





State of West Virginia AUG 15 Penort of Well Work

Well Operator & Noperator Well No.: HAESSLY #2

m name: Oxford

Farm name:

LOCATION: Elevation: 1,058.00 Quadrangle: OXFORD

District: SOUTHWEST

County: DODDRIDGE

Latitude: 13880 Feet South of 39 Deg. 15Min. 0 Sec. Longitude 7440 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: TERM ENERGY CORP.

713 EAST MAIN STREET

HARRISVILLE, WV 26362-0000

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD

Permit Issued: 07/28/94

Well work Commenced: 7/28/94
Well work Completed: 7/28/94

Verbal Plugging

Permission granted on:
Rotary____ Cable ____ Rig
Total Depth (feet) ____ 5231 Actual
Fresh water depths (ft) ____ 110' damp___

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N

Coal Depths (ft):

Casing &	Used in		Fill Up
Tubing Size	Drilling	in Well 	
16"	15'	<u>' </u>	
11 3/4"	25'	0	0
<u>8 5/8"</u>	1175.1	 <u> </u>	 _328.95_
4 1/2"	5216.7	5216.7	638.95

OPEN FLOW DATA

Producing formation Alexander, Benson, Riley, Pay zone depth (ft)4077-5061

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d

Final open flow 164 MCF/d Final open flow Bbl/d

Time of open flow between initial and final tests Hours Static rock Pressure 150 psig (surface pressure) after 24 Hours Comingled Production

Second producing formation Gordon & Weir Pay zone depth $(ft)_{2061-2437}$ Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d Final open flow 411 MCF/d Final open flow Bbl/d Time of open flow between initial and final tests Hours

Static rock Pressure 320 psig (surface pressure) after 24 Hours

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: TERM ENERGY CORP.

By: Designated Agent
Date: August 12, 1994

AUG 2 6 1994

HAESSLY #2

07-28-94

PERFORATED: GORDON: WEIR:

2462 - 2437; 7 HOLES .39 2061 - 2156 17 HOLES .39

SET WIDE MOUTH PLUG AT 2502'

ONE STAGE ENERGIZE WATER FRAC

- GORDON & WEIR:

MAX TR PRESS 3120; AVG RATE 30; AVG PRESS 2980; 33,400# 20/40; MAX CONC 4; TOTAL ACID 750 GAL; ISIP 1700; 10 MIN SIP 1460; TOTAL NITROGEN 76,350 SCF; TOTAL FLUIDS 691 BBLS.

hch61

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

Well Operator's Report of Well Work

Farm name DE HAESSLY HARWOOD LUMBER Operator Well No.: HAESSLY #2

Elevation: 1058.00 Quadrangle: OXFORD LOCATION:

> District: SOUTHWEST County: DODDRIDGE Latitude: 13880 Feet South of 39 Deg. 15Min. 0 Sec. Longitude 7440 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: TERM ENERGY CORP.

110 N. SPRING ST.

HARRISVILLE, WV 26362-0000

Agent: JEAN FREELAND

Inspector: MIKE UNDERWOOD

Permit Issued: 12/26/89 Well work Commenced: 12/28/89 03/08/90 Well work Completed:

Verbal Plugging

Verbal riugging
Permission granted on:
Rig Rotary x Cable R
Total Depth (feet) 5231 Fresh water depths (ft) 110' Damp

Salt water depths (ft)

Is coal being mined in area (Y/N)? N Coal Depths (ft):

Casing	Used in		Cement Fill Up
Tubing	Drilling		Cu. Ft.
Size			
16"	15'	0	0
11_3/4"	25'	<u> </u> 0	0
<u>8 5/8"</u>	1175.1'	 1175.1'	328.95 328.95
4 1/2"	5216.70	5216.70	638.95

OPEN FLOW DATA

Producing formation Alexander	Pay zone depth	(ft.)5017-5061
Gas: Initial open flow MCF/d Oil:	: Initial open flow	Bb1/d
Final open flow MCF/d	Final open flow	Bbl/d
Time of open flow between initial	and final tests	Hours
Static rock Pressurepsig (surf	ace pressure) after	Hours
Comingled Production - Balltown, Bradford, Second producing formation	Riley, Benson Pay zone depth	(ft) 4077-4744
Gas: Initial open flow MCF/d Oil:	Initial open flow	Bb1/d
Final open flow 775 MCF/d	Final open flow	Bbl /d
Time of open flow between initial	and final tests	Hours
Static rock Pressure 1025 psig (surf	ace pressure) after	25 Hours

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:	TERM ENERGY CORP.	······································	 	····
			• •	
	By: 2/2000	14 11 11		
	Date: // 2/24 2 14		 	
	Dace. 1 1/1/1 4. /1/	70		

3/8/90 Perforated Alexander; 5019-5061; 17 holes .39
Benson; 4743-4744; 2 holes .39
Riley; 4582-4678; 15 holes .39
Bradford; 4325-4343; 10 holes .39
Upper Balltown; 4077-4081; 5 holes .39

3 Stage Nitrogen Foam Frac

Alexander

-Alexander; 75 Quality N₂ Foam, Max TR Press 3300, Avg. Rate 24, Avg. Press 3207, 50,000# 20/40; 5,000# 80/100; Max conc. 4, total acid 500 gal, ISIP-1134,10 min SIP 1050, Total Nitrogen 444,000 scf, Total fluids 138 BBls

-Benson and Riley, 70 Quality N_2 Foam, Max. TR Press 2800, Avg. rate 18, Avg. Press 2603, 30,000#20/40; 5000#80/100, Max conc. 4, total acid 500 gal, ISIP - 2042, 10 min. SIP 1061, Total Nitrogen 245,000scf Total fluids 188 BBls

-Bradford and Balltown, 70 Quality N₂ Foam, MarcTM Press 2762; A7gs? rate 18, Avg. Press, 2694, 25,000# 20/40, 5,000# 80/100 Max conc. 4, total acid 500 gal., ISIP - 1438, 10 min. SIP 1016, Total Nitrogen 276,000 scf, Total Fluids 239 BBls

		*	
Well Log	Top	Bottom	
Sand, Shale & RR	0	1753	
Big Lime	1753	1820	water
Big Injun	1820	1875	111' - 1
Sand & Shale	1875	5231	
Geophysical Log	<u>To</u> p	Bottom	
Big Lime	1750	1812	
Big Injum	1812	1894	
Weir	2050	2171	
Berea	2248	2253	
Gordon Group	2474	2629	
Warren	3115	3171	
Upper Speechly	3189	3284	
Speechly	3671	3748	
Balltown	4062	4227	
Bradford	4284	4364	
Riley	4548	4679	
Benson	4740	4746	
Leopold	4874	4953	

4992

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5080

Damp

STATE OF WEST VIRGINIA CLOVED 12/26/89 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS 12/26/91 WELL WORK PERMIT APPLICATION

		white w	DOV SEVULL	APPLICATIO	N	
-イ) Well O	perator:	TERM En	ergy Corpora	tion 4916	05 (7)	525
2) Operat	or's Well	Number:_	Haessly #2	The state of the desiration of the state of	3) El	evation: 1058
			or Ga			:
•			Dee	P/		e_/ w_x/
5) Propos	ed Target	Formatio	n(s):	Alexander 43	9	
6) Propose	ed Total D	epth:	5500	feet		
7) Approx	imate fres	h water :	strata dep	ths:	80',142,178	9 293'
8) Approxi	imate salt	water d	epths:	1180'	,	
9) Approxi	imate coal	seam de	pths:		0	The state of the s
					ive mine? Y	es/ No_x_/
11) Propose					_	
12)						
		CASIN	NG AND TUB	ING PROGRAM		
TYPE	S	PECIFICAT	rions	FOOTAGE I	NTERVALS	CEMENT
	Size	Crade	Weight per ft.	For drilling	Left in	Fill-up (cu. ft.)
Conductor	16 11-3/4"	J - 55 J - 55	75# 42#	15'	40	Cu. It.
<u>Fresh Water</u>	8 5/8"	J - 55	20#	1158'	1158'	7 U. C.
Coal					1	20CSP10-1/3
<u>Intermediate</u>					1	365818-11.2.
Production	4 1/2"	J-55	11.6# 10.5#	84 5069	5069	38C8P18-11.1
Tubing						
Liners					MR	PERVIEW
<u>PACKERS</u> : Ki	COLUMN TO THE PARTY OF THE PART				KU	200 A G
	zes pths set _				ال الله	EC 20 1989
133	Fo	r Diviso	n of Oil a	nd Gas Use		ON OF OIL & GAS TMENT OF LIVERGY
Fee(s)	paid:	/	ork Permit	<u> </u>	amation Fund	
Plat (# WW-9 /	Ww-		and Sanh	of Jothan	17
		Legislama V			Type)	Agent

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DIVISION OF OIL & GAS DEPARTMENT OF LIVERGY

Date	e:	ecemb	er 14.	1989				
Operator's well number								
H	aessly	#2						
API	Well	No:	47 -	017		3775		
		Sta	te -	County	-	Permit		

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

Surface Owner(s) to be served: 5) (a) Coal Operator:

	(a) Name	Haessly Hardwood Lumber Sales	Name	N/\bar{A}
	Address	R.D. #1	Address	
	,	Marietta, OH		
	(b) Name	A444.5.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	(b) Coal	Owner(s) with Declaration
	Address			N/A
	THE PARTY WAS THE BUY SHAP THOUSE			27/22
	(c) Name			
	Address		Name	N/A
			Address	N/A
			33662 626	
6)	Inspector	Mike Underwood	(c) Coal	Lessee with Declaration
- ,	Address	Rt. 2. Box 135		N/A
		Salem. WV 26426		AV. 62
		(304) - <u>782-1043</u>		
		1002/		
		TO THE PERSON(S) NAMED ABO	מארה שארה	አነርጥ፣ ርድ ጥሀአጥ፣
		TO THE PERSON(S) NAMED AD	JAR IME	NOTICE IMAL.
	Theludod	is the lease or leases or	athar ca	ntinuing contract or
		which I hold the right to		
		is the information require		
secti		f the Code of West Virgin		
- 1				B of the West Virginia Code
		copies of this notice and		
accon		ocuments pages 1 through		e above named parties,by:
		onal Service (Affidavit a		
	Cert	ified Mail (Postmarked po:	stal rece	ipt attached)
	Publ	ication (Notice of Publication)	ation att	ached)
	I have re	ad and understand Chapter	22B and	38 CSR 11-18, and I agree
to th		and conditions of any perm		
				personally examined and am
famil		the information submitted		
				se individuals immediately
				ieve that the information
			on, I bei	teve that the information
12 61		ate, and complete.	7	
		te that there are signification		
inroi	rmation, i	ncluding the possibility	or rine a	nd imprisonment.
		Well Operator		
		By: Alan	She	land
		Its: // Agent		
			North Sprin	
			<u>lsville. WV</u>	
			04 643-45Ø0	
Subso	cribed and	sworn before me this 14	_ day of	December , 19_89
		MIN	1 the 1	
		all.	Slew	Notary Public
Му с	ommission		13/95 1	7
•			7	William Committee of the Committee of th

W-2184 D.	* * *	
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AND GAS	
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	9AF # 5 33	WELL WORK PERMIT A	PPLICATION	Expres 07/28/9
.)	Vell*Operatbra	ිදිර Term Energy Corporation	49105	J 526
· ·	Operatoric Mell	Number: Haccly #2	/7-17-03775F	3) Flourtion: 1056

Operator's Well Number: <u>Haessly #2</u> 47-17-03775F 3) Elevation: <u>1058</u>

Well type: (a) Oil_/ or Gas XX/

(b) If Gas: Production XX / Underground Storage __/ Deep __/ Shallow XX /

Proposed Target Formation(s): Weir 387

6) Proposed Total Depth: 5216 Actual feet

7) Approximate fresh water strata depths: 110'

8) Approximate salt water depths: N/A

9) Approximate coal seam depths:

10) Does land contain coal seams tributary to active mine? Yes__/ No_XX_/

11) Proposed Well Work: Set small mouth plug at 2200', frac weir, remove plug and comingle with lower production.

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE IN	CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up
Conductor	16" 11 3/4"	J-55 J-55	75# 42#	15' 22'	0 0	0
Fresh Water	8 5/8"	J-55	20#	1175.1	1175.1'	328.95
Coal						
Intermediate						
Production	4 1/2"	J-55 J-55	11.6# 10.5#	84' 5132.7'	84† 5132.7†	638.95
Tubing		Og de militario de la companio de l				
Liners						

PACKERS	0	: Kind	
		Sizes	
		Depths set	

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	 Fee(s) pai	d:	Well	Work	Permit	11	Reclamation	Fund	11	MPCP

					/	<i>r</i>	
1	Plat	WW-9	1 1	WW-2B	Bond		Agent
·		,	· —— ·		*	_	
						(Type)	
						1 2 2	

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Page	1 of	7.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1)		Ly 6, 1994
Form	WW2-A			2)	Operator	's well number
(10-9)	1)			•	Haessly #2	No: 47 - 17 - 03775F
		1 1		3)	API Well	No: 47 - 17 - 03775F
		7 v m2				State - County - Permit
		* ()				•
		4.9) · · · GSTATE	OF WEST	. VIRGINIA	1
	DIVISIO					FICE OF OIL AND GAS
	100 part of the 100 part of					
		NOTICE	AND APPLIC	ATION F	OR A WELL	WORK PERMIT
4)	Surface Ow	mer(s)	to be serv	red:	5) (a) Co	oal Operator:
-,	(a) Name _{Ha}					
	Address Rt				Address	
			H 45750		-	
	(b) Name	ITIELLA. U	<u>n 43130 </u>		(b) Coal	Owner(s) with Declaration
	(b) Name _ Address				• •	
					Address	
	(c) Name				Address -	
	/ddroce _				Namo	
	Address _				Address	
					Address -	
6)	Thenoster				(c) Coal	Lessee with Declaration
0)	Inspector				Name	Hebbee With Decidiation
	Address	Rt. 2 Box	235		Addross	
	m-1b	Salem, WV	7 26426		Address -	
	Telephone	(304)7	782-1043			
		T CILITI T	PEDCON(C)	MANUSTA AT		NOUTCE THAT.
		10 Ing F	ERSON(S)	MANUEL AL	DOVE TAKE	NOTICE THAT:
Sect.	racts by what included in a (d) or included in a certify we served or included in a certify and included in a certify and included in a certification in a certificat	nich I h is the i f the Co that as copies o comments onal Ser ified Ma	old the rinformation de of West required fithis not pages 1 to vice (Affi	ight to n requir t Virgin under C tice and through idavit a	extract of ed by Charles (see postable) charter 22 applicat on the ttached) ostal rece	B of the West Virginia Code ion, a location plat, and e above named parties, by:
fami atta resp is t info	he terms and I certify liar with the chments, and onsible for the court of the cour	nd condiunder pathe infond that robtain ate, and that that the coluding sworn because of the column because of the col	tions of a senalty of rmation so based on a sing the incomplete here are a the poss. Well of By: Its: Address	any perm law that ubmitted my inquinformati signific ibility perator lance Designate S 713 E. Harris one (304	ait issued at I have a on this ary of tho on, I bel cant penal of fine a Term Energy Audian d Agent Main St. ville, WV) 643-4500	26362
_		-	ā		/	Rt. 1 Box 60 Cairo, WV 26337 My Comm. Expires Sept. 15, 2003