

1)	Date:Nov	ember	17	
2)	Operator's Well No	#1		
3)	API Well No	47	085	6023

WELL TYPE: 5) LOCATION: 6) WELL OPERA	A Oil	(See No		EPARTME	STATE OF WEST VIR	CINIA	State	County Perm
WELL TYPE: DOCATION: WELL OPERA	A Oil	h ka ilai		CPARIME	TATE OF BEING OFF A			
) WELL TYPE:) LOCATION:) WELL OPERA	A Oil	hrea Ban		OIL AND	ENT OF MINES, OIL AID GAS WELL PERMIT			
) WELL TYPE:) LOCATION:) WELL OPERA	A Oil			4.1	CONTROL OF THE CONTRO			
WELL OPERA					Zna sala eneval ha			
) WELL OPERA	B (If "	Gas", Pro	duction		/ Underground sto	rage	/ Deep	/ Shallow/)
			Grant		The state of the s	Charles and the same of the sa	The state of the s	
	Distric PE'				County: KILO	cnie	Quadrangle:	Harrisville
Address	O Box	26, 1	03 Eas	t Main	Street	DESIGNATED Address	PO Box 26, 10	B East Main Stre
Address	ridge	port,	WV 26	330	n Priorit Nic Carl 1991		Bridgeport, W	
OIL & GAS			1 0		4		and without and	SV STOLEN (8
ROYALTY OW	MEK _			m et a	12)	COAL OPERA	TOR	
	ienna.				ma vasauka, nomi	Address	OF M SOUTHER MY CHEE	08 610103 - (6
0	41½	, , , , ,	0103			THE SERE LOW	AMERICA PREDICT	42.04.24Z 11/27
Acreage 8		Costal	Lumbe	r Cómp	anv 13)	Name none		ATION ON RECORD:
	O Box		= dinio e	<u>r gom</u> p	Light at	Address	chice owner at the	us fluscosti, 18 co
	uckhar	non,	WV 26	201		Addiess		Line Work to
Acreage			843			Name	10)15(6)5	HWIGH
) FIELD SALE (IF MADE	E) TO:				Address	MUS	906
Address	pritutor	1000, 70	int aires	e mi ere	<u>specific</u> distantian,		CELOT TO LET	00 B00 111
					14)	COAL LESSEE	WITH DECLARAT	ON ON RECORD:
OIL & GAS IN	SPECTOI amue 1			D		Name	Call And Bull Thinks	A COL
Traine	O Box		The second of the second	resident of	Son Hotel L. Villian Cit.	Address	and the same and a little of	edi SueW. (1)
1 Addi OUU					dward strewest tow		OIL & GAS	THE PARTY OF THE P
	LUGSTON TOWNS		THE PERSON NAMED IN COLUMN TWO	THE COLUMN TWO STREET, SALES	er/ Redrill_			FMINES
, TROTOBED W					Perforate new			
				ge in well				STRUMENT THE
GEOLOGICAL	TARGET	FORMA	TION, _	Marce!	llus Shale	2 - 2 - 3	1 CO180	ELCES TOPS SEVE
17) Estimated d						Sections but a	nde villant tennanh	at digst 181
18) Approxima	te water st	rata depti	as: Fresh	, 41	10 feet; sa	lt, 1810	feet.	
19) Approxima	te coal sea	m depths:		none	Is coal b	eing mined in the	area? Yes	/ No_x
CASING AND	TUBING	PROGRA	AM					
CASING OR		SPE	CIFICATION	1S	FOOTAGE	INTERVALS	CEMENT FILL-UP	PACKERS
TUBING TYPE	Size	Grade	Weight per ft.	New Us	sed For drilling	Left in well	OR SACKS (Cubic feet)	
Conductor 1	1 3/4	H-40	42#	x	30'	30'	cement to s	Hiridace
Fresh water					e de la constanta da con la constanta de la co		Comerc to 5	Frace
Coal					100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	No. of the Control of	Sizes
Intermediate 7	7/8	H-40	23#	x	1130'	1130'	cement to s	rface
Production 4	1/2	J-55	10.5#	x	5900'	5900'	400 sks	Depths set
Tubing						4	100	0.7
Liners			200000			and the terrories	1 1 1 1 1 1 1 1 1	Perforations:
								Top Bottom
The second secon							THE AND ASSESSED.	CONTRACTOR CONTRACTOR
EVTRACTION	DICHTS		Marit Res	Section Services		artificial objects	Hat Te At to Cu Ten	Streleine To SEC
EXTRACTION Check and provi		the follo	wing:			the processing a	= Ovoration and	
			THE RESERVE OF THE RE	continuing	contract or contracts by	which I hold the	right to extract oil or	egrafi dili
The requi	rement of	Code 22	-4-1-(c) (1)	through (4	4). (See reverse side for	specifics.)	THE PARTY OF THE P	Suo.
ROYALTY PRO					o year to ten ion and			
Is the right to ext	ract, prod	luce or ma	arket the o	il or gas ba	sed upon a lease or other	continuing contrac	ct or contracts providir	ng for flat well royalty or a
produced or mar	keted?	Yes	No X	ner of the	on or gas in place which	n is not innerently	related to the volum	e of oil or gas so extracte
				eded. If th	he answer is Yes, you ma	y use Affidavit Fo	orm IV-60.	fo salwio or
the answer above i					answirt upt an an	agi iratiqa (full to jakes) adi	
Required Copies	ermit App	plication a	and the end	closed plat	and reclamation plan ha	we been mailed by	y registered mail or de	livered by hand to the abo
Required Copies Copies of this P		t Virginia			1		nantia	cation to the Department
Required Copies	ston, Wes		V	- 1	Russia dalla alka	Signed:	nk 111, 10	6011
Required Copies Copies of this P named coal oper Mines at Charle	ston, Wes	Y	1000	Jan 1		//		
Required Copies Copies of this P named coal oper Mines at Charle	ston, Wes	9-	4.19	1	the state of the same	And Area	Managar of O	orations
Required Copies Copies of this P named coal oper Mines at Charle	ston, Wes	9-	100g	5/	ture (Elife (X-a) IX	Its/ Area	Manager of Or	perations
Required Copies Copies of this P named coal open	ston, Wes	9-	100g 4-0g	5	OFFICE USE ON		Manager of Op	perations
Required Copies Copies of this P named coal oper Mines at Charle Notary: My Commission E	ston, Wes	9-	100g 4-9g	5/	OFFICE USE ON DRILLING PERI	HLY	Joseph Halls	22, 1982 04/05/2024

This permit covering the well operator and well location shown below is evidence of permissic quirements subject to the conditions contained herein and on the reverse hereof. Notification (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. I proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

ermit expires Ju	1y 22,	1983		unless dril	lling is commenced prior to that date and prosecuted with the diligence.
Bond:	Agent:	Plat:	Casing	Fee	
81.17		MIN	1	924865	Administrator, Office of Oil and Gas

Line Item Explanation

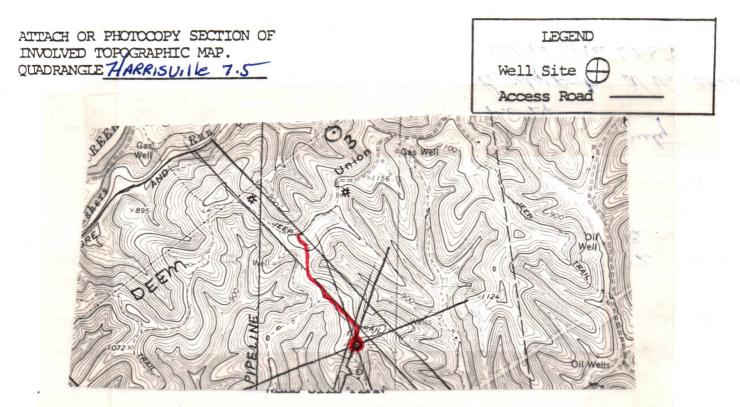
- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
 - "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less then six thousand feet, whatever is shallower.
 - 5) Where well is located
 - 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
 - 7) Use separate sheet if necessary
 - 8) Present surface owner at time application is filed.
 - 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
 - 15) Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
 - 16) Anticipated formation for which well will be completed
 - 17) Self explanatory
 - 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
 - 19) All coal seam depths
 - 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
 - 21) Code 22-4-11(c) In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1)A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4)A brief description of the royalty provisions of each such lease or contract.
 - 22) Code 22-4-11(d) and 22-4-11(e).
 - 23) Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
 - The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

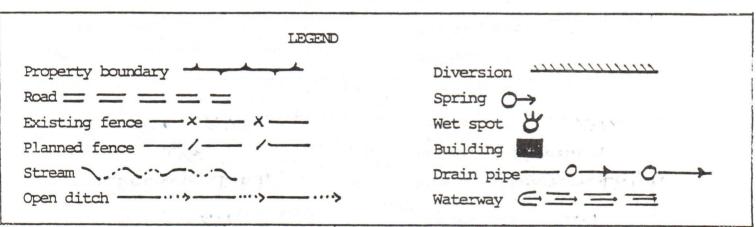
WAIVER

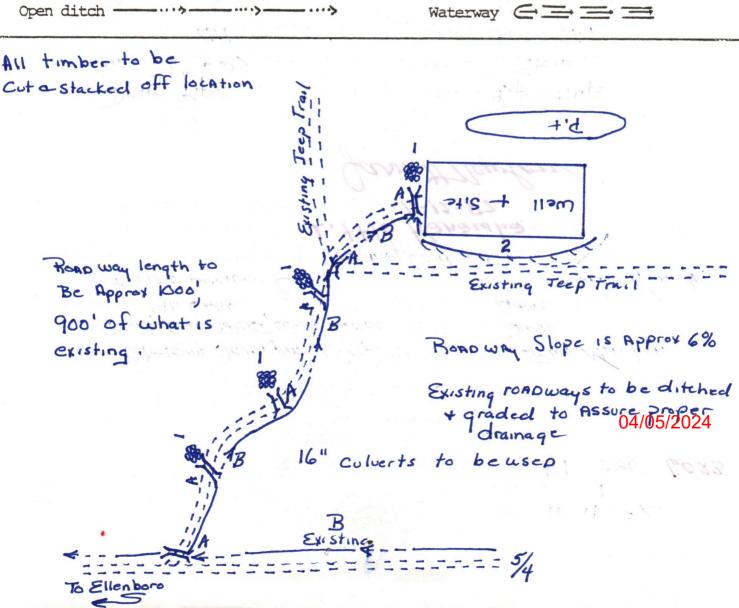
Darried agal drug abot, and the nexts), and coal letter on or before the day of the mallion or Aelphysis of Archanges, the Department of

The undersigned coal operatoramined this proposed well location. If added to the mine map. The undersignoperator has complied with all applications.	a mine map exists we do has no objection	to the work propos	ed to be done at this le	the well location has been ocation, provided, the well
and their date and proserts at with the diligence.	rilling is commenced prior	intess of	888 i 3 9 7 aku	Paronit expires VIVIV 22.5
Date:, 19	Admin	By	MEM	Elister



ketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.





TH. ON IGA singuist tas it in shale MEIT 100° 78-11-11 DATTE

(Rev 8-81) 6-NI

ernifft, du bramtraga &

04/05/2024

		NOTTE	THE NAME OF THE OWNER,		
21∀ 21∀	erreed it beceesary.	nad 110 bro jar bro ylab	Ingor bataoqeni	o ad bluons sa	פסחחופציכים ליח
	fsunsM . 34	N Page Re	M 70 .THJ	<u> </u>	age Ref. Manual
	Tr.	SirateM NOIS	OIL & GAS DIVIS		pacing
	ıre	Structu	Sable LVON	77	tructure
~	f.: Manual 2:17	Page Re	Ansoli	21:2	age Ref. Manual
	11 Earthen	SireteM	TUTTER	W/M	pacing
J.t.C	L Diversion	Structu	(B)	هجد کا الحد	Tructure Strain
	P:S LeuneM . 14	Page Re		7:5	age Ref. Manual
-	2 Stone	Materis		(CI.Z.	pacing (min.
)	TE 7.0 - RAP	Struction	(A)	Jose 1	tructure Drain
	LOCATION		1 0	CACESS ROAD	₹
	rdeurt)	(COS)	R		
	(a.	tsQ)	0		
	78	-11-11	-		oed anoitibbs br
	o LIA . COS EN ME	1		s been reviews	
triapA)	10tor	ne Contr	out by occul		
le hanawha	HIT DISIBICE SNO	TIOS	Co	radmud 3=	ANDOWNER TOR 21
Commence of the control of the contr	JWA S AME	Telepho	1 -2-	7579-21	Telephone 8
1	SAAC	searbb4 s	JU. 16. 2633		
10401	M MAOL INEDA				
Las Valley of			8	9	Thomas of the control
	y show our MATA		1 1/1	NCO	
10909 000	anderl to Res	ל מחובותם	RED MIT THE		04/05/2024

				40.00 000000 22	5 545 [501.]
Ibs/acre			lbs/acre		
3 lbs/acre	adina Clover -	7	lbs/acre	Clause - 3	Ladina
Je lbs/acre	Rchard Gross-	Seed*	lbs/acre	21-55219	Seed* Orcharb
Tons/acre	7404.2	Mulch	Sms\ame	7-1	Mulch 744
TASTEUT)	(10-50-50 Or ear		(علات	0-20 or equivale	(TO-50
lbs/acre		Fertili	lbs/acre	009	Fertilizer
	2. 5 Hq of form	OI C			or correct to
Tons/acre	8	əmil	Tons/acre	2	əmil
TI	Treatment Area			reatment Area I	T.

necessary for comments.

incepas grinorg and act grilbase as stains atompas hobitth

*Inoculate with 3X recommended amount.

AE GENTED BY

9-529-248-(408) ON ENOHE

			7/ /	, , ,
	. 2	Konn I.	faught	YSone
	/1	13	001	1/2
	Glenn	L. Haught & Sons	11, 7,500	ught, PA
			0 /	Aus
		Topolen alex	dyind	cong.
	(SEAL) C-1	EUM DEVELOPMENT	COPPORATION	<u> </u>
	PEIROL	EUR DEVELOPMENT	CORPORATION	
STATE OF WEST VIRGINIA				
STATE OF	1			
COUNTY OF RITCHIE				
		1		
BEFORE ME, the undersigned as	uthority in an	d for the State	& County at	foresaid
	Warren R. H		a county an	ioresard,
c. this day personally appeared	wallen K. I	laught		
Enough to me to be the access of	0 - 0 - 0 - 0 - 0 - 0	eribed to the fe		r rum c = t
known to me to be the person whose	()			
and acknowledged to me that he exc	ecuted the sam	e for the purpos	e and consid	deration
therein expressed.		10.1		
Given under my hand and seal	of office thi	s 10th day	of June	1982
		e 10	22	,
	6	sel CI	1/orga	7/2
		Notary P	ublic /	/-
My Commission Expires September	er 4 1	990	TEM	
		10000		
STATE OF MEST WINDOWS		33 move 2 x 1	002	
STATE OF WEST VIRGINIA		NOV 1 0 1	302	
COUNTY OF HARRISON		OIL & GAS D	IVISION	
	1	DEPT. OF		*
BEFORE ME, the undersigned as	uthority in an	Billian Patricia		aforesaid.
on this day personally appeared _				
			·	
known to me to be the person whose	e name is subs	scribed to the fo	recoing inc	
acknowledged to me that he execut expressed.	ed the same 10	or the purpose an	o considerat	tion thereis
		2046		
Given under my hand and seal	of office thi	s day of	June	19 82
		0	lance	
		overs		man
		Nota	ry Public	
My Commission Finden				
My Commission Expires on	October 1	19 86		
			1	

04/05/2024

The following signature's and seal: 47-085-6023

ASSIGNMENT 47-085-6023

THIS ASSIGNMENT, Made this 7 th. day of June 1982, by and between Glenn L. Haught & Sons , having a place of buisness at Parkersburg, West Virginia as parties of the first part (hereinafter referred to as "ASSIGNOR'S", and PETROLEUM DEVEOPMENT CORPORATION, having a place of buisness at 103 East Main Street, P.O. Box 26, Bridgeport, West Virginia 26330, as party of the second part (hereinafter referred to as "Assignee").

WITNESSETH: That for and in consideration of the sum of Ten (\$10.00) Dollars cash in hand paid, and other good and valuable considerations, the receipt and sufficiency of which is hereby confessed and ackowledged, the Assignor's do hereby grant, convey and assign unto the Assignee, subject to the conditions and reservations herein contained, without Warranty, except as hereinafter provided all of its right, title and interest in and to the following referenced oil and gas leases, together with the leasehold estates created and existing, which said leases are situate in Rithcie County, West Virginia, as listed on EXHIBIT "A".



OIL & GAS DIVISION DEPT. OF MINES

04/05/2024

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

		N_2	_CO2_	ACID
1st Stage	59 perfs (4063 - 5123)	352,000 scf	40 bbls	ll bbls
2nd Stage	37 perfs (3210 - 4030)	332,000 scf	63 bbls	10.5 bbls
3rd Stage	29 perfs (2610 - 3071)	316,000 scf	95 bbls	14 bbls

WELL LOG

alt water, coal, oil and gas

41
T-1
**
1 0 0005
neck @ 2985' - no show.
neck @ 3515' - no show.
neck @ 4857' - no show.
neck T.D no show.
•

(Attach separate sheets as necessary)

Well Operator By: M - Was	04/05/2024
By: M - Courant	
Date: July 11, 1983	

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including and, encountered in the drilling of a well."

JUL 1 3 1983 OIL & GAS DIVISION PT. OF MINES

IV-35 (Rev 8-81)

January 10, Operator's

State of Mest Mirginia Well No._

Bepartment of Mines Bil und Gas Bivision

Deem Farm API No. 47 - 085 6023

WELL OPERATOR'S REPORT OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

LOCATION: Elevation: 1080' Watershed	Run into Los	st Run		
District: Grant County Rit	chie	Quadrangl	e Harrisv	ille
COMPANY Detrology Development Company in				
COMPANY Petroleum Development Corporation ADDRESS P.O. Box 26, Bridgeport, WV 26330				T=
	Casing	Used in	Left	Cement fill up
ADDRESS P.O. Box 26, Bridgeport, WV 26330	Tubing	Drilling	in Well	Cu. ft.
	Size			
SURFACE OWNER Costal Lumber Company	20-16 Cond.			
ADDRESS P.O. Box 979, Buckhannon, WV 26201	13-10"	30'	30'	Cement to surface
MINERAL RIGHTS OWNER J. Frank Deem et al	9 5/8			
ADDRESS 5518 Second Ave., Vienna, WV 26105	8 5/8			
OIL AND GAS INSPECTOR FOR THIS WORK Samuel	7-5/8	1214	1214	305 sks.
Hersman ADDRESS Box 66, Smithville, WV	5 1/2			
PERMIT ISSUED November 18, 1982	4 1/2	5152	5152	220 sks.
DRILLING COMMENCED December 10, 1982	3			
DOTTITING COMPLETION December 14 1000		1		
DRILLING CUMPLETED December 14, 1982	2			
DRILLING COMPLETED December 14, 1982 IF APPLICABLE: PLUGGING OF DRY HOLE ON	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR	Liners			
IF APPLICABLE: PLUGGING OF DRY HOLE ON				
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners	Dept	-h 5900	feet
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale	Liners used		in 5900	feet
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners used	_/ Cable		feet
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners used Rotary XX Salt	/ Cable	Tools_	
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203	Liners used Rotary XX Salt	_/ Cable	Tools_	
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203	Liners used Rotary XX Salt Is coal	_/ Cablefeet_being mine	e Tools_	area? No
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale	Liners used Rotary XX Salt Is coal	_/ Cablefeet being mine zone dept	e Tools_ed in the	area? No
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d	Rotary XX Salt Is coal Pay Oil: Ini	_/ Cablefeet being mine zone dept tial open	e Tools_ed in the ch_2610-51	area? No 23 feet Bbl/d
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale	Rotary XX Salt Is coal Pay Oil: Ini	_/ Cablefeet being mine zone dept tial open	e Tools_ed in the ch_2610-51	area? No 23 feet Bbl/d
ONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d Final open flow Mcf/d Time of open flow between initial open flow betwee	Liners used Rotary XX Salt Is coal Pay Oil: Ini Fin	/ Cable feet being mine zone dept tial open al open final tests	e Tools ed in the ch 2610-51 flow (area? No 23 feet Bbl/d Bbl/d
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d Final open flow Mcf/d	Liners used Rotary XX Salt Is coal Pay Oil: Ini Fin	/ Cable feet being mine zone dept tial open al open final tests	e Tools ed in the ch 2610-51 flow (area? No 23 feet Bbl/d Bbl/d
ONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d Final open flow Mcf/d Time of open flow between initial open flow betwee	Rotary XX Salt Is coal Pay Oil: Ini Fin tial and fi	/ Cable feet being mine zone dept tial open al open final tests	e Tools ed in the ch 2610-51 flow (area? No 23 feet Bbl/d Bbl/d
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d Final open flow Mcf/d Time of open flow between ini Static rock pressure 660 psig(surfa	Rotary XX Salt Is coal Pay Oil: Ini Fin tial and fi	/ Cable feet being mine zone dept tial open al open fl nal tests ent) after	e Tools ed in the ch 2610-51 flow ho 24 0460	area? No 23 fee Bbl/d Bbl/d urs
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON GEOLOGICAL TARGET FORMATION Marcellus Shale Depth of completed well 5198 feet Water strata depth: Fresh — feet; Coal seam depths: 203 OPEN FLOW DATA Producing formation Devonian Shale Gas: Initial open flow 183 Mcf/d Final open flow Mcf/d Time of open flow between initiation of the strata of the	Rotary XX Salt Is coal Pay Oil: Ini Fin tial and fi	/ Cable feet being mine zone dept tial open al open fl nal tests ent) after zone dept	e Tools ed in the ch 2610-51 flow how 24 0460	area? No 23 feet Bbl/c Bbl/c urs 5/2024 in

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



INSPECTOR'S WELL REPORT

- UEC 1 4 1982

OIL AND GAS DIVISION WYDEPARTMENT OF MINES

Oil or Gas Well____

Size 16			Size of Depth set Perf. top Perf. bottom	
13			Size of Depth set Perf. top Perf. bottom	
10			Perf. topPerf. bottom	
8½			Perf. topPerf. bottom	
5 3/16			Perf. top	
2			Perf. botton	
2			Perf. botton	
Liners Used				
			reff. top	
			Perf. bottom	1
CASING CEMEN	NTED	SIZE	No FT	Dat
				Dat
COAL WAS EN	COUNTERED	AT	_FEET	INCHES
FEET_	INCH	IES	FEET	_INCHES
Freema	Relia	191 +	-001.	
# DP	0.0	· Meau	- caus	Ham
	OAL WAS ENDERED FEET FEET FEET FEET FEET	OAL WAS ENCOUNTERED FEET INCH FEET INCH FEET Solve	NAME OF SERVICE COMPANY OAL WAS ENCOUNTERED AT FEET INCHES FEET INCHES Freeman Robert Heater Lool Rusher Bill Heater	ASING CEMENTEDSIZENo. FT NAME OF SERVICE COMPANY OAL WAS ENCOUNTERED ATFEET FEETINCHESFEET FEETFEET FOOLERATION BUILDINGS FEET FOOLERATION BUILDINGS FEET FOOLERATION BUILDINGS FEET

12-9-82

Permit No. 85-6023

Samuel M. Herryanan DISTRICT WELL MANNETON

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

ermit No		Well No.					
			ADDRESS				
ARM	COUNTY						
illing Material Used							
ner Loc	ation	Amount	Packer	Location			
	PLUGS USED AND DEPTH PLACED		BRIDGES	CASING AND TUBING			
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST	
	,					-	
			· · · · · · · · · · · · · · · · · · ·				

·					- 4.1	2	
llers' Names				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
marks:							
	v 1 1						
DATE	I nereby certify I	visited the abov	ve well on this date.				

004/05/2024 сто

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES OIL AND GAS WELLS DIVISION

RECEIVED

DEC 1 7 1982

OIL AND GAS DIVISION WY DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 85-6023

Oil	OF	Gas	Well	
(KIN	Di		

			(KII	ND)	10 P A 10 W
Company Letroleum Development Corp	CASING AND TUBING	USED IN DRILLING	LEFT IN	P	CKERS
Address	Size		e a seem sone		
Farm Costal Lumber Co.	16			Kind of F	acker
Well No.	13		a control con	S: 6	
District Grant County Pitchie	81/4			Size of_	
Drilling commenced 12-9-82	6%			Depth set	-
Drilling completedTotal depth	5 3/16				
Date shotDepth of shot				-	onı
Initial open flow/10ths Water inIn	ch Liners Used			Perf. top	
Open flow after tubing/10ths Merc. inInd	ch			Perf. bott	om
VolumeCu. F	t. CASING CEME	NTED	_SIZE	No. FT.	Date
Rock pressurelbshr	NAME OF SER	VICE COMPA	NY		
Dilbbls., 1st 24 hr	s. COAL WAS EN	COUNTERED	AT	FEET	INCHES
Fresh waterfeetfee	et FEET_	INCH	ES	FEET	INCHES
Salt water feet feet fee	et FEET_	INCH	ES	FEET	INCHES
Orillers' Names		The state of the s			
Remarks: 01 /2 - 11 - 82 P-	19.5	0 4 ===			
Remarks: on 12-11-82 Ran 31 Joints total - Ha cement	elliberton r	Fof 73 ran 405	"casin	9	
3954' foot deep at	time of Vis	it			
2-13-82 BATE		Same	ref N. H	Leroma	ın
		For	C	DISTRICT WELL	INSPECTOR

I have inspected the above well and (HAVE/HAVE NOT) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas Department of Min = 4/05/2024the State of West Virginia.

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT



State of Mest Birginia

Bepartment of Mines

Charleston 25305

WALTER N. MILLER Director

JOHN D. ROCKEFELLER, IV. Governor

November 16, 1983

Petroleum Development Corp. P. O. Box 26 Bridgeport, W. Va. 26330

Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

PERMIT NUMBER	FARM AND WELL NUMBER	DISTRICT
RIT-4664	Albert F. Keher, #1	Union
RIT-5058	Noble J. Rogers, #1	Grant
RIT-5143	Albert Kehrer, #2	Union
RIT-5144	J. B. Taft, #1	Union
RIT-5237	Ralph Kuhn, #1	Grant
RIT-5238	Glen Kerns, #1	Grant
RIT-5269	Matilda West, #1	Grant
RIT-5879	Clyde Ross/Griffin Producing Co., #233133-3	Grant
RIT-6023	Costal Lumber Co./J. Frank Deem, et al, #1	Grant
kIT-6365	Mary Sewell & G. Kibee/Westvaco, #1	Grant

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will emain under bond coverage for "life of wells." Reclamation requirements have been pproved.

ery truly yours,

heodore M. Streit, Administrator

ept. Mines-Office of Oil & Gas

MS/rl

Row E. 1HH Gitemell

OIL AND GAS LEASE OF

THIS AGREEMENT, Made and entered into this **SOM** day of January, 1981, by and between JAMES E. DEEM, AVALENE DEEM and J. FRANK DEEM, parties of the first part, hereinafter called Lessor, and GLENN L. HAUGHT & SONS DRILLING COMPANY, party of the second part, hereinafter called Lessee;

That the Lessor, in consideration of WITNESSETH: the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and the covenants and agreements hereinafter contained, does hereby grant unto the Lessee all of the oil and gas and all of the constituents of either in and under the land hereinafter described to a depth of six thousand five hundred (6,500) feet, together with the exclusive right to drill for, produce and market oil and gas and their constituents and also the right to enter thereon at all times for the purpose of drilling and operating for oil, gas and water, laying pipe lines, erecting tanks, machinery, powers and structures, and to possess, use, and occupy so much of said premises as is necessary and convenient for said purposes and to convey the above named products therefrom or thereto by pipe lines or otherwise; said land being situate in Grant District, Ritchie County, and State of West Virginia, on the Waters of the North Fork of the Hughes River, and described as follows, to-wit:

BOUNDED on the Northwest by lands of The Baltimore and Ohio Railroad Company; on the Northeast by lands of T. Horner, D. Vincent and F. Leonard; on the Southeast by lands of Geo and Tho Marks (Geo Cokely); on the Southwest by lands of North Bend State Park, containing Eight Hundred Eighty (880) acres, more or less.

2. It is agreed that this lease shall remain in force for a primary term of three (3) years from this date and as long

DECERVED NOV 1 8 1982

04/05/2024

OIL & GAS DIVISION
DEPT. OF MINES

thereafter as operations for oil or gas are being conducted on the premises, or oil or gas is found in paying quantities thereon.

- 3. The Lessee shall pay to the Lessor a royalty equal to one-eighth (1/8) of the value of all the oil and one-eighth (1/8) of the value of all the gas produced and sold from the premises, payable monthly.
- The Lessee shall commence operations for a well on the premises on or before April 22, 1981, unless Lessee pays thereafter a rental of Five (\$5.00) Dollars per acre, annually, in advance. Each producing well will earn a square eighty-eight (88) acre tract contiguous, if possible, to any other tracts earned by producing wells. Each producing well will relieve Lessee from the payment of the Five (\$5.00) Dollars per acre per year delay rental upon the eighty-eight (88) acres earned by that well. Ten (10) Producing wells will be required to earn the entire Eight Hundred Eighty (880) acres. In no event shall the combined payment of royalites and delay rentals be less than Four Thousand Four Hundred (\$4,400.00) per annum for any year in which this lease remains in force. It is further understood and agreed that this lease is written in contemplation of and in conjunction with the lease made between the parties hereto, dated April 22, 1978, which leases the same tract as is leased herein only to a depth of 3,000 feet. Should the Lessee surrender any of the 88-acre tracts or squares for cancellation under that lease the rental obligation for that tract or square under this lease shall increase to Nine (\$9.00) Dollars per acre unless that tract or square is held by a producing well under the term of this lease.
- 5. All moneys coming due hereunder shall be paid or tendered to J. Frank Deem direct, or by check payable to his order mailed to 5518 Second Avenue, Vienna, West Virginia 26105.

577

Should Lessee default on his obligation to make any of the monthly payments provided herein, if any be due, and such default continue for more than thirty (30) days, then Lessor, at his option, may declare this lease null and void and of no further force and effect and all Lessee's rights in the premesis shall be terminated and all Lessee's equipment on the premises shall be forfeited to the Lessor, or, Lessor, at his option, may assess interest on such payment, at an interest rate to be calculated by taking the prime rate of interest charged by the Mellon Bank, Pittsburgh, Pennsylvania, on the date of such default and adding an additional five (5) per cent to that rate, with the resulting figure to be the interest rate per annum on said defaulted payment. The specific inclusion of these options in this lease does not preclude Lessor from utilizing any other remedies which are provided by law for such default. If such default shall continue for a period of more than sixty (60) days, this lease shall automatically be null and void, without action by the Lessor, and Lessee's rights shall be terminated and equipment forfeited without further notice or action by Lessor.

6. Lessor reserves 200,000 cubic feet of gas per annum for domestic use, to be taken through his own appliances at any producing gas well, and agrees to pay Lessee a fair domestic rate for any gas used in excess thereof. Lessor further covenants and agrees that his taking and use of gas shall be wholly at his own risk, the Lessee not to be held liable for any accident or damage caused thereby,

nor shall Lessee be liable for any shortage or failure in the supply of gas for said domestic use.

- 7. If said Lessor owns a less interest in the above described land than the undivided fee simple estate therein, then the royalties and rentals herein provided shall be paid the Lessor only in the proportion which his interest bears to the whole and undivided fee.
- 8. No well may be drilled nearer than 200 feet to any house or barn now on said premises without the written consent of Lessor. Lessee shall have and enjoy all rights and privileges necessary and convenient for the proper use and development of this lease, and shall have the right to use, free of cost, gas, oil and water produced on said land for its operations thereon, except water from wells of Lessor. Lessee shall also have the right at any time to remove all or any part of the machinery, fixtures or structures placed on said premises, including the right to draw and remove casing. Lessee shall pay for damages caused by its operations to growing crops on said lands, and, when requested by Lessor, shall bury its pipe lines below plow depth.
 - 9. The interest or estate of either party hereto may be assigned, the privilege of assigning in whole or in part being expressly allowed. In event this lease shall be assigned as to any part or parts of the above described land and the assignee or assignees of such part or parts shall fail or make default in the payment of the proportionate part of the rents due from him or them, such default shall not operate to defeat or affect this lease insofar as it covers a part or parts of said land upon which the said Lessee or any assignee thereof shall make due payment of said rental. No change of ownership in the land or in the rentals

or royalties shall be binding on the Lessee until after notice to the Lessee and it has been furnished with a written transfer or assignment or a certified copy thereof.

- shall have the right to surrender this lease or any part thereof for cancellation, after which all payments and liabilities hereunder thereafter shall cease and determine, and if the whole is surrendered, then this lease shall become absolutely null and void. This surrender may be made to the Lessor, or if more than one Lessor, then to any one of them, or to the heirs or assigns of any one of them by delivery of a duly executed surrender thereof in person or by mail addressed to the post office address of such person, or by recording a duly executed surrender thereof in the Office of the Clerk of the County Commission of the county in which the land is located.
- ll. It is expressly agreed that if the Lessee shall commence drilling operations at any time while this lease is in force, it shall remain in force and its terms continue so long as such operations are prosecuted, and if production results therefrom, then as long as production continues in an amount which yields a royalty equal to the rental required to keep the lease enforced. If after the expiration of the term of this lease prodution from the lease premises shall cease from any cause, this lease shall not terminate provided Lessee resumes operations within sixty days from such cessation, and this lease shall remain in force during the prosecution of such operations, and, if production result therefrom, then as long as oil or gas is produced in paying quantities.
- 12. It is expressly understood by the Lessor and Lessee that all oil and gas equipment now on the leased premises and known to be the property of the Lessor under the terms of the original lease remains the property of the Lessor.

 04/05/2024

This lease embodies the entire contract and agree-580 ment between Lessor and Lessee, and no warranties, representations, promises or inducements not herein expressed have been made or relied upon by either party. The terms, conditions and stipulations relied upon by either party. The terms, conditions and stipulations hereof shall extend to the respective heirs, executors, administrators, successors and assigns of the parties hereto.

WITNESS the following signatures.

James E. Deem

Oren

STATE OF WEST VIRGINIA,

COUNTY OF ATTOWERS, TO-WIT:

The foregoing instrument was acknowledged before me this 17th day of FEBRUARY, 1981, by James F. Deem and Avalene Deem. My commission expires: flug 20, 1984

STATE OF WEST VIRGINIA,

COUNTY OF Tanada, TO-WIT:

The foregoing instrument was acknowledged before me this 30 day of Canuary, 1981, by J. Frank Deem. My commission expires: Telman 21,1982

Notary Public 3

This instrument prepared by William G. Powell, Attorney at Law 04/05/2024 1327 Market Street, Post Office Box 1623 Parkersburg, West Virginia 26101

