



IV-35 (Rev 8-81)

Sinte of Mest Nirginia

Bepartment of Mines Gil und Gas Bivision

Date November 29, 1982
Operator's
Well No. WK-97
Farm F. A. Nichols
API No. 47 - 095 - 1004

WELL OPERATOR'S REPORT OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas $\underline{x}$ / Liquid Injection (If "Gas," Production $\underline{x}$ / Underground	/Wast and Storag	e Disposa pe/ Dee	l/ p/ Sha	allowX_/)
LOCATION: Elevation: 877.40' Watershed	Ria Run			÷
District: McElroy County Tyler		Ouadrangl	e Shirlev	7.51
COMPANY Kepco, Inc 436 Boulevard of the Allies				
ADDRESS Pittsburgh, PA 15219	Casing	Used in	Left	Cement
DESIGNATED AGENT E. L. Stuart	Tubing	Drilling	in Well	fill up Cu. ft.
ADDRESS Clarksburg, WV 26301	Size			
SURFACE OWNER Fred A. Nichols	20-16 Cond.			
ADDRESS Alma, West Virginia 26320	13-10"	205'	205'	85 sx
MINERAL RIGHTS OWNER Wilbur W. Wright	9 5/8	200	203	thixotropic
ADDRESS Alma, West Virginia 26320	8 5/8	1441'	1441'	325 sx poz 50 sx class
OIL AND GAS INSPECTOR FOR THIS WORK Robert	7	1441	1441	JO SX Class
owther ADDRESS Middlebourne, WV	5 1/2			
PERMIT ISSUED 9-30-82	4 1/2	5187'	5187'	640 sx poz
DRILLING COMMENCED 10-26-82	3	3107	3107	MIX.
DRILLING COMPLETED 11-2-82	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR				
REWORKING. VERBAL PERMISSION OBTAINED	Liners used			
ONN/A				
GEOLOGICAL TARGET FORMATION ELK		Dept	h 5658	feet
Depth of completed well 5637 feet Ro	otary x			
Water strata depth: Fresh 90 feet;				
Coal seam depths: None recorded			d in the	area? No
OPEN FLOW DATA		-		
Producing formation Commingled Benson & Rile	ev Pav	zone dent	h 4027!•4	5001 foot
Gas: Initial open flow 0 Mcf/d (				
Final open flow 347 Mcf/d				
Time of open flow between initia				
Static rock pressure 1400 psig(surface				
(If applicable due to multiple completion-				rs and m
Second producing formation		zone dept	h h	feet
Gas: Initial open flow Mcf/d (	Dil: Init	ial open	flœ	Bbl/d
Final open flow Mcf/d (				
Time of open flow between initia				
Static rock pressurepsig(surface n				
			JUN 27 19	203
		(Contir	ue on rei	ersc side)

(PEVERSE)

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

Perf:

4937'-4944'

29 holes

Avg. press. 2400 psi, Avg. rate 25 BPM

4500'-4533'

55 holes

Avg. press. 2500 psi, Avg. rate 35 BPM

Fractured: 11-8-82 B. J. Hughes

2 stage frac job

1st stage 20,000 lbs. 20/40 2nd stage 6,500 lbs. 20/40

500 gal. 15% HCl, KCl, J-4-A, G-8, F-10, D-37, Nitrogen

## WELL LOG

3-			REMARKS
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	Including indication of all fresh
·			and salt water, coal, oil and gas
Clay and topsoil	0	30'	
Sand and sandy shale	30'	230'	90' F.W.
Redrock	230'	310'	
Shale and sand	310'	600'	
Sand and sandy shale	600'	1100'	
Sand, shale and sandy shale	1100'	1290'	•
Shale and sandy shale	1290'	1386'	
Salt sand	1386'	1466'	
Shale and redrock	1466!	1722'	
Maxton	1722'	1747'	:-
Shale	1747'	1752'	
Little Lime	1752'	1773'	∷
Shale	1773'	1787'	
Big Lime	1787'	1850'	
Big Injun	1850'	2009'	
Squaw	2009'	2059'	
Shale	2059'	2202'	
Weir	2202'	2288'	
Sand and shale	2288'	2624'	
Gordon	2624'	2648'	
Sandy shale, shale and sandy	2648'	2836'	
5th	2836'	2878'	<del>-</del>
Sandy shale and shale	2878'	3300'	-
Speechley	3300'	3362'	
Sandy shale and shale	3362'	3640'	
Balltown	3640'	3834'	
Sand and shale	3834'	4148'	-1
Bradford	4148'	4303'	
Sandy shale and shale	4303'	4496'	
Riley	4496'	4535'	
Sandy shale and shale	4535'	4926'	
Benson	4926'	4962'	
Sandy shale and shale	4962'	5637'	
TD		5637'	
		1	
		j j	
			بعد
		] 1	
	-	-	

(Attach separate sheets as necessary)

Well Operator

By: Operations Manager

Date: November 29, 1982

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 including of a well."

LCB 64 1083

IV-35 (Rev 8-81) RECEIVED state of Mest Wirginia

Date_	November 29, 1982	
Operat		
Well N	lo. WK-97	
Farm_	F. A. Nichols	

JAN 2 7 1983

Bepartment of Mines

API No. 47 - 095 - 1004

OIL AND GAS DIVISION
WYDEPARTMENT OF MINES

Gil und Gas Bivision

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

(If "Gas," Production x / Underg		, Dec	·P/ 311	arrow x /)
District: McElroy County Ty		Quadrangl	e Shirley	7 7.5'
COMPANY Kanas Inc				
COMPANY Kepco. Inc 436 Boulevard of the Allies ADDRESS Pittsburgh, PA 15219				
DESIGNATED AGENT E. L. Stuart	Casing	Used in	Left	Cement fill up
ADDRESS Clarksburg, WV 26301	Tubing	Drilling	in Well	Cu. ft.
SURFACE OWNER Fred A. Nichols	Size			
	20-16 Cond.			-
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OIL AND GAS INSPECTOR FOR THIS WORK Robert	7	1441	1441	50 sx class
owther ADDRESS Middlebourne, WV	5 1/2			
PERMIT ISSUED 9-30-82	4 1/2	51071		640 sx poz
DRILLING COMMENCED 10-26-82	3	5187'	5187	mix
DRILLING COMPLETED 11-2-82	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON	2			
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED	Liners			
ONN/A	used			
GEOLOGICAL TARGET FORMATION_ELK		Dept	h	
Depth of completed well 5637 feet	Rotary v			feet
Water strata depth: Fresh 90 feet;	Sal+	_/ Cabie	10015	
Coal seam depths: None recorded	Te mal 1	reet	a	
OPEN FLOW DATA	_ 13 War /	end ume	a m tue	area? No
<u> </u>				*
Producing formation Commingled Benson & R	iley Pay	zone depti	14937;45	500' feet
Gas: Initial open flow 0 Mcf/d	Oil: Init	ial open :	flow	Bbl/d
Final open flow 347 Mcf/d	Fina	al open flo	w_ (	Bbl/d
Time of open flow between init	tial and fir	al tests	8 hou	irs
Static rock pressure 1400 psig(surface	e measureme	ent) after	48 hour	s shut in
(If applicable due to multiple completion	ı)			
Second producing formation	Pay	zone depti	1	feet
	Oil: Init	ial open f	low	Rh1 /A
Gas: Initial open flowMcf/d				
Gas: Initial open flow Mcf/d	Oil: Fina	l open fla	w	<u> </u>
Gas: Initial open flowMcf/d  Final open flowMcf/d  Time of open flow between init	Oil: Fina	l open flo al tests	W	Bbl/d

FORM IV-35 (REVERSE)

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

4937'-4944' **But** 529 holes

Avg. press. 2400 psi, Avg. rate 25 BPM

4500'-4533 Reley 55 holes

Avg. press. 2500 psi, Avg. rate 35 BPM

Fractured: 11-8-82 B. J. Hughes

2 stage frac job

1st stage 20,000 lbs. 20/40 2nd stage 6,500 lbs. 20/40

500 gal. 15% HCl, KCl, J-4-A, G-8, F-10, D-37, Nitrogen

## WELL LOG

			REMARKS	
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	Including indication of a and salt water, coal, oil	
Clay and topsoil	0	30'		
Sand and sandy shale	30'	230'	90' F.W.	
Redrock	230'	310'	•	
Shale and sand	310'	600'		
Sand and sandy shale	600'	1100'		
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Shale and sandy shale	1290'	1386'		
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Shale ·	1747'	1752'		
Little Lime	1752'	1773'		
Shale	1773'	1787'		•
Big Lime	1787'	1850'		
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Sand and shale	2288'	2624'		
Gordon	2624'	2648'		
Sandy shale, shale and sandy	26481	2836'		
5th	2836'	2878'		
Sandy shale and shale	2878'	3300'		
Speechley	3300'	3362'		
Sandy shale and shale	3362'	3640'		
Balltown	3640'	3834'		
Sand and shale	3834 '	4148'	5637	
Bradford	4148'	4303'	3200 NWarre 2437 expl. ftg	<b>a</b> 5
Sandy shale and shale	4303'	4496'	1437 expl. fta	<b>)</b> ,
Riley	4496'	4535'		<i>!</i>
Sandy shale and shale	4535'	4926'		
Benson	4926'	4962'		
Sandy shale and shale	4962'	5637'		
TD ELK @ T.D.		5637'		
e 137 der Rhinestr	et			· ••• <u>•</u>
2400				<del>,</del>

(Attach separate sheets as necessary)

KEPCO, INC. Well Operator Operations Manager -November 29, 1982 Date:

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 IV-2 (Obverse) (12-81)

TELEPHONE: (304) 348-3092



Date:	July	26	<u> </u>	_, 19	) _	82	
Operator' Well No.		W	K <b>-97</b>				
4 D1 447-11		7		005		100/	

State

County

Permit

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

OTL AN	D GAS	WELL	PERMIT	APPLICATION
		-		

	OID	AND CAD III			
WELL TYPE:	Oil/				
	(If "Gas", Produc	tion X/	Underground s	torage	/ Deep/ ShallowX_/)
LOCATION:	Elevation:	377.40'	Watershed:	Big Ru	n
	District: McEl1	roy	County:	Tyler	Quadrangle: Shirley 7.5'
WELL OPERATO	OR KEPCO, Inc.		D	ESIGNATED AC	GENT E. L. Stuart
	436 Blvd. of			Address	P. O. Box 1550
	Pittsburgh,				Clarksburg, WV 26301
OIL & GAS		_		0.1. OPER 450	
	NER Wilbur W.				R
Address	Alma, WV	26320	<del></del>	Address	
			·	<del></del>	
Acreage	639.0			OAL OWNER(S)	WITH DECLARATION ON RECORD:
•	NER Fred A. Ni			lame (	NO COAL)
	Alma, WV		<del></del>	Address	i
Addiess			·		
Acruage	133.76			lame	
	IF MADE) TO:				
Address	·			OAL LESSEE W	VITH DECLARATION ON RECORD:
OH & CAC IN	SPECTOR TO BE NO	TIEIED			
	Robert Low			71001000	
Address	3rd Street		<del></del>		
	Middlebour				
The undersign	ed well operator is enti	tled to operate for	oil or gas purpos	es at the above loc	ation under a deed/ lease X
other contract	/ dated _Sept	. 24 , 19	75 , to the	undersigned wel	l operator from
Wilbur (IF said deed le	W. Wright ease, or other contrac	t has been record	ed·)		
				he County Comm	ission of Tyler County, West
	ease Book 2				
					re or stimulate/
PROPOSED V		·			
	_	ormation			
	Other physical	l change in well (	specify)		
		.1		roverse side here	and the same of th
	-	shown on the wor			· ·
					objection they wish to make or are required to
-	22-4-3 must be filed w	ith the Departmen	nt of Mines with	in fifteen (15) day	ys after the receipt of this Application by the
Department.	Dannia Analisation and	l the englosed slet	and real amation	nlan hawa haan me	ailed by registered mail or delivered by hand to
•		· ·			ailing or delivery of this Permit Application to
	of Mines at Charlest			c the day of the m	laning of derivery of this Fermit Approaction to
· •	· · · · · · · · · · · · · · · · · · ·	TOTAL COLOR	WEIN		
	IT COPIES OF ALL LOGS DIRECTLY	الله الله			A Company of the Comp
TO:		UU (550 0 )	1982		KEPCO, Inc.
WEST VIRGIN	IA OIL AND GAS	SEP 3 (	) 1302		Well Operator
CONSERVA		Oil & GA	S DIVISION	By 🕳	33000
	TON STREET EAST WV 25311	DEPT.	FMINE	Its Ope	rations Manager

BLANKET BOND

## PROPOSED WORK ORDER

## THIS IS AN ESTIMATE ( ACTUAL INFORMATION MUST BE SUBMITTED ON

RM IV-35 UPON COMPLETION

DRILLING	CON	ITRAC1	OR (IF	KNOWN	i)	U	nknown				e .
					Ad	dress .			·		
GEOLOGI							E1k				
									X / Cab	le tools	_/
								salt,			
Appr	oxima	ate coal	seam de	pths:			Is coal	being mined	in the area? Yes	/ No	<u>x</u> /
CASING A	ND T	rubino	PROGE	RAM							
CASING OF	PE		CIFICATI	Weight				NTERVALS	CEMENT FILL-UP OR SAÇKS (Cubic feet)	PACKERS	
		Size	Grade	per ft	New	Used			(Cubic leet)		
Conductor		1-3/4	' н–40	42#		Х	30	30		Kinds	
Coal										Sizes	
Intermediate			' J-55		X		300	300	Circulate		
Production	-	4-1/2	' J <b>-5</b> 5	10.5#	X	<b> </b>		5500	500 sks.	Depths set //	g
Tubing									by Rule	15.01	
Liners										Perforations:	
****			-							Тор	Bottom
			<u> </u>		<b> </b>						
		~ <del></del>	L	<u> </u>	L	l			1		
ti p p C	he Deprescri Recla reviou Code	partmen bed by mation isly paid \$22-4-8a parate F	t, accomp Regulation Plan'', and on the something the some	panied by on 12, or pplicable ame well se owner shall not	(i) a r in I to the formal to	plat in ieu the e recla ee required i	the form prese ereof the other amation require uired by Code § er well or dwel for fracturing or	cribed by Regur security allowed by Code \$ 22-4-12a, and ling within 200 r stimulating a	ur copies of Form IV-2 lation 11, (ii) a bond i wed by Code § 22-4-22-4-12b and Regulati (v) if applicable, the colorest of the proposed well where fracturing Form IV-2 filed in cor	n one of the forms 2. (iii) Form IV-9, on 23, (iv) unless onsent required by d well.	
				pr poc	en A	T THE	WFLL SITE			•	
	THIS	PERMI	1 MUST SIONS B	BE POST EING IN	I ACC	ORDA	WELL SITE. ANCE WITH C	HAPTER 22,			
	ART	ICLE 4	OF THE	W. VA.	COD	E, THE	LOCATION	IS HEREBY	•		
				drill	ing		THIS PERMIT	SHALL EAPIN			
	JE C	PERAT	IONS H	AVE NO	r co	MMEN	ICED BY 6-	*			
	BY.	-									w.
••••	The fo	ollowing ation u	waiver m	ust be co	mplet	ed by t	he coal operato ermit is to be	r and by any co- issued within	al owner or coal lessee fifteen (15) days of r	who has recorded eccipt thereof.	a
							WAI	VER			
The unde	well le rsigne	ocation. ed has n	II a mine o objecti	map exist on to the	sts wh work	ich cov propo	ers the area of sed to be done	the well location	the coal under this von, the well location han, provided, the well as.	is been added to th	e mine man
		N	O COAL					-			
Date:		<del></del>	3-4-4-1	- . 19				Ву			

Its\_