THE THE PERSON NAMED IN COLUMN TO PERSON NAM

1)	Date:	9.79		, 19
2)	Operator's	lary 17		84
	Well No.	KEM #112		
3)	API Well No.	47.	035	1617/
		State	County	Permit

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

PARTIAL

#### APPLICATION FOR A PERMIT TO PLUG AND ABANDON A WELL

4)	WELL TYPE: A Oil/ Gas/	Liquid injection/ Waste disposal/
		Underground storage)/ Deep Shallow/)
5)	LOCATION: Elevation: 840	Watershed: Grasslick Craek
		County: Jackson Quadrangle: Renna
6)	WELL OPERATOR Kaiser Exploration and Mi	
	Address P. O. Box 8	AddressSame
	Ripley, WV 25271	
8)	OIL & GAS INSPECTOR TO BE NOTIFIED	9) PLUGGING CONTRACTOR
	Name Jerry Tephabock	Name McCullough Services
	Address Rt. 1 Box 100A	Address P. O. Box 4209
	Ripley, WV 25271	- Houston TX 77210
W	ORK ORDER: The work order for the manner of plugging this w	ell is as follows:

7/13/83: McCullough Services set 3.71" OD permanent bridge plug in 4 1/2" casing at 4400' (KB), to isolate Marcellus Shale from Brown Shale PBTD: 4400' (KB)

VERBAL PERMISSION

Hay May

Michael Juis

# INSTRUCTION TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of IV-4(b) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified (which date shall not be less then five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Mines, Office Oil & Gas).

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not represented the operator will proceed to plug and fill said well in the manner required by Section 10, Article 4, Chapter 22 of the Code and given in detail on obverse side of this application.

**NOTE:** If you wish this well to be plugged according to 22-4-10(d) then as per Regulation 17:05 you must complete and return to this office on IV-16 "Request by Coal Operator, Owner, or lessee for plugging under Code 22-4-10(d)" prior to the issuance of this plugging permit.

VEST LEGE

1)	Date:		19
2)	Operator's nuary 17 Well No.		84
3)	API Well No. KEN #112	005	Permit
	State	County	Permit

PARTIAL

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

## APPLICATION FOR A PERMIT TO PLUG AND ABANDON A WELL

4) WELL TY	PE: A Oil/	Gas/			/ Waste disposal		
	B (If "Gas", Production	1 <u>2</u>	_/ Undergroun	d storage)	/ Deep	Shallow	/)
5) LOCATIO		·	Watershed:	Grasslic	Quadrang		
	District:	еу		DESIGNATEI		Kenna	
	ERATOR Katser Exp	foration and M	ining Co?	Address _	AGENT	A. Pryce	EV BY
Addre	P. O. Box	S		Address	Sam	e	
8) OH 8 CA	S INSPECTOR TO BE NOT	25271	9)	PLUGGING C	ONTRACTOR		
Name	S INSPECTOR TO BE NOT	IFIED	"	Name	01111110101		
	derry lephabock			Address	ullough Ser	vices	
	Rt. 1, Box 100A			P P	. 0. Box 42	09	
	Ripley, WV 2527	1		H	ouston, IX	777210	
7/13/8	3: McCullough Se casing at 4400 'PBTD: 4400' (	0' (KB), to is	1" 00 pers olate Marc	anent bri ellus Sha	ige plug in le from Bro	4 1/2" wn Shale	
		rentra Hillard No. 76 St. S.	PERMISSI				
	The law requires a common the filing of the Application Statement of No Objection'		vell if the surface	owner(s) of reco	rd sign(s) the follow	n five days from wing "Voluntary	
		VOLUNTARY ST	ATEMENT OF	NO OBJECTIO	N		
I have received of and (3) a survey	te that I have read the instruct copies of (1) a Notice of Appli plat on Form IV-6, all for pate that I have no objection to terials.	cation for a Well Work I roposed well plugging w	Permit on Form ork on my surfa cribed in these m	IV-4(A), (2) an A ce land as descri aterials, and I ha	pplication for a We bed therein. ve no objection to a	ell Work Permit on l	Form IV-4(B)
(For execution b	by corporation, partnership, e	etc.)	(For e	ecution by natu	ral persons)		
NAME:							
					(Signature)	Date: _	
Ву					(o.gaature)		
Ву		A MAN TO				Date: _	
	1			MARIN	(Signature)	THE RELA	
Its		Date:					

# INSTRUCTIONS TO SURFACE OWNERS AND EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT ON WELL PLUGGING 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 plugging. 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.) See Chapter 22, Article 4 of the W. Va. Code. Permits are valid for 24 months.

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, West Virginia 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 delivered on or before the date the operator files his Application. You have FIVE (5) DAYS after the filing date to file your comments as provided in Methods for Filing Comments below. 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 must 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:

- "The proposed well work will constitute a hazard to the safety of persons; or.....
- "Damage would occur to publicly owned lands or resources; or.....
- "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.



1) Date: January 17
2) Operator's

Well No.

3) API Well No. State County Permit

PARTIAL

#### STATE OF WEST VIRGINIA OFFICE OF OIL AND GAS, DEPARTMENT OF MINES NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

SUR				A J J
(i)	Name ra	as Cimmana Cummana		Address
1-/	Address	ra Simmons Summers	5(ii)	COAL OWNER(S) WITH DECLARATION ON RECORD:
		Ripley, WV 25271	3 (11)	Name None
(ii)	Name	NIPTEY, NV LOCAL		Address
	Address			
			23.7	Name
ii)	Name			Address
	Address		5 (iii)	COAL LESSEE WITH DECLARATION ON RECORD: Name None
				Address
	THE REASON Y	t (surveyor's map) showing the well lo	II HAVE RICE	FIG DOCADOTAIC TUP ADDITIONATION SULTON AND CRASSILITY
IN THE EVER, has find has find he has find	THE REASON Y E "INSTRUCTION YOU ARE NOT Take notice iled this Not istrator of ion describe cation, and above (or by	OU RECEIVED THESE DOCUMENTS IS THAT YOUNG ON THE REVERSE SIDE OF THE COPY OF REQUIRED TO TAKE ANY ACTION AT ALL.  That under Chapter 22 of the West Virginities and Application and accompanying of the Office of Oil and Gas, West Virginities on the attached Application and depict on the attac	U HAVE RICE F THE APPLI inia Code, documents f documents f in Department cted on the	Form IV-6. ITS REGARDING THE APPLICATION WHICH ARE SUMMARIZED CATION (FORM IV-4(B)) DESIGNATED FOR YOU. HOW-
IN THE EVER,  has find administration of the tain of the North Administration of the N	THE REASON YEE "INSTRUCTION YOU ARE NOT IT INSTRUCTION IN THE NOT IT INSTRUCTION IN THE NOT IT IN THE NOTION IN TH	OU RECEIVED THESE DOCUMENTS IS THAT YOUNG ON THE REVERSE SIDE OF THE COPY OF REQUIRED TO TAKE ANY ACTION AT ALL.  That under Chapter 22 of the West Virginities and Application and accompanying of the Office of Oil and Gas, West Virginities on the attached Application and depict on the attac	U HAVE RIGHT THE APPLIATION OF	TOTAL IV-6.  TIS REGARDING THE APPLICATION WHICH ARE SUMMARIZED CATION (FORM IV-4(B)) DESIGNATED FOR YOU. HOW-  the undersigned well operator proposes to file or for a Permit to plug and abandon a well with the ent of Mines, with respect to the well at the entached Form IV-6. Copies of this Notice, the field mail or delivered by hand to the person(s) fore the day of mailing or delivery to the  EILL  PERATOR Kaiser Exploration and Mining
IN THE EVER,  has find and location amed Administration and Administra	Take notice iled this No istrator of above (or bistrator.  Truth of tapplication to be in the polication in my	OU RECEIVED THESE DOCUMENTS IS THAT YOU DINS" ON THE REVERSE SIDE OF THE COPY OF REQUIRED TO TAKE ANY ACTION AT ALL.  That under Chapter 22 of the West Virginities and Application and accompanying the Office of Oil and Gas, West Virginities on the attached Application and depiction the plat have been mailed by registered publication in certain circumstances in is verified and sworm to an signed on behalf of the Well	u HAVE RIGE F THE APPLI  inia Code, documents f ia Departmented on the d or certif ) on or bef  W d  B	the undersigned well operator proposes to file or for a Permit to plug and abandon a well with the ent of Mines, with respect to the well at the eattached Form IV-6. Copies of this Notice, the fied mail or delivered by hand to the person(s) fore the day of mailing or delivery to the set.  EILL  PERATOR Kaiser Exploration and Mining
in THE EVER,  has fi Admini locati Applic named Admini the the he N pera	Take notice iled this No istrator of ion describe cation, and above (or bistrator.  Truth of topplication of ion istrator.	DU RECEIVED THESE DOCUMENTS IS THAT YOUNG ON THE REVERSE SIDE OF THE COPY OF REQUIRED TO TAKE ANY ACTION AT ALL.  That under Chapter 22 of the West Virginities and Application and accompanying the Office of Oil and Gas, West Virginition the attached Application and depicte plat have been mailed by registered the plat have been mailed by registered publication in certain circumstances.  The information on the Notice is verified and sworm to an signed on behalf of the Well County and State by  Of January 1984  expires 8/30 1993	u HAVE RIGHT THE APPLIA  inia Code, documents fia Department on the dor certification on or before the document of the documen	TIS REGARDING THE APPLICATION WHICH ARE SUMMARIZED FOR YOU. HOW-  the undersigned well operator proposes to file or for a Permit to plug and abandon a well with the ent of Mines, with respect to the well at the entached Form IV-6. Copies of this Notice, the field mail or delivered by hand to the person(s) fore the day of mailing or delivery to the  EILL  PERATOR Kaiser Exploration and Mining Y Lucy Address P. O. Box 8
in THE EVER,  has fi Administrative has described has desc	Take notice iled this Notice is above (or be istrator.  Truth of the pplication of its polication is in my mission  You are notice is in the polication in my my mission  You are notice is in the polication in my	DU RECEIVED THESE DOCUMENTS IS THAT YOUNS" ON THE REVERSE SIDE OF THE COPY OF REQUIRED TO TAKE ANY ACTION AT ALL.  That under Chapter 22 of the West Virginice and Application and accompanying the Office of Oil and Gas, West Virginical on the attached Application and depicte plat have been mailed by registered publication in certain circumstances in is verified and sworn to an signed on behalf of the Well County and State by  Of January , 19 84  expires 8/30 , 19 93	u HAVE RIGHT THE APPLIA  inia Code, documents fia Department on the dor certification on or before the document of the documen	The undersigned well operator proposes to file or for a Permit to plug and abandon a well with the ent of Mines, with respect to the well at the entached Form IV-6. Copies of this Notice, the filed mail or delivered by hand to the person(s) fore the day of mailing or delivery to the state of Mines.  ELL  PERATOR Kaiser Exploration and Mining or

OIL & GAS DIVISION

DEPT. OF MINES

See the reverse side for line item instructions, and for other instructions concessions 2023 required copies of the Notice and Application and the plat, etc.

## INSTRUCTIONS TO APPLICANT

#### 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-lm(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.

### CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and two copies of the Application must be filed with the Administrator, accompanied by (i) an original and four copies of the Notice, (ii) an original and four copies of a plat in the form prescribed by Regulation 11, and (iii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-9.

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-lm and 22-4-9.



IR-26 Obverse

# INSPECTOR'S PERMIT SUMMARY FORM

	ed be
Tho	PP

WELL TYPE			API#	47035	1617 /A	
				Kaiser Expl		
			TELEPHONE			
	E		RM	Summers		
COUNTY_			Ken 112			
SURFACE O	WNER	COMMEN	TS	TELEI	PHONE	
TARGET FO	RMATION	DATE A	PPLICAT	TION RECEIVED_		
DATE STAR' LOCATION_	TED	NOTIFIED		_ DRILLING COM	MMENCED	
WATER DEP	THS,					
COAL DEPT	HS,	,		,		
		CASIN				
	feet of _					
	feet of _					
	feet of _				77 86 93	
Ran	feet of _	"pipe	on	Va.		
				OH.	- AND GAS	
TD	feet on					
		PLUGG	ING	MAR	1 4 1986	
Ty	ре	From	7	To0	Pipe Removed	
			-			
					· · · · · · · · · · · · · · · · · · ·	
Pit Disch	arge date:	Type				
Field ana	lysis	ph	fe	cl		
Well Reco	rd received					
Date Rele	ased 3 12 86					
	*					

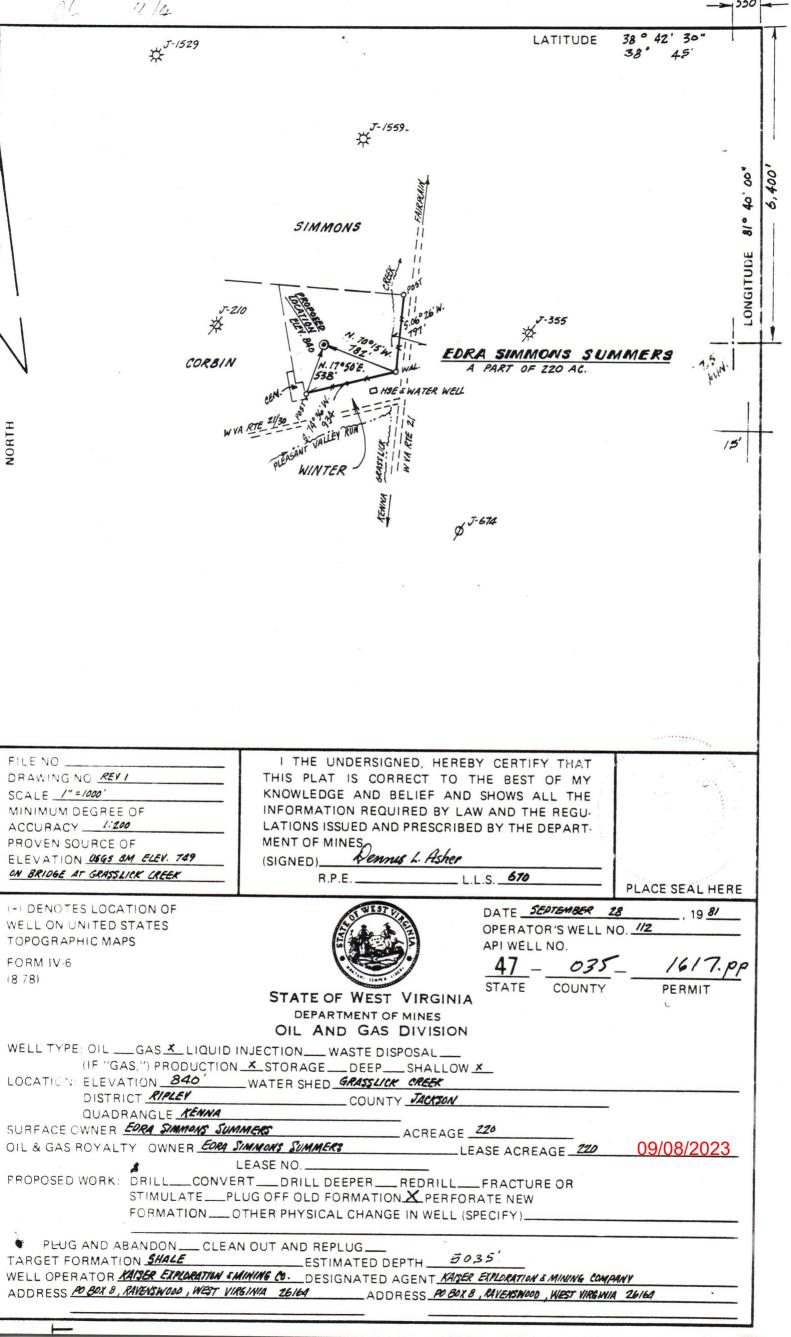
Inspector's signature

API#	47	_

## LIST ALL VISITS FOR THIS PERMIT

DATE	TIME	PURPOSE	COMMENTS
Access of the second			
		. 7-3	
		2	
and the same of th			
3			
- 10 10 A			
	7		

Notes





1)	Date: Jan	uary	17	, 19_84
2)	Operator's Well No	KEM	#112	(Redetate)

3) API Well No. 47 - 035 -

State County Per

OIL & GAS DIVISION TATE OF WEST VIRGINIA

DEPT. OFF MINES NO GAS, DEPARTMENT OF MINES

PARTIAL

		AT DICKTION TO	K A LEKMIT TO LEGG AND ABANDON A V	<u>VECE</u>
5)	LOCATION:  WELL OPERA Address  OIL & GAS IN Name Jer Address Rt.	B (If "Gas", Production X Elevation: 840' District: Ripley	/ Liquid injection / Wa / Underground storage) / Watershed: Grasslick Cre County: Jackson and Mining Co 7) DESIGNATED AGEN Address / P. O. Housto	Deep ShallowX_/) eekQuadrangle: Kenna NT R. A. Pryce Same  ACTOR ugh Services
10)	WORK ORDE	R: The work order for the manner of	plugging this well is as follows:	
	7/13/83:	McCullough Services se casing at 4400' (KB), PBTD: 4400' (KB)	t 3.71" OD permanent bridge p to isolate Marcellus Shale fr	olug in 4 1/2" rom Brown Shale
		nspecuent.	VERBAL PERMISSION 7-11-8	3 of process of (d) 4-V) and 10 fine and 1
			Date	
		Felioweap Inspections)	***************************************	Application received
			OFFICE USE ONLY	patrois patrois/
			PLUGGING PERMIT	Phygups completed:
Pern	nit number	47-035-1617-PP	Feb	pruary 2, 1984  Date
quiit	ements subject to	the well operator and well location sho to the conditions contained herein and on ed work has commenced.)	own below is evidence of permission granted to plat the reverse hereof. Notification must be given to	ug in accordance with the portinent level
	The	permitted work is as described in the No	tice and Application, plat, subject to any modifica	
Pern	nit expires	February 2, 1986	unless plugging is commenced prior to	that date and prosecuted with due diligence.
Bo	ond: BLANKET	Agent: Rlat: Gasing	Fee MA	$\bigcap$

NOTE: Keep one copy of this permit posted at the plugging location.

File

and Gas

Administrator, Office of Oil

OFFICE USE ONLY

## PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED PLUGGING

DEPT. OF MINES BOAR BEAUGUEST OF MINES

	The Park State	OFFICE USE ONLY		
This part of Form IV-4(b)	is to record the dates of cert	ain occurrences and any follow-up in	spections.	
	Date			Date(s)
Application received		F	follow-up inspection(s)	
Plugging started		OFFICE USE GIVEY	"	
Plugging completed		PLUGGING PERMIT	" "	
Well Record received	A vegender		#9-F/201-200-51	
OTHER INSPECTIONS	refi Premed to fell in a cordan Substant in the Diffrag		dillons repursing the sin and c	The eartist docume that all and all all all all all all all all all al
Reason:	bnoc Line enough of those to be	house and Application plot, amped to	og work is as described in the N	and some

rections are given by the pound possed at the piling interpretation



IV-35 (Rev 8-81)

State of West Wirginia

Department of Mines Gil und Cas Division

Date 1/12/84	
Operator's	
Well No. KEM-112	
Farm Summers	
API No. 47 - 035	- 1617- <i>C</i>

(Continue on reverse side)

WELL OPERATOR'S REPORT

REVISED

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE
OIL & GAS DIVISION

OCATION: Elevation: 840 Watershed				
District: Ripley County Jac	kson	Quadrangle	<u>Kenna</u>	
DMPANY KAISER EXPLORATION AND MINING COMPANY				T
DRESS P. O. Box 8, Ravenswood, WV . 26164	Casing	Used in	Left	Cement fill up
SIGNATED AGENT Same	Tubing	Drilling	in Well	Cu. ft.
DRESS Same	Size			
RFACE OWNER Edra Simmons Summers	20-16 Cond.	,		
DDRESS Rt. 3, Ripley, WV 25271	<b>1/3-10"</b> 3/	227'	227 !	150 sks C1
INERAL RIGHTS OWNER Same	9 5/8			,,,
DDRESS Same	8 5/8			
IL AND GAS INSPECTOR FOR THIS WORK Richard	7	2386 '	2386 '	100 sks C 65 sks 50/
Morris ADDRESS P. O. Box 372, Grantsvi		2300		
ERMIT ISSUED December 12, 1981	4 1/2	5011'	5011'	225 sks 50 pozmix
RILLING COMMENCED November 5, 1981	3			
RILLING COMPLETED November 11, 1981	2	1	4328 '	
B ADDITIONATE DIVIGITIO OF DOUR HOLD OF	CONTRACTOR OF THE PROPERTY OF			
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED	Liners used		Butler-La (2 3/8"x4	rkin Hookwa 1/2") set
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED		Dep	Butler-La (2 3/8"x4 <b>th</b> 5049'	
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED	used			
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  N  EOLOGICAL TARGET FORMATION Devonian Shale	used Rotary X		<b>th</b> 5049 '	
	Rotary X	/ Cablefeet	th 5049	
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  BOLOGICAL TARGET FORMATION Devonian Shale  Depth of completed well 5049' (KB) feet  Water strata depth: Fresh feet  Coal seam depths: None	Rotary X Salt Is coal	/ Cablefeet	th 5049 centre to the	(KB) feet
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  N  EOLOGICAL TARGET FORMATION Devonian Shale  Depth of completed well 5049' (KB)feet  Water strata depth: Fresh feet  Coal seam depths: None	Rotary X Salt Is coal Drilled Shale	/ Cable	th 5049 to the not know	(KB) feet  area? No  n.  -4994'
ONTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  N  EOLOGICAL TARGET FORMATION Devonian Shale Depth of completed well 5049' (KB)feet Water strata depth: Fresh feet Coal seam depths: None  PEN FLOW DATA Producing formation Devonian Marcellus Devonian Brown Shale None	Rotary X Salt Is coal Drilled Shale e Pay	/ Cable_feet_being mine on fluid - zone dep	ed in the not know	(KB) feet  area? No  n.  -4994' 07' feet
DNITHUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  DOLOGICAL TARGET FORMATION Devonian Shale  Depth of completed well 5049' (KB) feet  Water strata depth: Fresh feet  Coal seam depths: None  PEN FLOW DATA  Producing formation Devonian Marcellus Devonian Brown Shale  None Mcf/d	Rotary X Salt Is coal Drilled Shale Pay Oil: Ini	/ Cablefeet being mine on fluid - zone dep	ed in the not know th 4773' No No	(KB) feet  area? No  n.  -4994' 07' feet  ne ne Bbl/d ne
DONITINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  Depth of completed well 5049 (KB) feet Water strata depth: Fresh feet Coal seam depths: None  PEN FLOW DATA  Producing formation Devonian Marcellus Devonian Brown Shall None  Gas: Initial open flow None Mcf/d Final open flow 300 Mcf/d	Rotary X  Salt Is coal Drilled Shale Pay Oil: Ini Fire	/ Cablefeet being mine on fluid - zone dep tial open al open f	th 5049 to 100 t	(KB) feet  area? No  n.  -4994' feet  ne Bbl/d  ne Bbl/d
DNTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  DEPTH OF COMPleted well 5049 (KB) feet Water strata depth: Fresh feet Coal seam depths: None  PEN FLOW DATA Producing formation Devonian Marcellus Devonian Marcellus Devonian Brown Shal None  Gas: Initial open flow None Mcf/d Final open flow 300 Mcf/d Time of open flow between in:	Rotary X  Salt  Is coal  Drilled  Shale  e Pay  Oil: Ini  Fir	/ Cablefeet being mine on fluid - zone dep tial open al open fi	ed in the not know ho	(KB) feet  area? No  n.  -4994' feet ne Bbl/d ne Bbl/d ne Bbl/d ours
DNITINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  DOLOGICAL TARGET FORMATION Devonian Shale  Depth of completed well 5049' (KB) feet  Water strata depth: Fresh feet  Coal seam depths: None  PEN FLOW DATA  Producing formation Devonian Marcellus Devonian Brown Shale  None  Gas: Initial open flow None Mcf/d  Final open flow 300 Mcf/d  Time of open flow between in:  Static rock pressure 1000 psig (surfate)	Rotary X  Salt  Is coal  Drilled  Shale e Pay  Oil: Ini  Fin  itial and fin  ace measurem	/ Cablefeet being mine on fluid - zone dep tial open al open fi	ed in the not know ho	(KB) feet  area? No  n.  -4994' feet ne Bbl/d ne Bbl/d ne Bbl/d ours
DNTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  DOLOGICAL TARGET FORMATION Devonian Shale  Depth of completed well 5049' (KB)feet  Water strata depth: Fresh feet  Coal seam depths: None  PEN FLOW DATA  Producing formation Devonian Marcellus Devonian Brown Shale  Gas: Initial open flow None Mcf/d  Final open flow 300 Mcf/d  Time of open flow between in Static rock pressure 1000 psig(surface)  (If applicable due to multiple completic	Rotary X  Salt Is coal Drilled Shale e Pay Oil: Ini Fin itial and fin ace measurem	/ Cablefeet being mine on fluid - v zone deponential open hal open final tests ment) after	th 5049 to 15 to 1	(KB) feet  area? No  n.  -4994' feet  ne Bbl/d  ne Bbl/d  ours  ars shut in
DNTINUOUS PROGRESSION FROM DRILLING OR EWORKING. VERBAL PERMISSION OBTAINED  Depth of completed well 5049' (KB)feet Water strata depth: Fresh feet Coal seam depths: None  PEN FLOW DATA  Producing formation Devonian Marcellus Devonian Brown Shall None  Gas: Initial open flow None Mcf/d Final open flow 300 Mcf/d Time of open flow between in: Static rock pressure 1000 psig(surface) Second producing formation Berea Sands	Rotary X  Salt Is coal Drilled Shale e Pay Oil: Ini Fin itial and fin ace measurem	/ Cablefeet being mine on fluid - v zone depondation tial open final tests ment) after v zone depondent	th 5049 to 15 to 1	(KB) feet  area? No  n.  -4994 feet  ne Bbl/d  ne Bbl/d  ours  ars shut in  09/08/202  519 feet

DETAILS OF PERFORMED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHARGE, ETC.
7-13-83 McCullough set permanent bridge plug at 4400' KB to plug Marcellus Shale. Set retrievable plug at 2560' KB and perforated Berea Sandstone 2510'-2519' KB; 18

7-18-83 Nowsco, BJ Hughes foam fractured Berea w/60,000# of 20/40 sand; 298 bbl fluid, 693 MSCF N; 2570 psig breakdown, 2050 psig treat, 1740 psig ISIP; 13 B/M foam (75 quality) rate.

7-25-83 Retrieved bridge plug at 2560' KB.

Ran 2 3/8" 10R tubing and Butler Larkin Hookwall Packer. Set packer below Berea 7-26-83 @2557' KB and tubing anchor @4328' KB.

Brown Shale/Berea isolated and producing.

FORMATION COLOR HARD OR S	OFT TOP FEI	er Botton	FEET Inc	REMARKS cluding indication of all fresh I salt water, coal, oil and gas
and the second of the second o				
Soil & Shale Sand Shale & Siltstone Sand Shale & Siltstone Sand Shale & Siltstone Sand Shale & Siltstone Sand Shale Sand Shale Sand Shale Sand Shale Salt Sand Big Lime (Greenbrier) Shale Big Injun Sand Shale Coffee Shale (Sunbury) Berea Sand Shale Brown Shale Brown Shale Shale Marcellus Shale		0 60 99 118 142 491 501 681 687 1096 1176 1294 1338 1580 1593 1616 1835 2010 2034 2100 2490 2510 2520 3740 4332 4716	60 99 118 142 491 501 681 687 1096 1176 1294 1338 1580 1593 1616 1835 2010 2034 2100 2490 2510 2520 3740 4332 4716 5049	Gas Show @ 3447' Gas Show @ 3777, 4113, 4130,4323
Total Depth		5049		

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY Well Operator 09/08/2023 January 16. 1984 Date:

Regulation 2.02(i) provides as follows: "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ". "!, encountered in the drilling of a well."

Detr September 28 Well No. KEM #112 API No. 47

# STATE OF WEST VIRCINIA

OFFICE OF O	IL AND GAS
Company Name Kaiser Exploration and Mini Address P. O. Box 8, Ravenswood, W. Telephone 273-5371 Landowner Edra Simmons Summers	
	ser Exploration and Mining Co. (Agent)  believe , SCD. All corrections (School 29/8) Wayne (Sport)
Access Road	Location
Structure Road Ditch (A) Spacing Page Ref. Manual 1:9	Structure None required (1)  Material (See comments)  Page Ref. Manual
Structure Cross Drain (B) Spacing 250' Page Ref. Manual 1:3	Structure (2) Material Page Ref. Manual
Structure (C)  Spacing  Page Ref. Manual  All structures should be inspected regul	Structure (3)  Material RECEIVE  Page Ref. Manual  arly and repaired if necessary. (C) 2 - 1981
Revegeta	OIL AND GAS DIVISION WY DEPARTMENT OF MIN
	Lime Same as area I Tons/Acre or correct to ph
Fertilizer 14-14-14 400 lbs/acre (10-20-20 or equivalent)  Mulch Hay	Fertilizer lbs/acre (10-20-20 or equivalent)
Seed 81% Orchard Grass/15% Rye 158 facre Red Clover 8 155/acre lbs/acre	Mulch Tons/Acre Seed* lbs/acre lbs/acre lbs/acre
*Inoculate all legumes such as vetch, trefo becterium. Inoculate with 3X recommended a	il and clovers with the proper mount.

Attach or photocopy section of involved Topographic map. Quadrangle R Grasslick Ch .. 09/08/2023 Pederal Prince Poundry Poundry Poundry Poundry Poundry Pence Poundry P

Diversion
Spring O
Wet Spot O
Building C
Orain Pipe O
Waterway

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

PROPOSED ACCESS ROAD

(4-6-1-) TREATMENT

AREA II

PROPOSED LOCATION

TREATMENT AREA I

N. VA. RTE. 21/30

NTS.

COMMENTS: PROPOSED LOCATION IS ON LEVEL BENCH IN MEADOW. AREA NOT BEING USED FOR GRAZING. DISTURBED AREAS RESTORED WITHIN 6 MONTHS OF COMPLETION.

Signature : Whitsher

KAISER EXPLORATION AND MINING COMPANY

P. O. Box 8. Ravenswood, WV 26164

2/3-53/1

Please read . Canalage s cooperation to protect new seeding for one growing season.

BORM 1.1.25	ST DEPARTMENT	PATE OF WEST VI	RGINIA AND GAS DIVI	Clair Operator!	December 4	
(Obverse)	(Obverse)				KEM #112	
(08-75. A WELL OPERATOR'S REPORT OF OF CHILDREN STANDARD STILL AND STANDARD S				- 035 161		
	111	the set of	i Air de la	Man		
WELL TYPE: O:1	Gas X / Lina	id Injection	1 10,000	District		
	Production X				1971.11 (N	
LOCATION: Elevation:						
	Ripley					
WELL OPERATOR Kaiser Ex	xploration and M	ining Company	DESIGNATED A	Same		
Address P. O. Box	x 8	region in redshifting grant region are subject to the first of	Address			
	od. WV 26164					
	V	4.2411			Charles stimulate v	
PERMITTED WORK: Orill	X / Convert	Drift deepe	Commo	413	<b>ECEIVED</b>	
	ff old formation_ physical change is					
					AND GAS DIVISION	
PERMIT ISSUED ON Dec	ember 12	. 81	OIL & GAS I	NAPESTOR FOR THIS	WORK:	
(IF APPLICABLE: PLUGG				hard Morris		
CONTINUOUS PROGRES *REWORKING. VERBAL	SSION FROM DRILLIN	IG OR		P. O. Box 37		
				Grantsville,		
GEOLOGICAL TARGET FORM		Shalo		Depth 50		
Depth of completed						
Water strata depth						
Coal seam depths:						
Work was commenced						
CASING AND TUBING PROG	RAM					
	ECIFICATIONS	FOOTAGE			PACKERS	
g Sire Gra	de per ft New Us-	For drilling	Left in wel	1. (Cubic feet)	4	
2 nauctor					Finds	
Fresh water 10 3/4	32.75 X	227'	227'	150 sks class		
Ccal · -				100 sks class	A	
Ir errediate 7"	20.0 X	2386'	2386'	65 sks 50/50		
Production 4 1/2	10.50 X	5011'	5011'	225 sks 50/50 pozmix	Twothreset	
Tuting				POZITA		
liners					Perforations:	
				-	4773 Top 4994 Bottom	
					Brown Shale	
					1107° Top 4331 Bott	
OPEN FLOW DATA		-				
	n Devonian	Marcellus Sha	10	Fay zone deuth	4773'-4994'(KB)	
	l open flow, Nor					
	open flow, 150					
	ime of open flow b					
	pressure, 1350					
Lif applicable flu				THE THE		
Second producing				Pau zone der ti	4107 (86	
Gas: Initial open flow, N ne Mof/d Oil: Initial open flow, None it /i  Final open flow, 300 Mof/d Final pen flow, ph:/i						
	ine of open flow b					
Static ) K	ressure. 1000	paig (surface	mensurement	, atter 12 has	ard shut if	