

Plot Log_ Latitude 38° 25' 5.47 MI.S 0.25 MI.W - 2 0 **IEE**CH - 3 G.E. CALDWELL 34.90 ACRES ACCURACY: | ' /200' (983') LIZEMORES Source of Elevation. I, the undersigned, hereby certify that this map is correct to the best of my knowledge New Location . and belief and shows all the information required by paragraph 6 of the rules and regula-Drill Deeper . tions of the oil and gas section of the mining laws of West Virginia. Abandonment Fracture . Redrill et Waler Company APPALACHIAN EXPL. & DEV.INC. STATE OF WEST VIRGINIA
DEPARTMENT OF MINES Address CHARLESTON, WV OIL AND GAS DIVISION Farm G.E. CALDWELL **CHARLESTON** Tract____Acres 34.90 Lease No.__ ELL LOCATION MAP Well (Farm) No. 2-GAS UNITSerial No. FILE NO. Cla-1017 Elevation (Spirit Level) 985' WC Quadrangle CLAY County CLAY _____District_PLEASANT + Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude Engineer CHET WATERMAN and longitude lines being represented by border Engineer's Registration No. 3788 lines as shown. File No. 74003-448 Drawing No. Denotes one inch spaces on border line of original tracing. Date 9/26/74 Scale 1 47-015

/ Card CSD Mflm//

OCT 18 1974





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JAS DISTE

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 2

Quadrangle Clay					CableRecycling_	
Permit No. Cla-1017	7				Water Flood	l Storage
Terrific 140. Ota-1017					Disposal	(Kind)
Company Appalachia Address P.O. Box (Farm G.E. Caldwell	628, Charleston,	W. Va.	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Location (waters) Pace Well No. 2	ck Fork El	ev. 985'	Size 20-16			
District Pleasant			Cond.			
The surface of tract is		13-10"				
Guy E. Cale Address Lizemore,		9 5/8 8 5/8	132'	1221		
Mineral rights are owner	same as al	oove	7	132	132'	
	ed by		5 1/2			
Drilling Commenced			4 1/2	2118'	21101	
Drilling Completed	11/5/74		3	2110	2118'	
Initial open flow		hhl.	2 -3/8"	2034.36		
Final production 231	M ou fi nor day	DDIS.	Liners Used	2034.30		
Well open8	bre before test					
Well treatment details:	IIIS. Delore test_	Kr.	Attack comment			
	- 2060 60 1 b-	1./5	Attach copy of	•		1000
Perforated Inju	0# 20/40 and 15	1e/it. Frac	ed 2040-60'	with 500 ga	als. MCA,	1000 gals.
pressure 1200#			sand in 040	bbis. geile	ed water.	breakdown
pressure 1200#	ps1. 151F 1200	1r •				
	1					
Coal was angountared a		F4				
Coal was encountered a		etreet_	C-14	Inche		
	Injun		Sait Dept			Feet
Troducing Band			Dept	n <u>2040-201</u>	ou	
Formation Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or	Water	* Remarks
Rotary		0	8			
Clay sand		8	90			
R oc k		90	139			
Rock		139	247			
Sand and shale		247	647			
Shale Sandy shale		647	860			
Salt sand		860 1010	1010 1180	1		
Salt sand		1180	1300			
Salt sand		1300	1420			
Shale		1 1300				
Salt sand		1420	1545			
		1420 1545	1			
Shale		1420 1545 1715	1545 1715 1875	·		
Lime		1420 1545 1715 1875	1545 1715 1875 1985			
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041			
Lime		1420 1545 1715 1875	1545 1715 1875 1985 2041 2069	T D		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041	T. D.		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041 2069	T.D.		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041 2069	T.D.		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041 2069	T.D.		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041 2069	T.D.		
Lime Lime		1420 1545 1715 1875 1985	1545 1715 1875 1985 2041 2069	T.D.		

(over)

^{*} Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water * Remarks
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				/ ·	A Committee of the Comm
Cement reco	ord				
asing	No	. of sks.	Type cen	nent	
-5/8"		100	RFC		Cement circulated
-1/2"		35	Thixotro	pic	Secretary of the second
	i. Si	to a second			
e de la companya de l					
					¶ (1) 1 Cook is 1 max.

Date January 27

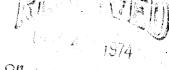
APPALACHIAN EXPLORATION & DEVELOPMENT, INC.

APPROVED

Owner







Oil and Gas Division



OIL AND GAS WELL PERMIT APPLICATION

	ARTMENT OF MINES,	0-4-1	- 2 107/	÷
Charl	eston, W. Va.	Appala	r 3, 1974 chian Explora	tion &
Surface Owner_	Guy E. Caldwell		oment, INC.	
Address	Lizemore, West Virginia	Address	Charleston,	w.va. 25322
Mineral Owner_	Same as above.	Farm G.E.Caldwe	ll Gas Unit	_Acres34.9
Address		Location (waters)	Pack Fork	•
Coal Owner	Same as above	Well No2		Elevation 985
Address		District Pleasa	nt	County Clay
Coal Operator_	None	Quadrangle Clay		
Address				
t oravisions b	eing in accordance with Chapter 22,			
	ode, the location is hereby approved			
	This permit shall expire if			•
operations have	Not commenced by 2-7-75			
Notest ;	F BB			m. T. n.
Deputy Director	- Oil & Gas Division	many description of	DE NOTIFIED	Tarem / fice
45.10.5.10.10.10.10.10.10.10.10.10.10.10.10.10.		Clender	PH:	548-6913
GENTLEMEN:		w	A ,	
et ux	r as the case may be) under grant or lease Appalachian Explora made to <u>Development, Inc.</u> Clay County, Book	and recorded or Page636	the 10th	_ day of <u>Januar</u>
XN	EW WELLDRILL DEEPER _	REDRILL	FRACTUR	E OR STIMULAT
OI	L AND GAS WELL ORIGINALLY DRILL			
	plat was prepared by a registered engineer ed as of the above date.	r or licensed land surveyor	and all coal own	ers and/or operate
	amed coal owners and/or operator are hereb tion 3 of the Code, must be received by, or			
copies of this or coal owners	tion 3 of the Code, must be received by, or s notice and the enclosed plat were mailed bat their above shown respective address	r filed with the Departmen by registered mail, or deliv day	ered to the above i	ten (10) days. * named coal operate before, or on t
copies of this or coal owners	tion 3 of the Code, must be received by, or s notice and the enclosed plat were mailed	r filed with the Departmen by registered mail, or deliv day	ered to the above i	ten (10) days. * named coal operate before, or on t
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*SECTION 3.... If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit receiping the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

•	X	DDII I	DEFERM	ED A CTURE STIMULATE			
PROPOSED WORK ORDER TO X DRILL							
DRILLING CONTRACTOR: (If Known) NAME_F.W.A. Drilling Co.			RESPONSIBLE AGENT: NAME J.B. McPeters				
NAME F.W.A.	Urilling Co.	itchita Falls,Tx.	ADDRESS Box 628, Charleston, W.Va. 25322				
	II & out Blug.,			355			
TELEPHONE		WELL 2300'					
	TH OF COMPLETED	TIDD:	ROTARY	_ CABLE TOOLS			
PROPOSED GEO	LOGICAL FORMATION	N: <u>Injun</u>					
TYPE OF WELL:	OIL			GE DISPOSAL			
		RECYCLIN	G WATER FI	LOODOTHER			
TENTATIVE CAS	SING PROGRAM:						
CASING AND	*	USED FOR	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.			
SIZI		DRILLING	WELL.	OK SACKS - CODIC 112			
20 - 16							
13 - 10 9 - 5/8							
8 - 5/8		150'	150'	100 sks.			
7							
5 ½							
4 1/2		2300 '	2300'	40 sks.			
3				Perf. Top			
2				Perf. Bottom			
Liners				Perf. Top Perf. Bottom			
				Tert: Bottom			
OF PLAT. TO DRILL DEED SUBMIT FOR WELLS DRING MUST ALS TO FRACTURE OIL AND/OBOND, PER OIL AND/OBOND, PER OIL AND/OBORD OR	PER OR REDRILL: EVE (5) COPIES OF OCULLED PRIOR TO 19 O BE SUBMITTED STIMULATE: OR GAS WELL ORIGINAMENT PLAT AND OR GAS WELL ORIGINAL PERMIT NUMBER	G - 1, SHOWING ORIGI 29, A PERMANENT CO MALLY DRILLED BEFOR ORIGINAL WELL REC MALLY DRILLED ON AN R,AND PERFORMANCE	NAL PERMIT NUMBER DPY OF THE PLAT AN RE JUNE 5, 1929, FIVE (CORD. ND/OR AFTER JUNE 5, 1900)	BOND AND PERMANENT COPY AND PERFORMANCE BOND. ON D THE ORIGINAL WELL RECORD 5) COPIES OG - 1, PERFORMANCE 1929, FIVE COPIES OG - 1, SHOW- se. Inspector to be notified twenty-			
thereof. WAIVER: I the this !	undersigned, Agent for ease have examined an he ding operator has compl	r d place on our mine m Coal Company	Coal Company, Owaps this proposed well lo	be issued within ten days of receipt oner or Operator of the coal under ocation. d well being drilled at this location, nd 7, Chapter 22 of the West Virginia			
				For Coal Company			
				and some company			

Official Title



Date API#

September 21, 2009 47- 015 - 01017

State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

		Well	Operators Rep	OLL OL V	VEII VVOI	r.				•
Farm Name:	·	Guy E. Caldwe	<u> </u>	Operat	or Well	No.:		2		
LOCATION:	Elevation: District: Latitude: Longitude:	985' Pleas 13,550 1130			-	10 22	Bentro Clay MIN. MIN.		SEC.	
				1	sing &					Cement Fill
Company:	Cabot Oil & G	as Corporation				Used in	Drilling	Left In	Well	Up Cu. Ft.
Company.	npany: Cabot Oil & Gas Corporation 900 Lee Street East, Suite 500			8-	-5/8"	14	40'	14	0' /	161 cu.ft.
.	Charleston, WV 25301		4-	-1/2"	21	18'	21	18' /	54.3 cu. Ft.	
Agent:		Brian [) Hall	}						
Inspector:	_	Terry		· 2·	-3/8"	N	IA I	202	24'	NA
Permit Issued	d: -	September		-						
Well Work Co		November		•						
Well Work Co	ompleted:	December						·		
Verbal Pluggi	ing:			·						
Permission g	ranted on:									
Rotary <u>X</u>										
Total Depth (· · · · · · · · · · · · · · · · · · ·	213								
Fresh Water			ported /							
Salt Water De			ported /	.						
	mined in area		(Yes)	. L		<u> </u>				
	(ft) <u>None repo</u>	rted //			 					
OPEN FLOW	DATA									
n					Pay Z		_			
Producing F	**********	lnju		_	Depth	(ft) _	2	049'-206	<u> </u>	
Gas: Initial C	-	NA	MCF/d		Oil: In	itial Ope	n Flow		0	Bbl/d
	pen Flow	231	MCF/d		F	inal Ope	n Flow		0	Bbl/d
	en flow betwee		-		1924		Hours			
Static rock pr	essure	_545ps	ig surface pres	sure af	ter		Hours			•
					Pay Z	one				
Second Prod	lucing Formati	on	NA		Depth	(ft) _		NA		
Gas: Initial C	pen Flow	NA	MCF/d		Oil: In	itial Ope	n Flow		NA	Bbl/d
	pen Flow	NA	MCF/d			inal Ope			NA	Bbl/d
Time of or	oen flow betwee	n initial and fina	al tests		NA	•	Hours			
Static rock pr	essure	NA ps	ig surface pres	sure af	ter	NA	Hours			
STIMULATING	CK OF THIS FOI i, PHYSICAL CH/ ATIONS, INCLUI	ANGE, ETC. 2.)	THE WELL LOC	WHICH	HIS SYS	TEMATIC E	ED INTER DETAILE	VALS, FIED GEOL	RACTUF LOGICA	RING OR L RECORD
			Dv.	VA/ 1	· Handat.			Th:11	ina C	

Treated Big Injun 11/21/74 @ 2040'-2060' (1 spf, 20 holes) with 500 gallons MCA, 1000 gallons Methanol, 30,000# 20/40 and 15,000# 10/20 sand in 840 bbls gelled water. BDP = 1200 psi, ISIP = 1200 psi, ATP = 2571 psi at 31.4 bpm.

Pulled tubing and packer and set Retrievable Bridge Plug @ 1870' on 12/10/08. Retreived RBP on 12/12/08. Ran new tubing @ 2024' with Baker AD-1 Packer @ 2034'-27', and displaced fluid with 30 bbls of Corban 400, Clay Stabizer, & Microbiocide to annulus on 12/12/08. Tested 4"x2" annulus to 1543 psi on 12/15/08.

FORMATION	TOP	BOTTOM	REMARKS
Clay sand	· 8'	90'	
Rock	90'	139'	
Rock	139'	247'	
Sand & Shale	247'	647'	
Shale	647'	860'	
Sandy Shale	860'	1010'	
Salt Sand	1010'	1180'	
Salt Sand	1180'	1300'	
Salt Sand	1300'	1420'	
Shale	1420'	1545'	
Salt Sand	1545'	1715'	
Shale	1715'	1875'	
Lime	1875'	1985'	
Lime	1985'	2041'	
Injun Sand	2041'	2069'	
TD	2135'		