

1) Date: June 23, 1983
 2) Operator's Well No. KEM #438
 3) API Well No. 47 - 035 - 1886
 State County Permit

DRILLING CONTRACTOR:

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

Clint Hurt

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELLYTYPE: A Oil / Gas X
 B (If "Gas", Production X / Underground storage / Deep / Shallow X)
- 5) LOCATION: Elevation: 930' Watershed: Grass Lick Run
 District: Ripley County: Jackson Quadrangle: Ripley
- 6) WELL OPERATOR Kaiser Exploration and Mining Co. II DESIGNATED AGENT R. A. Pryce
 Address P. O. Box 8 Address Same
Ravenswood, WV 26164
- 7) OIL & GAS ROYALTY OWNER Raymond Casto et al
 Address Rt. 1, Box 14
Ravenswood, WV 26164
 Acreage 168.3
- 8) SURFACE OWNER Same
 Address
 Acreage
- 9) FIELD SALE (IF MADE) TO:
 Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Homer Dougherty
 Address Linden Rt., Box 3A, Looneyville, WV
- 12) COAL OPERATOR None
 Address
- 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Name None
 Address
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name None
 Address
- 15) PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION, Devonian Brown Shale
- 17) Estimated depth of completed well, 5150 feet
- 18) Approximate water strata depths: Fresh, 430 feet; salt, feet.
- 19) Approximate coal seam depths: Is coal being mined in the area? Yes / No

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds <u>by Rule 15-205</u>
Fresh water	<u>10 3/4"</u>			<u>X</u>		<u>475 250</u>	<u>475 250</u>	<u>150 sks class A</u>	<u>to surface</u>
Coal								<u>65 sks 50/50</u>	<u>pozmix</u>
Intermediate	<u>7"</u>			<u>X</u>		<u>2345</u>	<u>2345</u>	<u>100 sks class A</u>	<u>pozmix</u>
Production	<u>4 1/2"</u>			<u>X</u>		<u>5150</u>	<u>5150</u>	<u>225 sks 50/50</u>	<u>pozmix</u>
Tubing									
Liners									Perforations: Top <u> </u> Bottom <u> </u>

- 21) EXTRACTION RIGHTS
 Check 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 extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
 If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.
- Notary:
 My Commission Expires
- Signed: R. A. Pryce
 Its: General Manager

OFFICE USE ONLY

Permit number 47-035-1886 DRILLING PERMIT Date August 30, 1983 09/08/2023

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. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work, proper district oil and gas inspector 24 hours before actual permitted work has commenced.) In addition, the well operator or his contractor shall notify the

Permit expires August 30, 1985 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: <u>RB</u>	Agent: <u> </u>	Plat: <u> </u>	Casing: <u> </u>	Fee: <u>964.086</u>
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T. H. H.
 Administrator, Office of Oil and Gas



IV-9
(Rev 8-81)

DATE June 16, 1983

WELL NO. KEM #438

State of West Virginia API NO. 47-035-1886

Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Kaiser Exploration and Mining Co DESIGNATED AGENT R. A. Pryce

Address P. O. Box 8, Ravenswood, WV Address Same

Telephone 273-5371 Telephone _____

LANDOWNER Raymond Casto SOIL CONS. DISTRICT Western

Revegetation to be carried out by Kaiser Exploration and Mining Company (Agent)

This plan has been reviewed by Western SCD. All corrections and additions become a part of this plan: June 18, 1983

(Date)

Raymond W. Hughes
(SCD Agent)

ACCESS ROAD

LOCATION

Structure Road Culvert (A) Structure Diversion Ditch (1)

Spacing (2) 12" diameter Material Earthen

Page Ref. Manual 2:7 Page Ref. Manual 2:12

Structure Drainage Ditch (B) Structure _____ (2)

Spacing Earthen Material _____

Page Ref. Manual 2:12 Page Ref. Manual _____

Structure Cross Drains (C) Structure _____ (3)

Spacing 80' Material _____

Page Ref. Manual 2:4 Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I

Treatment Area II

Lime _____ 4 Tons/acre
or correct to pH _____

Lime Same as Area I _____ Tons/acre
or correct to pH _____

Fertilizer 14-14-14 600 lbs/acre
(10-20-20 or equivalent)

Fertilizer _____ lbs/acre
(10-20-20 or equivalent)

Mulch Hay 2 Tons/acre

Mulch _____ Tons/acre

Seed* 81% Orchard Grass/15% Ryegrass 16 lbs/acre

Seed* _____ lbs/acre

Kentucky 31 Fescue 16 lbs/acre

_____ lbs/acre

Red Clover 8 lbs/acre

_____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

PLAN PREPARED BY Vincent Wood 09/08/2023

ADDRESS 116 Post Avenue


Ripley, WV 25271


PHONE NO. 372-2709

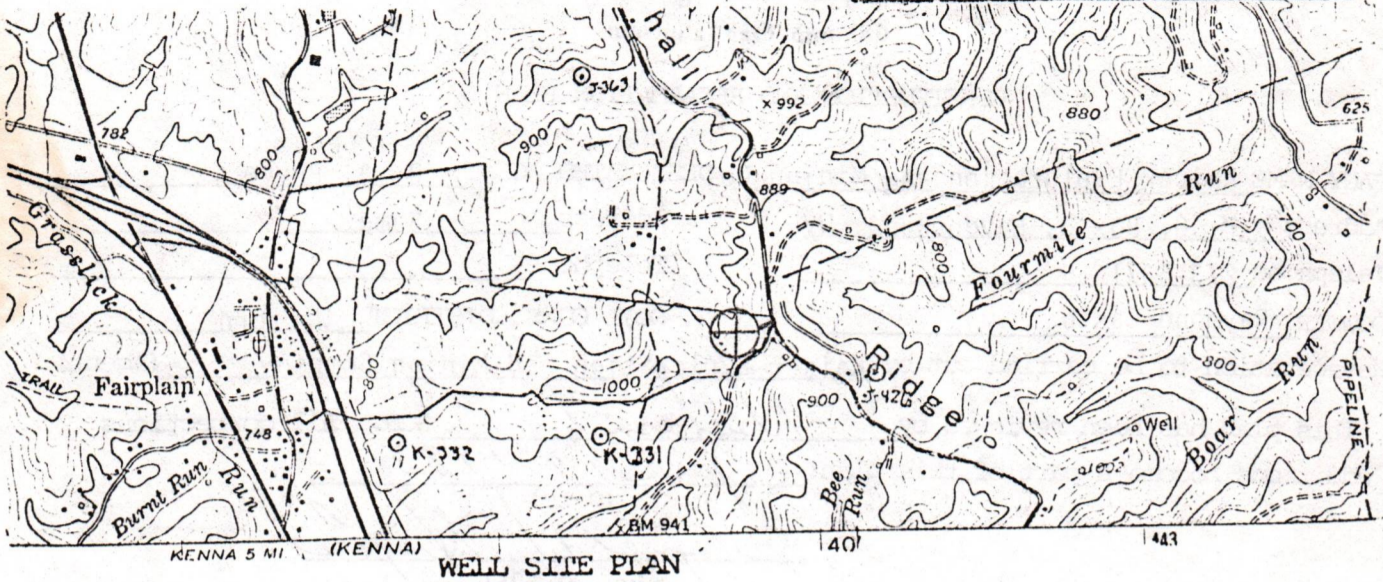
NOTES: Please request landowner's cooperation to protect new seeding for one growing season. Attach separate sheets as necessary for comments.

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE RIPLEY

LEGEND


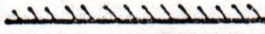


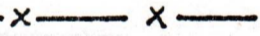






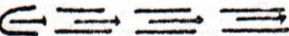
Well Site 

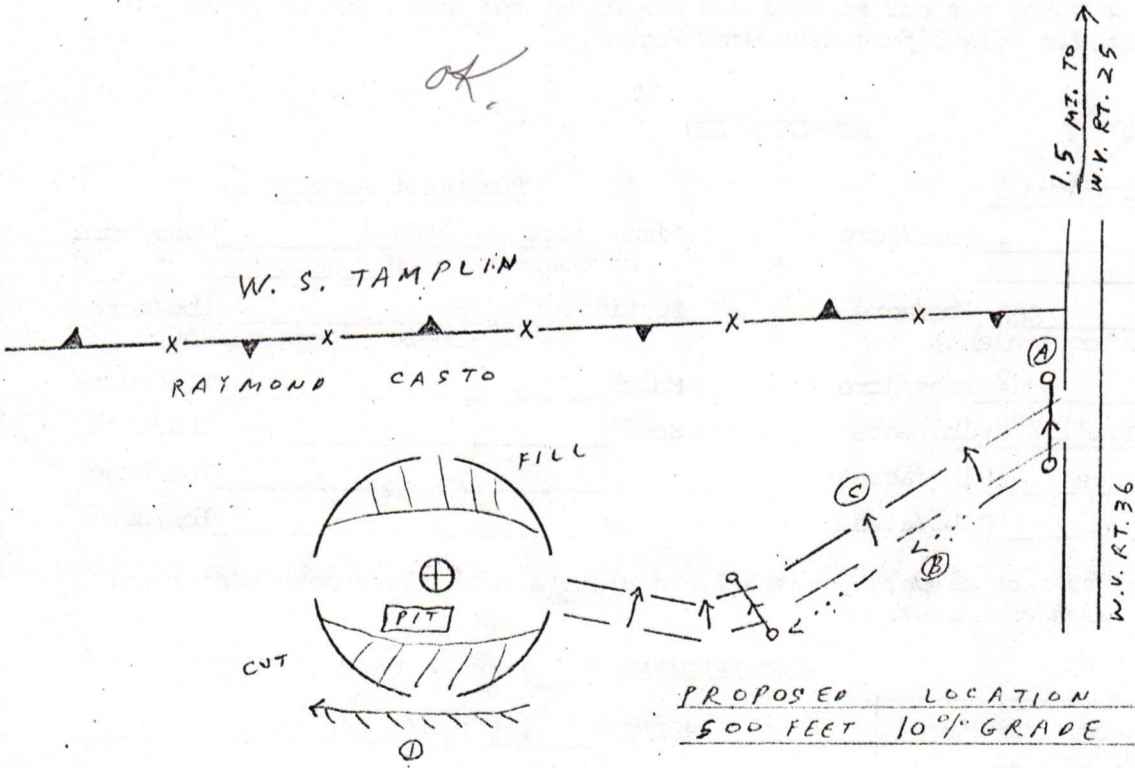
Access Road 



Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

LEGEND

Property boundary 	Diversion 
Road 	Spring 
Existing fence 	Wet spot 
Planned fence 	Building 
Stream 	Drain pipe 
Open ditch 	Waterway 



09/08/2023

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OFFICE OF OIL & GAS

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A. Oil ___ / Gas X /
B. (If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /
- 5) LOCATION: Elevation: 930' Watershed Grass Lick Run
District: Ripley County: Jackson Quadrangle: Ripley
- 6) WELL OPERATOR Kaiser Exploration and Mining Co. 7) DESIGNATED AGENT R. A. Pryce
Address P. O. Box 8 Address Same
Ravenswood, WV 26164
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
Name Homer Dougherty Name Clint Hurt & Associates
Address Linden Rt., Box 3A Address P. O. Box 388
Looneyville, WV Elkview, WV 25071
- 10) PROPOSED WELL WORK: Drill X / Drill Deeper ___ / Redrill ___ / Stimulate ___ /
Plug off old formation ___ / Perforate new formation ___ /
Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Devonian Brown Shale
- 12) Estimated depth of completed well (or actual depth of existing well), 5150 feet
- 13) Approximate water strata depths: Fresh, ___ feet; salt, ___ feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes ___ / No ___
- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	10 3/4"			X		250	250	225 sks class A to surface	
Coal								65 sks 50/50 Sigs mix	
Intermediate	7"			X		2345	2345	100 sks class A	
Production	4 1/2"			X		5150	5150	225 sks 50/50 Dep 2 1/2 mix	
Tubing									
Liners									Perforations:
									Top Bottom

The law requires a comment period for surface owners. However, the permit can be issued in less than 15 days from the filing of the Application (or less than 5 days if the Application is to plug a well), if the surface owner(s) of record sign(s) the following "Voluntary Statement of No Objection" on a facsimile of this surface owner's copy of the Application.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners on the reverse side of this Application for a Well Work Permit, and that I have received copies of (1) a Notice of Application for a Well Work Permit on Form IV-2(A), (2) an Application for a Well Work Permit on Form IV-2(B), (3) a survey plat on Form IV-6, and (4) a Construction and Reclamation Plan on Form IV-9, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued based on those materials.

(For execution by corporation, partnership, etc.)

(For execution by natural persons)

NAME: _____

Lewis R. Caste Date: _____
(Signature)

By _____

Barbara H. Caste Date: 6-22
(Signature)

Its _____ Date: _____

Raymond B. Caste 6-23
Mark A. Caste

09/08/2023

INSTRUCTIONS TO SURFACE OWNERS
AND
EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT
ON OIL AND GAS WELL WORK PERMIT

The well operator named in the Notice and this Application and the attached materials is applying for a permit from the State to do oil or gas well drilling or other well work. You are being served with these materials because surface owners have the right to file comments before the permit is issued. (NOTE: If the surface tract is owned by more than three persons, in multiple heirship for example, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) Permit will be good for 24 months. See Chapter 22, Article 4 of the W. Va. Code.

If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator named in the materials and the Administrator of the Office of Oil and Gas in the West Virginia Department of Mines immediately.

NOTE: You are not required to file any comment at all.

Where to file comments and obtain additional information:

Administrator of the Office of Oil and Gas
West Virginia Department of Mines
1615 Washington Street East
Charleston, WV 25311
(304) 348-2057

Who may file comments? If you wish to file comments, you must be an owner of record of: (1) an interest in the surface tract on which the well already is or is about to be located, or (2) an interest in any other surface tract under the same oil or gas lease which will be utilized for roads or other land disturbances.

Time limits for comments. The law requires these materials to be personally served or mailed to you on or before the date the operator files his Application. You have FIFTEEN (15) DAYS after the filing date to file your comments as provided in Methods for Filing Comments below. (This time is changed to FIVE (5) DAYS from the filing date if the permit is only to plug a well.) You may call the Administrator's office at the above telephone number to be sure of the date. However, if you have been contacted by the well operator, and if you have signed a "voluntary statement of no objection" to any of the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments should include your name, address and telephone number, the well operator's name and well number, and the approximate location of the proposed well site including district and county from the Application. You may add other documents, such as sketches, maps or photographs to support your comments.

Methods for filing comments. Comments must be filed in person or received in the mail at the Administrator's office by the time stated above. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling.

The Administrator for Oil and Gas has the power to deny or condition a well work permit based on your comments on the following grounds:

- "(1) The proposed well work will constitute a hazard to the safety of persons; or
- "(2) The plan for soil erosion and sediment control is not adequate or effective; or
- "(3) Damage would occur to publicly owned lands or resources; or
- "(4) The proposed well work fails to protect fresh water sources or supplies."

If you want a copy of the permit as it is finally issued, or a copy of the order denying the permit, you should request a copy from the Administrator.

List of Water Testing Laboratories. The Administrator maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Administrator's office or an Oil and Gas Inspector to obtain a copy of the list.

09/08/2023

1) Date: June 21, 19 83
2) Operator's Well No. KEM 438
3) API Well No. 47
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OFFICE OF OIL & GAS
NOTICE OF APPLICATION FOR A WELL WORK PERMIT

4) SURFACE OWNER(S) OF RECORD TO BE SERVED
(i) Name Lewis Casto and Barbara H. Casto
Address Fairplain Rt.
Ripley, WV 25271
(ii) Name Raymond Casto & Grace A. Casto
Address Rt. 1, Box 14
Ravenswood, WV 26164
(iii) Name _____
Address _____

5(i) COAL OPERATOR None
Address _____
5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name None
Address _____
Name _____
Address _____
5(iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Well Work Permit on Form IV-2(B) (or Form IV-4 if the well is to be plugged, which sets out the parties involved in the drilling or other work, and describes the well and its location and, if applicable, the proposed casing and cementing program;
- (2) The plat (surveyor's map) showing the well location on Form IV-6; and
- (3) The Construction and Reclamation Plan on Form IV-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM IV-2(B) OR FORM 4, DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to a well at the location described on attached Application and depicted on attached Form IV-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Administrator.

6) EXTRACTION RIGHTS

Check 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 extract oil or gas.
- The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

7) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or leases or other contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

See the reverse side for line item instructions, and for instructions concerning the required copies of the Notice and Application, plat, and Construction and Reclamation Plan.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by

R. A. Pryce
this 21 day of June, 1983.
My commission expires 12-01, 1985.

With Ann Halbert
Notary Public, Jackson County,
State of West Virginia

WELL

OPERATOR Kaiser Exploration and Mining Co.

By R. A. P.
Its General Manager
Address P. O. Box 8
Ravenswood, WV 26164
Telephone 304-273-5371

09/08/2023

I N S T R U C T I O N S T O A P P L I C A N T

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
- 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-1b(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
- 5(i) "Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.
- 5(ii, iii) See Code § 22-4-20.
- 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
- 7) See Code § § 22-4-11(d, e).

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, 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 § 22-4-1k(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-1a(c) and 22-3-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the coal. See Code § § 22-4-1m, 22-4-2, 22-4-2a, and 22-4-2b.

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty</u>	<u>Book Page</u>
Kaiser Exploration and Mining Company	Raymond Casto et al	1/8 of prevailing field price	

AFFIDAVIT OF PERSONAL SERVICE

STATE OF West Virginia,
COUNTY OF Jackson :

The undersigned, being first duly sworn, says that the undersigned served a copy of (1) Notice of Application, (2) "Surface Owner's Copy" Application for a Well Work Permit, (3) plat showing well location (Form IV-6), and (4) the Construction and Reclamation Plan (Form IV-9) for operator's Well No. KEU# 438 located in Ripley District District, Jackson County, West Virginia, upon Raymond R. Castro and Grace A. Castro, wife, by handing to them (him, her, them) the copies in Jackson County, State of West Virginia on the 23rd day of JUNE, 1983.

[Signature]

Taken, subscribed and sworn before me this 23 day of June, 1983.

My commission expires Oct 16, 1983.

[Signature]
Notary Public

(IF NOTARIZED OUTSIDE THE STATE AFFIX SEAL)

AFFIDAVIT OF PERSONAL SERVICE

STATE OF West Virginia,
COUNTY OF JACKSON :

The undersigned, being first duly sworn, says that the undersigned served a copy of (1) Notice of Application, (2) "Surface Owner's Copy" Application for a Well Work Permit, (3) plat showing well location (Form IV-6), and (4) the Construction and Reclamation Plan (Form IV-9) for operator's Well No. KEM#977 located in Pupley District, JACKSON County, West Virginia, upon DAVID R. CASTO and BARBARA H. CASTO, his wife, by handing to Them (him, her, them) the copies in JACKSON County, State of West Virginia on the 21st day of JUNE, 1983.

[Signature]

Taken, subscribed and sworn before me this 23 day of June, 1983.

My commission expires OCT 16, 1983.

Stephan Kelly
Notary Public

(IF NOTARIZED OUTSIDE THE STATE AFFIX SEAL)

RECEIVED
DEC 12 1984



IV-35 OIL & GAS DIVISION
(Rev 8-81) DEPT. OF MINES

Date 9-28-84
Operator's Well No. KEM 438 Casto
Farm Raymond B. Casto
API No. 47 - 035 - 1886

State of West Virginia
Department of Mines
Oil and Gas Division

CONFIDENTIAL

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas_x / Liquid Injection / Waste Disposal /
(If "Gas," Production_x / Underground Storage / Deep / Shallow_x /)

LOCATION: Elevation: 930 Watershed Grasslick Run
District: Ripley County Jackson Quadrangle Ripley

COMPANY Kaiser Exploration and Mining Company

ADDRESS P.O. Box 8, Ravenswood WV 26164

DESIGNATED AGENT R.A. Pryce

ADDRESS same

SURFACE OWNER Raymond B. Casto, Et. AL

ADDRESS Rt. 1 Box 14 Ravenswood WV 26164

MINERAL RIGHTS OWNER Raymond B. Casto, Et. AL

ADDRESS Rt. 1 Box 14 Ravenswood WV 26164

OIL AND GAS INSPECTOR FOR THIS WORK Jerry

Tephabock ADDRESS Ripley, WV 25271

PERMIT ISSUED

DRILLING COMMENCED 8-30-84

DRILLING COMPLETED 9-6-84

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
10 3/4 13-10	851	851	350 sx class A
9 5/8			
8 5/8			
7	2355	2355	175 sx 50/50 pozmix
5 1/2			100 sx class A
4 1/2	4470'	4470'	250 sx
3			50/50 pozmix
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Brown Shale Depth 4300 feet

Depth of completed well 4500 feet Rotary_x / Cable Tools

Water strata depth: Fresh NA feet; Salt NA feet

Coal seam depths: NA Is coal being mined in the area? No

Drilled on fluid, not known

OPEN FLOW DATA

Producing formation Devonian Brown Shale Pay zone depth 4300 feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d

* Final open flow 600 (est) Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1000 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation Berea Sandstone Pay zone depth 2605 feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d

* Final open flow - Mcf/d Oil: Final open flow 0 Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 900 psig (surface measurement) after 72 hours shut in

* Open flows are comingled

(Continue on reverse side)

JFKR-1886

09/08/2023

RECEIVED
DEC 1 1984

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

- 9-11-84 Young's Perf Brown Shale 20 holes (0.39" dia) from 4193-4408'
- 9-11-84 Young's perf berea 20 holes (0.34" dia) from 2600-2610
- 9-12-84 Nowsco foam frac shale used: 49,000 lbs. 20/40 sand; 565,000 scf total N₂; 228 total bbls. Sanded off.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
DRILLERS' DEPTH: (top hole not logged)					
Sand and Shale			0	1978	
Big Lime			1978	2120	
Big Injun			2120	2160	
Shale			2160	2589	
LOG DEPTHS:					
Coffee Shale			2589	2610	
Berea Sand			2610	2621	S/g
Shale			2621	3860	S/g @ 3333', 3572'
Brown Shale			3860	4430	S/g @ 4299'
Shale			4430	4510	
Total Depth			4510		

(Attach separate sheets as necessary)

Kaiser Exploration and Mining Company
Well Operator

By: K.A.P. —

09/08/2023

Date: October 1, 1984

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 all, encountered in the drilling of a well."

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

RECEIVED

SEP 1 1 1984

OIL & GAS DIVISION
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 035 1886

Oil or Gas Well _____
(KIND)

Company <u>Kaiser Exploration</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			Kind of Packer _____
Farm <u>Casto</u>	16			
Well No. <u>Kem 438</u>	13			Size of _____
District _____ County <u>Jackson</u>	10			
Drilling commenced <u>8 30 84</u>	8 1/4			Depth set _____
Drilling completed _____ Total depth _____	6 5/8			
Date shot _____ Depth of shot _____	5 3/16			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. top _____
Volume _____ Cu. Ft.	Liners Used			Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.				
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Hurt Rig #4 Archer

Remarks:

8 30 84 Td 13 1/4 hole 891 at 7:45 am 8 31 84 ran 20 jts 10 3/4 csg set 861 kb noscoe cemented 350 sks class a 3% cacl 1/4 lb per sk flocele plug down 2:00 pm 8 31 84.
9 3 84 TD 9 1/2 hole 6:45 am 2398' ran 56 jts 7" csg set 2365 kb Noscoe cemented 175 sks 50/50 poz 10% salt 1/4 lb per sk flocele plug down 12:30 pm.

9 4 84 WOC.

9 4 84

John M. [Signature] 09/08/2023

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

RECEIVED

AUG 3 1 1984

OIL & GAS DIVISION

INSPECTOR'S WELL REPORT DEPT. OF MINES

Permit No. 035 1886

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(KIND)

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Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: _____

Location and Road built ready ffor rig to move onto.

8 29 84

Jerry Taylor 09/08/2023

Form 26
2/16/82

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

INSPECTOR'S PLUGGING REPORT

Permit No. _____ Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner			Packer			Location		
PLUGS USED AND DEPTH PLACED			BRIDGES			CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION		RECOVERED	SIZE	LOST	

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.

DATE

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

RECEIVED
SEP 1 1 1984

OIL & GAS DIVISION

DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 035 1886

Oil or Gas Well _____
(KIND)

Company <u>Kaiser Exploration</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			Kind of Packer _____
Farm <u>Casto</u>	16			
Well No. <u>Kem 438</u>	13			Size of _____
District _____ County <u>Jackson</u>	10			
Drilling commenced _____	8 1/4			Depth set _____
Drilling completed _____ Total depth _____	6 5/8			
Date shot _____ Depth of shot _____	5 3/16			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. top _____
Volume _____ Cu. Ft.	Liners Used			Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.				
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: _____

9 5 84 Mrs. Lynch (Neighbor to Land Owner) called office. I visited site some water from washing rig had gone over ~~edge~~ edge of location had water truck to haul off small pit of wash water contained on location before surface water could add to a problem.

9 5 84
DATE

Jeffrey T. Teitelbach
09/08/2023

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

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SEP 1 1 1984

OIL & GAS DIVISION

INSPECTOR'S WELL REPORT OF MINES

Permit No. 035 1886

Oil or Gas Well _____
(KIND)

Company Kaiser Exploration

Address _____

Farm Casto

Well No. Kem 438

District _____ County Jackson

Drilling commenced _____

Drilling completed 9 5 84 Total depth 4510

Date shot _____ Depth of shot _____

Initial open flow _____ /10ths Water in _____ Inch

Open flow after tubing _____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.

Fresh water _____ feet _____ feet

Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			Kind of Packer _____
16			
13			Size of _____
10			
8 1/4			Depth set _____
6 3/8			
5 3/16			Perf. top _____
3			Perf. bottom _____
2			
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____

NAME OF SERVICE COMPANY _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names _____

Remarks:

Ran 111 jts 4 1/2 csg 4480.76 KB Cement Baskets at 2512.97, 2636.13 3043.30, 3450.20 pup jt at 2352.37. Latoh baffle at 4471.76 Frac Baffles at 2757.23, 4145.31 Noscoe cemented with 250 sks 50/50 poz 10% cacl 12.5 lb per sk gilsonite. plug down at 6:00 am.

9 6 84
DATE

Jeanne T. ... **09/08/2023**

Form 26
2/16/82

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

INSPECTOR'S PLUGGING REPORT

Permit No. _____

Well No. _____

COMPANY _____ ADDRESS _____

FARM _____ DISTRICT _____ COUNTY _____

Filling Material Used _____

Liner			Location	Amount	Packer	Location		
PLUGS USED AND DEPTH PLACED			BRIDGES			CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION			RECOVERED	SIZE	LOST

Drillers' Names _____

Remarks: _____

_____ I hereby certify I visited the above well on this date.

DATE

09/08/2023



RECEIVED

OCT 1 - 1984

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305
FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT

COMPANY Kaiser Exploration & Mining Corp. PERMIT NO 035 1886
P. O. Box 8 FARM & WELL NO Kem 438
Ravenswood, WV 26164 DIST. & COUNTY Jackson

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work	X	
25.04	Prepared before Drilling to Prevent Waste	X	
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite	X	
15.03	Adequate Fresh Water Casing	X	
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing	X	
15.04	Adequate Cement Strenght	X	
15.05	Cement Type	X	
23.02	Maintained Access Roads	X	
25.01	Necessary Equipment to Prevent Waste	X	
23.04	Reclaimed Drilling Pits	X	
23.05	No Surface or Underground Pollution	X	
23.07	Requirements for Production & Gathering Pipelines	X	
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings	X	

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED *Jeffrey Tephah*
DATE 9 27 84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. L. ...
Administrator-Oil & Gas Division

January 18, 1985

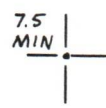
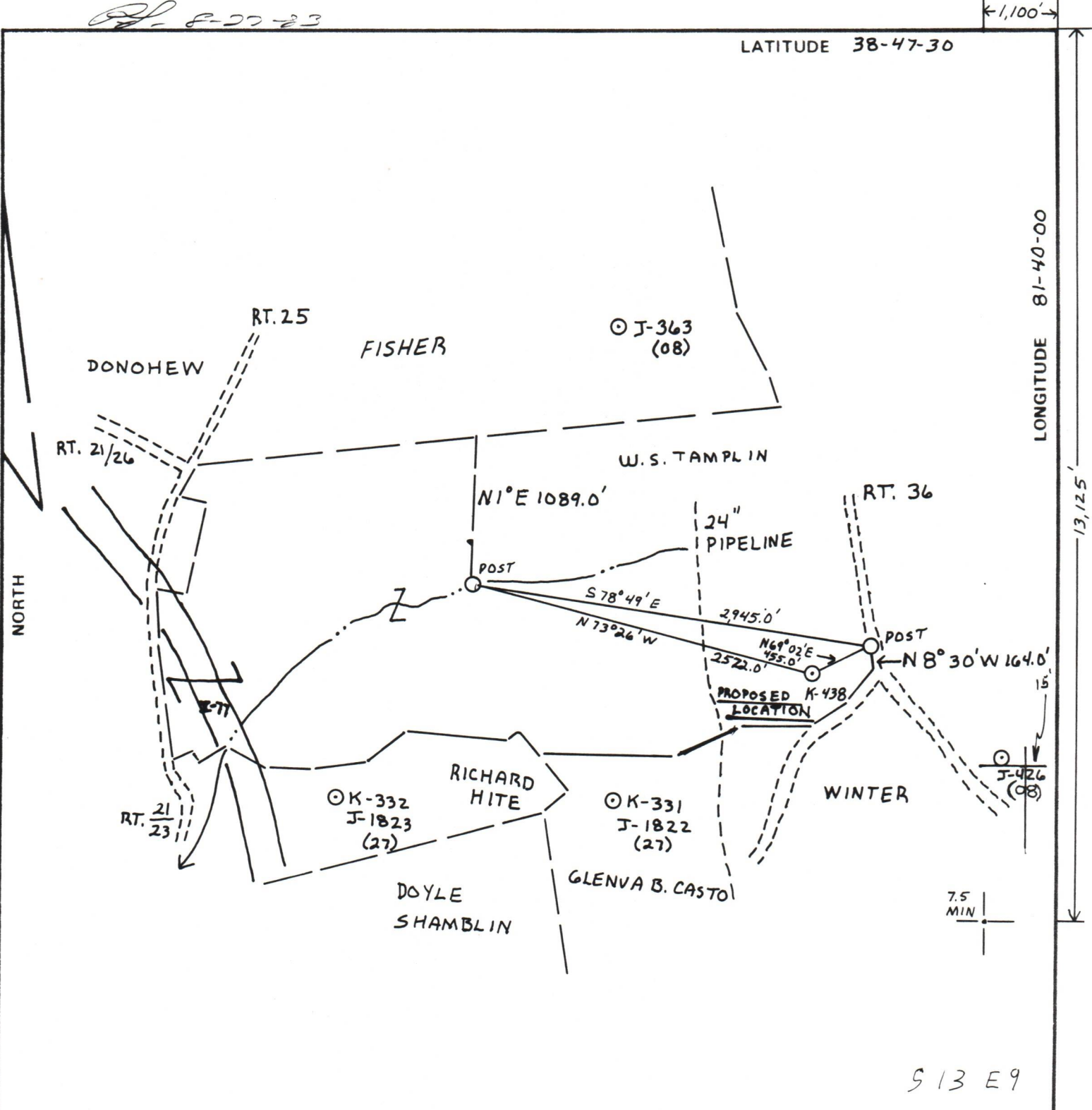
DATE

← 1,100' →

LATITUDE 38-47-30

LONGITUDE 81-40-00

13,125'



S 13 E 9

FILE NO. 6-29
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION ROAD INTERSECTION
ELEV. 889', 1400' N.E. of Location

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



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE JUNE 16, 19 83
 OPERATOR'S WELL NO. KEM 438
 API WELL NO. _____
47 - 035 - 1886
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 930' WATER SHED GRASSLICK RUN
 DISTRICT RIPLEY COUNTY JACKSON
 QUADRANGLE RIPLEY
 SURFACE OWNER RAYMOND B. CASTO, ET. AL. ACREAGE 152.71
 OIL & GAS ROYALTY OWNER RAYMOND B. CASTO, ET. AL. LEASE ACREAGE 168.3
 LEASE NO. 85-04-2932
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

09/08/2023

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN BROWN SHALE ESTIMATED DEPTH 5150'
 WELL OPERATOR KAISER EXPL. + MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND
 ADDRESS P.O. BOX 8 ADDRESS P.O. BOX 8
RAVENS WOOD, WV. 26164 RAVENS WOOD, WV. 26164