sann'



Rev 8-8 EGELVE

State of West Virginia Department of Mines Gil und Gas Nivision

API No. 47	Farm	Operator's Well No.	Date
47 -017	Maxwell Heirs	or's J-692	April 13, 1984
- 3111-R	Heirs	92	3, 1984

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

DRILLING,

Critical Control of the Control of t	n flow Mcf	W	Second producing formation Riley	(If applicable due to multiple completion	Static rock pressure 1500 psig(surface measurement)	Time of open flow between initial	Combined Final open flow 539 Mcf/d	Gas: Initial open flow Mcf/d	Producing formation Nlexander	OPEN FLOW DATA	Coal seam depths: 235-40	Water strata depth: Fresh 725 feet;	Depth of completed well feet	GEOLOGICAL TARGET FORMATION Alexander	REWORKING. VERBAL PERMISSION OBTAINED ON		DRILLING COMPLETED 3/5/84	DRILLING COMMENCED 2/27/84	PERMIT ISSUED 10/12/83	Casey ADDRESSkt. 2, Box 232-D, Jane Lew,	INSPECIOR FOR THIS WORK Stephen	ADDRESS C/O Union National Bank, Clarksburge WY	MINERAL RIGHIS OWNER Maxwell Heirs	ADDRESS Rt. 1, Box 44, Greenwood, WV 26360	SURFACE OWNER Henry R. & Mary Lou Reese Wheeler	ADDRESS P.O. Box 48, Buckhannon, WV 26201		P.O.	COMPANY J&J Enterprises, Inc.	District: Central County Doc	IOCATION: Elevation: 1160 Watershed	WEIL TYPE: Oil / Gas x / Liquid Injection (If "Gas," Production x / Underground
TITICIAL OIL			٦	)	ze measur	and	jaj	Oil: D	P		. Is coal	Salt	Rotary		used	Liners	2		4 1/2	5 1/2		8 5/8	9 5/8	13-10"		Size	Tubing	Caşing		Doddridge	Leason I	n/ Waste
TAILE COLOR	pen	p) Ope	Pay zone dej		ement) after	final tests	Final open 1	Initial open	Pay zone depth		1 being mined	0 feet	/ Cable	Depth					5486.99			1369.90		24			Drilling	Used in		_Quadrangle	Run	ste Disposal ge/ Deep
	MOT	n flow	depth 4676-96		96	4	flow	1 flow	oth 5350-94		ed in the	,,	le Tools	<b>5350-5394</b>					5486.99			1369.90		0			in Well	Left		e Pullman		
Libert in	BD1/d	P/108			hours shut in	hours	Bb1/d	P/Tqu	-94 feet		area? No			394 feet					205 sks.			295 sks.	,	0 sks.			Qu. FF.	Cement		ian		Shallow_x_/)

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

Alexander: Perforations: 5350-94 (12 holes)
Fracturing: 450 sks. 20/40 sand: Foam frac
Riley: Perforations: 4676-96 (10 holes)

Fracturing: 350 sks. 20/40 sand: Foam frac

t=60+(0.0075 BOTTOM HOLE PRESSURE × 5487) +459.7 =561 Pf=PweXGLS X=53.35 561 =<del>29921</del> II 0.000033 T) Pf=1500 x

2.72 (0.000033)

Pf=1650

(0.704) (5035) (0.9)<sub>±1500 x</sub>

 $2.72^{0.10} = 1500 x$ 

1.1

## MELL LOG

Š		Sand & shale	Shale Alexander		Sandy shale & sandy shale	& sand	Injun	Shale & sand	Sand & shale Sand & shale		Shale & red rock Sand, shale & red rock		Sand & shale		83	rock, shale &	Clay & red rock		FORMATION COLOR HARD OR SOFT
		5394	4696 5350	4676	3240	2245	2200	2005	1380	1200	1150	895	780	495	315	190	Д С		TOP FEET
		5670 T.D.	5350 5394	4696	3240 4676	2965	2245	2100	1750 2005	1380	1150 1200	1000	895	780	495	315	190		Teel Molios
	*1			i	Ϋ́R		Gas ck @ collars 2/10-1" w/water		Gas ck @ 3973 NO show		Gas ck @ 3560 No show	Gas CK & 23/0 NO SHOW	21- 0- 25-20 No		Gas ck @ 2346 No show	Damp @ 1695		- 1	Including indication of all fresh

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

Date: 4/13/84

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a detailed geological record of all formations, inval, encountered in the drilling of a well." a systematic including



Arstor's	te
	Sept
	ember 9
	9

NOTE: Kam or		Post.	Permit expires	The permitted wo	This permit cover quirements subject No. 8) Prior to the district oil and ga	Permit number			1000年 日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日		Liners	Production Tubing	Intermediate	Cond	Presh water	Conductor	TUBING TYPE	15) CASING AND TUBING PROGRAM	14) Appro	13) Appro		JJ) GEOLOGICAL TARGET FORMATION,		10) PROPOSED WELL WORK:		Address	8) OIL & GAS INSPECTOR TO BE NOTIFIED  Name Stephen Casev		Address	6) WELL OPERATOR J&J	o) LOCATIO	4) WELL TYPE:					7-83
	20		October	rk is as de	ing the we							4.5		85/8	85/8	113/4	Si	ND TUBI	Approximate coal seam-depths:	Approximate trata depths: Fresh,	Estimated depth of completed well,	CAL TAR		D WELL 1	elenia Portuge		SINSPEC		,	RATOR		 					
	120		ber 12,	scribed in	Il operator nditions co ion of roa	47-0						J-55		ERW	ERW	H-40	Cineta Sirika	NG PROG	seam-dept	a depths:	f complete	GET FOR		WORK:	6	Rt.#	cior io i Stephen	Buck	P.O.	1 1	District:C	(If "Gas", Production					
	10	:	, 1985	the Notice	r and well ontained h ds, location before act	47-017-3111-REN						10.5		23	23	42	SPECIFICATIONS Weight	RAM			d well,	MATION,	Plug of	Drill x			Casev	Buckhannon,	Box 48	Enterprises	Central	roduction					
	19			and Appl	location s erein and ms and pit ual permit	1-REN						×		×	×	×	New - Used		None	80,200	5400	A	Plug off old formation Other physical change in		WZ	232-D	TED	WV 26201			al C	8 × ×	1	DEPART	•		
	<b>1</b>			ication, pl	hown bek on the rev s for any I tted work		DR	OF		 +							2.		21.0	O		Alexander	nation	Drill	26378			6201		Inc.	·		CATION	MENT O	STAT		
· 			uniess well	at, and reclama	ow is evidence of erse hereof. Not permitted work. has commenced		DRILLING PERMIT	OFFICE USE ONLY				5350		150Ó	1500	30	FOOTAGE INTERVALS For drilling   Left	4,	is coa	feet; salt,	feet	ler	Plug off old formation Perforate Other physical change in well (specify)	deeper					ļ		County:	Underground storage	N FOR A WEL	F MINES, OIL	STATE OF WEST VIRGINIA		
Adr	1		work is commence	tion plan, subject	f permission gran ification must be In addition, the		RMIT	NLY				5350		1500	1500	0	TERVALS  Left in well		is coal being mined in the area?	0			ite new formation	Redrill		Address	9) DRILLING		Address	7) DESIGNATED AGENT	Doddridge		APPLICATION FOR A WELL WORK PERMIT	DEPARTMENT OF MINES, OIL AND GAS DIVISION	IRGINIA		٠
Administrator, Office of Oil and Gas	of the second	1	unless well work is commenced prior to that date and	The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications are reverse hereof.	Date ted to drill in accordance given to the District OH a given to the District OH awell operator or his contract.	October						325 sks.			- 1	0 sks.	CEMENT FILL-UP OR SACKS (Cubic feet)	136,	Yes OIL	feet.				Stimulate X	channo	P_0_B	DRILLING CONTRACTOR:	Buckhannon,	P.O. B	Richar	Ouadrange	Deep OIL &	SEP	•	old No. (311:	State	Well No. 1=692
il and Gas			d prosecuted with due diligence.	and conditions specified on the	Date This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)	r 12, 19 83				Top Bottom	Perforations:	Depths set			an Cale ico	Kinds	PACKERS	E PROPERTY OF THE SECTION	ANDGASOIVIXIO	1	> 1003		GAL CALLED		on, WV 26201	- 1	Drilling CO	annon, WV 26201	Box 48	Reddecliff	Chillman	GAS BHANDAION	12 1962	6		Courses Permit	

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

(Obverse)	DEPARTMENT OF MINES, O	OIL AND GAS DIVISION Date: June 10, 1982, 19
[87-80]	OJL AND GAR WELL THE	rator's
WELL TYPE: 011	1 / Gas x /	API Well No. 47 - U1/ -
(If	"Gas", Production X / Undergro	d storage / Deep / Shallow x /)
	Central County:	1
WELL OPERATOR	J&J Enterprises, Inc.	DESIGNATED AGENT H.L. Barnett
Address		Address P.O. Box 48
Į.	Buckhannon, WV 26201	V 26201
OIL & GAS ROYALTY OWNER	Maxwell Heirs	COAL OPERATOR
Address	C/O The Union National Bank Clarksburg, WV 26301	Address
Acreare _	67.25	COAL OWNER(S) WITH DECLARATION ON RECERD:
SURFACE OWNER	Rt. # 1, Box 44 Wheeler	eon
Address	eenwoo <b>d,</b> WV 26360	Address 1010 6th St.  Moundsville, WV 26041
Acresie	22	
FIELD SALE (1F MAI	MADE) TO:	Address
Addre		COAL LESSEE WITH DECLARATION ON RECORD:
OIL & GAS INSP	INSPECTOR TO BE NOTIFIED	Nume Address RECESVED
Name Stephen	Casey	JUN 1 8 1982
Address	Jane Lew, WV 26378	OIL AND GAS DIVISION W DEPARTMENT OF MINES
The location under	a deed/ lease/ other	ed to operate for oil or gas purnoses at the above contract $\frac{x}{\sqrt{\frac{3}{2}}}$ dated $\frac{9/3}{\sqrt{\frac{3}{2}}}$ , 19.80, to it.
undersigned Well [ <i>If said deed, l</i> .	operator from <u>Clarence W.</u> ease, or other contract has be	*
orded on _	19 80 , in the office	the Clerk of the County Commission of $\overline{{ ext{Dod}}}$
ED	Drill x / Drill deeper /	Redrill / Fracture or stimulate X /
	Plug off old formation / 1 Other physical change in well (s	Perforate new formation /
	planned as shown on the work of	order on the reverse side hereof.
The robjection they	above named coal operator, coal owner(s), wish to make or are required to make by	s), and cost lessee are hereby notified that any
of Mines within	fifteen (15) days after the receipt s of this Fermit Application and the	of this Application by the Department.
perc	11 or delivered by hand to the above	ared coal operator, coal owner(s), and coal
on or before the Charleston, West	day of the mailing or delivery of the Virginia.	his Permit Application to the Department of Mines &
7 . F.	COPIES OF ALL OIL AND GAS	G
CONSERVATI WASHINGTO	COMMISSION TREET EAST 5311	Well Operator
TELEPHONE: (30	(304) 348-3092	Peter Battles Geologist

## PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:

			1	1	, 19			Date:
840								
coal under this ers the area of has no objection plied with all	of the coal un exists which rivers the The undersigned has no onerator has complied work regulations.	Internation the well e forerning	occition. If address to the long provide and language and language and	proposed well lication has been ne at this locat the West Virgin	7000	examined this, the Well libosed to be dequirements of	inc unue	location has exa well location, to the work propose applicable requi
		)				,		į.
ie permit	or and by one co 5 22-4-20, if the	seel croper under fode octpt there	declarati	ving valuer must be coessee who has recorded issued within fifteen	vuiner n who has ed within	(-1 i) . N	The follow coal is to be	
			3-6-83	FERM	M. T.	N II	ATIONS HA	ARTICLE 4 ARTICL
*	,	) C	WITH CHAPTER 22, ATION IS HERESY	WITH	CCORD/	PROVISIONS BEING IN ACCOUNT	NOWS ED	ALL PROVISIONS
is sought and	fracturing or stimu k for which a permit crewith.	equired for frac of the work for unrection therewi	not be re ic part	THE WELL SITE	e Fo stri	A separate fracturing or Led as such on	fracti	unere ts no
gulation 12, or in lieu -9, "Reclamation Plan", lation 23, (iv) unless 12a, and (n) if amplication well or duelling within	1 1 10	e jorms preserved by Re § 22-4-2, (iii) Form I Form	of by Code	llowed in requirements.	secui the the	on 11, other to the paid of require the 19	thereof the applicable previously the consent the consent	there capeli
our copies c: he form prescrib	6.48	ides that the companied by	tmen	the	the	on 7.02 of	gulation TV-2 m	NOTE: Regul
•								
Top					,	:		
tions:								Liners
		•				: :	1	Tubing
Depths set	325 sks.	5350	5350	×	10:5	J-55	41/2	duction
Sizes	10 Sullace	Tooc	1300	. ×		L XW		Coal Intermediate
	N N	1500	1500	×	23	ERW	8/8	9
Kinds	A 3	30°	300'	×	42	н-40	113/4	Conductor
PACTERS	CEMENT FILL-UP OR SACKS (Cubic feet)	INTERVALS Left in well	For drilling	New Used	Weight   Der ft Nev	Grade	Size	CASING OR TUBING TYPE
1 1		1				PROGRAM	TUBING	CASING AND T
10	ned in the areas	coal being wh	Is	3:	ım depths	coal seam	dmate c	Approxi
	1450 Seet.	cet; salt,	esh, 80 Mocet	dépths: Fre	strata de	water st		Approximate
Cable tools	Rotary X/ C	feet	5400	d well,	completed	10	ed_depth	Estimated
2	10		Alexander		NO	FORMATION	TARGET	GEOLOGICAL T
		, WV 26201	Buckhannon	 				ì
4	;		Box 48	Address	- Ac	•		
	19 19	Company	Jack Drilling	S.W.	KNOWN)	(IF	CONTRACTOR	DRILLING CON
	OF COMPLETE FOR	CC=AT three rec						

Its





This permit covering the well operator a quirements subject to the conditions con (befre to No. 10) Prior to the construction proper district oil and gas inspector 24 herent expires  [Bond: Agent: I	Permit number	My Commission Expires	23) Required Copies (See reverse side.) 24) Copies of this Permit Application a numed coal operator, coal owner(s) Minus at Charleston, West Virginia Plotary.	the right to extract, produce or market the oil or milar provision for compensation to the owner produced or marketed? Yes No	21) EXTRACTION RIGHTS  Check and provide one of the following:  Included is the lease or leases or c  The requirement of Code 22-4-1-(	ALERO, D	Tubing Liners	Coal	TYPE Size Gra	17) Estimated depth of completed well, 18) Approximate water strata depths: 19) Approximate coal seam depths:	15) PROPOSED WORK: Drill Plug off old for Other physical cl	10) OIL & GAS INSPECTOR TO BE NOTIFIED  Name	9) FIELD SALE (IF MADE) TO: Address	A SURFACE OWNERAddress	7) OIL & GAS ROYALTY OWNER Address	4) WELL TYPE: A Oil Ga: B (If "Gas", Production  5) LOCATION: Elevation: District: Address	FORM IV-2 (Obverse) (6-82)  DRILLING CONTRACTOR:
and well location shown below is evidence of permiss ntained herein and on the reverse hereof. Notification on of roads, locations and plts for any permitted work hours before actual permitted work has commenced.)  Plat:  Casing  Fee	DRILLING PERMIT	Its:	Required Copies (See reverse side.) Copies of this Permit Application and the enclosed plat and rectamation plan have been mailed by registered managed and operator, coal owner(s), and coal lesses on or before the day of the mailing or delivery of this Perm Mints at Charleston, West Virginia.  Stoned:	**EXPALTY PROVISIONS  Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the produced or marketed? Yes No	ACTION RIGHTS  and provide one of the following:  Included is the lease or leases or other continuing contract or contracts by which I hold the right to extra The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)			1500 750	SPECIFICATIONS Weight Weight Used For drilling Left in	Fresh,fee:	Drill deeper Redrill  Plug off old formation Perforate new formation Other physical change in well (specify)	14)		Name Ad		Underground stora, Watershed: County: 11)	2) Operatively well was presented as Division  OIL AND GAS WELL PERMIT APPLICATION  OIL AND GAS WELL PERMIT APPLICATION
This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Car Impertor (Rocation of roads, locations and plits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)  Permit expires  Agent:  Plat:  Casing  Fee  Administrator Office of Oil and Car  Administrator Oil and Car  In addition, the well operator or his contractor shall notify the permit of the Oil and Car  In addition, the well operator or his contractor shall notify the permitted work has commenced.)	Data		n mailed by registered mult by delivered by hand to the above or delivery of this Permit Application to the Department of	continuing contract or contracts providing for flat well royalty or any h is not inherently related to the volume of oil or gas so extracted, by use Affidavit Form IV-60.	I hold the right to extract oil or gas.	Top Bottom	Depths set	Sizes	CEMENT FILLUP OR SACKS Left in well (Cubic feet)  Kinds	feet t; salt,feet. Is coal being mined in the area? Yes/ No	ation/	NameAddress		Name Address	COAL OPERATORAddress	Deep Shallow )  Quadrangle:  DESIGNATED AGENT  Address	1) Date:, 19 2) Operator's Well No 3) API Well No47 3) API Well No47 S DIVISION CATION

## Line Item Explanation

- Date of Application
- 2) Your well name and number
- ω To be filled out by office of oil & gas
- **4**A) "(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
- 4B) the "Onondega Group" or a depth less than six thousand feet, whichever is shallower "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of
- "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
- 9 registered with the Secretary of State Office a permit can be issued in a corporation, company partnership, or fictitious name, the name must be
- J Use separate sheet if necessary
- 000 Present surface owner at time application is filed
- 9 Optiona
- 11) See Reg. 7.01 relating to code \$22-4-11k
- 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
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 23-4-5, 22-4-6, 22-4-7, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) permit described berein may file the following: Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a
- (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
- 23) 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 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 forms prescribed by Regulation 12, or in lien 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)
- 24) The above named coal operator, coal owner(s), and coal lesses 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 lifteen (15) days after the receipt of this Application by the Department.

The undersigned coal operator. / owner / lessee /of the coal under this well location has been amined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well days of receipt thereof. who has recorded a declaration under Code WAIVER 22-4-20, if the permit is to be issued within fifteen (15)

The following waiver must be completed by the coal operator and by any coal owner or coal lesses

	ate:	
	19	
!	Ву	0

operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.