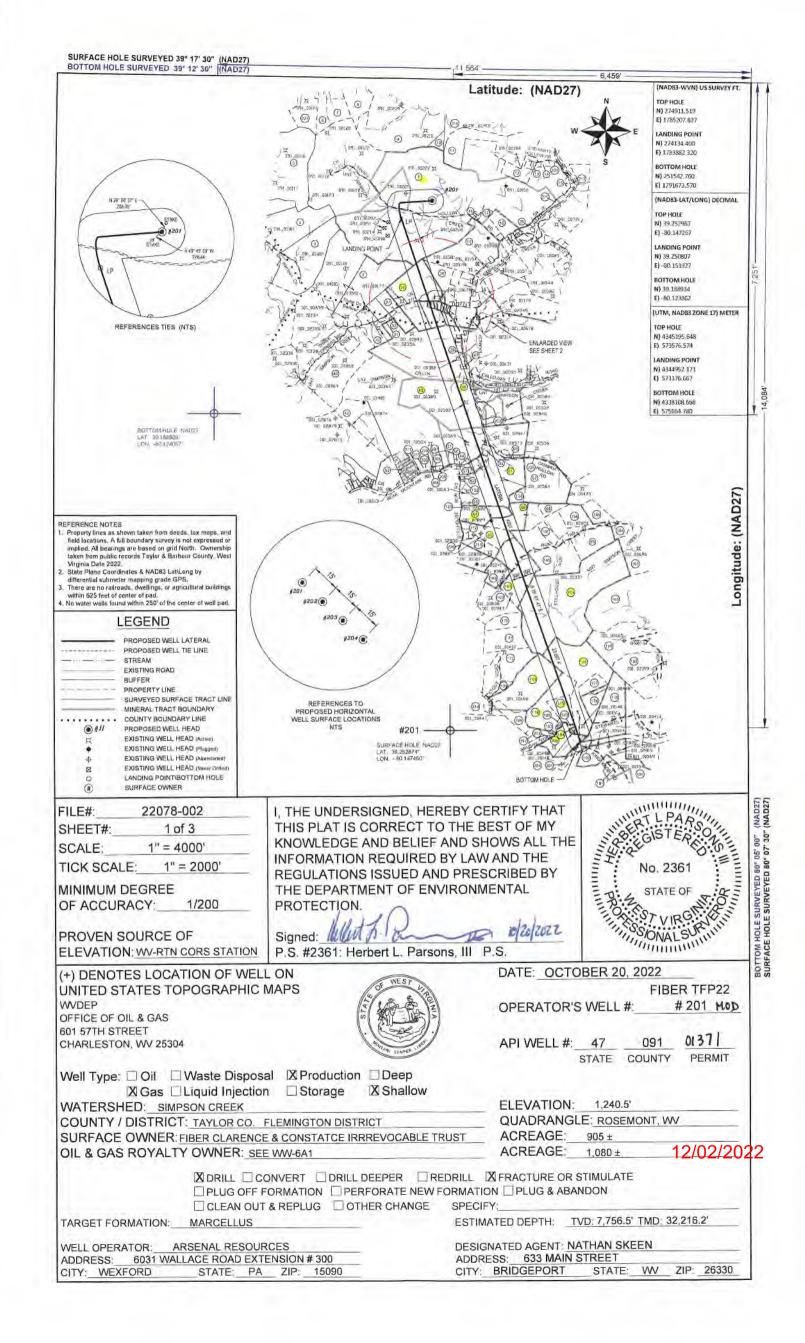
1232 Sinsel Hollow Rd Flemington, WV 26347

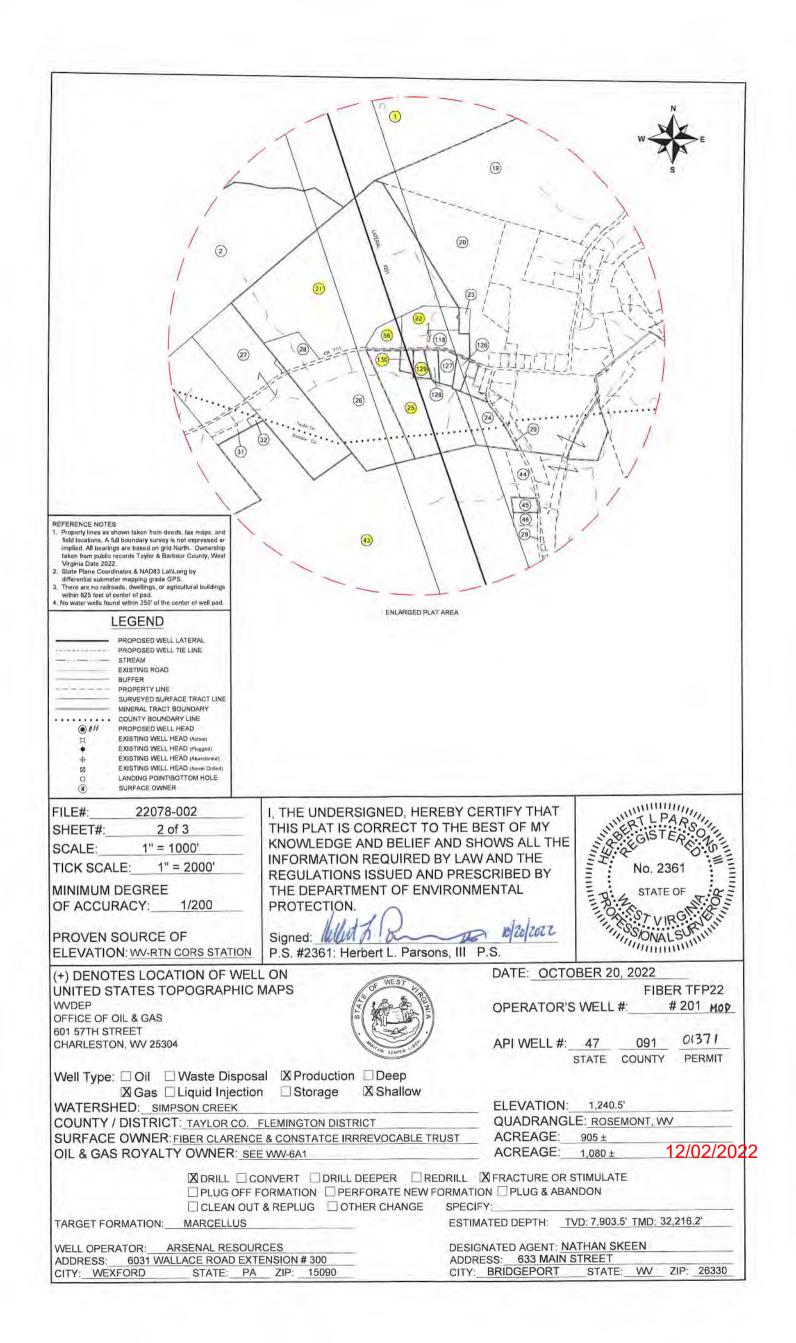
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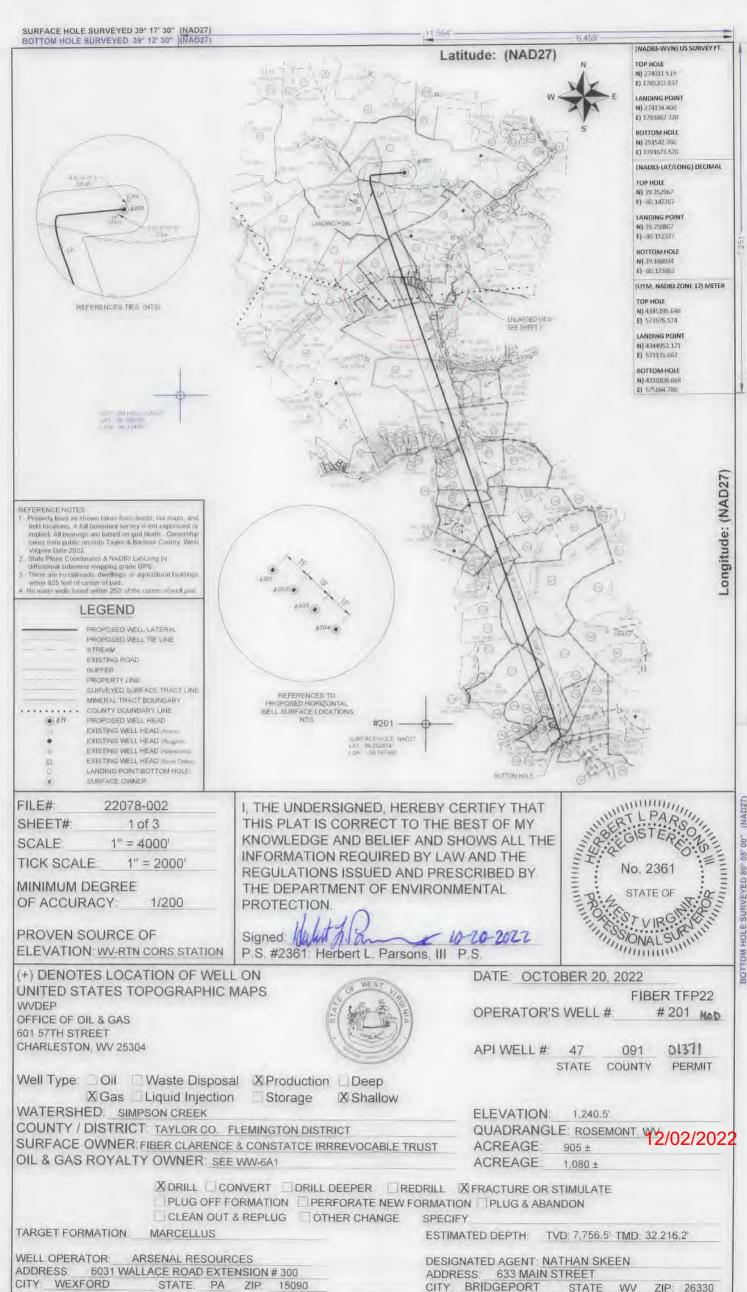
WV Department of Environmental Protection

Kenneth Greynolds N. Kenneth Greynolds (M. Kenneth Greynolds St. Kenneth Greynolds St. Kenneth Greynolds erail = Kenneth Greynolds Greyn

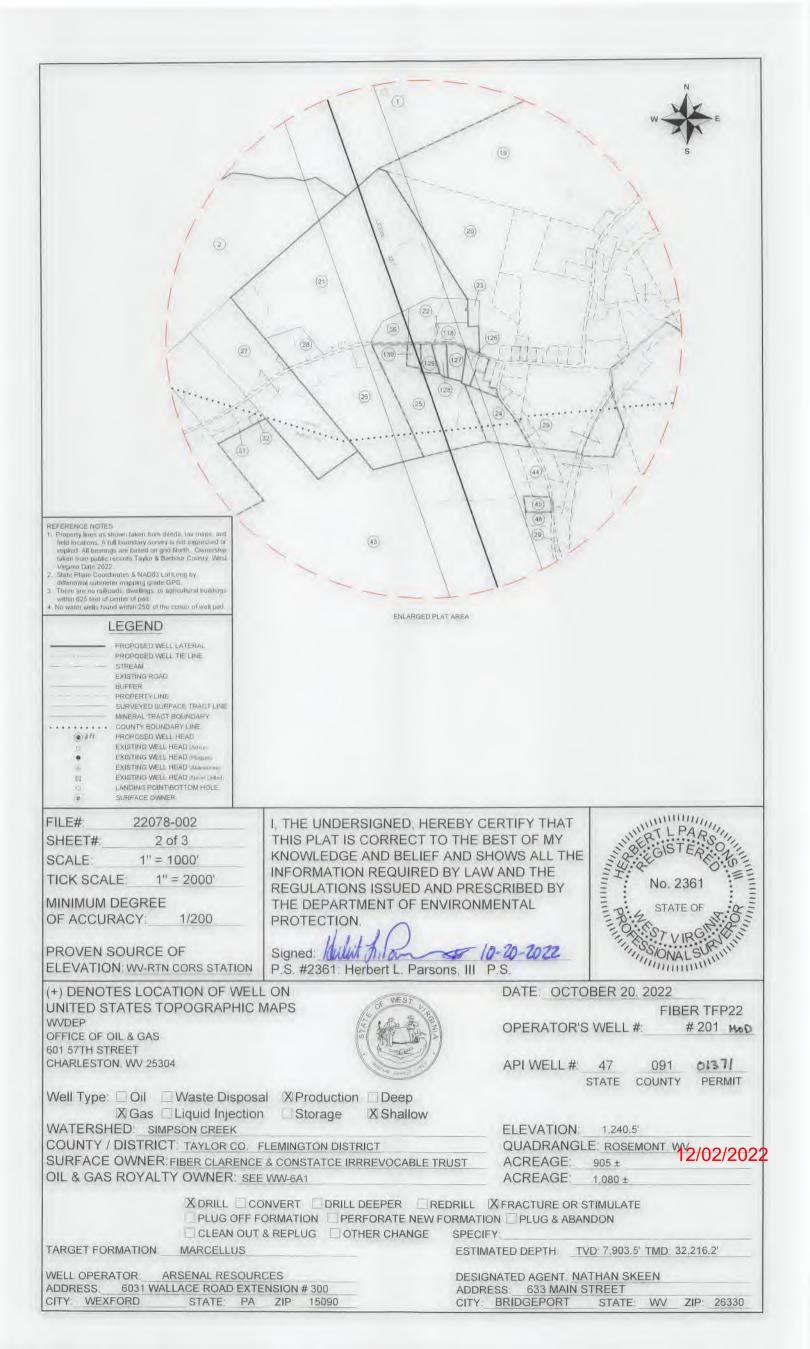


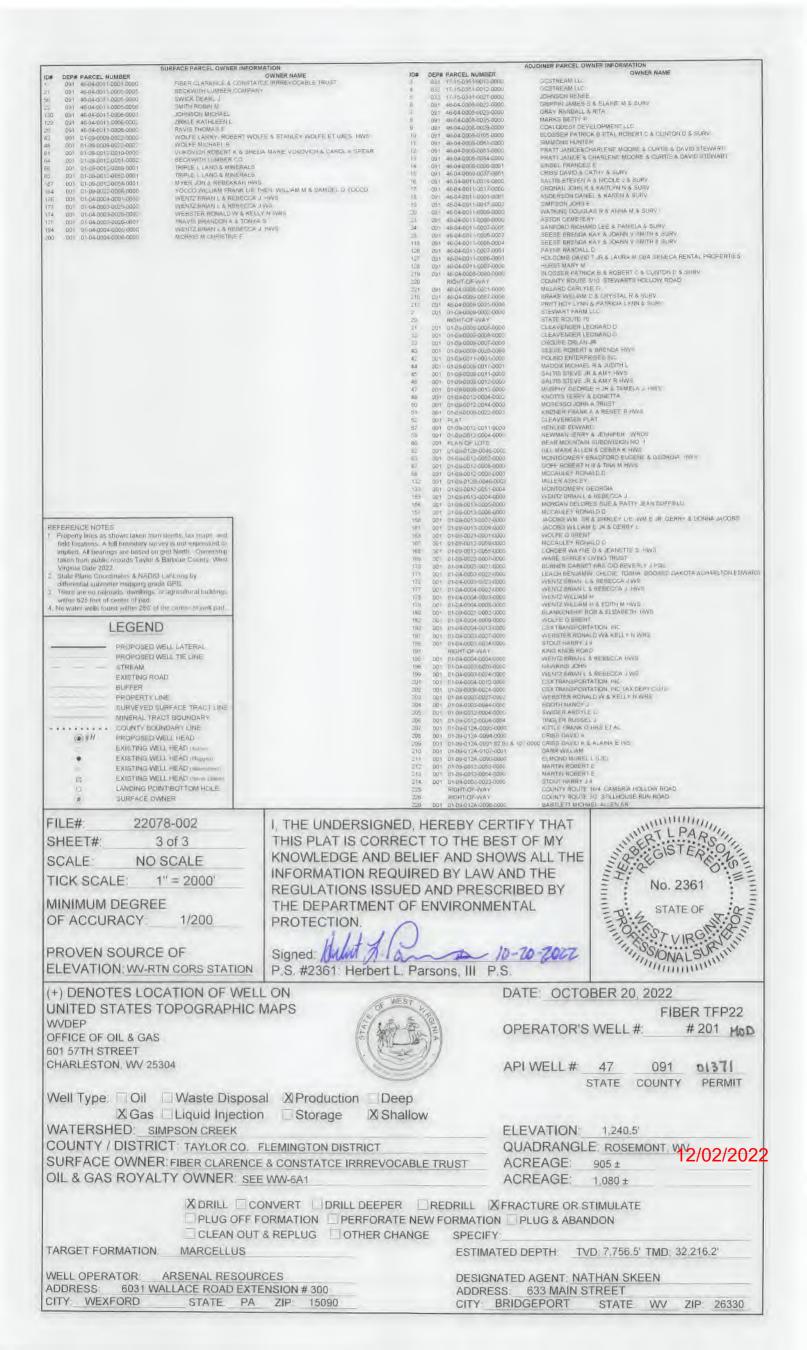


ID# DEP# PARCEL NUMBER	URFACE PARCEL OWNER INFO			-		ADJOINE	R PARCEL O	WNER INFORMATION
1 D81 46-04-0011-0001-0000 21 091 46-04-0011-0005-0005	FIDER CLARENCE & CONST BECKWITH LUMBER COMPA	OWNER NAME ATCE IRRREVOCABLE TRUST	3 4		PARCEL NUMBER 17-15-0351-0013-00 17-15-0351-0012-00	900 GGS	STREAM LLC	OWNER NAME
56 591 46-04-0011-0005-0000 77 701 46-04-0011-0005-0006	SWICK DEARL J SMITH ROBIN M		5.6	033	17-15-0331-0027-00 17-15-0331-0027-00 46-04-0008-0022-00	HOL. 000	STREAM LLC INSON RENEE PPIN JAMES :	E S & ELAINE M & SURV
30 091 46-04-0011-0006-0003 29 091 46-04-0011-0006-0002	JOHNSON MICHAEL ZIRKLE KATHLEEN L		7 8	091	46-04-0008-0023-00 46-04-0008-0035-00	000 GRA	Y RANDALL ; RKS BETTY P	& RITA
5 051 46-04-0011-0006-0000 021 01-05-0009-0022-0000	RAVIS THOMAS E WOLFE LARRY, ROBERT W	DLFS & STANLEY WOLFE ET LIXES, HWS	9		46-04-0008-0029-00 46-04-0008-0105-00	000 COA	LQUEST DEV	VELOPMENT LLC CK B ETAL ROBERT G & CLINTON D & SURV
001 01-09-0008-0022-0002 001 01-09-0012-0010-0000 001 01-09-0012-0051-0002	WOLFE MICHAEL B VUKOVICH ROBERT K & SHI	ELIA MARIE VUROVICH & CAROL A SPEAR	11		46-04-0008-0081-00 46-04-0008-0083-00	000 SM1	MONS HUNTE TT JANICE&C	ER CHARLENE MOORE & CURTIS & DAVID STEWART
001 01-09-0012-0009-0001	BECKWITH LUMBER CO TRIPLE L LAND & MINERALS		14	091	46-04-0008-0090-00	000 PRA 101 SINS	TJANICE &	CHARLENE MOORE & CURTIS & DAVID STEWART S E
7 001 01-09-0012-0054-0001	WYER JON & REBEKKAH III	VS	15	091 091	46-04-0009-0037-00 46-04-0011-0019-00	001 CRIS	SS DAVID & C TIS STEVEN A	ATHY & SURV A & NICOLE J & SURV
6 001 01-04-0004-0001-0000	WENTZ BRIAN L & REBECCA		15	091	46-04-0011-0017-00 46-04-0011-0001-00	D AND	ERSON DANI	& KAITLYN N.& SURV EL & KAREN & SURV
6 001 01-04-0001-0025-0000 4 001 01-04-0003-0025-0002 5 001 01-04-0003-0026-0001	WEBSTER ROYALD W & RE TRAVIS BRANDON A 8 TONY	LLY N WRS	19 20 23	091	46-04-0011-0017-00 46-04-0011-0009-00	DD WAT		AS R & ANNA M & SURV
001 01-04-0004-0005-0000 0 001 01-04-0004-0006-0000	WENTZ BRIAN L & REBECCA MORRIS M CHRISTINE 4		24	391	46-04-0011-0008-00 46-04-0011-0007-00	DE SAN		ROLEE & PAMELA & SURV
OF CHOCKETON CONTRACTOR	MORRIS IN CHRISTINE		28 118 126	091	46-04-0011-0005-00 46-04-0011-0005-00	04 SEE	SE BRENDA	KAY & JOANN V SMITH & SURV KAY & JOANN V SMITH & SURV
			127 128	091	46-04-0011-0007-00 46-04-0011-0006-00 46-04-0011-0007-00	io* Hou	NE RANDALL COMB DAVID ST MARY M	T JR & LAURA VI DBA SENECA RENTAL PROPERTIES
			219		46 04 0008 0000 00 RIGHT-QF-WAY	00 BLO	SSER PATRIC	CK B & ROBERT C & CLINTON D & SURV 3/10 STEWARTS FOLLOW ROAD
			221 216		45.04.0008.0021.00 46.04-0009-0057-00	00 Mus.	ARD CARLYL	
			217	091	48-04-0009-0035-000 01-09-0009-0032-000	00 PRII		& PATRICIA LYNN & SURV
			19 31		RIGHT-CF-WAY 01-09-0009-0008-00	STAT	TE ROUTE 76 AVENGER LE	
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			46	001	01-09-0009-0012-00 01-09-0009-0013-00	00 MUR	PHY GEORG	BAAMYRHWS EHJR&TAMELAJ, HWS
			49 50	001	01-09-0012-0004-000 01-09-0012-0014-000	00 MGS	ITS TERRY & IESSO JOHN	A TRUST
			51 52	001	01-09-0009-0022-00 PLAT	GLEA	AVENGER PL	
			57 58 50	001	01-09-0012-0011-00 01-09-0012-0004-00 PLAN OF LOTS	05 NEW		S JENNIFER WROS SUBDIVISION NO. 1
			60 62 83	001	01-09-0128-0045-00 01-09-0012-0052-00	002 HILL	MARK ALLEI	N & DEBRAIK HWS RADFORD EUGENE & SEORGAL HWS
			57 88	001	01-09-0012-0002-000 01-09-0012-0009-000	GO GOF		III & TINA M HVVS
			132	001	01-09-012B-0048-00 01-09-012-0051-00	003 MILE	ER ASHLEY	
			155	001	01-09-0013-0004-00	00 WEA	ITZ BRIAN L	S REBECCA I ES SUE & PATTY JEAN OUFFIELD
- Sec. (1977)			157 158	001	01-09-0013-0005-00 01-09-0013-0007-00	00 MCC 00 JACC	AULEY ROW OBS VVM SR	ALD D. A SHRLEY LIE-WIM EUR, GERRY & DONNA JACOBS
FERENCE NOTES Property lines as shown taken from de			161 163	001	01-09-0013-0009-00 01-09-0021-0001-0D	00 JAG0	DBS WILLIAM FE G BRENT	E JR & GERRY L
field locations. A full boundary survey implied. All bearings are based on grid	is not expressed of d North. Ownership		165 168	001	01-09-0012-0056-00 01-08-0012-0055-00	00 MCC 00 COR		D& JEANETTE S. HWS
taken from public records Taylor & Ba Virginia Date 2022.	rbour County, West		159	001	01-09-0022-0007-00 01-04-0003-0021-00	IOD BUR	NER GARNE	LIVING TRUST THRS CIG BEVERLY J POE
State Plane Coordinates & NAD63 La differential submeter mapping grade (171	001	01-04-0003-0022-00 01-04-0003-0023-00	IDD WEN	ITZ BRIAN L	N, CHLOIE, TOSHA BOORED DAKOTA &CHARLTON EDW & RESECCA J WS
There are no railroads, dwellings, or a within 525 feet of center of pad.	gricultural buildings		177	100	01-04-0004-0002-00 01-04-0004-0003-00	OD MEN	VIZ WILLIAM	refectajaws H
No water wells found within 250' of the	center of well pad.		179	001	01-04-0004-0008-00 01-09-0021-0002-00	IOU BLAI	NKENSHIF BO	II & ECITH M HWS OB & ELIZABETH, HWS
LEGEND			182 192 197	001	01-04-0004-0008-00 01-04-0004-0013-00 04-04-0003-0037-00	100 CSX	LFE G BRENT TRANSPORT BS1ER ROMA	
PROPOSED WEL	LLATERAL		197 198 191		01-04-0003-0027-00 01-04-0003-0034-00 RIGHT-OF-WAY	100 STU	SSTER ROMA IUT HARRY JI S KNOB ROA!	1
PROPOSED WEL			191 195 196		D1-D4-0004-0004-00 D1-D4-0003-0026-00	IDO WEN		& REBECCA HWS
EXISTING ROAD			199	001	01-04-0003-0024-00	000 WEN	NTZ BRIAN LA	
BUFFER PROPERTY LINE			202	D01	01-09-0009-0024-00	000 GBX	TRANSPORT	TATION, INC TAX DEPT C810 LOW & KELLY NWRS
SURVEYED SUR	FACE TRACT LINE		204 205	001 001	01-04-0003-0044-00	000 BOC 000 SWI	OTH NANCY J	e G
MINERAL TRACT	2.4.4.7.2.2.3.3		206	001 001	01-09-0012-0004-00 01-09-012A-0065-00	DA TING COD KITT	LER RUSSEL LE FRANK G	LV
PROPOSED WELL EXISTING WELL			208	001	01-09-012A-0094-00 01-09-012A-0091,92	2 93 & 107-0000 CRIS	SS DAVID A SS DAVID A &	ALAINA É WS
EXISTING WELL	HEAD (Plunger)		210	001	01-09-012A-0107-00 01-09-012A-0090-00	000 ELM	R WILLIAM	
⊕ EXISTING WELL	HEAD (Never Drilled)		213 214	001	01-05-0012-0053-00 01-09-0012-0054-00	100 MAS	RTIN ROBERT RTIN ROBERT OUT HARRY	E
O LANDING POINT	BOTTOM HOLE		214 225 226	001	RIGHT-OF-WAY	COL	INTY ROUTE	II 16/4 CAMBRIA HOLLOW ROAD 7/2 STILLHOUSE RUN ROAD
	50		229	001	01-05-012A-0058-00			AEL ALLEN SR
ILE#: 22078	3-002	I, THE UNDERSIGN	NED, H	IER	REBY CE	RTIFY TH	TAH	" DA
SHEET#: 3	of 3	THIS PLAT IS COR						WERT LAROUS
	CALE	KNOWLEDGE AND						SI OF GISTER OF
AND THE RESERVE	CIFTA	INFORMATION REG						ET. O. O.
TCK SCALE: 1"	= 2000'	REGULATIONS ISS						No. 2361
MINIMUM DEGREE		THE DEPARTMENT						STATE OF _ O
F ACCURACY:	1/200	PROTECTION.	^			-1 2 2 to 1 = 0		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		1/11/11				1-1		STVIRGINGS
ROVEN SOURCE	OF	Signed: WWW n	on	_	B	10/20/20	12	SIONALSUKIN
LEVATION: WV-RTN	CORS STATION	P.S. #2361: Herbert	L. Pa	rso	ns, III P.	S.		"minimum"
) DENOTES LOCA	TION OF WE	LON		-		DATE:	ОСТО	BER 20, 2022
INITED STATES TO			WEST	1		DAIL.	0010	FIBER TFP22
WDEP	o, colonillo	12/.	BE	8		ODERA	TODIO	
OFFICE OF OIL & GAS		ST. 8	N TO	IN S		UPERA	UKS	WELL#: # 201 Hos
01 57TH STREET		1.18	- SE 1	1.1				
HARLESTON, WV 2530	04	The state of the s		9		API WEI	LL #:	47 091 01371
			24000	Y.				STATE COUNTY PERMIT
		sal X Production D						
			hallow	V				
VATERSHED: SIM	PSON CREEK		7			ELEVAT	ION:	1,240.5
		FLEMINGTON DISTRICT				QUADR	ANGL	E: ROSEMONT, WV
		E & CONSTATCE IRRREVO	DCABLE	ETF	RUST	ACREA		905 ±
IL & GAS ROYALT						ACREA	GE:	1,080 ± 12/02/2
				7	Marie I and			
		ONVERT DRILL DEEP						
		FORMATION PERFORA					& ABAN	NDON
ADGET EODMATION		T&REPLUG OTHER C	HANG	_	SPECIFY		1. ***	/D: 7 756 El TMD: 22 246 21
ARGET FORMATION:_	MARCELLUS				ESTIMA	TED DEPTH	H: TV	/D: 7,756.5' TMD: 32,216.2'
VELL OPERATOR:	ARSENAL RESOU	RCES			DESIGN	ATED AGE	NT: NA	THAN SKEEN
	LLACE ROAD EXT	TENSION # 300			ADDRES	SS: 633 I	MAIN S	TREET
CITY: WEXFORD	STATE: PA	ZIP: 15090			CITY:_ I	BRIDGEPO	DRT	STATE: WV ZIP: 26330



BOTTOM HOLE SURVEYED 80° 05° 00" (NAD27) SURFACE HOLE SURVEYED 80° 07° 30" (NAD27)





tter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
1 (00005213)	Chester Sinsel and Frances Sinsel, his wife	Union Drilling Inc	12.50%	35/488	1,080
	Union Drilling Inc	Equitable Resources Exploration Inc		9/427	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		10/79	
	Equitable Resources Energy Company	Enervest East Limited Partnership		22/181	
	Enervest East Limited Partnership	The Houston Exploration Company		27/99	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		27/426	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		31/427	
1 (00005214)	Nathan H Coulson and Ann Coulson, his wife	Union Drilling Inc	14.00%	35/629	48.25
	Union Drilling Inc	Equitable Resources Exploration Inc		9/427	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		10/79	
	Equitable Resources Energy Company	Enervest East Limited Partnership		22/181	
	Enervest East Limited Partnership	The Houston Exploration Company		27/99	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		27/426	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		31/427	
21, 22 <mark>, 56</mark> (00008265)	Ethel A Tomblyn, single and Bessie T Knight, widow	Petro-Lewis Corporation	12.50%	33/254	94
	Petro-Lewis Corporation	Partnership Properties Company		3/176	

etter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Partnership Properties Company Eastern American End Corporation			4/381	
	Eastern American Energy Corporation	Energy Corporation of America		16/488	
	Energy Corporation of America	Greylock Production LLC		36/618	
	Greylock Production LLC	Mar Key LLC		37/8	
130 (00008566)	Terry Knotts Sr and Donetta Knotts, his wife	Mar Key LLC	13.0%	69/643	0.99
129 (00007892)	Kathleen L Zirkle, widow	Mar Key LLC	15.0%	68/648	1.08
25 (00007970)	Thomas Eugene Ravis, in his own right	Mar Key LLC	15.00%	68/696	15.57
43, 48 (00005950)	Lillian Wilson Post, widow	Cumberland & Allegheny Gas Company	12.50%	40/242	400
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187 (also 136/162)	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	

etter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	
43 (00005894)	Virginia C McDonald, single	Union Drilling Inc & Allerton Miller	12.50%	47/434	177
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Fuel Resources Production & Development Company	The Houston Exploration Company	1	383/187 (also 136/162)	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	
61 (00005895)	George C Law et al	Cumberland & Allegheny Gas Company	12.50%	40/242	313
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	

etter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
64 (00005696)	Mabel Cleavenger, single	Cumberland & Allegheny Gas Company	12.50%	46/405	100
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	
66 (00008912)	Triple L Land and Minerals LLC	Mar Key LLC	12.50%	184/591	90.75
65 (00008912)	Triple L Land and Minerals LLC	Mar Key LLC	12.50%	184/591	90.75
167 (00008934)	Anthony S and Rebekkah Myer	Mar Key LLC	12.50%	185/1	78.7375
164 (00005915)	Bott Yocco and Virginia Yocco his wife	Cumberland & Allegheny Gas Company	12.50%	46/44	277
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Equitable Resources Energy Company	Enervest East Limited Partnership		129/524	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	
	Enervest East Limited Partnership	The Houston Exploration Company		138/1	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	
176, 174, 175, 194 (00005699)	R H Nutter & Kathleen Nutter his wife	Cumberland & Allegheny Gas Company	12.50%	40/236	165
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Enervest East Limited Partnership		129/524	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	

tter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		139/48	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	
173 (00005930)	Oval Cleavenger, widow	Cumberland & Allegheny Gas Company	12.50%	40/222	110
	Cumberland & Allegheny Gas Company	Union Drilling Inc & Allerton Miller		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	
	Equitable Resources Energy Company	Enervest East Limited Partnership		129/524	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	
	Enervest East Limited Partnership	The Houston Exploration Company		138/1	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC	= - 7	447/129	
200 (00005904)	W D McKinney & Stella McKinney his wife	W C Bond	12.50%	36/215	50
	W C Bond	Union Drilling Inc & Allerton Miller		36/245	
	Union Drilling Inc	Equitable Resources Exploration Inc		46/347	
	Allerton Miller	Union Drilling Inc		98/11	
	Union Drilling Inc	Equitable Resources Exploration Inc		325/219	

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Equitable Resources Exploration Inc	Equitable Resources Energy Company		328/171	
	Equitable Resources Energy Company	Fuel Resources Production & Development Company		116/81	·
	Equitable Resources Energy Company	Enervest East Limited Partnership		129/524	
	Fuel Resources Production & Development Company	The Houston Exploration Company		383/187	
	The Houston Exploration Company	Enervest East Limited Partnership		138/1	
	The Houston Exploration Company	Seneca-Upshur Petroleum Inc		404/381	
	Seneca-Upshur Petroleum Inc	Seneca-Upshur Petroleum LLC		447/129	