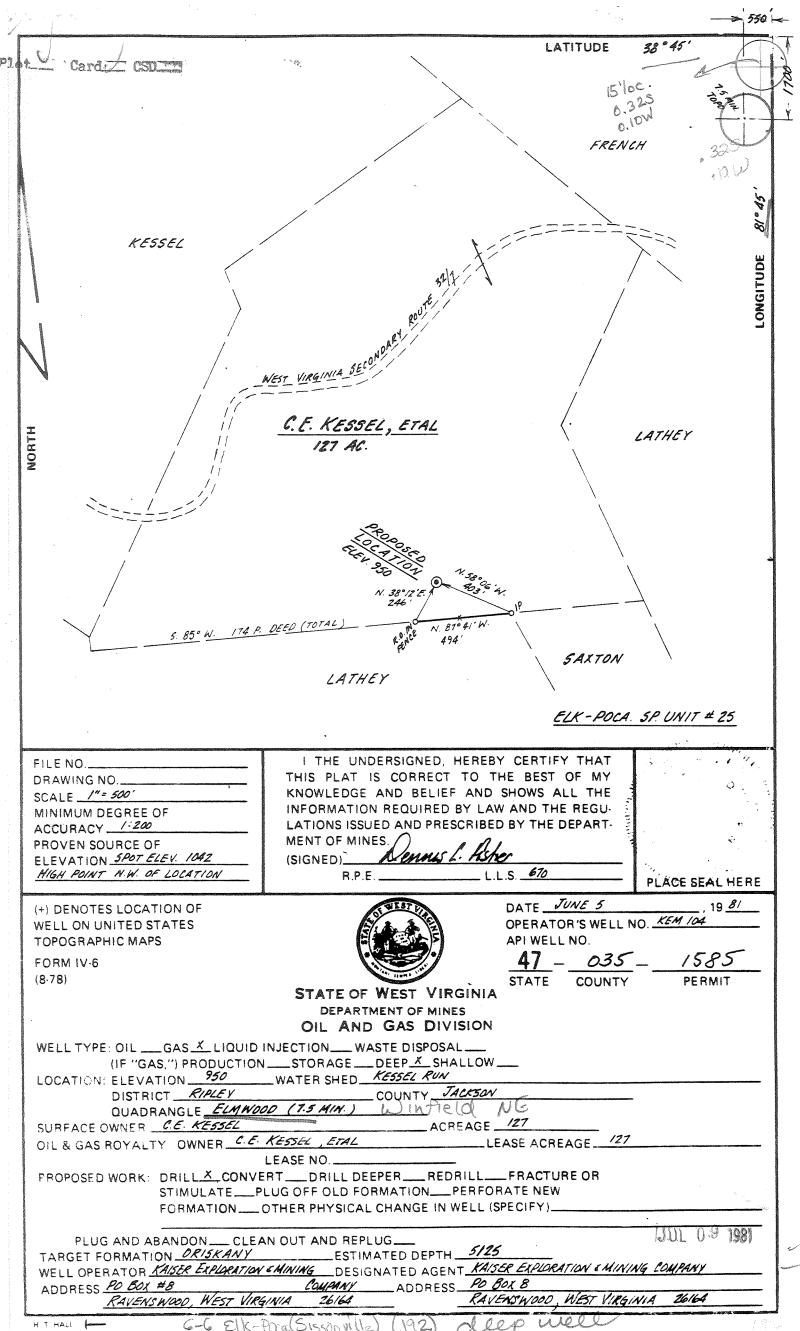
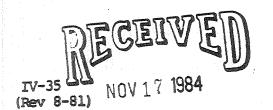


RAVENSWOOD, WEST VIRGINIA

26/64

RAVENSWOOD, WEST VIRGINIA





OIL & GAS DIVISION DEPT. OF MINES



# State of West Wirginia

Department of Mines Gil und Gas Aivision

REV	I	S	EI

Date 12/26/84	
Operator's	
Well No. KEM 104	
Farm C. E. Kessel	
API No.47 - 035	- 1585 FRAC

poz

WELL OPERATOR'S REPORT OF

# DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

OCATION: Elevation: 950' Watershed Kess					
District: Ripley County Jackson	2 (	Quadrangle	Elmwood		
) ·					
OMPANY Kaiser Exploration and Mining Company					, ,
DDRESS P. O. Box 8 Rayenswood, WV 26164	Cacina	Used in	Left	Cement	
ESIGNATED AGENT R. A. Pryce	Caşing Tubing	Drilling		fill up Cu. ft.	
DDRESS Same	Size	DITITING	118 WC22	1 000	
URFACE OWNER John S. Thaxton	20-16				
DDRESS Rt. 5, Box 58, Given, WV 25245	Cond. 3/4		0.5	100	
INERAL RIGHTS CWNER C. E. Kessel, et al	- <del>13-</del> 10 <sup>3/4</sup>		255	100 sks c	lass
DORESS 111 Highlawn Drive, Ripley, WV 25271	9 5/8				
OIL AND GAS INSPECTOR FOR THIS WORK Richard	8 5/8			65 sks 50,	
Morris ADDRESS Box 372 Grantsville, WV	7		2492	100 sks c	lass
PERMIT ISSUED 3/03/82 5-17-84	5 1/2				
PRILLING COMMENCED 4/20/82 07/06/84	4 1/2		5165	225 sks 5	<b>9</b> /50
	<u> </u>				
Ruming Carpletted 4/23/82	. 2				1
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR	Liners				
EWORKING. VERBAL PERMISSION OBTAINED	useđ				
GEOLOGICAL TARGET FORMATION Oriskany Sandstone			th 5115		;
Depth of completed well 5118 KB feet F	lotary <u>x</u>	/ Cabl	e Tools_		3
Water strata depth: Fresh N/A feet;	Salt N/A	feet			
Coal seam depths: N/A	Is coal	being mir	ed in the	e area? NO	<b>.</b>
OPEN FLOW DATA		Drilled o	n fluid r	not known.	
Producing formation Devonian Brown Shale		zone dep			» •
		itial oper			1
Final open flow 237.5 42 Mcf/d	<u>.</u> •	nal open i		- Bbl/d	
Time of open flow between init		-	412-12-11-11-11-11-11-11-11-11-11-11-11-1		
Static rock pressure 850 psig(surface					1
(If applicable due to multiple completion			444		
Second producing formation Berea Sandsto		v zone de:	nth 2632-1	2641 <b>feet</b>	•
Second producing formation below bands to					
Gas: Initial open flow Mcf/d Final open flow 305 Mcf/d					
				بارين	A

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

7/06/82 Young's to perf Brown Shale with 18 (.39" dial shots from 4137-4363 ft.

7/06/84 Young's to set permanent bridge plug at 4480.
7/13/84 NOWSCO to gas frac the Brown Shale with nitrogen. Broke down well and pumped 200 bbl foam pad followed with 80,000 scf/min of nitrogen. Pressure rose so reduced to 64,000 scf/min. Dropped 10 (7/8" dia) perf balls. After breakdown treated with 80,000 scf/min of nitrogen. Treating pressure: 2600 psig, total nitrogen: 1476 mscf, ISIP: 1400, 5 min SIP: 1350.

7/26/84 Young's to perf Berea Sandstone with 20 (.39"dia) shots from 2632' to 2641'.
7/31/84 NOWSCO to foam frac Berea. Breakdown pressure: 2820, treating pressure: 2700 psig, used #60,000 of 20/40 sand, total N<sub>2</sub>: 650 mscf, total fluid: 270 bbl, ISIP: 2600 psig, 5 min SIP: 2400 psig.

## WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
See Origin	nal		TO FEFFER THE STATE OF THE STAT		
	,				
,					
Market America			i con		
t a t					
	,				
14. g	. r y• •	e espoje te			
e e e e e e e e e e e e e e e e e e e	٠.	ing the same of th			

(Attach separate sheets as necessary)

and the first first and the contract of the co

Kaiser	Exploration	and Mining	Company		-
We	11 Operator				
By:	K.W. B	Just			
Date:	12/26/84			especial and the second se	weep.

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."



IV-35 (Rev 8-81)

State of West Wirginia Department of Alines

Date_	nc.	tobe	r	13,	1982	•
Opera	tor	's		7.04		Da. Reserved
Well	No.	KEM		104		and district out the
Farm_					L	
20 mm m 20 10 10						

WELL OPERATOR'S REPORT

Oil und Cas Phision

OF

DRIMING, FINCTURE ALD/OR STITE	TATTING, O	R PHISICA	r Charles	MAN O 1	oo s
WEIL TYPE: Oil / Gas / Liquid Injection	/ Wast	e Disposa	1/_OIL	. & GAS DI	VISIO
(If "Gas," Production x / Undergrou	ind Storage	e/ Dee		Moof M	<b>H</b> 11.
LOCATION: Elevation: 950 Watershed Ke	essel Run				
District: Ripley County Ja	ickson (	Quadrangl	e Elmwoo	d	
COMPANY Kaiser Exploration & Mining Co.					
ADDRESS p O Box 8 Ravenswood, 26164	Caşing	Used in	Left	Cement fill up	
DESIGNATED AGENT R.A. Pryce	Tubing	Drilling	in Well		
ADDRESS P.O. Box 8, Ravenswood, 26164	Size				
SURFACE OWNER John S. Thaxton	20-16 Cond.				•
ADDRESS Rt. 5 Box 58, Given, WV 25245	13-10"		255	100 sks	
MINERAL RIGHIS OWNERC. E. Kessel, et al	9 5/8		200	I LOO SKY	2
ADDRESS 111 Highlawn Drive, Ripley 25271	8 5/8				_
OIL AND GAS INSPECTOR FOR THIS WORK Richard	7		2492	165 sk	s
Morris ADDRESS Box 372, Grantsville	5 1/2				
PERMIT ISSUED 3/03/82			5105	005 -1-	
DRILLING COMMENCED 4/20/82	4 1/2		5165	225 sk	<u>s</u>
DRILLING COMPLETED 4/29/82 05/04/82	2				
IF APPLICABLE: PLUGGING OF DRY HOLE ON	4				
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED	Liners				
ON	used				
GEOLOGICAL TARGET FORMATION Oriskany Ss		Dom	-h =115	for	
Depth of completed well 5188 KB feet F					<b>=</b> 6
Water strata depth: Fresh feet;			: 1W13		
Coal seam depths:			ed in the	32033	
,	۽ عصد ۽	end was		al ca:	DOMESTICS:
OPEN FLOW DATA		ě			
Producing formation Oriskany Ss.			NAME OF TAXABLE PARTY O		
Gas: Initial open flow trace Mcf/d	Oil: Init	ial open	flow	Bbl/	'đ
Final open flow 500 Mcf/d					/d
Time of open flow between initi		-			
Static rock pressure 1500 psig(surface		ent) after	r_hou	rs shut i	n
(If applicable due to multiple completion-					
Second producing formation					
Gas: Initial open flowMcf/d			Charles of the Control of the Contro		17464
Final open flow Mcf/d	Oil: Fin	al open f	low	Bbl/	'd
Time of open flow between initi	al and fir	ul tests	ho	<b>HA</b> / 141	984
Static rock pressurepsig(surface	neasurener	nt) after_	hou	s shut i	n-
		(Contir	ne on rei	verse sid	
		,			- /

PORT IV-35 (PEVEICE)

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

5/03/82 Oriskany Ss. Perforation

5115-5123 (32 shots)

5/04/82 Oriskany Ss. Frac:

15000 # 80/100 45000 # 20/40

Treatment Pressure = 4000 psig Total of 800 bbl water and 150,000 SCF of N2

### WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale Sandstone Shale and sandstone Shale Candstone Shale Limestone Shale Limestone Shale Coffee shale Berea Ss. Shale Brown Shale Shale Marcellus Onondaga Ls. Oriskany Ss. Helderberg	0 100 230 269 348 474 627 776 900 1240 1329 1381 1590 1790 2132 2290 2612 2636 2646 3858 4362 4719 4990 5084 5150	50 100 230 269 348 474 627 776 900 1240 1329 1381 1590 1790 2132 2290 2612 2636 2646 3858 4362 * 4719 4990 5084 5150 5188	s/g @ 2640 s/g @ 3513, 3665, 3686, 3741, 3759, 3825 *s/g @ 3900, 3940, 4018, 4138, 4235 s/g @ 5120, 5138 TD
tron rearby wiells:  2646  2646  Areple 45 00  Areple 45 00			

Soupea 4830 Horsellus 4950

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY Well Operator

3y:\_\_\_\_

Date: October 13, 1982

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 that, encountered in the drilling of a well."



# Oil and Gas Division

# OIL AND GAS WELL PERMIT APPLICATION

THE DEPARTMENT OF MINES,

Charleston, W. Va.	DATE Febr	uary 25, 1982	•
Surface Owner John S. Thaxton	Company Kai	 ser Exploration a	and Mining Compan
Address Rt. 5, Box 58, Given, WV 2524		D. Box 8, Ravensv	
Mineral Owner C. E. Kessel, et al	Farm C. E.		Acres127
Address Ill Highlawn Drive, Ripley, WV		Kessel Run	· .
Coal Owner C. E. Kessel, et al	•	EM #104	Elevation 950
Address III Highlawn Drive, Ripley, W		lev	
Coal Operator None	· Quadrangle El		
Address			
HIS PERMIT MUST BE POSTED AT THE WELL SITE.	A Mariorana Amario		
LL PROVISIONS BEING IN ACCORDANCE WITH CH RTICLE 4 OF THE W. VA. CODE, THE LOCATION R	MEREBY INSPECTOR TO BE NOTIFIED	Richard Morris	
FPROVED FOR drilling renewed HIS PERMIT S		Day 272 Commton	.:
OPERATIONS HAVE NOT COMMENCED BY 11-	The state of the s	Box 372, Grantsv	Tite, wv
I had his	<b>PHONE</b> 354-7259	)	
ENTLEMEN:			
The undersigned well operator is entitled to dr	I won the shows and t		
the thereto for as the case may had under	and the same and t	OF LEACE OF LANG TOF	Oil and gas, having fee
tle thereto, (or as the case may be) under grant et al Kalser Explora & Martena Kessel made to Mining Comp	inv	19 00	by <u>L. E. Kessel</u>
9_80 in lackson County, Book		ed on the	day of August_
X NEW WELL DRILL DE			•
NEW WELLDRILL DE	DRILLED REPORT	FRACTU	RE OR STIMULATE
The enclosed plat was prepared by a registered are been notified as of the above date.	engineer or licensed land sur	veyor and all coal or	vners and/or operators
	· · · · · · · · · · · · · · · · · · ·		•
The above named coal owners and/or operator is make by Section 3 of the Code, must be received	e hereby notified that any o	bjection they wish to	make, or are required
Copies of this notice and the enclosed plat were coal owners at their above shown respective ac	mailed has manifely and the		
	15 E E E	dan	1 /
me day with the mailing or delivery of this copy	1562F	dan	1 7
me day with the mailing or delivery of this copy	1562F	dan	1 /
The day with the mailing or delivery of this copy  LEASE SUBMIT COPIES OF ALL	Very truly yours,	dan	1 /
LEASE SUBMIT COPIES OF ALL	Very truly yours,  (Sign Name)	at Charleston, West V	before, or on the irginia.
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:	Very truly yours,  (Sign Name)  Kaise	Well Operation ar	1 /
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO: EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY	Very truly yours,  (Sign Name)  Kaise P 0	Well Operation ar	before, or on the irginia.
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:  EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY  . O. BOX 879	Very truly yours,  (Sign Name)  Kaise	Well Operation ar Box 8  Street	before, or on the irginia.
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:  EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY  O. BOX 879 ORGANTOWN, WEST VIRGINIA 26505	Very truly yours,  (Sign Name)  Kaise P ()  Well Countries	Well Operation ar Box 8  Street	before, or on the irginia.
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:  EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY  O. BOX 879  ORGANTOWN, WEST VIRGINIA 26505	Very truly yours,  (Sign Name)  Kaise P 0  Address  of  Well Operator  Raver	well Operation ar Box 8 Street	before, or on the irginia.
LEASE SUBMIT COPIES OF ALL EOPHYSICAL LOGS DIRECTLY TO:  EST VIRGINIA GEOLOGICAL AND CONOMIC SURVEY  . O. BOX 879	Very truly yours,  (Sign Name)  Kaise P 0  Address  of  Well Operator  Raver	Well Operation ar  Exploration ar  Box 8  Street  City or Town	before, or on the irginis.

"SECTION 3.... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of once and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved not the well operator authorized to proceed.

## THIS IS AN ESTIMATE ONLY

## ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO.	Y DRILL	DEEPEN F	RACTURE-STIMULATE			
DRILLING CONTRACTOR: (H		RESPONSIBLE AGENT:				
		NAME Robert A. Pryce .				
ADDRESS P. O. Box 388, El						
TELEPHONE 273-5371						
	5090'					
ESTIMATED DEPTH OF COMPL		ROTARY^	CABLE TOOLS			
PROPOSED GEOLOGICAL FORM	,					
TYPE OF WELL: OIL_	GAS <u> </u>	OMB STORAGE	E DISPOSAL			
	RECYCLI	NG WATER FLO	OODOTHER			
	-					
TENTATIVE CASING PROGRAM	:		•			
CASING AND TUBING SIZE	USED FOR DRILLING	LIET IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.			
20 - 16						
13 - 10						
9 - 5/8	250	250	Cement to surface			
8 - 5/8			John Charles			
7	2650	2650	65 sks 50/50 pozmix			
5 1/2			100 sks class A			
4 %	5090	5090	225 sks pozmix			
3			Perf. Top			
2			Perf. Bottom			
Liners			Perf. Top			
<u> </u>			Perf. Bottom			
APPROXIMATE FRESH WATER	DEPTHSFEET	SAIT WATER	erer.			
APPROXIMATE COAL DEPTHS _		JAN WALLE	PEEI			
IS COAL BEING MINED IN THE		9	*			
	Mone	BY WHOM?				
TO DRILL:	•		<del>-</del> ,			
SUBMIT FIVE (5) COPIES (OF PLAT.	OF OG - 1, \$100.00 PERMI	T FEE, PERFORMANCE BO	OND AND PERMANENT COPY			
TO DRILL DEEPER OR REDRILI						
SUBMIT FIVE (5) COPIES O	of OG - 1, SHOWING ORIGI O 1929, A PERMANENT CO	NAL PERMIT NUMBER AN	D PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD			
MUSI ALOU DE SUBMITTE	<b>).</b>		•			
TO FRACTURE - STIMULATE:	•					
OIL AND/OR GAS WELL OR BOND, PERMANENT PLAT	IGINALLY DRILLED BEFO AND ORIGINAL WELL REC	RE JUNE 5, 1929, FIVE (5) ( XXII)	COPIES OG - 1, PERFORMANCE			
OIL AND/OR GAS WELL OR ING ORIGINAL PERMIT NUM	IGINALLY DRILLED ON AI	ND/OR AFTER JUNE 5, 192 BOND	9. FIVE COPIES OG - 1, SHOW-			
			•			
four (24) hours in advance.	within ninety (90) days of c	completion for bond release.	Inspector to be notified twenty-			
			* * * * * * * * * * * * * * * * * * *			
•		•				
The following waiver must be	completed by the coal ope	rator if the permit is to be	issued within ten days of receipt			
thereo!.						
WAIVER: I the undersigned, Agen	l for	Coal Company Owner	or Operator of the coal under			
this lease have examined	d and place on our mine m	aps this proposed well locat	ion			
			*			
providing operator has co	emplied with all rules and regr	nave no objections to said w ulations in Articles 4, 5, and '	ell being drilled at this location, 7, Chapter 22 of the West Virginia			
Code	·					
	•	•				
•		1:	or Coal Company			
		Option 1-100 Miles Charles (Inc.)	Official Title			



ex; = 71, ...

O THE DEPARTMENT OF MINES,



# Oil and Gas Division

OIL & GAS DIVISION

# OIL AND GAS WELL PERMIT APPLICATION MINES

Charleston, W. Va.		DATE June 1, 198	7		•
riace Owner John S. Thaxton		Company Kaiser Exp	loration an	d Minin	a Compan
dress Rt. 5, Box 58, Given, WV 252		Address P. O. Box 8			
neral Owner C. E. Kessel, et al			, Navenswo		
idress Ill Highlawn Drive, Ripley, W	\/	Location (waters) Kes		_ACT <b>es</b>	14/
al Owner C. E. Kessel, et al		•	307 7011	771	950 .
idress Ill Highlawn Drive, Ripley, W		District Ripley			Jackson
oal Operator None			* *	_county_	<u> </u>
dress		d and and it		***************************************	
PERMIT MUST BE POSTED AT THE WELL SI provisions being in accordance with Chapter 2: the W. Va. Code, the location is hereby approve	2, INSP	ECTOR E NOTIFIED <u>Richar</u>	rd Morris		•
drilling . This permit shall expire	if .	•	•	***************************************	
erations have not commenced by 3-1-82	ADDR	ESS <u>P. O. Box 372</u>	<u>?, Grantsvi</u>	<u>lļe. WV</u>	*
Deputy Director - Oil & Gas Division NTLEMEN:	PHON	E <u>354-7259</u>			
The undersigned well operator is entitled to de					
The undersigned well operator is entitled to di	rill upon the abo	ove named farm or tract	of land for oi	l and gas,	having fee
thereto, (or as the case may be) under gran et al Kalser Explore Martena Kessel made toMining Com	t or lease dated atjon and pany	July 21,	of land for oi1980by27	l and gas, C. E. day of	having fee Kessel August
thereto, (or as the case may be) under gran et al Kalser Explore Martena Kessel made to Mining Com  80 in Jackson County, Book	t or lease dated ation and pany 156	July 21, and recorded on the Page757	<u>19_80</u> _by	. <u>C. E.</u> _ day of	Kessel August
Martena Kessel made to Mining Company  80 in lackson County, Book  NEW WELL DRILL DE	t or lease dated at lon and lease lated at long and lease lated la	July 21, and recorded on the Page757REDRILL	1980by27FRACTURE	. <u>C. E.</u> _ day of	Kessel August
Martena Kessel made to Mining Compared to Mining Co	t or lease dated at 10 n and 156  EPPER Y DRILLED BE		19_80 by 27FRACTURE	day of  OR STI	Kessel August MULATE Operators
Martena Kessel made to Mining Compared to Mining Co	t or lease dated at 10n and 156  EFFER  Y DRILLED BE dengineer or licurate bereby notified by, or filed to the mailed by regis defrees		FRACTURE  19 80 by 27  FRACTURE  1 all coal owner  they wish to m  Mines within to  to the above m	day of C. E. day of C. E. OR STI cers and/or cen (10) day amed coal	Kessel August  MULATE  operators re required lays. *
Martena Kessel made to Mining Composition of the enclosed plat was prepared by a registered e been notified as of the above date.  The above named coal owners and/or operator make by Section 3 of the Code, must be received to composition of the mailing or delivery of this copy are day with the mailing or delivery of this copy	t or lease dated at 100 and 150 and 156  CEPER  Y DRILLED BE dengineer or lice are hereby notified by, or filed we mailed by regis ddress to the Department of the Department of the dated at 150 and		FRACTURE  19 80 by 27  FRACTURE  1 all coal owner  they wish to m  Mines within to  to the above m	day of C. E. day of C. E. OR STI cers and/or cen (10) day amed coal	Kessel August  MULATE  operators re required lays. *
Martena Kessel made to Mining Compared to Mining Co	t or lease dated at 100 and 150 and 156  CEPER  Y DRILLED BE dengineer or lice are hereby notified by, or filed we mailed by regis ddress to the Department of the Department		FRACTURE  all coal owns  they wish to m  Mines within to  to the above m  ton, West Virginia	day of C. E. day of C. E. OR STI cers and/or cen (10) day amed coal	Kessel August  MULATE  operators re required lays. *
Martena Kessel made to Mining Compared to Mining Co	t or lease dated at 100 and 150 and 156  CEPER  Y DRILLED BE dengineer or lice are hereby notified by, or filed we mailed by regis ddress to the Department of the Department		FRACTURE  I all coal owns they wish to m Mines within to to the above m ton, West Virginia	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required lays. *  i operators  or on the
Martena Kessel made to Mining Comis Martena Kessel made to Mining Comis 80, in lackson County, Book Mining Comis 80, in lackson County, Book Mining Comis Mining Comis 80, in lackson County, Book Mining Comis Mining Comis 80, in lackson County, Book Mining Comis 80, in lackson County, Book Mining County, B	t or lease dated at John and bany  156  CEPER  Y DRILLED BE d engineer or lice are hereby notified by, or filed to be mailed by regis direct to the Departm  Very  (Sign		FRACTURE  I all coal owns they wish to m Mines within to to the above m ton, West Virginia	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required lays. *  i operators  or on the
Martena Kessel made to Mining Composition Martena Kessel made to Mining Composition Martena Kessel made to Mining Composition M	t or lease dated at 100 and 156  TEPER  Y DRILLED BE d engineer or lice are hereby notified by, or filed we mailed by regis didress to the Departm  Very  (Sign  Address of		FRACTURE  I all coal owns they wish to m Mines within to to the above m ton, West Virginia	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required days. *  i operators or on the
Martena Kessel made to Mining Compared to Mining Co	t or lease dated at John and bany  156  CEPER  Y DRILLED BE d engineer or lice are hereby notified by, or filed we mailed by regis direct to the Departm Very  (Sign Address		FRACTURE  FRACTURE  I all coal owner  they wish to me  Mines within to  to the above me  ton, West Virgination and  interest	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required lays. *  i operators  or on the
Martena Kessel made to Mining Composition Martena Kessel made to Mining Composition Mining Composition Martena Kessel made to Mining Composition M	t or lease dated at 100 and 156  TEPER  Y DRILLED BE d engineer or lice are hereby notified by, or filed we mailed by regis didress to the Departm  Very  (Sign  Address of		FRACTURE  I all coal owner  they wish to me  Mines within to to the above me  ton, West Virgination and  Greet  Town  a 26164	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required lays. *  i operators  or on the
Martena Kessel made to Mining Composition Martena Kessel made to Mining Composition Mining Composition Martena Kessel made to Mining Composition M	t or lease dated at 100 and 156  TEPER  Y DRILLED BE d engineer or lice are hereby notified by, or filed we mailed by regis didress to the Departm  Very  (Sign  Address of		FRACTURE  FRACTURE  I all coal owner  they wish to me  Mines within to  to the above me  ton, West Virgination and  Street	ers and/or arke, or arken (10) damed coal before, cinis.	August  August  MULATE  operators  re required lays. *  i operators  or on the

\*SECTION 3... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the well operator authorized to proceed.

47-035-1585

# THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

THOPOSED WORK ORDER TO	A DBILL					
BRILLING CONTRACTOR: (H	The section of the se					
gare <u>Oline word Lieste</u>	Caras Tae					
ADDRESS P. Ú. BOX 388, E						
TELEPHONE 273-5371	TRYTEM, WY ZOUTI					
•	10003	TELEPHONE 273-5				
STIMATED DEPTH OF COMPL		ROTARY X	CABLE TOOLS			
PROPOSED GEOLOGICAL FOR						
YPE OF WELL: OIL_	GAS X	DMBSTORAGI	E DISPOSAL_			
	RECYCLI	NG WATER FLO	OODOTHER			
•	i.					
ENTATIVE CASING PROGRAM	<b>!:</b>					
CASING AND TUBING	USED FOR		* . *			
SIZE	DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC I			
0 - 16						
3 - 10						
- 5/8	250	250	Cement to surface			
- 5/8						
	2650	2650	65 sks 50/50 pozmix			
У.			100 sks class A			
3/2	5090	5090	225 sks pozmix	*		
			Perf. Top			
pers			Perf. Bottom	<u> </u>		
			Perf. Top			
***************************************			Perf. Bottom	<u> </u>		
PPROXIMATE FRESH WATER	1, 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,					
PPROXIMATE FRESH WATER : PPROXIMATE COAL DEPTHS _	DEFINS FEET	SALT WATER_	FEET_	<del>" ————————————————————————————————————</del>		
COAL BEING MINED IN THE	A TO TO A CONTRACT OF THE CONT	*		•		
	AREA?None	BY WHOM?		-		
D DRILL:						
SUBMIT FIVE (5) COPIES ( OF PLAT.	OF OG - 1, \$100.00 PERMIT	FEE PERFORMANCE BO	ND AND DEDNIASTRIC	00 D.		
OF PLAT.			MO MAD PERMANENT	COPY		
DEFILL DEEPER OR REDRILL						
SUBMIT FIVE (5) COPIES OF WELLS DRILLED PRIOR TO	F OG - 1, SHOWING ORIGIN	IAI. PEPMIT MITMED AND				
WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTED	) 1929, A PERMANENT CO	PY OF THE PLAT AND THE	PERFORMANCE BOND	. ON		
MUSI ALSO BE SUBMITTED	t_		IN CITICINAL WALL RE	LORD		
FRACTURE - STIMULATE:			- *			
OIL AND/OR GAS WELL ORI BOND, PERMANENT PLAT A	GINALLY DRILLED BEFOR	E HINE 5 1000 FIVE (C) O	Onino e u	•		
OIL AND/OR GAS WELL ORI ING ORIGINAL PERMIT NUM	GINALLY DRILLED ON ANI	D/OR AFTER JUNE 5 1929	FIVE CODIES OF A	10111		
		JORD.				
Required forms must be filed four (24) hours in advance.	within ninety (90) days of co	mulation for board at				
four (24) hours in advance.		mpiculon for bond release.	inspector to be notified tw	enty-		
	And the second s					
The following waiver must be reof.	completed by the coal opera	for if the permit is to be is	sued within ton days of -	nnint		
AVER: I the undersigned, Agent this lease have examined	for	Coal Company, Owner of	or Operator of the coal	under		
	Pace on our mine map	s this proposed well location	n.			
We the	Coal Company has	ve no objections to		1:		
providing operator has con	nplied with all rules and regula	tions in Articles 4, 5, and 7	Chapter 22 of the Was W	Lion,		
Code.		, . ; <del> ,</del>	or rue west All	Prine		
•		•				
		For	Coal Company	FEBRUARIS AND AND STREET, FEBRUARIS		

Official Title

FILE COPY



1)	Date: Apr	<u> 11</u>	5			. 19 84	
2)	Operator's Well No		KEM	#104			
3)	API Well No.	47		035		1585-FRAC	
		Stat	e	County		Permit	

## STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION

### APPLICATION FOR A WELL WORK PERMIT

4) WELL TY	PE: A O				X/	/ Timdonomound at		/ 5		<b>Y</b> .			
B (If "Gas", Production X  5) LOCATION: Elevation: 950							/ Underground storage/ Deep/ Shallow X/) Watershed: Kessel Run						
District: Ripley							County: Jackson Quadrangle: Elmwood						
6) WELL OPERATOR KEMGAS							) DESIGNATED	AGENT R. A.					
Address			Box 8				Address Same						
		Raven	swood,	MV .	26164				101150	OBUVE!			
8) OIL & GA				FIED		9	DRILLING CO						
	<u>erry Te</u> D+		x 101A			CONTRACTOR OF THE AMERICAN	Name Cli			<del>78 2 6 193</del> 4 T			
Address		ey, W		271		ANNUE GEORGE LANGUAGE COM		0. Box 388 view, WV 25	5071	- avicion			
10) PROPOSE					_/ Drill	doonor			OIL 8	GAS DIVISION			
10) I ROI OSL	، حاسمته ۱۷۰ مود	WORK.				L/ Perforat		/ Stimulate	AREPT	OF MINE			
								nd Berea, plu	ia off Or	iskanv.			
11) GEOLOGI	ICAL TAR	GET FOI	RMATION	, De	vonia	n Shale, Bero	ea iso	lare shale ar	id Berea i	with nacker			
12) Estima	ated depth o	of comple	ted well,		5188	San		tubing					
							750	feet.					
14) Appro	oximate coal	l seam de	pths:	_Nor	1e	Is coal	being mined in the	area? Yes	/ No				
15) CASING	AND TUBI	NG PRO	GRAM										
CASING OR TUBING TYPE		SPECIFICATIONS Weight				FOOTAGE IN	TERVALS	CEMENT FILL-UP	PACKERS				
2000100 2110	Size	Grade	per ft.	New	Used	For drilling	Left in well	OR SACKS (Cubic feet)					
Conductor					1		***************************************		Kinds NO	ne			
Fresh water	10 3/4	<u>" H</u>	40.50	X		255(KB)	255(KB)	100 sks neat		•			
Coal			<del>                                     </del>					65 sks pozmi	Sizes				
Intermediate	7"	K	20	X	-	2492(KB)	2492(KB)	<del>∥100 sks nea</del> t					
Production	4 1/2		11.60	<u> </u>			5165(KB)	225 sks pozn	jDepths set				
Tubing	2 3/8	J	4.6	X			5165(KB)						
Liners	<del>                                     </del>	<u> </u>							Perforations:				
									Top	Bottom (KD)			
			1						5115	<u>5123 (K</u> B)			
					1 1			11	<u> </u>				
					Λ.								
***************************************						OFFICE USE O	NLY			ACCUPATION OF THE PROPERTY OF			
					,	DRILLING PER	MIT						
Permit number_	2	47-035	-1585-	FRA C				May 17,		19 84			
					<del></del>			Date	e				
quirements subjection No. 8) Prior to	ect to the co the constru	onditions ction of 1	contained oads, locat	herein : ions an	and on the id pits for	e reverse hereof. Not	ification must be g In addition, the we	d to drill in accordan- viven to the District Oi ell operator or his conf	l and Gas Inspe	ector. (Refer to			
The permitted w everse hereof.	ork is as de	scribed in	n the Notic	e and A	Applicatio	n, plat, and reclamat	ion plan, subject to	any modifications ar	nd conditions s	pecified on the			
Permit expires _	······································	May	17, 19	86		unless well w	ork is commenced	prior to that date and	prosecuted with	due diligence.			
BORGAKET	Agent	اسرخ	Platia	Casir	ng	Fee							
32		01	-5 -	_	$\leq  9 $	67-			A.				
L		//			10	12 8 J							
NOTE: Keep o	ne copy of	this pern	nit posted a	it the d	rilling loc	ation.	Admi	nistrator, Office of O	ii and Gas				
		•				**				File			

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

# STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION SECTION OF OIL AND GAS

### AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

-						
Farm name:	JONES, FOR	REST E. JR.	Opera	tor Well No	.:KEM 10	4
LOCATION:	District: Latitude:	RIPLEY 1700 Feet	South of	: ELMWOOD County: J 38 Deg. 45 81 Deg. 45	VACKSON 5 Min. 0 5 Min. 0	Sec. Sec.
Well Type:	OIL	GAS X	-			
Company: Pe P. Ra	ake Energy I O. Box 8 venswood, WV	7 26164	Coa or 	l Operator_ Owner _ -	N/A	
Agent: To	m Liberatore	2	_ Coa	l Operator_ Owner		En Son
Permit Issu	ed: 06/23/9	7	OI			
	ST VIRGINIA Jackson		AFFIDAVIT		Office of C	being being experienced by of plugging
in the wor the above and fillin Gas Inspec commenced the well w TY  6% Gel Class A Co 6% Gel The Class A Co 6% Gel The Class A Co 100 Class A Co	k of plugginamed well githe above tor represent as plugged pE ement ement ement ement ption of moat the worday of June ement day of June ement ement day of June ement e	ng and fill operator, well, and senting the senting th	ling oil an and parti  Homer Day of Judged in the TO 2740' 2488' 2127' 1946' 752' 650' 355' 255' 62' Surface of 4 1/2"	d gas wells cipated in agherty r, say the say	nat sai , 1997, manner: REMOVED of 2" of 4'6"	Oil and work was and that  LEFT   1616'-2"
Sworm and s	601 Hillcrest Drive	}	1 / S	Dickael ay of Jul	y within	<u>2</u> , 19 <b>97</b>
	avenswood, WW 25164 nission Expires August 29, 1998 Oil a	d Gas Insp	pector:	H, H, D	ptary Pub	lijc Y
· ·					11 62	•