



FILE NO. \_\_\_\_\_  
 DRAWING NO. 5-16  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION INTERSECTION W.V. RTS. 38/4 AND 9/8, ELEV. = 689

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Vincent W. Wood  
 R.P.E. \_\_\_\_\_ L.L.S. 664

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE SEPTEMBER 10, 1982  
 OPERATOR'S WELL NO. KEM 265  
 API WELL NO. \_\_\_\_\_  
47 - 107 - 1227  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE X DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 839 WATER SHED WOODYARDS RUN  
 DISTRICT LUBECK COUNTY WOOD  
 QUADRANGLE SOUTH PARKERS BURG Bellville 15' AC  
 SURFACE OWNER EDWARD P. MOORE, ET AL. ACREAGE 86.1  
 OIL & GAS ROYALTY OWNER EDWARD P. MOORE, ET AL. LEASE ACREAGE 86.1  
 LEASE NO. 91-03-899  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 4629'  
 WELL OPERATOR KAISER EXPLOR. & MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.  
 ADDRESS P.O. BOX 8 RAVENSWOOD, W.V. 26164 ADDRESS P.O. BOX 8 RAVENSWOOD, W.V. 26164

OCT 12 1982

H. T. HALL DEEP WELL 5-5 Washington Bottom (357)



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

11/09/82: Perforated Oriskany Sandstone from 4576-4584, 24 holes, 0.41" diameter. Breakdown formation and pumped 24 bbls into formation at 1000 psig, 10.5 BPM; ISIP: 900 psig. No production. Set permanent plug at 3950' on 11/16/82.

11/16/82: Perforated <sup>Huron</sup> Devonian Brown Shale at 3720-3859' with 25 holes, 0.39" diameter.

11/29/82: Foam fractured the Devonian Brown Shale with 45,000# 20/40 sand, 945 MSCF of nitrogen; 344 bbl water; 2350 psig treating pressure; ISIP: 1000 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
Soil & Shale			0	174	
Sand			174	272	
Shale			272	450	
Sand & Shale			450	560	
Siltstone & Shale			560	690	
Sand			690	741	
Siltstone & Shale			741	1040	
Sand			1040	1078	
Shale			1078	1315	
Sand w/Shale stringers			1315	1393	
Shale			1393	1528	
Sand			1528	1610	
Shale			1610	1668	
Salt Sands			1668	1896	
Shale			1896	2124	
Coffee Shale (Sunbury)			2124	2156	
Berea Sand			2156	2158	
Shale			2158	3648	
Brown Shale			3648	3869	Show gas @ 3765
Shale			3869	4228	
Marcellus Shale			4228	4470	Show gas @ 4248
Onondaga Lime			4470	4574	
Oriskany Sandstone			4574	4618	Show gas @ 4592
Helderberg Lime			4618	4694	
<u>Total Depth</u>			<u>4694</u>		

3720  
2158  
1562

(Attach separate sheets as necessary)

Kaiser Exploration and Mining Company  
Well Operator

By: R A P

Date: January 31, 1983

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 coal, encountered in the drilling of a well."



DRILLING CONTRACTOR (IF KNOWN) Clint Huet & Associates, Inc.

Address P. O. Box 388

Elkview, WV 25071

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well, 4629' feet Rotary X / Cable tools      /

Approximate water strata depths: Fresh,      feet; salt,      feet.

Approximate coal seam depths:      Is coal being mined in the area? Yes      / No      /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			New	Used	FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.			For drilling	Left in well		
Conductor									Kinds
Fresh Water	10 3/4"					250'	250'	150 sks class A	(to surface)
Coal									Sizes
Intermediate	7"					2044'	2044'	65 sks 50/50 100 sks Class A	pozmix
Production	4 1/2"					4629'	4629'	225 sks 50/50	pozmix sat
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: 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 the forms prescribed by Regulation 12, or in lieu 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) 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.

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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 6-5-83

BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator      / owner      / lessee      / of the coal under this well location has examined 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 operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:     , 19     

By     

Its