





State of West Virginia Division of Environmental Protection Section of Oil and Gas

DEC () 7 :

	Well Operator's	s Report of	Well Work	DEC U	/ \ \
Farm name:	HAYES, RALPH & BETTY		Well No.:	F. R. BAL	L 9
LOCATION:	Elevation: 1,152.00 Qu	adrangle: C	ENTER POINT		4
	District: MCELROY Latitude: 350 Feet S Longitude 4800 Feet W	South of 20	ounty: TYLE Deg. 27Min Deg. 40 Mi		
Company: PEN	NZOIL PRODUCTS COMPANY				
P. (O. BOX 5519 NNA, WV 26105-5519	&	Used in	1	Cement Fill Up
Agent: JAM	ES A. CREWS	Tubing	Drilling	in Well	Cu. Ft.
Inspector:	MIKE UNDERWOOD	Size			
Permit Issue Well work Co	ed: 06/07/93 ommenced: 6/8/93	SEE O	RIGINAL WELL R	ECORD	
Verbal Pluge	ompleted: $\frac{6/8/93}{6/8}$				
Permission of	granted on:		 	 	-
Rotary Total Depth			!		_
Fresh water	(feet) 3065 depths (ft) N/A		 	 	
Salt water o	depths (ft) N/A			<u> </u>	
Is coal beir Coal Depths	ng mined in area (Y/N)?_ (ft):	N -	 	 	
OPEN FLOW DA	ATA			·	
Produci	ing formation Gordon		Dear		2025
Gas: In		CF/d Oil: Ir	Pay zone d nitial open	eptn (ft) flow *	Bb1/c
Fi Tri	nal open flow * MO	CF/d Fi	nal open fl	ow *	Bbl/c
	· F Beeween	THILLIAT GHE	ı ıınaı test	S	Hour
* Water Inje	ection Well - No Test	sig (surface	pressure)	after	Hour:
Second	producing formation		Pay zone d	epth (ft)	
Gas: In	nal open flow MC	CF/d Oil: In	itial open	flow	Bb1/c
Ti	me of open flow between	CF/d Fi	nal open fl	ow	Bbl/c
Static	rock Pressure ps	sig (surface	pressure)	s after	Hour:
		-			nout.
LOG WHICH I	K OF THIS FORM PUT THE RACTURING OR STIMULATIN S A SYSTEMATIC DETAILED AL ENCOUNTERED BY THE WE	G, PHYSICA	I. CHANGE 1	DDC 31 '	m

For: PENNZOIL PRODUCTS COMPANY

TREATMENT:

Perforation:

2959 - 3065 - 2 Holes Per Foot

Treatment:

300 Gal 15% HCL Acid, 195 Bbl. Gelled Water &

5000# 20/40 Sand

WELL LOG:

See Original Well Record

TD 3065

OF -411

DET-419



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

Well Operator's Report of Well Work

HAYES, RALPH & BETTY Operator Well No.: F. R. BALL 9 Farm name:

Elevation: 1152.00 Quadrangle: CENTER POINT LOCATION:

District:

MCELROY County: TYLER
350 Feet South of 39 Deg. 27Min. 30 Sec.
4800 Feet West of 80 Deg. 40 Min. 0 Sec. Latitude: Longitude

Company: PENNZOIL PRODUCTS COMPANY

P. O. BOX 5519 VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: GLEN P. ROBINSON Permit Issued: 07/30/90 Well work Commenced: 11-8-90 Well work Completed: 12-6-90 Verbal Plugging Permission granted on: Rotary Cable X
Total Depth (feet)
Fresh water depths (ft) Rig Salt water depths (ft) Is coal being mined in area (Y/N)? N Coal Depths (ft): 970 (old record)

Casing &	Used in	Left	Cement Fill Up
Tubing	Drilling	in Well	Cu. Ft.
Size			<u> </u>
10	380		Old Well Record
8-1/4	1520	 	"
6-5/8	2000	2000	"
5-3/16	2418	2418	11
3-1/2	2959.30	2959.30	50 Sks.

OPEN FLOW DATA

Producing formation		Pay zone depth (fi	
		il: Initial open flow :	* Bbl/d
Final open flow	MCF/d	Final open flow	Bbl/d
Time of open flow		al and final tests	Hours
Static rock Pressure	psig (s	urface pressure) after	Hours
Time of open flow Static rock Pressure	MCF/d O MCF/d between initi psig (s	Pay zone depth (fil: Initial open flow	Bbl/d Bbl/d Bbl/d Hours Hours
* Converted to WIW, old we	ell workover.		

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED 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: PENNZOIL/PRODUCTS COMPANY

11, 71991

Timothy P. Roush

19 1991

No stimulation.

Old Well Record

Pgh Coal	970
Big Injun	2285-2450
lst Pay	2380
Stray	3015-3033
Gordon	3036-3050
T.D.	3065

5500

* . . .



1)	Date: May	10,	19_93
"	Operator's		

Operator's F. R. BALL

3) SIC Code

API Well NO.

095 County

5. UIC Permit No.

Book

27

at page 309

Issued 06/07/93

STATE OF WEST VIRGINIA NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION for the Expure 06 107/95

DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL T	YPE: Liqui	•		Gas inj	ection (not storage)	Waste disposal_			28
7) LOCATIO	ON: Eleva	tion:	1152'			Watersh	ed:I	ndian Creek		
	Distri		McElro	-		County:	<u>Tyler</u>	Quadrangle	:_Centerpoint	7.5
) WELL O	PERATOR	Pennz	oil Pr	oduc	ts Co	<u>374</u> 50	9) DESIGNAT	ED AGENTJa	mes A. Crews	
	ddress	P.O.	Box 55	19			Add	ress P.O. Bo	x 5519	
		Vienr	ia, WV	261	05		, <u>L</u>	Vienna.	WV 26105	
OIL&G	AS INSPEC	TOR TO E	BE NOTIFI	ED						
	Mike Ur						II) DRILLING	CONTRACTOR:		
Addres	D.		ox 135							
Audie			26426							
			20720				V001@3 _	·		
12) PROPOS	ED WELL	VORK:	Drill		/ Dril	deeper		/ Stimulate	X/	
			Plug off	old	formati	on/ Perforate ne	w formation/	Convert_/		
			Other ph	ysical (change i	in well (specify)				
13) GEOLOG	GICAL TAR	GET FOR	MATION,			Gordon 🚭	`E	epth_3036fee	((top) to 3050 feet(b	ottom)
						xisting well)	ft.		,	•
	nate water st						1536 feet.			
	nate coal sear									
	ing mined in				Х,					
	servoir pressu				$\alpha \alpha$	psig. Source	Estimated			
18) Virgin re	t	ne ni tange	35	00 (psig (BHFP)	······································		
19) Estimate	I reservoir ire	cco ivie	CTION OF	CDAT	TONE	Volume per hour:		Demon halo asses	sure 2340 psi	
20) MAXIM	UM PKUPU	PED INTE	CIONO	'EKA I	1005:	volume per nour:	DING ADDIS	Boxtom note press		
21) DETAIL	ED IDENTII	FICATION E	NOF MATI	EKIAL	SIOB	E INJECTED, INCLU	DING ADDITIVE	S: Fresh and	produced wate:	<u>r </u>
						with bacterio				
•	•					tridge Filte				
23) SPECIF	CATIONS F	OR CATH	ODIC PRO	OTEC	TION A	ND OTHER CORRO	SION CONTROL:			
24) CASING	AND TUBI	NG PRO	GRAM							
•	18		IFICATIONS			FOOTAGE IN	TERVALE	CEMENT FILLUP	PACKERS	
CASING OR TUBING TYPE	1	1	Weight			i 1		OR SACKS	PACALIS	
	Star	Grade	per ft.	New	Used	For drilling	Left in well	(Cubic feet)		
Conductor	10		isting "	Pip	<u> </u>	380	380		Kinds Hook Wa	<u> 11 </u>
Fresh water	8 1/	+	<u> </u>		<u> </u>	1520	1520	 		
Coal	 	ļ		ļ	<u> </u>				Sizes 5 1/2 X 6	1/2
Intermediate		H-40	17		X	2000	2000	Exist. Pipe	<u> </u>	
Production	5 1/2		1.4	ļ	X	2418	2418	11 11	Depths set 2526	
Tubing	3 1/2	J-55	9.2	X		2959.30	2959.30	See Well Rec	rd	
Liners		<u> </u>	<u> </u>	ļ	ļ				Perforations:	
			ļ, , ,	L			,		Top Botto	om
	No	121-	TW	0/1	- A	NO NO	FLOW !	ACK -	RETUEN	TO
		1		<u> </u>					INJECT	700
25) APPLIC	ANT'S OPE	RATING	RIGHTS w	ere acq	uired fr	omF.R. Ball	<u>L</u>			
by dee	d/ le	ase X	/ other co	ntract	/		eptember 11	XX	1895 of recor	d in the

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

County Clerk's office in

Tyler

FORM WW-3(B) FILE COPY (Obverse)	1) Date: June 4
7/85	2) Operator's Well No. F. R. BAI
RECEIVED	3) SIC Code 4 API Well NO. 47
JUN 07 1990	5. UIC Permit No. UIC P
DEPT. OF ENERGY NOTICE OF LIG	STATE OF WEST VIRGINIA STATE OF WEST VIRGINIA JID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICA for the
	DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

1)	Date: June	<u> </u>			19 .90)
2)	Operator's Well No. F.	R. B/	LL NO	. 9		
3)	SIC Code					
• 4	API Well NO.	47	- 09	5 -	0548	3-L
5.	UIC Permit No.	State U/C	ZRO	unty 750	Permit	<u> </u>
	Issu	ا م	7/2/	lan		
4	ORK PERMIT	ع) الم	7/30	100		
LL W	ORK PERMIT	APPLIC	ATION	1 =4 4		

	LOCATIO		ation:	1152 '			Wate	rshed: Indi	an creek	(")	286
				McElro			Cour	$_{tv}$ $Tv1\epsilon$	an Creek	. Center	Point 7
8)	WELL OF	ERATOR	Penn	zoil P	rodu	cts Co	ompany 2766	O O DESIGN	ATED AGENT Jan	nes A. Cr	- PWG
	· A	ddress	P.O.	Box 5	519			-), DESIGN	Address P.O. Box	5519	CWS
				na, W.		2610)5-5519				26105-5519
10)	OIL & GA	S INSPEC	TOR TO	BE NOT	FIED				· · · · · · · · · · · · · · · · · · ·	w. va. 2	.0105-5519
		Glen P						III DEILLIN	G CONTRACTOR:		
	Address	Rt.	1, #6 1	Mt. Pl	easar	nt Est					
		Mine	ral We	lls, W	. Va.	261	150		S		
								Addies	3		
12)	PROPOSE	D WELL	WORK:	Drill		_/ Dril	l deeper	/ Redrill	/ Stimulate	/	
				Plug o	off old	formati	on/ Perforate				
							in well (specify)				
13)	GEOLOG	CAL TAR	GET FOR					* 1	Depth 3036 fee	1(top) to 305	0 feet/house
14)	Estimated	depth of c	ompleted ·	well, (or a	ctual de	pth of e	xisting well)	ft.			reenbonom
15)	Approxima	ate water s	trata depti	ns; Fresh	,3	377	feet; salt,	1-0/	1.		
16)	Approxima	ate coal sea	m depths:						•		
17)	Is coal being					<u>X</u> /					-
18)	Virgin rese	rvoir pressi	are in targe	et formatio	on	80	_psig. Source	Estimated			
19)	Estimated:	reservoir fr	acture pre	ssure		3500 (Bottom Hole	psig (BHFP)			
20)	MAXIMU	M PROPO	SED INJE	CTION C	PERA'	TIONS:	Volume per hour:	20.8 Bbls	Bottom hole press	sure 2340	nsi
21)	DETAILE	D IDENTI	FICATIO:	N OF MA	TERIA	LS TO BI	E INJECTED, INCI	UDING ADDITI	ves: Fresh and	produce	d water
	from	Stringt	own fi	<u>leld o</u>	perat	ions	with bacter:	icide.		Produce	u water
22)	FILTERS		Coa]	bed a	and/o	r car	tridge filte	ers.		····	
	CDECIEIC	ATIONS	OD C 4 TT	HODIC PI	ROTEC	TION A					
23)	SPECIFIC	VIION2 L	OKCAL				ND OTHER CORR	SION CONTROL	L:		
23)		ATIONS	ORCAIL				ND OTHER CORRO	OSION CONTROI	_:		
	CASING A		•		·		ND OTHER CORRO	OSION CONTROI		-	
24) CA!	CASING A		NG PRO		•				_		
24) CA!	CASING A		NG PRO	GRAM CIFICATION:	s .	<u>-</u>	FOOTAGE I	NTERVALS	CEMENT FILLUP OR SACKS		KERS
24) CA!	CASING A	AND TUBI	NG PRO	GRAM	•	Used			CEMENT FILLUP	PAC	KERS
24) CASTUI	CASING A	AND TUBI	NG PRO	GRAM CIFICATION:	s .	<u>-</u>	FOOTAGE I	NTERVALS	CEMENT FILLUP OR SACKS		KERS
24) CAS TUI	CASING A	AND TUBI	NG PRO	GRAM CIFICATION:	s .	<u>-</u>	FOOTAGE I	NTERVALS	CEMENT FILLUP OR SACKS	PAC Kinds HOO	KERS k Wall
Cond Fresh	CASING A	Size	NG PRO	GRAM CIFICATION:	s .	Used	FOOTAGE I For drilling	NTERVALS Left in well	CEMENT FILL-UP OR SACKS (Cable feet)	PAC Kinds HOO	KERS
Cond Fresh	CASING A SING OR BING TYPE uctor water	AND TUBI	SPEC Grade	GRAM CIFICATION: Weight per ft.	s .	Used	FOOTAGE I For drilling	Left in well	CEMENT FILLUP OR SACKS (Cable feet) Shoulder	Kinds Hoo	kers k Wall /2 x 6-1/2
Cond Fresh Coal	CASING A SING OR BING TYPE uctor water nediate	Size 6-5/8	NG PROG	GRAM Elfication: Weight per ft. 17 1.4	s .	Used	FOOTAGE I For drilling 2000 2418	Left in well 2000 2418	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer	Kinds HOO Sizes 5-1 Depths set	KERS k Wall
CA: TUI Cond Fresh Coal Interr	CASING A SING OR BING TYPE uctor water nediate action 8	Size 6-5/8 5-1/2	SPEC Grade H-40 H-40	GRAM CIFICATION: Weight per ft.	S .	Used	FOOTAGE I For drilling	Left in well	CEMENT FILLUP OR SACKS (Cable feet) Shoulder	Kinds HOO Sizes 5-1 Depths set	kers k Wall /2 x 6-1/2
Cond Fresh Coal Interr Produ	CASING A SING OR BING TYPE uctor water nediate action 8	Size 6-5/8 5-1/2	SPEC Grade H-40 H-40	GRAM Elfication: Weight per ft. 17 1.4	S .	Used	FOOTAGE I For drilling 2000 2418	Left in well 2000 2418	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer	Kinds HOO Sizes 5-1 Depths set	k Wall /2 x 6-1/2 2526'
Cond Fresh Coal Interr	CASING A SING OR BING TYPE uctor water nediate action 8	Size 6-5/8 5-1/2	SPEC Grade H-40 H-40	GRAM Elfication: Weight per ft. 17 1.4	S .	Used	FOOTAGE I For drilling 2000 2418	Left in well 2000 2418	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer	Kinds HOO Sizes 5-1 Depths set	kers k Wall /2 x 6-1/2
Cond Fresh Coal Interr	CASING A SING OR BING TYPE uctor water nediate action 8	Size 6-5/8 5-1/2	SPEC Grade H-40 H-40	GRAM Elfication: Weight per ft. 17 1.4	S .	Used	FOOTAGE I For drilling 2000 2418	Left in well 2000 2418	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer	Kinds HOO Sizes 5-1 Depths set	k Wall /2 x 6-1/2 2526'
CASTULE	CASING A SING OR BING TYPE uctor water nediate uction g	Sizz 6-5/8 5-1/2 3-1/2	NG PROC SPEC Grade H-40 H-40 J-55	GRAM EIFICATION: Weight yer ft. 17 1.4 9.2	New X	Used X X	FOOTAGE I For drilling 2000 2418 3020	2000 2418 3020	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer	Kinds HOO Sizes 5-1 Depths set	k Wall /2 x 6-1/2 2526'
CASTULE	CASING A SING OR BING TYPE uctor water nediate scition g	Sizz 6-5/8 5-1/2 3-1/2	H-40 H-40 J-55	GRAM EIFICATION: Weight Weight per ft. 17 1.4 9.2	X X	Vised X X X	FOOTAGE I For drilling 2000 2418 3020	2000 2418 3020	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer Cmt to 5-1/2	Kinds HOO Sizes 5-1 Depths set Top	kers k Wall /2 x 6-1/2 2526' Bottom
CASTULE	CASING A SING OR BING TYPE uctor water nediate scition g	Sizz 6-5/8 5-1/2 3-1/2	H-40 H-40 J-55	GRAM CIFICATION Weight per ft. 17 1.4 9.2 RIGHTS w	New X	Vised X X X	2000 2418 3020 The deted September 1	2000 2418 3020	CEMENT FILLUP OR SACKS (Cable feet) Shoulder Packer Cmt to 5-1/2	Kinds HOO Sizes 5-1 Depths set Perforations: Top	k Wall /2 x 6-1/2 2526'

FORM WW-3(A) Obverse

RECEIVED DEPT. OF ENERGY

1)	Date	June	1. 1990
	<u> </u>	-	

Operator's

2) Well No. F. R. BALL NO. 9 3) SIC Code

4) API Well No. 47 /- 095 - 0548**←**L1

State County Permit

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION for the

	DIVISION OF OIL AN	D GAS, DEPARTMENT OF ENERGY
6) SUR	FACE OWNER(S) OF RECORD TO BE SERVED	7 (i) COAL OPERATORAddress
(i)	Name Ralph O. & Betty J. Hayes	
	Address Jacksonburg, W. Va. 26377	7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
(ii)	Name	Address
	Address	nduless .
		7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
(iii)	Name_	Name
·	Address	Address
TO THE I	PERSON(S) NAMED ABOVE: You should have	ve received this Form and the following documents:
	The plat (surveyor's map) showing the Construction and Reclamation Plant	n on Form WW-9 (unless the well work is only
The		
		or waste disposal is, 19
(FORM WW	RE SUMMARIZED IN THE "INSTRUCTIONS" ON N-3(B)) DESIGNATED FOR YOU. HOWEVER,	AT YOU HAVE RIGHTS REGARDING THE APPLICATION THE REVERSE SIDE OF THE COPY OF THE APPLICATION YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.
Well Wor of Energ depicted Construc ered by	the file or has filed this Notice and the Permit with the Director of the Divers, with respect to a well at the local on attached Form WW-6. Copies of the tion and Reclamation Plan have been metals.	Application and accompanying documents for a sision of Oil and Gas, West Virginia Department tion described on the attached Application and is Notice, the Application, the plat, and the ailed by registered or certified mail or delivby publication in certain circumstances) on or Director.
The pers followin	on signing this document shall make t g certification:	he
per inf att	certify under penalty of law that I h sonally examined and am familiar with ormation submitted in this document a achments and that, based on my inquir se individuals immediately responsibl	the Well Operator of By January 1
obt	aining the information, I believe tha	t the Its Supervisor, Surveying/Manning
am a	ormation is true, accurate, and compl aware that there are significant pena	ete. I
subi	mitting false information, including	lties for Telephone 304-422-6565 the

i	MAY	1	2	93	
	WV nvironr	Di:	risio t al l	n of Protecti	on

1)	Date	May	10,	1993
	Operat			

2) Well No. F. R. BALL

3) SIC Code

4) API Well No. 47 -095 - 0548 State County Permi

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION for the

	DIVISION OF OIL AN	D GAS, DI	EPARTMENT OF ENERGY
sur	FACE OWNER(S) OF RECORD TO BE SERVED	· 7 (i)	COAL OPERATOR
		, , , ,	Address
(i)	Name Ralph O. & Betty J. Hayes		
	Address Jacksonburg, WV 26377	7 (ii)	COAL OWNER(S) WITH DECLARATION ON RECOR
			Name
(ii)	Name		Address
	Address		
		7 (iii)	COAL LESSEE WITH DECLARATION ON RECORD:
(iii)	Name		Name
	Address		Address
			4
O THE	PERSON(S) NAMED ABOVE: You should hav	ve receiv	ed this Form and the following documents
(1)			•
(1)			ste Disposal Well Work Permit on Form
(2)	WW-3(B), which sets out the parties		
(3)		ie weil I	ocation on form ww-o; and
(3)			m WW-9 (unless the well work is only
	reclamation for the site and access		erosion and sediment control and for
The	date proposed for the first injection	or wast	e disposal is, 19
THE REAS	SON YOU RECEIVED THESE DOCUMENTS IS TH	H HOY TAK	AVE RIGHTS RECARDING THE APPLICATION
THICH A	RE SUMMARIZED IN THE "INSTRUCTIONS" OF	ITHE REV	ERSE SIDE OF THE COPY OF THE APPLICATION
FORM W	W-3(B)) DESIGNATED FOR YOU. HOWEVER	YOU ARE	NOT REQUIRED TO TAKE ANY ACTION AT ALL.
Take not	tice that under Chapter 22B of the Wes	st Virgin	ia Code, the undersigned well operator
ropose	s to file or has filed this Notice and	l Applica	tion and accompanying documents for a
Vell Wor	rk Permit with the Director of the Div	vision of	Oil and Gas, West Virginia Department
of Energ	gy, with respect to a well at the loca	ation des	cribed on the attached Application and
lepicte	d on attached Form WW-6. Copies of th	nis Notic	e, the Application, the plat, and the
Construc	ction and Reclamation Plan have been m	nailed by	registered or certified mail or deliv-
ered by	hand to the person(s) named above (or	by publ	ication in certain circumstances) on or
efore t	the day of mailing or delivery to the	Director	•
'ha ====	an cionina Abia la	•	
	son signing this document shall make t	he	
OTTOWI	ng certification:		
"I	certify under penalty of law that I h	ave	Pennzoil Products Company
per	rsonally examined and am familiar with	the	/Well Operator
ini	formation submitted in this document a	and all	(1 - 1)(1) = 0
att	tachments and that, based on my inquir	y of	By Juneal Head
	ose individuals immediately responsibl		Timothy P Rough

obtaining the information, I believe that the

submitting false information, including the

possibility of fine and imprisonment.

information is true, accurate, and complete. I

Its Supervisor - Surveying/Mapping

am aware that there are significant penalties for Telephone (304) 422-6565