













FORM 1V-2 1000verse1 (12-81)



Date: Uctober		19 82
	minute our distance	- Charles and the second of the second
Operator's KEN	1 #267	

API Well No. 47

107

1231

	The state of the s			
WELL TYPE:	Oil / Gas y	1		and the state of t
		•	d storage	/ Deep X / Shallow /
· LOCATION:				
WELL OPERAT				,
	Ravenswood, WV 26164	1	-	Ravenswood, WV 26164
OIL & GAS	JED Cocil Enton of al		00 11 OPEN 170	.
Address		**************************************		
Municss	Defrevirie, wv		Address	
	100	Carried Control Contro		
Acreage	Commence of the second	***************************************	COAL OWNER(S)	WITH DECLARATION ON RECORD:
· SURFACE OWN	ER David D. Steele		Name None	
Address	Rt. 2	Note with the Principle Conference and the Conferen	Address	
	Belleville, WV	·	· Cathanage and reserve	
Acresse	100	uh-Parkking (1859-1977) dare derbyennye	Name	
FIELD SALE (II	•		Address	OIL AND GAS W DEPARTMENT OF MINES
Address		TT-GT-TH-TH-T-Y-V-Q-GB-047-0-X-0-X-0-X-0-X-0-X-0-X-0-X-0-X-0-X-0-		
. •			COAL LESSEE W	ITH DECLARATION ON RECORD:
	DEPARTMENT OF MINES. OIL AND GAS DIVISION OTL AND GAS WELL PERMIT APPLICATION E: Oil / Gas x / Underground storage / Deep x / Sha Elevation: 624' Watershed: Middle Fork of Lee Creek District: Harris County: Wood Quadrangle: Lube RATOR Kaiser Exploration and Mining Co. DESIGNATED AGENT R. A. Pryce ss P. O. Box 8 Address P. O. Box 8 Ravenswood, WV 26164 Ravenswood, OWNER Cecil Eaton, et al COAL OPERATOR None ss Belleville, WV Address David D. Steele Name None SS Rt. 2 Address Della Name None E (IF MADE) TO: Address COAL OPERATOR OIL AND GAPT OF ADDRESS OF ADDRESS OIL AND GAPT O			
			Address	
Address			- Marine and American and Ameri	-
•	Smithville, WV 261/8			
The undersigne	d well operator is entitled to operate fo	or oil or gas purpo	ses at the above local	tion under a deed/ leaseX
other contract	/dated April 17	19 <u>80</u> , to th	ne undersigned well	operator from Cecil and Geraldin
Recorded on J	une 25 , 19 80 , in the offi	rued:) ce of the Clerk of	the County Commis	sion of Wood
Va., in Lea	Se Book 740 at page	165 An	ermit is requested	es follower
				•
	and hulter change in ach	(Specify)		417
	-planned as shown on the w	ork order on the	reverse side hereol	f.
The above name				
make by Code \$22	2-4-3 must be filed with the Departme	ent of Mines with	in fifteen (15) days	after the receipt of this Application by the
Department.	• •	•		and receipt or any repplication by the
Copies of this Pe	ermit Application and the enclosed plan	t and reclamation	plan have been maile	ed by registered mail or delivered by hand to
the above named o	coal operator, coal owner(s), and coal	lessee on or befor	e the day of the mail	ling or delivery of this Permit Application to
the Department of	f Mines at Charleston, West Virgini	.		•
PLEASE SUBMIT	COPIES OF ALL			•

WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

Well Operator

By General Manager

THIS IS AN ESTIMATE ONLY: ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

	JNIKAC	IOR (II	- KNOW				•	Inc		
				Au		P. O. Box Elkview. I				
GEOL OGICAL	TADO	מד בטט	NA A TION			Elkview, I				,
							et Rotari	y <u>χ</u> / C ab	ile tools	
								feet.	710 10013	······································
										,
				•		Is coal	being minea	in the area? Yes	/ 140	/
CASING AND	TUBIN	G PROG	KAM						•	
	mue vezzerokonomya addisumetar	lantinus vyrrany, a styričinus i franciska,				eer delayeerallisiga openings armona pare englise directings in <u>apply en deur direction</u>	aterioristic grave program and describe an extension of the aterior and aterior aterior aterior and aterior at		The state of the s	
CASING OR TUBING TYPE	SPE	Grade	IONS Weight per ft	New	Used	FOOTAGE	NTERVALS	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
Conductor									Kinds	
Fresh Water	10 3/					250'	250'	150 sks class	A (to surf	ace)
Coal								•	Sizes	
Intermediate	7"					1807'	1807'	65 sks 50/50 100 sks Class		
Production	4 1/	311				4324'	4325'	225 sks 50/50		
Tubing										
Liners									Perforations:	
									Тор	Bottom
distribution of the second of										5000011
				1	 					· · · · · · · · · · · · · · · · · · ·
Code	\$22-4-8	a from t	he owner	of an	y wate	r well or dwel	ling within 20	(v) if applicable, the c 0 feet of the propose well where fracturing	d well.	-
								Form IV-2 filed in con		
and the second second						•				
THIS PERA	MIT MUS	T BE PO	STED AT	TUE!	NAZTET	eru g roon ga		•		
ALL PRO	VISIONS	DEISIG	N ACC	DRDAI	ACE NO	TTIL CHAPTER	. 22			
ARTICLE	OF THE	EW. VA	. (225,	THE.	001	DON IS HERE	hia ka z V		Ca	
			inc.					10		
APPROVE	D FOR _	Andrew Control and Control of the Co	2	e å :	1457 8.2	RANT SHALL	EXPIRE	\ A/\(\frac{\sqrt{\sq}}\sqrt{\sq}}}}}}}}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	/	
APPROVE IF OPERAT	D FOR _	Andrew Control and Control of the Co	2	VENC	ED SY	7-3-83	XPIRE			
APPROVE	D FOR _	Andrew Control and Control of the Co	2	VENC	ED SY	7-3-83	DOPRE	* The state of the		
APPROVE	D FOR _	Andrew Control and Control of the Co	2			7–3–83	XPR5			
APPROVE IF OPERAT BY	P FCR	•••••				7-3-83	www.manage. A	al owner or coal lessee	who has record	ied a
APPROVE IF OPERAT BY The	O FOR	waiver n	nust be co	omplete	ed by t	7-3-83	and by any co	al owner or coal lessee fifteen (15) days of r	who has record	ied a
APPROVE IF OPERAT BY The	O FOR	waiver n	nust be co	omplete	ed by t	7-3-83 the coal operator ermit is to be	and by any co	al owner or coal lessee fifteen (15) days of r	who has recordeceipt thereof.	led a
The undersign proposed well.	following aration unique decation.	waiver in inder Coo	nust be code 22-4	omplete-20, if	ed by t the p	he coal operator ermit is to be WAP lesserers the area of seed to be done	r and by any co issued within VER the well location at this location	fifteen (15) days of r	well location ha	s examined this
The undersign proposed well.	following aration unique decation.	waiver in inder Coo	nust be code 22-4	omplete-20, if	ed by t the p	7-3-83 the coal operator ermit is to be WAP lesserers the area of	r and by any co issued within VER the well location at this location	fifteen (15) days of r	well location ha	s examined this
The undersign proposed well.	following aration unique decation.	waiver in inder Coo	nust be code 22-4	omplete-20, if	ed by t the p	he coal operator ermit is to be WAP lesserers the area of seed to be done	r and by any co issued within VER the well location at this location	fifteen (15) days of r	well location ha	s examined this

WEST TO SERVICE OF THE PARTY OF

1)	Date: Ma	<u>y 3</u>				1984
2)	Operator's Well No	KEM	#267			
3)	API Well No.	47		107	-	1231-REV
		State		County		Permit

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

APPLICATION FOR A WELL WORK PERMIT

4) WELL TY										
	В (If ''Gas'',	Productio	3	_X	_/ Underground s	torage	/ Deep <u>X</u>		/)
5) LOCATIO				9:)		_ Watershed:	<u> Middle Fo</u>	ork of Lee Cre		4-A-1
		strict:		ris	ion 0	County:	Wood	Quadrangle:	Lubeck	
		<u>Naise</u>	r EXP	Oral	1011 &	<u>Mining</u> co.		DAGENT R.	<u>A. Pryce</u>	
Address	·		Box 8		26364		Address	Sam	<u>e </u>	
0) 011 0 0 4					26164					
8) OIL & GA Name				FIED			9) DRILLING C	ONTRACTOR: Clint Hurt		
Address			Box 1	01Λ					200	
Address			. WV		7		Address	P.O.Bo Elkview.	x 388	
in propose		,				*		<i>,</i>		
10) PROPOSE	D WELL	WORK:	Drill		_/ Drill			/ Stimulate	<u> </u>	
						/ Perfora		1/		•
11) GEOLOGI	CALTAD	CET EOD								
12) Estima										
								feet		
		-						e area? Yes	/ No	,
15) CASING A				•	***************************************		a ocing minica m in	carea: 1es	/ NO	/
CASING OR	II		IFICATION:	ŝ	П	FOOTAGE IN	TERVALS	CEMENT FILLUP	PACKER	ne.
TUBING TYPE	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well	OR SACKS (Cubic feet)	PACKER	.5
Conductor	1		1				LAN III WEI	(Cable feet)	Kinds	
Fresh water	10 3/	4		Х		250	250	150 sks Cla		unfaco)
Coal								150 383 610	Sizes	miacel
Intermediate	7		,	Χ		1832	1832	65 sks 50/5	popzmix	***************************************
Production	4 1/	þ		X		4349	4349	225 sks 50/	50ephoemix	
Tubing	<u> </u>		ļ							
Liners			ļ						Perforations:	
	<u> </u>								Тор	Bottom
									j.	
	il-		1							W-1
		***************************************				OFFICE USE O	NIT V			
						RILLING PER				
	/					ANTENNA E EN	ZIABE E			
ermit number_	4/-1	.07-123	31-REV				***************************************	June 6,		19 84
								Date		
nis permit cove	ring the wi	ell operato	or and well	l locatio	n shown t	pelow is evidence o	f permission grant	ed to drill in accordanc given to the District Oil	e with the pertin	ient legal re-
40. 8) Prior to t	he constru	ction of ro	ads, locati	ions and	f pits for a	ny permitted work.	In addition, the w	ell operator or his cont	ractor shall notif	v the proper
listrict oil and ga	as inspecto	r 24 hours	before ac	tual per	mitted wo	rk has commenced	.)		//	
The permitted wo	ork is as de	scribed in	the Notice	e and A	pplication	, plat, and reclama	tion plan, subject t	o any modifications an	d conditions spe	cified on the
everse hereof. Permit expires _	June	6, 19	386					~		ı
eriiii expires _				 		unless well v	work is commenced	prior to that date and p	rosecuted with d	ue diligence.
				~						
BLANKET	Agen	t: e T	Plat:	Casin	g l	Fee				
000	V /	1 1 >	nl	m	1/3	33		-1 11		
\$\$			4/1	<i>}}</i> {{	<u> </u>			ff in		
							Adm	inistrator, Office of Oi	and Gas	
OTE: Keep or	ne copy of	this perm	it posted a	t the dr	illing loca	tion.		Office of Oi	. unu Gus	
,			48							File
		See	ine reverse	side of	ine APPl	LICANT'S COPY	for instructions to	the well operator.		



IV-35 (Rev 8-81)

State of West Birginia

Bepariment of Mines Gil und Gas Bivision

Date	Marc	ch 4	, 19	85		
Operative Well I	tor's	(EM	#267	000		Schemoscope
Farm_	Har	old	Ketc	hum		WATERAND
API N	0.47	appro.	107	4550	1231	Ren

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

			of Lee Cre		
	District: Harris County Wood		Quadrangle	Lubeck	
	1	4			
OMPANY	Kaiser Exploration and Mining Co.				
•	P. O. Box 8 Ravenswood, WV 26164	Casing	Used in	Left	Cement
•	TED AGENT R. A. Pryce	Casing	Drilling		fill up Cu. ft.
ODRESS	Same	Size	014411119		
•	CWNER David Steele	20-16			
DDRESS	Rt. 1, Box 185 Belleville, WV 26133	Cond.	30.0/4	0.70	I/5 sks
INERAL	RIGHTS OWNER Cecil Eaton, et. al.	13-10"	10 3/4"	272'	Class A
	Rt. 1, Box 154 Belleville, WV 26133	9 5/8			
•	GAS INSPECTOR FOR THIS WORK Jerry	8 5/8			175 sks p
	abock ADDRESS Rt. 1 Box 101A Ripley, W	7 - 7 - 7	7"	1715	100 sks 0
	ISSUED June 6, 1984	5 1/2	4 7 /0 **	4225	225 sks
	G COMMENCED 8-3-84	4 1/2	4 1/2"	4325	poz mix
	IG COMPLETED 8-9-84	3			
	ICABLE: PLUGGING OF DRY HOLE ON	. 2			
DNIINU	DUS PROGRESSION FROM DRILLING OR ING. VERBAL PERMISSION OBTAINED	Liners used			
FOI CET	ICAL TARGET FORMATION Oriskany	4	Non	th 4349	feet
		Rotary x			
	ater strata depth: Fresh N/A feet;			4	Delica Caracteristica de la constante de la co
	pal seam depths: N/A	Contraction of the Contraction o			e area? NO
	General State of Secretary and American State of Secretary Conference on	Manager (n fluid no		CALLED THE
	LOW DATA	ø !			i.
	roducing formation _{Oriskany}		-	CONTRACTOR OF STREET	-4245 feet
G					Bb1/d
	Final open flowMcf/d	Fi	nal open f	low	Bbl/d
	Time of open flow between ini	tial and f	inal tests	4 hc	ours
S	tatic rock pressure 1400 psig(surfa	ce measure	ment) afte	r2 wk	st shut in
(If applicable due to multiple completio	n)			
· S	econd producing formation	Pa	y zon e dep	th	feet
G.	as: Initial open flow Mcf/d	Oil: In	itial open	flow	Bbl/d
	Final open flow Mcf/d	Oil: Fi	nal open f	low	Bb1/d

10.1 91

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

8/13/84 Young's Wireline perforated Oriskany from 4239' to 4245' with 24 shots. 8/17/84 BJ Hughes cross link gel frac with #60,000 of 20/40 sand, 217 mscf nitrogen, 643 bbl fluid, ISIP: 1500 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
Shale and Siltstone Sandstone Shale and Siltstone Sandstone Shale and Siltstone Dunkard Sands Shale Salt Sands Shale Coffee Shale (Sunbury) Berea Sandstone Shale Brown Shale Shale Marcellus Shale Onondaga Limestone Oriskany Sandstone Helderberg Limestone Total Depth:	0 75 120 410 492 880 1270 1340 1570 1906 1928 1938 3082 3588 3924 4147 4230 4260 4330	75 120 410 492 880 1270 1340 1570 1906 1928 1938 3082 3588 3924 4147 4230 4260 4330	S/G @ 2757, 2970 S/G @ 3125, 3546 S/G @ 4240

(Attach separate sheets as necessary)

•	•		The fitting arminent of the second	
		a te ser	Kaiser Exploration and Mining Company	,
	-	• •	Well Operator	
		•	By: ZAPA	
	,		Date: 03/04/85	
1 -		1	1	· ·

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."

FORM	WW-2 ((B)	FILE	COPY	?	
(Obve	erse)	V 67 5	AT	TIP	18-18	me
7/85	U	للما		1		
	ML			w.,	الاشتير	
1	177	JUN	12	198	1 3	TOTAL P



)	Date:	May	26	19_87
١.	Operator	* c		

Operator's Well No. KEM #267, Ketchum

3) API Well No. 47
State

County

STATE OF WEST VIRGINIA

				ARTM	IENT O	F ENERGY,	OIL AND GAS DI	VISION			
DEPAR	TMENT	OF ENE	RGY	AI	PPLICAT	TION FOR A V	VELL WORK PERM	IT			
4) WELL TY											
	B (If "Gas",	Production		X	/ Undergrou	ind storage			v <u>X</u>	/)
5) LOCATIO	DN: El	evation:	649' larris		77		: <u>Middle F</u>	ork of Lee Ci	reek		- 1/2-
	Di	strict: H	arris	ratio	n and	County:	Wood 107	Quadrangle:	Lubeck		/
				any'	cop	E: A227		ED AGENT R.			
Addres		P. 0.			26164		Address	Sar	ne		
8) OIL & GA			wood,		20104	www.dodd.com.com.com.com	o patting	CONTRACTOR.			
Name	Glen R	lobinso	n noite	LEU				CONTRACTOR: Kaiser Compan	v Tools		
Addres	D +-	1, #6	Mt. PT	easai	nt Est	tate	Address	P. 0. Box		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ral We	11s, W	V .	26150		2544.000	Ravenswood		64	***************************************
10) PROPOSI	ED WELL	WORK:	Drill		/ Drill	deeper	/ Redrill	/ Stimulate_	X/		
						/ Pe	rforate new formation	on^_/			
								y back to 36	<u>50'. Peri</u>	forate	<u> </u>
							and frac Bro	wn Shale			
							feet				
1.7							salt,			v	
						1	s coal being mined in t	he area? Yes	/ No_	X	
15) CASING	AND TUBI							-			
CASING OR TUBING TYPE		SPEC	CIFICATIONS Weight			FOOTA	GE INTERVALS	CEMENT FILL UP OR SACKS	PAC	CKERS	
	Size	Grade	per ft.	New	Used	For drilling	Left in well	(Cubic feet)			
Conductor	10 3/	h a	1			250'	250'	150 -1:-		one	
Fresh water	10 3/	Γ	-			230		150 sks c			
Coal Intermediate	711	-				1805'	1805'	65 sks 50, 100 sks c		<u> </u>	
Production	4 1/	יוים				4385	4385'				
Tubing	1	T				4303	4300	225 sks 50	7/10 Gebilogatiii	<u> </u>	
Liners	#								Perforations:		
. 1 .	1				Í				Тор	Bott	tom
								A American support	£7	***	

the state of the s						OFFICE US	E ONLY	······································			
					1	DRILLING	PERMIT				
Permit number_	47	-107-1	231-FR	AC				June	20	1	9 87
_									Date		
This permit cove	ering the w	ell operato	or and well	locatio	n shown	below is evider	nce of permission grai	nted to drill in accord	ance with the p	ertinent !	legal re-
quirements subje	ect to the co	onditions of	contained h	erein a	nd on the	reverse hereof.	Notification must be	given to the District C well operator or his c	oil and Gas Insp	ector, (R	efer to
district oil and g	as inspecto	or 24 hours	s before ac	ual per	mitted w	ny permitted wo	nced.)	wen operator or ms c	Omracioi shan i	ionry me	z proper
The permitted w	ork is as de	escribed in	the Notice	and A	pplication	n, plat, and recl	lamation plan, subject	t to any modifications	s and conditions	. specified	d on the
reverse hereof.				una n	ppiicatio	ii, piat, and ico	amation plant, subjec	to any mounications	, and conditions	specifice	1 on the
Permit expires _	Jui	ne 29,	1989			unless	well work is commenc	ed prior to that date as	nd prosecuted wi	ith due di	iligence.
						****	- Dok				
Bond:	Agent		1 a t/2n	رخت و 2	rsina 1	Fee WE	LEAN ONK!	Other			
201.0.		- 10	IN 1	PI	70 1	0125		Offici			
		197	2) 14		2	711 M	75 1/1				
		~			,		John .	1/(/)	Luston	,	
NOTE: Keep o	ne conv of	thic man-	it parted -	t tha d-	illing !a-	ation	/ pour	J J Po	-2621071	<u></u>	/
INCIL. REED C	me copy of	ans peim	n posteu a	i inc ui	mining 100	auun.	(Diractor 194	TTI distance show	1 and C		//

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

STATE OF WEST VIRGINIA

Division of Environmental Protection Office of Oil and Gas

26-May-00 API# 47-107-01231

Fracture

WELL OPERATOR'S REPORT of WELL WORK

Farm Name:	STEELE, DAVID				_Operator Well No.:		KEM-267	
Location:	Elevation:	649		_	Quadrangle:	LUBECK		
	District: Latitude: Longitude:	HARRIS 6850 9150	Feet Feet		County: 39 Deg. 81 Deg.	WOOD 10 Min 40 Min.	00 Sec. 00 Sec.	
Company:	PEAKE ENER P. O. BOX 8 RAVENSWOO		4	Casing & Tubing (Size-O.D.)	Used in Drilling (feet)	Left in Well (feet)	Cement Type (sacks)	
Agent:	THOMAS S. LI			10.75	EXISTING	272		
Inspector: LARRY PARRISH		-	. 7	EXISTING	1715			
Permission Gran Rotary X Total Depth (fee Fresh Water De	Cable t):	Rig PB: 3630	-	4 1/2	EXISTING	4325		
Salt Water Dept			-	NO	CHANGES	IN	CASING	
Is coal being mined in the area? Coal Depths (ft):								
	ducing formation s: Initial open flo Final open flo	w * w est. 100	MŁ.		_Pay zone der l open flow l open flow	oth (ft) * 0	3080-3590 BBL/D BBL/D Hours	
Star	Time of open flow between initial and final tests Hours Static rock pressure 780 psig (surface pressure) after 96 Hours							
Gas	I Producing Fm: s: Initial open flo Final open flo Time of open tic rock pressure	w flow between			Pay zone dep l open flow l open flow ssure) after	oth (ft)	BBL/D BBL/D Hours Day's ECEI Office of C'!	& G2S
STIMULATING, PH	OF THIS FORM PU IYSICAL CHANGE, DNS, INCLUDING C	ETC; 2) THE W	ELL LO	OG WHICH IS A	SYSTEMATIC DE	ITERVALS, FR ETAILED GEOL	CTURING, OR	2001 ion of
		For:	PEA	KE ENERGY				**
			By:	Thomas	atore, Ge	neral Manage	r	

WR-35 (Reverse) API / Permit #47-107-01231 Peake Well #KEM-267 Elevation: 649 GL

DETAILS OF PERFORATING, FRACTURING, OR PHYSICAL CHANGE, ETC.

PERFORATED THE BROWN SHALE FROM 3080 TO 3590. FRAC'D THE SHALE USING 1,200,000 SCF OF NITROGEN

WELL LOG

WELL LOG		DOTTOM	REMARKS
ROCK TYPE OR FORMATION NAME	TOP	воттом	KEIMAKKO
SEE ORIGINAL WELL RECORD FILED IN 1985			
			RECEIVED Office of C18 Bas Politicing
	-		JAN 16 2001
			WV Division of Environmental Protection