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WV Division of Environmental Protection

06-May-93 API # 47-099-01870

JAN 2 3 1995

Permitting Office of Oil & Gas

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

Well Operator's Report of Well Work

Farm name: CABWAYLINGO STATE FOREST

Operator Well No.: WILSON COAL A18

Location:

Elevation: 1253.55

Quadrangle: WILSONDALE

District: LINCOLN

County: WAYNE

Latitude: 4400 Feet South of 37 Deg. 57 Min. 30 Sec. Longitude: 550 Feet West of 82 Deg. 20 Min. 00 Sec.

Company: CABOT OIL & GAS CORPORATION

400 FAIRWAY DRIVE, SUITE 400

CORAOPOLIS, PA 15108

Agent: DAVID G. MCCLUSKEY

Inspector: OFIE HELMICK Permit Issued: _____ 05/06/93 Well Work Commenced: 07/13/93 Well Work Completed: 07/27/93 Verbal Plugging Permission granted on: Rotary <u>x</u> Cable <u>Rig</u> Total Depth (feet) _ 50621 Fresh water depths (ft) 201' Salt water depths (ft) 1165' Is coal being mined in area (Y/N)? N Coal Depths (ft): <u>n/a</u>

Casing & Tubing	Used in	Left in Well	Cement Fill Up Cu. Ft.
20"	38′	38′	n/a
13-3/8"	552′	552′	450 sks Class A
9-5/8"	2152′	2152′	700 sks Class A
7"	3778′	1732′	38 sks Class A

OPEN FLOW DATA

Producing formation <u>LOWER HURON SHALE</u>	Pay zone depth (ft) <u>3268-3376</u>
Gas: Initial open flow MCF/d	Oil: Initial open flow <u>N/A</u> Bbl/d
Final open flow 103 commingled MCF/d	Final open flow <u>N/A</u> Bbl/d
Time of open flow between initial and	final tests4 Hours
Static rock Pressure <u>265 comming</u> . psig (sur	face pressure) after <u>14</u> Hours
Second Producing formation <u>BEREA</u>	Pay zone depth (ft) <u>2416-2460</u>
Gas: Initial open flowTSTM _ MCF/d	Oil: Initial open flow N/A Bbl/d
Final open flow 103 commingled MCF/d	Final open flow <u>N/A</u> Bbl/d
Time of open flow between initial and	final tests4 Hours
Static rock Pressure 265 comming. psig (sur	

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:	CABOT OIL	& GAS	CORPORAT	ION ,	0
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	1/	17/4		0	

Date:

Third formationINJUN Pay zone depth (ft) 1862-1874
Third formation INJUN Pay zone depth (ft) 1862-1874 Gas: Initial open flow TSTM MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow703 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 4 Hours
Time of open flow between initial and final tests 4 Hours Static rock Pressure 305 psig (surface pressure) after 14 Hours
Fourth formation BIG LIME Pay zone depth (ft) $\frac{1710-1719}{1793-1825}$ Gas: Initial open flow $\frac{TSTM}{703}$ MCF/d Oil: Initial open flow $\frac{N/A}{NA}$ Bbl/d Final open flow $\frac{N/A}{NA}$ Bbl/d Time of open flow between initial and final tests $\frac{1}{NA}$ Hours Static rock Pressure $\frac{1}{NA}$ Psig (surface pressure) after $\frac{1}{NA}$ Hours
Fifth formation <u>LOWER MAXTON</u> Pay zone depth (ft) <u>1580-1613</u> Gas: Initial open flow <u>TSTM</u> MCF/d Oil: Initial open flow <u>N/A</u> Bbl/d
Gas: Initial open flow <u>TSTM</u> MCF/d Oil: Initial open flow <u>N/A</u> Bbl/d
Final open flow <u>TSTM</u> MCF/d Final open flow <u>N/A</u> Bbl/d
Time of open flow between initial and final tests Hours Static rock Pressure O psig (surface pressure) after Hours
Static rock Pressure 0 psig (surface pressure) after <u>14</u> Hours
FORMATION SQUEEZED OFF WITH CEMENT DUE TO LACK OF GAS AFTER FRAC TREATMENT.

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

Perf Lower Huron from 3,268'-3,272'; from 3,306'-3,312'; from 3,322' -3,350', from 3,372'-3,376'. Brk dwn Lower Huron w/750 gals of 15% hcl, displ w/120,000 SCF N_2 ; BDP - 975 psi; Surface ISIP 700 psi. Foam frac w/89,000# 20/40 mesh sand in 90Q foam. ISIP -770. Brk dwn Berea w/750 gals of 15% hcl, displ w/165,000 SCF N_2 . BDP - 2,140 psi; Surface ISIP 1,500 psi. Foam frac w/42,000# 20/40 mesh sand in 75Q foam. ISIP - 1,880. Perf Injun from 1,862' to 1,874'. Brk dwn stg 1 w/750 gals of 15% hcl, displ w/16,000 SCF BBLS H_2 0; BDP - 2,100 psi; Surface ISIP 1,200 psi. Foam frac w/45,600# 20/40 mesh sand in 75Q foam. ISIP - 1,640. Perf Big Lime from 1,710'-1,719'; from 1,793'-1,800'; from 1,803'-1,808'; from 1,818'-1,825'. Perf Lower Maxton from 1,580'-1,588'; from 1,596'-1,604'; from 1,610'-1,613'. Brk dwn Big Lime w/500 gals of 15% hcl, displ w/12 BBL H_2 0; BDP - 2,935 psi. ISIP - 1,630. Brk dwn Lower Maxton w/500 gal of 15% HCL & displ w/13 bbls H_2 0. BDP - 3,490; Surface ISIP after break 1,350. Foam frac w/85,500# 20/40 mesh sand in 75Q foam; ISIP - 1,600.

FORMATION	ТОР	BOTTOM
SAND & SHALE	0	1575
LOWER MAXTON	1575	1610
LITTLE LIME	1610	1660
BIG LIME	1660	1850
BIG INJUN	1850	1880
SHALE	1880	2390
SUNBURY	2390	2415
BEREA	2415	2470
SHALE	2470	3750
CORNIFEROUS	3750	4400
BIG SIX	4400	4440
KEEFER	4440	4460
SHALE	4460	4845
TUSCARORA	4845	4885
SHALE	4885	5062
TD	5062	5062
	3750	

Page	1 of		1)	Date:
77	T.77.7		2)	Operator's well number Wilson Coal & Land A-18 API Well No: 47 - 099 - 1870
(10-	91)	Emarchimenta, Photocolon		Wilson Coal & Land A-18
		APR 1 4 93	3)	API Well No: 47 - <u>099</u> - <u>1870</u>
				State - County - Permit
		Permit'n;		
		O" STAT		
	DIVISI	on of environment	TAL PROTE	CTION, OFFICE OF OIL AND GAS
		NOTICE AND APPLI	CATION FO	OR A WELL WORK PERMIT
4.)	C.,	· · · · · · · · · · · · · · · · · · ·		5) (a) Coal Operators
4)		wner(s) to be ser		
	(d) Name	Cabwaylingo State	orest	Name Not Operated
	Address _	Route 1		Address
		dunlow, WV 25111		(h) Cool Comow(a) with Doglovation
	(D) Name	Opal & Dana Maynard		(b) Coal Owner(s) with Declaration
		General Delivery		Name Public Land Corp.
	Wilso	ndale, WV 25699		Address Bldg 3, Room 713
	(C) Name			1800 Washington St. E., Charleston, WV 25305
	Address _			Name Address
				Address
6)	Inspector	Ofie Helmick		(c) Coal Lessee with Declaration
0 /	Address	P.O. Box 218		Name
S .	uddiess _	Fanrock, WV 24834	PARTICIPATION CONTRACTOR OF THE TOTAL CONTRACTOR OF THE SECURITY OF THE SECURI	Address
	Telephone	(304) - 732 - 9135		11441 000
	I C I C PII CII C	(304)		
		TO THE PERSON(S)	NAMED AF	SOVE TAKE NOTICE THAT:
				other continuing contract or
cont	racts by w	hich I hold the	right to	extract oil and gas <u>OR</u>
X	Included	is the information	on require	ed by Chapter 22B, Article 1,
Sect	ion 8(d) o	f the Code of Wes	st Virgin	ia (see page 2)
	I certify	that as required	d under C	hapter 22B of the West Virginia Code
I ha				application, a location plat, and
				on the above named parties, by:
		onal Service (Aft		
				stal receipt attached)
		ication (Notice		
	400m hackburgstoner	4660 ARRO 4000 1000 4000 4000 4000 4000 4000 4	(2) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	
	I have re	ad and understand	d Chapter	22B and 38 CSR 11-18, and I agree
to t				it issued under this application.
				t I have personally examined and am
fami				on this application form and all
atta	chments. a	nd that based on	my inqui	ry of those individuals immediately
resp	onsible fo	r obtaining the	informati	on, I believe that the information
		ate, and complete		,
				ant penalties for submitting false
info				of fine and imprisonment.
	•			Cabot Oil & Gas Corporation
		By:	_	Stone Taleson
		Its:		Drilling Manager
		Addres	SS .	Three Gateway Center, Suite 2000
			Aggreens and graphs are also also and the Children of the Children	Pittsburgh, PA 15222-1011
		Telepi	none	(412) 594-7000
Subs	cribed and	sworn before me	this and	day of $\frac{1943}{}$
		1.1		
ADMINISTRA COGNICARIO		1 Maison W	July July	Notary Public
Myz C	ommission	explires	1,53	C G C

FORM WW-2B APR 1 4 93

1099-1870 Issued 05/06/93

Permitting STATE OF WEST VIRGINIA OF OIL AND OWNER OF WEST VIRGINIA OF OIL AND OWNER OF WELL WORK PERMIT APPLICATION

	Wall aparators Cabat Oil & Can Composition 8145 (F) 686
1)	Well Operator: Cabot Oil & Gas Corporation 8145 (4) 686
	Operator's Well Number: Wilson Coal A-18 3) Elevation:1253.55
4)	Well type: (a) Oil/ or . Gas_X/
	(b) If Gas: Production X / Underground Storage/ Deep X / Shallow/
5)	Proposed Target Formation(s): Big Six
6)	Proposed Total Depth: 5170 feet
7)	Approximate fresh water strata depths: 273, 400, 516, 672, 894
8)	Approximate salt water depths: 1236'
9)	Approximate coal seam depths: 497'
10)	Does land contain coal seams tributary to active mine? Yes/ No_ $^{\rm X}$ /
11)	Proposed Well Work: Drill & complete gas well
12)	Based on 1486, 1464, 1548, 1551 CASING AND TUBING PROGRAM

TYPE		S	PECIFICAT	IONS	FOOTAGE INTERVALS		CEMENT	CEMENT	
		Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)		
	Conductor	16"	L.S.	65#	30'	30' 🦴	GFS SKS	Į ć	
_A	Fresh Water	9-5/8"	L.S.	36#	950'	950'	320 sks CTS	•	
	Coal	7!!	L.S.	20#	2160'	2160'	330 sks CTS		
	Intermediate	-					385R18-11.2	2	
	Production	4-1/2"	J-55	10.5#	4730'	4730'	205 sks		
	Tubing		39 · · ·				38C5R1G11	/	
	Liners								

PACKERS	•	Kind Sizes			
		Depths	set		

For Divison of Oil and Gas Use Only

1052

Reclamation Fund (

WPCP

Jan = TWW Division of Environmental Protection

DIVISION OF ENVIRONMENTAL PROTECTION SECTION OF OIL AND GAS

DEC 0 2 1994

099-1870-

AFFIDAVIT OF PLUGGING AND FILLING WELL Permitting ADMICDATON SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses. Operator Well No.: WILSON COAL A-18 Farm name: CABWAYLINGO STATE FOREST Elevation: 1253.55 Quadrangle: WILSONDALE LOCATION: County: WAYNE District: LINCOLN Latitude: 4400 Feet South of 37 Deg. 57 Min. 30 Sec. Longitude 550 Feet West of 82 Deg. 20 Min. 00 Sec. Well Type: OIL GAS X Coal Operator Public Land Corp Company: Cabot Oil & Gas Corporation or Owner Bldg. 3, Room 713 400 Fairway Drive, Suite 400 1800 Washington St. E. Coraopolis, PA 15108 Charleston, WV 25305 Coal Operator Dave McCluskey Agent: or Owner Permit Issued: AFFIDAVIT STATE OF WEST VIRGINIA, SS: County of and Kevin Clowser Billy Wright first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by the above named well operator, and participated in the work of plugging and filling the above well, and ____Ofie Helmick representing the Director, say that said work was Gas Inspector _, 19_93, and that day of October on the 13th commenced the well was plugged and filled in the following manner: LEFT PIPE REMOVED FROM TO TYPE 4550 5043 Gel 4550 Cast Iron Bridge Plug 4550 4500 Latex Cement 4471 4500 Ge 1 4341 4471 Latex cement 4341 3838 3738 Class "A" Cement 3838 PARTIAL PLUGGING Description of monument: and that the work of plugging and filling said well was completed on the day of And furthur deponents saith not. 30 Un day Sworn and subscribe before me this OVEMBER My commission expires: June 17, 196 Cynthia M. Bowles, Notary Public Chartiers Twp., Washington Doesity My Commission Expires June 17, 195

Member Pennsylvania Association of Sciences Oil and Gas Inspector: