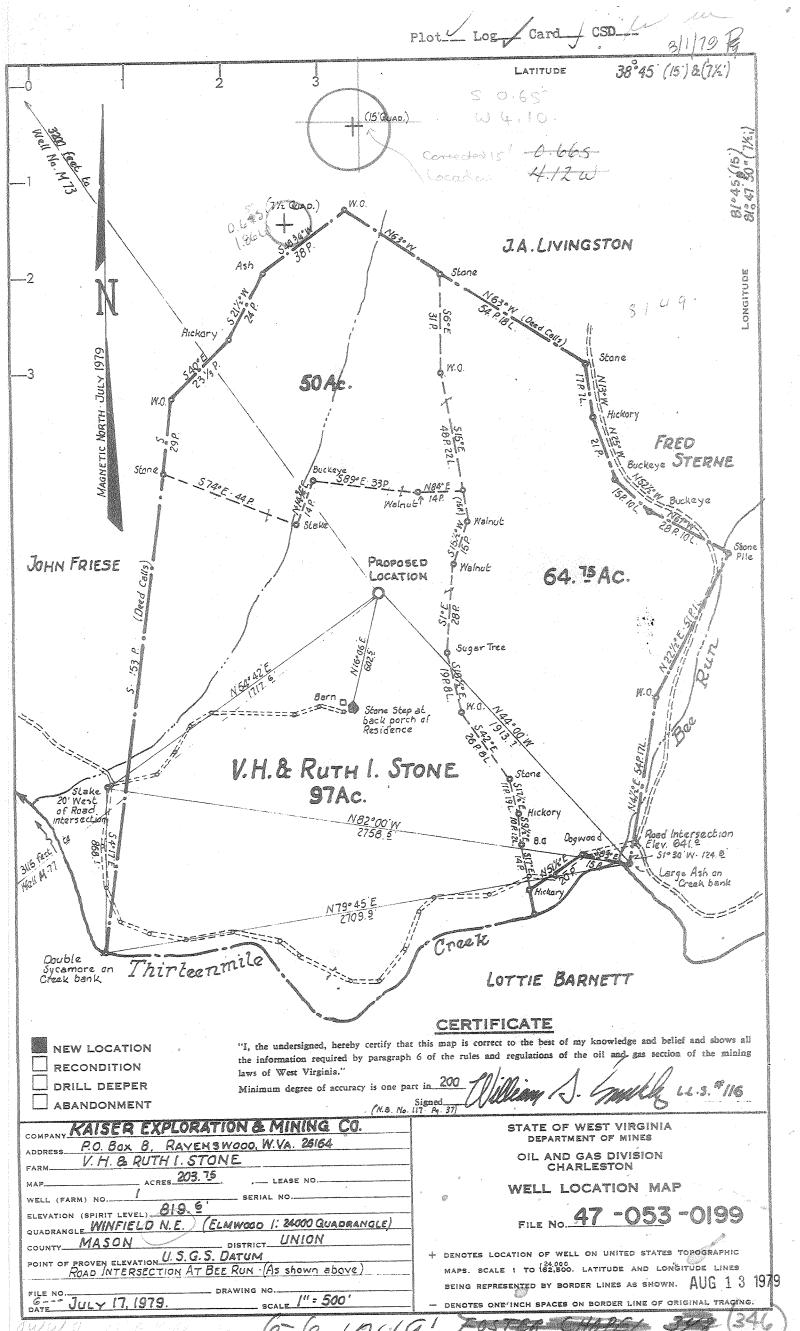


DEEPWELL OWNO 6-6 Rock Castle (346





### STATE OF WEST VIRGINIA

### 00728

### DEPARTMENT OF MINES

### Oil and Gas Division

### OIL & GAS DIVISION DEFT. OF MINES

WELL RECORD

Quadra	ngle	<u> FIMWOOD</u>	
Permit	No.	47-053-019	9

Rotary X Oil Cable Gas X Recycling Comb. Water Elo

Permit No. 47-053-0199				Water Floo	od. Storage
				Disposal	(Kind)
Company Kaiser Exploration and Mining C Address P. O. Box 8, Ravenswood, WV 2 Farm V. H. Stone Acres 204	ompan 6164	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Location (waters) Spruce Run  Well No. KEM 18 Elev. 819.6		Size			
District Union County Mason		20-16 Cond.			To surface 125 sx
The surface of tract is owned in fee by		13-10" <u>10 3/4</u> 9 5/8	' 253' (K	.B.)	Class A - Halliburton
Address 7622 Stahl Road, Orient, OH 431 Mineral rights are owned by <u>Same</u>	<u>46</u>	8 5/8 7	2562' (K	[ [B.)	165 sx (65 sx Pozmix 100 sx Class A)Dowell
Address Same Drilling Commenced August 7, 1979		5 1/2 4 1/2			
Drilling Completed August 16, 1979		3	4874' (K	.B.)	225 sx Pozmix Halliburton
Initial open flow 6.441 cu. ft bbl Final production 500 M cu. ft per day bbl	s.	Liners Used			
Well open 24 hrs. before test 1780 Ri Well treatment details:		Attach copy of ce	ementing recor	·d.	

Attach copy of cementing record.

Perforated Oriskany 4789' - 4795' (K.B.), 4 holes/ft; plug pumped down w/500 gal 28% HCL; fractured 8/21/79 by Halliburton with 30,000# 80/100 mesh sand and 30,000# 20/40 mesh sand, 1400 HHP, 958 BBL water, and 155,000 SCF of nitrogen.

Coal was encountered at		Inches	
Fresh water	Feet	Salt Water	Feet
Producing Sand		Depth	

		<u></u>		
Shale & silts Sandstone Shale Sandstone Shale Sandstone Shale Sandstone Shale Sandstone Shale Coal Shale Sandstone Shale Salt sandstone Shale Salt sandstone	0 115 145 220 250 435 445 455 480 608 615 625 630 675 720 835 845 915 1015 1100 1125	115 145 220 250 435 445 480 608 615 625 630 675 720 835 845 915 1100 1125 1150 1220	TOPS PROBABLY FROM	- 83

(over)

<sup>\*</sup> Indicates Electric Log tops in the remarks section.

Formation Color Hard or Soft	Top Feet *	Bottom Feet	Oil, Gas or Water	* Kemarks	
Shale Salt sand Shale Sandstone Siltstone Sandstone Shale Sandstone Shale Sandstone Shale Sandstone Shale Sandstone Shale Big lime Pocono shale Pocono Big Injun Grey shale Sunberry shale Berea sandstone Grey shale Devonian shale Grey shale Marcellus Onondaga Limestone Oriskany Hoirzon Hilderburg limestone	1220 1295 1400 1470 1510 1540 1563 1618 1680 1745 1753 1795 1815 1845 1922 2045 2160 2460 2482 2495 3670 4130 4470 4690 4766 4806	1295 1400 1470 1510 1540 1563 1618 1680 1745 1753 1795 1815 1845 1922 2045 2160 2460 2482 2495 3670 4130 4470 4690 4766 4806 4879 T	Wet		
	1 1				
	1				



STATE OF WEST VIRGINIA DEPARTMENT OF MINES

# Oil and Gas Division

WELL RECORD 44

Quadrangle\_Elmwood\_ Permit No. <u>47-053-</u>0199

Coal was encountered at \_\_\_

Producing Sand\_Oriskany\_

Fresh water\_\_\_\_

FEB 2 0 1980

O.I.E	A.	-	GAS D	IVI:	>	Oh	
DEF	- C20	æ	ПĘ	M	4. SQ00	N	

Rotary X	Oil
Cable	Gas X
Recycling	Comb.
Water Flood	Storage
Disposal	(Kind)

Company Kaiser Exploration and Mining Compa	na Sirin is is	and the second s	1	
Address P. O. Box 8, Ravenswood, WV 26164 Farm V. H. Stone Acres 204		Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Location (waters) Spruce Run  Well No. KEM 18 Elev. 819.6  District Union County Mason	Size 20-16 Cond.		The difficulty of the contract	
The surface of tract is owned in fee by	13-10" 10 3/4 9 5/8		253	125 sx Class A (to surface)
Address 7622 Stahl Rd. Orient, Ohio 43146  Mineral rights are owned by Same as above  Address Same as above	8 5/8 7 5 1/2		2562	65 sx Pozmix, 100 sx Class A (1100')
Drilling Commenced 8/7/79  Drilling Completed 8/16/79	4 1/2		4874	225 sx Pozmix (2300
Initial open flow 6 M cu. ft. cu. ft. bbls.  Final production 750 M cu. ft. per day 55 bbls.	2 Liners Used		4789	
Well open 10 hrs. before test 1880 RP.  Well treatment details:  Perforated Oriskany 4789' - 4795' (K.B. fractured w/30,000# 80/100 sand and 30.6		; Hallibu	rton & A	

\_\_\_\_\_Inches

...... Salt Water.....

\_Depth \_

Formation Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil Silt & Sand Sand Silt & Sand Silt & Sand Siltstone Silt & Sand Shale & Silt Sand Shale Sand Sand & Silt Siltstone Sand Shale Silt & Sand Shale Sand Shale Sand Shale Sand Shale Sand Shale Sand	окращиция подачина п	0 10 52 244 308 344 392 429 445 457 476 633 675 715 726 916 977 990 1033 1042 1100 1138 1153	10 52 244 308 344 392 429 445 457 476 633 675 715 726 916 977 990 1033 1042 1100 1138 1153 1220		

...Feet.....

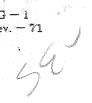
(over)

<sup>\*</sup> Indicates Electric Log tops in the remarks section.

Formation Color Hard or Soft	Top Feet 44	Bottom Feet	Oil, Gas or Water
Shale & Silt Sand Shale Sand Silt & Sand Sand Shale Sand Shale Sand	1220 1296 1354 1364 1385 1470 1478 1490	1296 1354 1364 1385 1470 1478 1490 1508	
Silt & Sand Maxton Big Lime Shale & Silt Big Injun Shale Coffee Shale Berea Shale Brown Shale	1508 1845 1906 1972 2046 2154 2459 2482 2494 3668	1845 1906 1972 2046 2154 2459 2482 2494 3668 4130	
Shale Marcellus Onondaga Oriskany Helderberg Total Depth	4130 4471 4690 4766 4802 4880	4471 4690 4766 4802 4880	
			and the second of the second o
	on the control of the		
	*** And the second seco		
	The property and the second se	depoint of the second of the s	
Committee of the Commit	A CONTRACTOR AND A CONT	PER TANDESCRIPTION OF THE PER TANDESCRIPTION	
	A Communication of the Communi		
non-distribution and providers of the second			
	tandaratika atau adalaman 1, mar mas kura alipada apagistastan myadina masampan arang masampan satan	production and appropriate construction of the state of t	

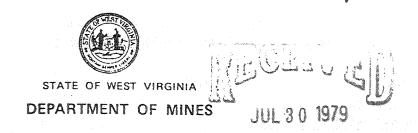
Date February 20, 1080

APPROVEDKaiser Exploration and Mining Company



THE DEPARTMENT OF MINES,

nd the well operator authorized to proceed.



## Oil and Gas Division OIL & GAS DIVISION DEPT. OF MINES OIL AND GAS WELL PERMIT APPLICATION

Charleston, W. Va.	DATE July 26, 1979
urface Owner V. H. Stone	Company Kaiser Exploration and Mining Company
ddress 7622 Stahl Rd., Orient, OH 4	
fineral Owner Same as above	Farm V. H. Stone Acres 204 acres
ddress Same as above	Location (waters) Spruce Run
oal Owner Same as above	Well No. KEM 18 Elevation 819.6
ddress Same as above	District Union County Mason
	Quadrangle_Elmwood
ddress None	- Andrew and a second a second and a second
PERMIT MUST BE POSTED AT THE WELL SIT	
provisions being in accordance with Chapter 22 the W. Va. Code, the location is hereby approve	TO BE NOTTED Variable Date
deepening (drilling) s permit shall expire	Neimedi buddie
erations have not commenced by 4-2-80	ADDRESS RFD #1, Barboursville, WV 25504
	PHONE736-4885
ENTLEMEN: Gas Division	ration of the control
Stone made to <u>Cities Service</u> 76, in Mason County, Book	ce Oil Company and recorded on the 7 day of October  41 Page 151
XXX NEW WELLDRILL DE	EPERREDRILLFRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY	Y DRILLED BEFORE JUNE 5, 1969.
or been nomined as of the above date.	l engineer or licensed land surveyor and all coal owners and/or operators
The above named coal owners and/or operator make by Section 3 of the Code, must be received.	are hereby notified that any objection they wish to make, or are required ed by, or filed with the Department of Mines within ten (10) days. *
coal owners at their above snown respective a	ddress day before, or on the
Section of the sectio	Very magnetic to
DEAST SUBMENT COPIES OF ALM. COPHESICAL LOGS DIRECTLY TO:	(Sign Name) E A. P.
و کار این کار در	R. A. Pryce
ST VIRGINIA GECLOGICAL AND	Kaiser Exploration and Mining Company
ONOMIC SURVEY O. BOX 879	• • • • • • • • • • • • • • • • • • •
PRGANTOWN, WEST VIRCINIA 26505 -304 - 292-6331	WWW AND THE STATE OF THE STATE
	Well Operator P. O. Box 8, Ravenswood  City of Town
	Cay or Town
	Cay or Town

\*SECTION 3 . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of otice 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

47-053-0199

PERMIT NUMBER

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

PROPOSED WORK ORDER TO	^ DRILL	DEEPEN	FRACTURE-STIMULATE				
DRILLING CONTRACTOR: (If I		RESPONSIBLE AGE	YT:				
NAME Not known at this	time	NAME Robert A. Pryce					
ADDRESS		_ ADDRESS P. O. B	ADDRESS P. O. Box 8, Ravenswood, WV 261				
TELEPHONE			5371				
ESTIMATED DEPTH OF COMPLE	TED WELL: 4749	ROTARY X	CABLE TOOLS				
PROPOSED GEOLOGICAL FORM	ATION:						
TYPE OF WELL: OIL	GAS <u>X</u>	COMB STORA	GE DISPOSAL				
			LOOD OTHER				
•							
TENTATIVE CASING PROGRAM:							
CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FIFE UP OR SACKS - CUBIC FT.				
20 - 16		VV C. L. Z. L.					
13 - 10							
9 - 5/8 10 3/4	250	250	Cement to surface.				
8 - 5/8			Jemento do Jantace.				
7	2519	2519	125 sk = 570'				
5 1/2							
4 ½	4749	4749	125 sks = 1500'				
2			Pert. Top				
Liners			Perf. Bottom				
			Perf. Top Perf. Bottom				
			Seri, Bottom				
MUST ALSO BE SUBMITTED TO FRACTURE - STIMULATE:	F OG - 1, SHOWING ORI 1929, A PERMANENT	COPY OF THE PLAT ANI ORE JUNE 5, 1929 FIVE (5)	AND PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD  5) COPIES OG - 1, PERFORMANCE				
ING ORIGINAL PERMIT NUM	BER, AND PERFORMANC	E BOND.	929, FIVE COPIES OG - 1, SHOW- e. Inspector to be notified twenty-				
four (24) hours in advance.	(10) days of	skalat minor politicisms	e. Inspector to be nothing twenty-				
			6				
mental in the second of the second in the se	form whet by a	totat olik kun a selen a jako.	មាន សន្នារ ខេង <b>៩៩೪៩ ១</b> ៤ មួ <del>ស</del> ៀប				
this lease have examined	and place on our mine	mans this proposed well are	to or operator or the coar under				
A Secretary of the second seco	en andersamen menengan in Service (255 - Karaling September).	. nave mi conjection to sold	well being divided at this focation, d 7, Chapter 22 of the West Virginia				
,			The second secon				
		4-1-1-1-1	For Coal Company				
			Official Title				

053-0199 F Issued 07/13/90

Page 1 of 1

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

WELL WORK PERMIT APPLICATION

1)	Well Ope	erator:_	Peake Ener	gy, Inc. 3	7085 (9	) 338			
2)	Operator	r's Well	Number:_	Kem #18 St	one	3) E:	levation: <u>819.6</u>		
				or Ga					
		(b)	If Gas:	Productio Dee	n <u>x</u> / Underg p/	round Storag			
5)	Proposed	l Target	Formation	n(s):	onian Brown Sh	ale			
6)	Proposed	l Total D	epth:	122	feet				
7)	Approxin	mate fres	sh water s	strata dep	ths: Not	Reported			
8)	Approximate salt water depths: Not Reported								
9)	Approximate coal seam depths: Not Reported								
10)	Does lar	nd contai	n coal se	eams tribu	tary to act	ive mine? Y	es/ No_x_/		
11)			rk: Set Pe	rm. Plug and	l Cal-Seal ove	r Oriskany at	4300°.		
12)					01 1	ale from 4122'			
			CASIN	IG AND TUB	ING PROGRAM	Existing (	xell 053-019		
TYPE		S	PECIFICAT	IONS	FOOTAGE I	NTERVALS	CEMENT		
		Size	Grade	Weight per ft	For drilling	Left in well	Fill-up		
Condi	ictor .	10 %			41111119	253'-	125 SX CLASSA		
resl	n Water			0	tion		10 sugace.		
Coal				1/1/			c sx Pazmix		
nter	mediate	7"		18	1/11/	7,2562 -	100 SI COMPLIAN		
	ıction	45		MOM		4874'	2253X 1771		
<u>'ubir</u>		211		Pelo	d	4789	apto 2001		
iner	s			)			MIN 2 7 00		
ACKE		***************************************				O	il and Gas Section.		
	Siz O Dep	es ths set .					Section.		
20	0,7	F	Pā Diviso	n of Oil a	ind Gas, Use	Only			
	Fee(s) p	aid:	J1	ork Permit		amation Fun	d WPCP		
	Plat 1	WW-9 1	HI WW-	2B (4) B	ond Show	betano	Agent		

(Type)

Page 1 of	1)	Date: June 6, 1990
Form WW2-A	2)	Operator's well number
(09/87)		VFM #18
File Copy	31	API Well No: 47 - 053 - 0199 t
1110 0027		State - County - Dormit
		ST VIRGINIA DIVISION OF OIL AND GAS
	CONTRACT OF WE	ST VIRGINIA
		Diving On One of the Control of the
	DEPARTMENT OF ENERGY,	DIVISION OF OIL AND GAS $\frac{\partial W_{Light}}{\partial L_{Der}} c_f \frac{\partial L_{Der}}{\partial L_{Der}}$
		din o -
	NOTICE AND APPLICATION	FOR A WELL WORK PERMIT 27 90
		5) (a) Coal Operator:  Name  Oil and Gas Section
4) Surface O	wner(s) to be served:	5) (a) Coal Operator:
(a) Name	Treva Shinn	Name
	66 N. Warren	Address
	Columbus, OH	
(b) Mama	oo rambas, on	(b) Coal Owner(s) with Declaration
(D) Name		(b) coal owner(s) with pecialation
Address _		Name
		Address
(c) Name		
Address _		Name
		Address
		Construction Const
6) Inspector	Jerry Tephabock	(c) Coal Lessee with Declaration
Address	Rt. 1, Box 101A	
Address _	Dinlow LW 25271	
<b>M</b> = 3 = = 1 = = = =	Ripley, WV 25271	Address
Telephone	(304) - <u>372-6805</u>	
Section 8(d) of I certify I have served accompanying december.	of the Code of West Virgon that as required under copies of this notice a couments pages 1 throughout the conal Service (Affidavit	Chapter 22B of the West Virginia Code nd application, a location plat, and h on the above named parties, by: attached) postal receipt attached)
		er 22B and 38 CSR 11-18, and I agree
		rmit issued under this application.
		hat I have personally examined and am
		ed on this application form and all
attachments, a	and that based on my inc	uiry of those individuals immediately
responsible fo	or obtaining the informa	tion, I believe that the information
	ate, and complete.	·
		icant penalties for submitting false
		y of fine and imprisonment.
intolmation, i		
	Well Operate	
	Ву:	-V Mealt
	Its:	Designated Agent
	Address	P, O. Box 8
	market man digent deligned below to	Ravenswood, WV 26164
	Telephone	273-5371
Subscribed and	sworn before me this _	
l.		y au jui
	00	Notary Public

Plug 3ack

Plug

3ack

#### State of West Virginia DEPARTMENT OF ENERGY Division of Oil and Gas

### Well Operator's Report of Well Work

Farm name: SHINN, TREVA Operator Well No.: KEM 18 STONE LOCATION: Elevation: 819.60 Quadrangle: ELMWOOD District: UNION County: MASON Latitude: 3320 Feet South of 38 Deg. 45Min. 0 Sec. Longitude 9840 Feet West of 81 Deg. 47 Min. 30 Sec. Company: PEAKE ENERGY, INC | Casing | <del>Used in=</del> | Left | Cement P. O. BOX 8 RAVENSWOOD, WV 26164-0000 & | Existing | | Fill Up | Tubing | Dridding | in Well | Cu. Ft. Agent: JOHN V. McCALLISTER Size 125 Inspector: JERRY TEPHABOCK 10-3/4" 253 Permit Issued: 07/13/90 SX Well work Commenced: 08/27/90
Well work Completed: 08/28/90 165 2562 Verbal Plugging Permission granted on: Rotary=====Cable ServiceRig
Total Depth (feet) 4360 225 4-1/2" 4874 SX Fresh water depths (ft) Salt water depths (ft) Is coal being mined in area (Y/N)?N Coal Depths (ft): N/A OPEN FLOW DATA Producing formation Devonian Brown Shale Pay zone depth (ftβ940-412 Gas: Initial open flow -- MCF/d Oil: Initial open flow -- Bbl/Final open flow 165 MCF/d Final open flow 0 Bbl/Fine of open flow between initial and final tests 4 Hour Static rock Pressure 900 psig (surface pressure) after 72 Hour Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/c

Final open flow MCF/d Final open flow Bbl/c

Time of open flow between initial and final tests Hour: Static rock Pressure\_\_\_\_psig (surface pressure) after\_\_\_\_ Hour NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE. For: PEAKE ENERGY, INC SEP 1 4 1990 By: Asst. Operations Mgr.

Date: 09/04/90

FORM WR-35 (Reverse)

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

- 08/27/90 Young's Wireline sat permanent, mechanical plug with Cal-Seal inside 4-1/2" csg at 4360 ft. Young's perforated the Brown Shale interval from 3940 to 4123 using 27 holes.
- 08/28/90 Nowsco foam-fractured the Brown Shale using 60,000 lbs of sand 296 bbl of fluid and 611,175 SCF of nitrogen.

  BDP = 1550 psig ATP = 2500 psig ISIP = 1400 psig

#### WELL LOG

F	ORMATION	TOP	воттом	REMARKS	
NOTE:	This well was origidrilled and complet the Oriskany Sand be Exploration and Min All casing and form remains the same as submitted by Kaiser	ed in y Kaiser ing Company ation data previously			
	Les de la companya de				