7-83

FILE COPY



1)	Date:	June	6	, 19	85
1					

2) Operator's Uldrich #1048-Rev. Well No .\_

-013-3918 47 3) API Well No.

State County

Permit

### STATE OF WEST VIRGINIA

DEPARI	MENI	UF M	INES,	JIL AN	D GAS	DIAISIO
ADDY	ICATI	ON TO			OPE D	

OIL	& GAS	DIVISIO	N / Ga		X /	TION FOR A WEI			
" DEP	T. PFO	MALA	Production	2	x	/ Underground	storage	/ Deep	/ Shallow _X _/)
5) LOCATIO		evation:	1165.8				Philip Run		
		strict:	Center		1	County:	Calhoun	Ouadrangle:	7.5' Grantsville 37
6) WELL OF	PERATOR	Sterl	ing Dr	illi	ng &	Prod. Co., I	nc .DESIGNATI	ED AGENT Harry	L. Berger, Jr.
Addres	s15	0 Gran	d stre	et 4	th Fl	oor	Address		Street East
	Wh	ite Pl	ains,	NY 1	0601	47530		Charleston, V	
8) OIL & GA	S INSPEC Deo Ma		BE NOTIF	FIED		41370	9) DRILLING (	CONTRACTOR: Unknown at t	this time
Addres	s Ros	ute 1	Box 5				Address	onknown at t	TITS LINE.
Addres			ge, WV	252	74		Address		
0) PROPOSI			Drill			l deener	/ Redrill	/ Stimulate	v /
o, TROTOS		WORK.				n/ Perfor			
						n well (specify)			
1) GEOLOG	ICAL TAR	GET FOR		-		n Shale			
12) Estim					00'	feet			
13) Appro	oximate trat	a depths:	Fresh,			feet; salt	,	feet.	
14) Appro	oximate coa	l seam dep	ths:		0	Is co	al being mined in t	he area? Yes	/ No/
5) CASING	AND TUBI	NG PRO	GRAM						
CASING OR		SPEC	CIFICATIONS			FOOTAGE I	INTERVALS	CEMENT FILL-UP	PACKERS
TUBING TYPE	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well	OR SACKS (Cubic feet)	
Conductor	1000								Kinds
Fresh water	9 5/8'	LS	33#	х		450'	450'	To surface	NEAT
Coal							The state of the state of		Sizes
ntermediate	7''	J-55	20#	x	300	2340'	2340'	100 sks	
Production	4511	ERW	10.5#	x			5100'	250, sks 0°C	Asolagured
Tubing						Y 1000 1001 10	1337	by r	ule /15.01
Liners									Perforations:
		CATON TO A	64 B C 100	<del>tollo</del> l	-	5 Z 1 190 7 10 - 117 11	to as to less to	TONO SELONDE	Top Bottom
									The state of the s
	Alexander of the second			-	100.04		100 5100		
		100	<del>a t</del>	Testina's		OFFICE USE	ONLV		Productable flatterillon A
						DRILLING PE			
ermit number_	47-	013-39	18			DRIEDING I E	ACIVAL A		June 25 19 85
eriint number_							1	Da	ate
his permit cov	ering the w	ell operato	or and well	location	on shows	below is evidence	of permission gran		ince with the pertinent legal re-
uirements subj	ect to the co	onditions of	contained h	nerein a	and on th	ne reverse hereof No	otification must be	given to the District O	oil and Gas Inspector, (Refer to
						any permitted work work has commence		well operator or his co	ntractor shall notify the proper
									A Spartages brosen liev
he permitted veverse hereof.	vork is as de	escribed in	the Notice	and A	Application	on, plat, and reclam	ation plan, subject	to any modifications a	and conditions specified on the
ermit expires	Jun	e 25.	1987			unless well	work is commence	ed prior to that date and	d prosecuted with due diligence.
									a prosecuted with due difference.
Pond:	1	. 1	Plate	Coni		Foo			OTHER TIVELECTION
Bond:	Agen		Plat:	Casir	11	Fee (	. 1		
148	1117	r	np	m	119	143	NI		()//
1.000						/	1 0	ragnet &	J. Xasse
							Adi	ministrator, Office of	Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

NOTE: Keep one copy of this permit posted at the drilling location.

File

OFFICE USE ONLY

#### PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

waite Pictas, av 10001 up370

				_
OFF	TCE	HICE	ONI	V

<u> </u>	Date	Date(s)
Application received	Follow-up in	nspection(s)
Well work started	Tambar on Lagra	", " " " " " " " " " " " " " " " " " "
process		on a now 2001 flow it is noteropy flow this entropies turning or so this efforce completings agonithes and not real one with the miles of the entropies of the completions of the comple
Well Record received	Chronien in a will supress	irtet eikand pus linspetter. A hours seiste perteit pernam
Reclamation completed		remained was to as described united Societad, Aprilia etc. traves.  Tune: 25. 1937  Tune: 25. 1937
OTHER INSPECTIONS		
Reason:	JA 84119	148 FB WID 1974
Reason:		



IV-9 (Rev 8-876 NON 1084 RECEIVED

necessary for comments.

WEIL NO. Uldrich = 1048 Rev

API NO. 47 -

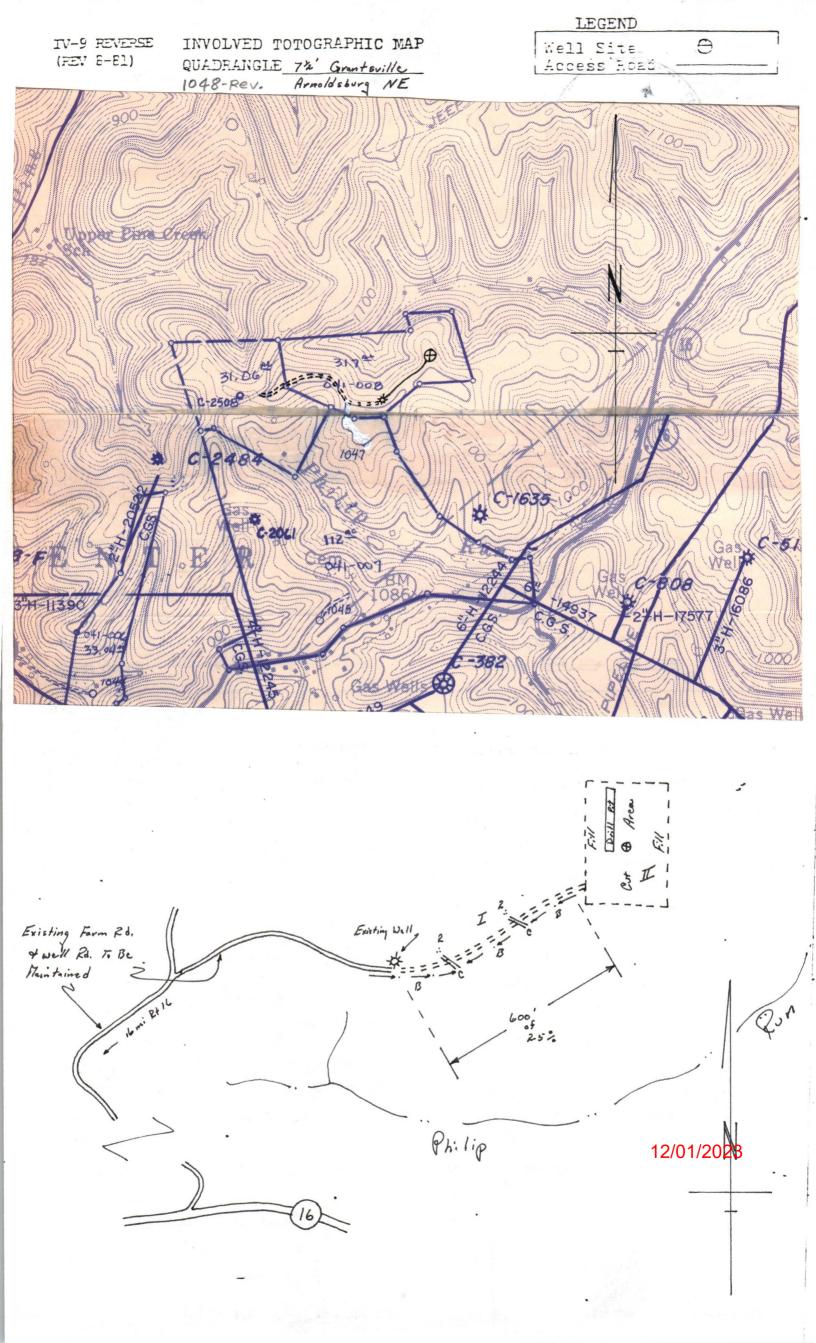
State of Mest Birginia Bepartment of Mines

Gil und Gas Bivision

#### CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Sterling Drilling &	Prod. Co	DESIGNATED AGENT Sterling Drilling & Pro
		Address c/o H.L.Berger - Chas., WV
Telephane (212) 682-0204	-	Telephone (304) 342-0121
LANDOWNER Otto W. Jarvis		SOIL CONS. DISTRICT
Revegetation to be carried out by_	Sterling	Drilling & Prod. CoH.L. Berg (Agent)
This plan has been reviewed by_	Little	Kanauha SCD. All corrections
and additions become a part of this p		1/21/54
*.	Ch	(Date)
	_/	(SCD Agent)
ACCEPCE TOAR		
ACCESS ROAD		LOCATION
Structure	_ (A)	Structure (1)
Size		Material
Page Ref. Manual		Page Ref. Manual
Structure Drainage Ditches	(B)	Structure Rip-Rap (2)
Location Poadside		Material Rock
Page Ref. Manual 2./2		Page Ref. Manual 2.9
Structure Cross Drains 12" pipe	(C)	Structure (3)
Spacing 400' For 2-5%		Material
Page Ref. Manual 2-8 Table 4		Page Ref. Manual
All structures should be inspected commercial timber is to be cut and s cut and removed from the site before	tacked and	d all brush and small timber to be
R	EVEGETATIO	NC NC
Treatment Area I		Treatment Area II
Lime 2 Tons/acm	2	Lime 2 Tons/acre or correct to pH 6.5
or correct to pH 6.5		
Fertilizer 500 lbs/acre (10-20-20 or equivalent)		Fertilizer 500 lbs/acre (10-20-20 or equivalent)
Mulch Hay or Straw 2 Tons/acre		Mulch Hay or Straw 2 Tons/acre
Seed* Ky.31 40 lbs/acre		
Seed* Ky.31 40 lbs/acre La dino Clover 4 lbs/acre		Seed* K-31 40 lbs/acre  Ladino Clover 4 lbs/acre
lbs/acre		12/01/2023
*Inoculate all legumes such as vetch, Inoculate with 3X recommended amount.	trefoil o	and clovers with the proper bacterium.
	PLAN PREF	PARED BY Rilad N. Campbell
NOTES: Please request landowners'		DDRESS Route 1, Box 30
cooperation to protect new \ seedling for one growing season. Attach separate sheets as		Duck, WV 25063

PHONE NO. (304) 364-5780



1)	Date:	June	6	.19	85

2) Operator's

Well No. 1048-Rev.

3) API Well No. 47 -0/3 - 39/8 State County Permit

#### STATE OF WEST VIRGINIA DEPARIMENT OF MINES, OFFICE OF OIL & GAS

	NOTICE	OF APPLICATION FOR A	WELL W	ORK PERMIT
4) SU	TREACE OWNER (S) OF RECORD	TO BE SERVED		
	Name Rolpha J. and M	하다 사람이 되었다면 하다면 하나 하나 하는 이 사람이 되었다면 하는 것이 없다면 하다.		COAL OPERATOR Unoperated Address
(1)	Address Route I Box I		•	- Littless
	Grantsville,		5(ii) (	COAL OWNER(S) WITH DECLARATION ON RECORD
(ii)	Name	20147	1	Name Unknown
(/	Address	The second secon		Address
	.20103		2100	
(iii)	Name	5500 070	1048-Pe	v. ne
	Address	P522 273	234	ddress
	Record to the second second	RECEIPT FOR CERTIFII	ED MAII	
				L LESSEE WITH DECLARATION ON RECORD:
		NO INSURANCE COVERAGE PR		е
			WAIL	ddress
		(See Reverse)		
	TO THE PERSON(S) NA	Sent to	Travis	- 12-d al- (-1)
	(1) The Applic		Jayors	m and the following documents:  (or Form IV-4 if the well is
	to be plug and descri	Route 1 Box 1	03	he drilling or other work.
	Cementing	P.O., State and ZIP Code		ble, the proposed casing and
	(2) The plat ( (3) The Constr	Grantsville, WV	26147	Form IV-6; and
	plug a wel reclamatio	Postage	\$ 56	ess the well work is only to ediment control and for
	THE REASON YOU		1.00	
	WHICH ARE SUMPARIZE	Certified Fee	.75	HTS REGARDING THE APPLICATION THE COPY OF THE APPLICATION
	(FORM IV-2 (B) OR FO ACTION AT ALL.	Casaial Delivery Fee		T REQUIRED TO TAKE ANY
	Take notice th	Special Delivery Fee		Extra red a function Asset Tent
	erator proposes to for a Well Work Per	Restricted Delivery Fee		the undersigned well op- and accompanying documents
	Department of Mines	Retern Receipt Showing	-	and Gas, West Virginia
	and depicted on att Construction and Re	10 whom and Date Delivered	.70	polication, the plat and the
	by hand to the pers	Return Receipt Showing to whom,		or certified mail or delivered of Z
	before the day of n	Date, and ddress of Delivery		S. Carculas Carces / On or
	6) EXTRACTION RIGHT		\$2.01	tor contracts by which
	Check and provid a	Postmark or Date		t or contracts by which
	I hold the			rt or contracts by which fill the State of the specifics.)
	The requireme	The same same same		rerse side for specifics.)
	7) ROYALTY PROVISIO			
	or other contrac L	The second secon		d upon a lease or leases
	for compensation w			or any similar provision
		or yas a calacta, produce	A OF HEILING	d? Yes No
	you may use Affidan	er above is No, nothing additi	onal is nee	ded. If the answer is Yes,
	See the revers	se side for line item instruction in the side for line item instruction in the side in the	ons, and for	r instructions concerning
	Reclamation Pl	ppies of the Notice and Applican.	ation, plat	, and Construction and
The t	ruth of the information	on the	WEIL	1
Notic	e and Application is ver	ified		Systerling Drilling & Prod, Co. Inc.
and s	worn to and the Notice i	S	OLLIVIOR	y syerling Drilling & Prod. Co., Inc.
signe	d on behalf of the Well	•	By 🗲	taring & Burney
Tu mh	County and State by			signated Agent
Harr	y L. Berger, Jr.	, .		
uns 6	day of June	, 1985		Charleston, WV 25301
MA	commission expires Oct.	27, 19 91.	Teleph	ione 342-0121
	John K Brook	1		
Not	Public, Kanawha	County,		
Sta	ate of West Virginia			12/01/2023
				1//11//5

#### INSTRUCTIONS TO APPLICANT

#### CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
  - 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-lb(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
  - 5(i) "Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.
- 5(ii, iii) See Code § 22-4-20.
  - 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
  - 7) See Code § § 22-4-11(d, e).

#### CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-lk and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, 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-lk(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the  $\infty$ al. See Code § § 22-4-lm, 22-4-2, 22-4-2a, and 22-4-2b.

### INFORMATION SUPPLIED UNDER CODE § 22-4-11(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that-

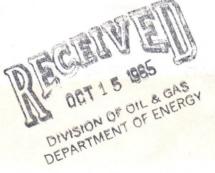
- the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book Page
Lewis C. Jarvis, et al	F.F. McIntosh, etal	1/8	16/189
McIntosh & Grimm	Sterling Drilling		89/436

## WV CENERAL NPDES PERMIT FOR OIL & GAS DRILLING PIT WASTE DISCHARGE

CLICATION (To Be Completed By Company)	•
Company Name: Sterling Drilling and Production Co., Inc.	
Mailing Address: Arcade Bldg., 710 Virginia St., East, Charleston, WV	25301
Telephone: (304) 342-0121 Well No. 1040 ReWell Name Undrich	n
Name of stream that may be discharged to: Philip Run	
A tributary of. Little Kanawha River	
	sssarily
The second secon	
participation in the program does not prohibit enforcement action for violation	
terms of this general permit or some other applicable law or regulation.	
1 1 10 - 1 6 16 185	
Signature Date	
, ,	
IFICATION (To Be Completed By DWR)	
Type of Disposal method selected:	
Volume of Waste: Discharge rate:	CFS
Time projected for discharge:	DAYS
receiving octeam flow face.	Cr5 .
PECTION (To Be Completed By DWR)	
	· ·
Acceptable: Not Acceptable:	
Comments:	
	CONC. N. CONC.
Division of Water Resources Action Taken:	
Division of Water Resources Action Taken:	
Division of Water Resources Action Taken:	
Action Recommended:	
Action Recommended:	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH / Chloride /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH / Chloride / Total Fe /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH / Chloride /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH / Chloride / Total Fe / 208 Practices (Informational Only):	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH / Chloride / Total Fe /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH /	
Action Recommended:  Parameters (Taken By Operator or Inspector Prior to Discharge):  pH /	
	Company Name: Sterling Drilling and Production Co., Inc.  Mailing Address: Arcade Bldg., 710 Virginia St., East. Charleston, WV Telephone: (304) 342-0121 Well No. 1048 ReWell Name Undfric.  Name of stream that may be discharged to: Philip Run  A tributary of: Little Kanawha River  Treatment and method of pit disposal most likely to be utilized (method not noe restricted to this):  As per Section 3, Land Application (Guidelines)  Name of person supervising discharge: Jim Davis, et al Telephone: (304) 342-0101; (304) 655-8584  By completing and submitting this application, I agree to adhere to the guidanc provisions of the interim experimental general permit system. I understand tha participation in the program does not prohibit enforcement action for violation terms of this general permit or some other applicable law in regulation.  Advantage Date:  Type of Disposal method selected:  Type of Disposal method selected:  Volume of Waste: Discharge rate:  Time projected for discharge:  Receiving Stream flow rate:  PECTION (To Be Completed By DWR)  Compliance with general permit interim guidelines:  Acceptable: Not Acceptable:

WR-35





### State of Mest Airginia DEPARTMENT OF ENERGY Gil und Gas Division

Date	September	30, 1985
Operat		040 B
Well N	101	048-Rev.
Farm_	Uldrich	
API No	. 47 - 01	3 - 3918

(Continue on reverse side)

# WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

	Phillip	Run		
District: Center County Calho	un	Quadrangle	Grants	/ille 7.5'
5 Year and a state of the state				
COMPANY Sterling Drilling & Production Co., Inc.				
ADDRESS 710 Va. St. E., Charleston, WV 25301	Casing	Used in	Left	Cement
DESIGNATED AGENT William E. Stover	Tubing	Drilling		fill up Cu. ft.
ADDRESS 710 Va. St. E., Charleston, WV 25301	Size	Dilling	HI WELL	Cu. It.
SURFACE OWNER Rolpha J. & Madge Jarvis	20-16	i divida in		Date & State
ADDRESS Rt. 1 Box 103, Grantsville, WV 26147	Cond.		a produced produced by the second produced by	
MINERAL RIGHTS OWNER Lewis C. Jarvis estate, et	13-10"			
c/o R. J. Jarvis ADDRESS Rt. 1 Box 103, Grantsville, WV 26147	9 5/8	463'	463	180 sks.
OIL AND GAS INSPECTOR FOR THIS WORK Deo	8 5/8			
Mace ADDRESS Sandridge, WV 25274	7	2356'	2356'	190 sks.
PERMIT ISSUED June 25, 1985	5 1/2			-
DRILLING COMMENCED July 14, 1985	4 1/2	1 150	4681'	230 sks.
DRILLING COMPLETED July 19, 1985	3			
IF APPLICABLE: PLUGGING OF DRY HOLE ON	2			
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners used			
GEOLOGICAL TARGET FORMATION Devonian Shale		Dep	<b>th</b> 510	0' feet
Depth of completed well 4719'KB feet R	Rotary X	/ Cable	e Tools	
Water strata depth: Fresh reported feet;	Salt repo	rted feet		,
Coal seam depths: None	,	being mine	ed in the	area? No
OPEN FLOW DATA	7		LL 25601	16201 <b>6</b>
Producing formation Devonian Shale				
Gas: Initial open flow show Mcf/d				
Final open flow 332 Mcf/d		_		
Time of open flow between initi		· · · · · · · · · · · · · · · · · · ·		
Static rock pressure 570 psig(surface		ment) after	r_/2_hou	irs shut ii
		1 12		1/2023
(If applicable due to multiple completion-		zone den	th	feet
Second producing formation	Pay			
	Oil: In	itial open	flow_	Bb1/c

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

PERFORATIONS

1st Stage-19 holes 4231'-4629' 2nd Stage-24 holes 3560'-4118'

TREATMENT

1st Stage-250 gals. 15% HCl; 1,400 MSCF  $N_2$ 650 gals. 15% HCl; 1,400 MSCF N<sub>2</sub> 2nd Stage-

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Sandstone Sandstone Shale Sandstone Shale Sandstone Sandstone Sandstone Sandstone and Shale Salt Sand W/Shale Stringers Shale Sandstone Shale Salt Sand Shale Little Lime Pencil Cave Big Lime Big Injun Silty Shale Sunbury Shale Berea Siltstone and Shale Gordon Shale Warren Shale Total Depth	0 1214 1261 1320 1410 1414 1427 1824 1916 1927 1936 1987 2062 2068 2098 2104 2228 2248 2558 2581 2585 2894 2942 3608 3660	1214 1261 1320 1410 1414 1427 1824 1916 1927 1936 1987 2062 2068 2098 2104 2228 2248 2558 2581 2585 2894 2942 3608 3660 4719 4719	All Depths from 10' KB
484			
	Starting Co.	1. 0.22	place to religion for the Arc
	313		ed type they, only
			e i vetá ko s

(Attach separate sheets as necessary)

Sterling Drilling and Production Co.,	Inc.
Well Operator	
1 0 - 00	12/01/2023
By: Willean & Story	
Date: Ortober 14th, 1985	

Regulation 2.02(i) provides as follows:

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

OG-11

#### STATE OF WEST VIRGINIA

### DEPARTMENT OF MINES ENERGY

OIL AND GAS WELLS DIVISION



### INSPECTOR'S WELL REPORT

APR 2 3 1986

Permit No. 13-37/8 (6-25-85)	Oil or Gas Well				
Company Sterling Drill & PROD.	CASING AND TUBING	USED IN DRILLING	LEFT IN	PAC	KERS
Address	Size				w . (23 ) <sup>44 5</sup>
Farm Rolpha Jawis	16			Kind of Pa	cker
Well No. 1048	13			Size of	
District Center County Gilmer	81/4			Size of	Provide A
Drilling commenced	6%			Depth set_	
Drilling completedTotal depth	5 3/16				
Date shotDepth of shot	3				m
Initial open flow/10ths Water inInch	Liners Used				
Open flow after tubing/10ths Merc. inInch				Perf. botto	m
VolumeCu. Ft.	CASING CEMEN	TED	SIZE	No. FT	Date
Rock pressure lbs. hrs.	NAME OF SERV				
Oilbbls., 1st 24 hrs.	COAL WAS EN	COUNTERED	AT	FEET	INCHES
Fresh waterfeetfeet	FEET_	INCH	ES	_FEET	INCHES
Salt water <u>feet</u> <u>feet</u>	FEET_	INCH	ES	_FEET	INCHES
Drillers' Names					
2 A TRAILEG					
Remarks: Release Reclamation					

H-19-86

Dec Maggioritano

#### STATE OF WEST VIRGINIA

#### DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

### INSPECTOR'S PLUGGING REPORT

Permit No.				Wel	l No	
COMPANY			ADDRESS	And the second second		N
FARMCOUNTY						
Filling Material Used	•					
Liner La	ocation	Amount	Packer	Location		×.
PLUGS USED	AND DEPTH PLACED		BRIDGES	CASIN	G AND TU	BING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LUCATION	RECOVERED	SIZE	LOST
				112		
						102
						*
1-7						
\$		darnam 1				
1	(2000)					
Orillers' Names	- Allen w					B-1
4	i, i i i i i i i i i i i i i i i i i i	per a legan de formana				
Remarks:		en en kon kon				
i i						
	I hereby certify I v	risited the abov	e well on this date.			
DATE	- manage to the state of the st	THE SHE SHOW	t wed the this usit.			

DISTRICT WELL INSPECTOR

#### APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA) 1.0 API well number: - 013 - 3918 47 (If not essigned leave blank 14 digita) Type of ceremination being sought: Illie the moss found on the front of this form. Section of NGPA 10 Depth of the crepest completion OCT 16 1985 location: (Only needed if sections 103 4719 or 107 in 20 spoved DIVISION OF OIL & GAS 4.0 Name, address and code number of Sterling Drilling and Production Co-PAINCMENT OF ENERGISO84 appointment (25 terrars per line Seller Cao meximum. If code number not 710 Virginia St. East, Arcade Building evailable, leave blank Charleston,, WV 25301 Zo Coo State 5.0 Location of this west: [Complete le) or told Center (a) For onshore wells Field Name (25 letters meximum for field Calhoun Lamen Ibi For OCS wells Ares Name Block Numbe Dets of La 1 1 1 1 1 OCS Lama Number Day Ici Neme and identification number ▼ Uldrich # 1048-Rev. of this west: 135 letters and cligits Loweriam (d) If cook 4 or 5 in 2.0 above, name of the reservoir: 135 letters Lmumusen all lai Name and coos number of the w-= .purchase. (35 letters and digits meximum. If code number not Consolidated Natural Gas swilable, leeve blank.) Buver Cocs (b) Care of the contract: Day Yr. (c) Emmered total annual production from the west: 9.96 \_ Million Cubic Fret Id All Other (d) Total of (a). Isl Base Price (b) Tax Prices (Indicate (b) and (c) (+) or (-1.) 7.0 Commer and: 6.076 SIMMBTU (As of filing orre. Complete to 3

Lanced Hericano

CHOMES CINCOL

OCT 16 1985

SALE RESERVED DY FERC

(As of filling care. Compare to 3

9.0 Person responsible for the application:

Agency Use Chiv

SIMMBTU

10/14/85

6.076

William E. Stover

Cate Application is Completed

Designated Agent

Title

Pone Number

304-342-0121

# STATE OF WEST VIRGINIA 32511 - 57

### DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

NOV 15 1985

### COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: October	14 ,19 85		47550	/	AGENCY USE ONLY
Applicant's N	lame: Sterlin	ng Drilling	& Production Co.	Inc. WELL DET	FERMINATION FILE NUMBER
Address: 710	Virginia St	. E. Arcad	e Bldg.	85/0//	-/477-4/9 44/8
Char	leston, WV 2	25301		251016	-1073-013 - 3918
Gas Purchaser	Contract N	o		Use Above F Communicati	ile Number on all ons Relating to This Well
Date of Contr	Mont	n, day and y	year)	SDP #1048	
First Purchas	er:Consol	idated Natur	7620		ent: William E. Stover
Address:	445 West Mai	n Street		Address: 710	Virginia St., E, Arcade Bld
Clar	0	WV	26301	Char	leston, WV 25301
FERC Seller C		(State)	(Zip Code)	FERC Buyer Co	de
NAME AND TITL BE ADDRESSED:	E OF PERSON	TO WHOM QUE	STIONS CONCERNI	NG THIS APPLIC	ATION SHALL
	Name: Will:	(Print)	00	Vice	President/Drilling Superv
	Signature:	W- 2010	9		
	Address:	Charleston	or P.O. Box) , WV 25301	ade Bldg.	
	Telephone:	(City) (304 (Area Co	1	(Zip Code)	
(Cer	tificate of	Proof of Se	ervice to Purcha	ser)	
		NG	SPA Catagory App	lied For	
NGPA SECTION/	SUBSECTION				
102-3	al Gas 2.5 Mile Te 1000 Foot I New Onshore	Deeper Test		108-1 108-1 108-2	Seasonally Affected Enhanced Recovery
103 New Onsho	re Productio w Onshore Pr		11	108-3	Temporary Pressure Builde
107 High Cost	Deep (more	than 15,000	feet)	AC	SENCY USE ONLY
107-2 107-3 107-5	Geopressure Coal Seams Devonian Sh Production New Tight F	nale enhancement ormation			
CCT 16 1985	Secretary of the second	n Tight For	iid (10n		QUAINTELESD
DIVISION OF OIL & EPARTMENT OF EN	GAS IERGY				

Date Received

Determination Date

PRICE UNDER THE NATURAL GAS POLICY ACT
Operator: Storling Delli
Operator: Sterling Drilling & Production Co. Agent: William E. Stover
Type Determination being sought - 107 (Devonian Shale)
API Well No.: 47-013-3918 Well Name: Uldrich #1048-Rev.
West Virginia Office of Oil and Gas County: Calhoun References: SJA File No.
Vol Page Line
I. NOTE: A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing 0.7 x (Shale Base Line), (c) intervals with Gamma Ray units less than 0.7 x (Shal Base Line) and that log is included with this analysis.
II. Gamma Ray elevation indices:
A. Shale Base Line (API Units)
1. GR Value at Base Line =* API Units 2. Remarks:
B. Gamma Ray Log Value at 0 7 - W 1
B. Gamma Ray Log Value at 0.7 x Value at Base Line
1. GR Value = $110$ * API Units 2. Calculation: 0.7 (GR Value at Base Line) 0.7 ( $157$ *) = $110$ API Units
III. Intervals with GR index less than $0.7 \times (Value at Base Line)$ :
Interval
From**  To***  of Interval Feet Feet Feet  To***
2580 4710 . 2130 20
Total Devonial Interval 2130
Total Less Than 0.7 (Shale Base)
% Less Than 0.7 (Shale Base Line) = $0.0093 \times 100 = 0.9 \%$

\*Marked on log included with analysis.

\*\*Top of Devonian Section Recorded on First Interval in this Column.
in this Column.

STATE OF WEST VIRGINIA

Date October 14, 1985

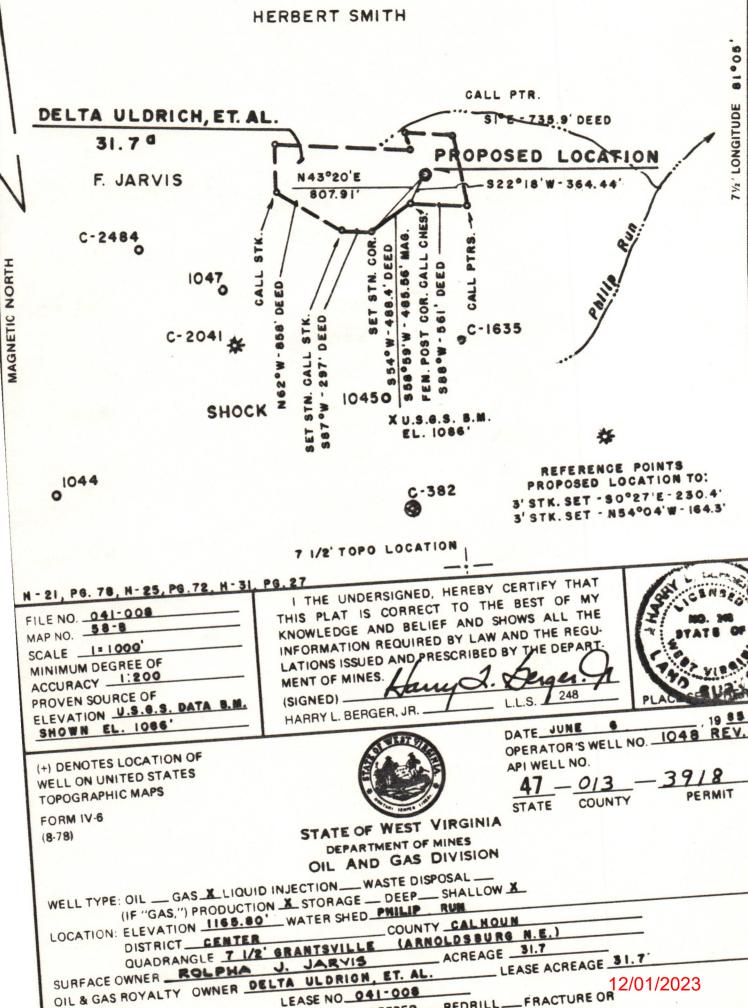
Operator's Well No. 1048-Rev.

API Well No.

47 - 013 - 3918 State County Permit

### WELL CLASSIFICATION FORM HIGH COST GAS WELL - DEVONIAN SHALE

DESIGNATED AGENT_William E. Stover  ADDRESS 710 Virginia St., E., Arcade Eldg. Charleston, WV 25301  ADDRESS 710 Virginia St., E., Arcade Bldg. Charleston, WV 25301  Contract No.  Meter Chart Code Charksburg, WV 26301  Date of Contract  ADDRESS 445 West Main Street  Clarksburg, WV 26301  Date of Contract  A	NGPA Sect	ion 107
ADDRESS 710 Virginia St., E., Arcade Eldg. Charleston, WV 25301  WELL OPERATORSterling Drilling & Prod. Co. Inc.Watershed Philip Run  ADDRESS 710 Virginia St., E., Arcade Ridg. Charleston, WV 25301  Charleston, Wolf 2 August  August		DESIGNATED AGENT William E. Stover
LOCATION Elevation 1165.80*  Mater County Calhoun Quadúrantsville 1165.80*  Meter County Code  Meter Chart Code		
ADDRESS 710 Virginia St., E, Arcade Ridg.  Charleston, WV 25301  GAS PURCHASER Consolidated Natural Gas  ADDRESS 445 West Main Street  Clarksburg, WV 26301  Date of Contract No.  Date surface drilling began: July 14, 1985  Indicate the bottom hole pressure of the well and explain how this was calculated.  Bottom Hole Pressure. PSIA — Pf = Pwe XLGS  t = 60 + (0.0075 x 4719 ) + 459.67 = 555.06 . X = 1/53.34 / 555.06 = 0.00003378 x 0.690 x 1.08 x 4094.5 = 631.8 PSIA  AFFIDAVIT  1, William E. Stover , having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Carma Ray index of less than 0.7 if a Gama Ray log described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.  STATE OF WEST VIRGINIA  COUNTY OF Kansuba , TO-WIT:  1, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the 14th day of October , 19 85 . NOTARY PUBLIC STATE OF WEST VIRGINIA KARY JO STOWERS AND STANGERS AND STANGERS FURDING AND STANGERS		Charleston, WV 25301
ADDRESS 710 Virginia Sr., E. Arcade Bidg.  Charleston, WV 25301  GAS PURCHASER Consolidated Natural Gas  ADDRESS 445 West Main Street  Clarksburg, WV 26301  Date of Contract  A * * * * * *  Date surface drilling began: July 14, 1985  Indicate the bottom hole pressure of the well and explain how this was calculated.  Bottom Hole Pressure. PSIA Pf = Pwe XLGS  t = 60 + (0.0075 x 4719 ) + 459.67 = 555.06 . X = 1/53.34 / 555.06 0.00003378 x 0.690 x 1.08 x 4094.5  Ff 570 x 2.7183 0.00003378 x 0.690 x 1.08 x 4094.5 = 631.8 PSIA  AFFIDAVIT  I, William E. Stover , having been first sworn according to law, state that Devonian Shale as indicated by a Carma Ray index of less than 0.7 if a Garma Ray log described in subparagraph (3) (4) (4) has been filed, or as indicated by the report described in subparagraph (3) (4) (4) (4) has been filed, or as indicated by the report described in subparagraph (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		LOCATION Elevation 1165.80'
Charleston, WV 25301  GAS FURCHASER Consolidated Natural Gas  ADDRESS 445 West Main Street  Clarksburg, WV 26301  Date of Contract  A * * * * * * *  Date of Contract  Date of	WELL OPERATORSterling Drilling & Prod. Co.,	Inc.Watershed Philip Run
Contract No.    Meter Chart Code	ADDRESS 710 Virginia St., E, Arcade Bldg.	Dist. Center County Calhoun Quad Grantsville
ADDRESS 445 West Main Street  Clarksburg, WV 26301  Date of Contract  * * * * * * * * *  Date surface drilling began: July 14, 1985  Indicate the bottom hole pressure of the well and explain how this was calculated.  Bottom Hole Pressure. PSIA Pf = Pwe XLGS  It = 60 + (0.0075 x 4719	Charleston, WV 25301	
Clarksburg, WV 26301  Date of Contract  * * * * * * * * * * *  Date surface drilling began: July 14, 1985  Indicate the bottom hole pressure of the well and explain how this was calculated.  Bottom Hole Pressure. PSIA Pf = Pwe XLGS  t = 60 + (0.0075 x 4719	.GAS PURCHASER Consolidated Natural Gas	
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Bottom Hole Pressure. PSIA Pf = Pwe XLGS   t = 60 + (0.0075 x 4719  ) + 459.67 = 555.06	Date surface drilling began: July 14, 1985	
t = 60 + (0.0075 x 4719 ) + 459.67 = 555.06 . X = 1	Indicate the bottom hole pressure of the w	ell and explain how this was calculated.
t = 60 + (0.0075 x 4719 ) + 459.67 = 555.06 . X = 1	Bottom Hole Pressure PSTA Pf = Pwe XLGS	
AFFIDAVIT  I, William E. Stover , having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonjan Shale as indicated by a Gamma Ray log described in subparagraph (3) (1) or (3) (i1) (A) has been filed, or as indicated by the report described in subparagraph (3) (i1) (B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.  STATE OF WEST VIRGINIA  COUNTY OF Kanawha , TO-WIT:  I, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the l4th day of October , 1912/101/2023 acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this l4th day of October , 19 85 .  (NOTARIAL SEAL)  MARY JO STOWERS  August , 19 85 .  NOTARY JOBIC STATE OF WEST VIRGINIA MARY JOS JOWERS  August  Notary Public STATE OF WEST VIRGINIA MARY JOS JOWERS  Notary Public  Notary Pub		1 555.00
AFFIDAVIT  I, William E. Stover , having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonjan Shale as indicated by a Gamma Ray log described in subparagraph (3) (1) or (3) (i1) (A) has been filed, or as indicated by the report described in subparagraph (3) (i1) (B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.  STATE OF WEST VIRGINIA  COUNTY OF Kanawha , TO-WIT:  I, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the l4th day of October , 1912/101/2023 acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this 14th day of October , 19 85 .  (NOTARIAL SEAL)  MARY JO STOWERS AUGUST	$t = 60 + (0.0075 \times 4719) + 459.67 = 55$	$5.06$ $X = \frac{53.34}{53.34} / \frac{555.06}{5} = \frac{0.000033}{5}$
I, William E. Stover, having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described in subparagraph (3) (i) or (3) (i1) (A) has been filed, or as indicated by the report described in subparagraph (3) (i1) (B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.  STATE OF WEST VIRGINIA  COUNTY OF	Pf x 2.7183 0.00003378 x 0.6	90 x 1.08 x 4094.5 = 631.8 PSIA
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I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Garma Ray index of less than 0.7 if a Garma Ray log described in subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.  STATE OF WEST VIRGINIA  COUNTY OF Kanawha , TO-WIT:  I, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the 14th day of October , 1912/01/2028 acknowledged the same before me, in my county aforesaid.  Civen under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the Ith day of October , 19 85 .  MARRY JO STOWERS STATE OF WEST VIRGINIA	AFF	IDAVIT
COUNTY OF Kanawha , TO-WIT:  I, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the 14th day of October , 1912/01/2028 acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the 1th day of October , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS Sterling Diffling & Production Ct., Inc. State Of West VIRGINIA MARY JO STOWERS SEE In Explaints My VI SEE D. Notary Public Notary Public Stating Diffling & Production Ct., Inc. Statin	I have calculated the percentage of footag Devonian Shale as indicated by a Gamma Ray described in subparagraph (3)(i) or (3)(ii report described in subparagraph (3)(ii)(B of potentially disqualifying non-shale foo percent of the gross Devonian age interval not described in the application which is	e of the producing interval which is not index of less than 0.7 if a Gamma Ray log )(A) has been filed, or as indicated by the ); I have demonstrated that the percentage tage is equal to or less than five (5); and I have no knowledge of any information inconsistent with a conclusion that the well
COUNTY OF Kanawha , TO-WIT:  I, Mary Jo Stowers , a Notary Public in and for the state and county aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the 14th day of October , 1912/01/2023 acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the 1th day of August , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS Sterling Diviling & Production Co., Inc. State Of West VIRGINIA MARY JO STOWERS SEE THE AUGUST NOTARY Public NOTARIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS SEE THE AUGUST NOTARY Public NOTARIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS SEE THE AUGUST NOTARY Public NOTARIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS SEE THE AUGUST NOTARY Public	CTATE OF AFET MIDCINIA	
August  (NOTARIAL SEAL)  Mary Jo Stowers  , a Notary Public in and for the state and county  aforesaid, do certify that William E. Stover  , whose name is signed to  October  , 1912/01/2023  August  OFFICIAL SEAL  NOTARY PUBLIC  State of West Virginia  MARY JO STOWERS  Sterling Drilling & Production Co., Inc.  The Charleston, W 25301  Notary Public  Notary Public  Sterling Drilling & Production Co., Inc.  The Charleston, W 25301		
aforesaid, do certify that William E. Stover , whose name is signed to the writing above, bearing date the 14th day of October , 1912/01/2028 acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the 7th day of August , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA MARY JO STOWERS Streine Drilling & Production Ce. Inc. Storing Drilling & Production Ce. To Use St. F. Chaileston. Wy 25301		
the writing above, bearing date the 14th day of October , 1912/01/2023  acknowledged the same before me, in my county aforesaid.  Given under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the 1th day of August , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA  MARY JO STOWERS MARY JO STOWERS NOTARY Public NOTARY Public True St. F. Charleston, MY 25301	I, Mary Jo Stowers , a Notary	Public in and for the state and county
Civen under my hand and official seal this 14th day of October , 19 85 .  My term of office expires on the 7th day of August , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA STATE OF WEST VIRGINIA MARY JO STOWERS Sterling Drilling & Production Co., Inc. 710 Va. St. F. Charleston, Wy 25301	•	
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My term of office expires on the Ith days August , 19 85 .  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA  (NOTARIAL SEAL)  MARY JO STOWERS Sterling Drilling & Production Co., Inc.	acknowledged the same before me, in my cou	onty aforesaid.
OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA  MARY JO STOWERS MARY JO STOWERS Sterling Drilling & Production Co., Inc.	Given under my hand and official seal this	14th day of October , 1985.
	(NOTARIAL SEAL)  OFFICIAL SEAL  NOTARY PUBLIC  STATE OF WEST VIRGINIA  MARY JO STOWER  Sterling Drilling & Production Co.  Sterling Drilling & Production Co.  Sterling Drilling & Production Co.	May Stowers Notary Public



DISTRICT CENTER
OUADRANGLE 7 1/2 GRANTSVILLE (ARNOLDSBURG N.E.)

SURFACE OWNER ROLPMA J. JARVIS ACREAGE 31.7

SURFACE OWNER ROLPMA J. JARVIS ACREAGE 31.7

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON — CLEAN OUT AND REPLUG —

TARGET FORMATION DEV. SHALE ESTIMATED DEPTH SIOO PERATOR STERLING DRILLING & PRODUTION CO. AGENT HARRY L. BERGER

OPERATOR STERLING DRILLING & PRODUTION CO. AGENT HARRY L. BERGER

ADDRESS 150 GRAND ST. STW. FLOOR ADDRESS TIO VIRGINIA ST. E. CHARLESTON, WY 25301