FILE COPY



1)	Date:	May 21	_, 19_	84	
2)	Operator's	24902 (200) (RME	

Well No. Black Betsy #13

3) API Well No. 47 - 079 - 1113

State County Permit

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

				<u>A</u>	PPLICATIO	IN FOR A WEL	WORK PERMI	<u>.</u>	
4) WELLT	PF. A O		120/ G	25	X	TONS AR AN	Neconier	DIFICATIONS	PERMITIMO
4) WELL I								/ Deep	
5) LOCATION		vation:		591					reck of Pocatalico Res
3) LOCATI			-					THE RESERVE OF THE PERSON OF T	Bancroft
6) WELLO								DAGENT <u>Stever</u>	
Addre		. Box		GIGIG	oorpe o		Address	P.O. Box 62	BOARD THE REST OF STREET, STRE
Addic	A SECURITY OF THE PARTY OF THE		on, WV	253	22		Address	Charleston	
8) OII & G	AS INSPECT						DRILLING C		WV 23322
	Jerry H			TILD			Name		
Addre			te. #1	- Bo	x 28		Address	MINIOWIN	
Addre			WV 25		X LO		Address		
O) BROROS					/ D.:III				3(C)2)(V)(S)A
0) PROPOS	ED WELL V	ORK:			_/ Drill		_/ Redrill te new formation		50000
						rell (specify)		100	لال الله
1) GEOLOG	ICAL TAR	ET FOR					jun and Ber	Lough letter	MAY 2 5 1984
						g Lille, III.	jun and Ber		- PAR BUMBION
							250, 1686		IL & GAS DIVISION
14) Appr	ovimate coal	seam der	other	291	solid	leet; sait,	being mined in th	feet.	PT, OF MINE
5) CASING					SULTU	Is coa	deing mined in th	e area? Yes	7 No X
CASING OR	II		CIFICATION			FOOTAGE IN	TERVALO		li de la companya de
TUBING TYPE	. 1		Weight	1		1		OR SACKS	PACKERS
Conductor	Size 16	Grade	per ft.	New	Used	For drilling	Left in well	(Cubic feet)	
	9-5/8		36	X		30	30	10 sks.	Kinds
resh water	3-3/0		30	٨		400	400	160 sks. Nea	t CTS
oal	7		20	V		3775	1775	0-0	Sizes
ntermediate	4-1/2			X		1775	1775	350 sks. Nea	t CTS
roduction	4-1/2		10.5	X		3940	3940	200 sks. or	Depths set
ubing						CANO 180 3	21 1/157	as req. by R	le 15.01
iners						188			Perforations:
		Photis	PROBECT		t ma na	ROCHITCHISCH	dates of pertai	his so record title	Top Bottom
	leic(i i						late:		
				(a) no	OT	FICE USE O	ATT N		phearion received
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					Value of the Control of the Control of the	ILLING PER			hazaka kiny lle
ermit number_	47-07	79-111	13		Value of the Control of the Control of the	THE REPORT OF THE PARTY OF THE		June 18.	hazabis ktov lle
			1000		DR	ILLING PER	MIT	June 18,	19 84
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nis permit covi	ering the well	l operato	or and well	ierein a	on shown bel	OW is evidence of	permission grante	Date od to drill in accordance	19 84
nis permit covo hirements subjects 8) Prior to	ering the well	l operato	or and well contained h	ons and	on shown bel	ow is evidence of verse hereof. Noti	permission grante	Date od to drill in accordance	19 84
nis permit covorirements subject. 8) Prior to strict oil and g	ering the well ect to the cor he construction as inspector	l operatoriditions of rocal	or and well contained h ads, location before ac	ons and tual per	on shown belind on the repits for any	ow is evidence of verse hereof. Noti permitted work, has commenced.	permission grante fication must be gin addition, the web)	Date of to drill in accordance iven to the District Oil ell operator or his cont	te with the pertinent legal re and Gas Inspector, (Refer to ractor shall notify the prope
nis permit covirrements subject. 8) Prior to strict oil and governments.	ering the well ect to the cor he construction as inspector	l operatoriditions of rocal	or and well contained h ads, location before ac	ons and tual per	on shown belind on the repits for any	ow is evidence of verse hereof. Noti permitted work, has commenced.	permission grante fication must be gin addition, the web)	Date of to drill in accordance iven to the District Oil ell operator or his cont	te with the pertinent legal re and Gas Inspector, (Refer to ractor shall notify the proper
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File

FORM	IV-2(B)
Reverse	

Permit

FILE COPY

3) APL Well No.



rme copy

FORM IV-2(B) Objects()

STATE OF WEST VIRGINIA

OFFICE	USE (ONLY
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	Turna t Ami ir d	DAY A NOT AL	75.8.77.78.8.8.8				
	ATIONS AND CONDITI						4) WELL'E
THE Shallow X J	norage // Deep	Underground's Watershed:		1.188			S) LOCATI
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MYUT . O naveta	DESIGNATED AGENT		Cons. o				6) WELLO
600 X0	Address aP.O. E			8	30 X 02		Addre
ston MV 25322	e fotoelO				Prestons		
R. C.	9) DRILLING CONTRACTOR Name			daratron 8	TOR TO BE		Name
	Address			00 - 1m	. 50 A F04		
MISTRIPISTS STAT							
11 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	/ Redrill / Stim	deeper				ED WELL	0) PROPOS
W M							
MAY 2 5 1984				ther physical		ala m	
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OIL & GAS DIVISION	-2506 600	1091			if completed was depths.		
DEPT. OF MINES			5.2 (205)				
A Copy & 3 I med bull	d beits united in the area? Yes_	19 61					
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	TO WELL SEED TO	3555				17	
C13 4000.0	SAS AND COLOR			x la.		SVF-PI	nortouba
TW TE HE FACT WELL	OFFIC	E USE ONL	Y				30(3)
Perforations		100.16					gers
This part of Form IV-2(b) is to	record the dates of certain	n occurrences	and any f	ollow-up in	nspections.		
	Date					Date(s))
Application received		Follow-	up inspect	ion(s)			
		THE PER	GAT	,,			
Well work started	Livi	74.2 2 C. 7 . 3 C. 7		"			
Z8, 61					Carrer C		
Completion of the drilling		,,		,,			
process of the beniness of the action of the process	permission reamed to daill in ac	ON AS EVIDENCE DE	a snown beli				
		Co. of Provinces of the Land of the Control of the		**************************************			
Contained with the pertinent leaders.							
Well Record received							
Well Record received							
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Well Record received		inntales bus, a		,, bns sand			a permitted werse factoring
Well Record received Reclamation completed OTHER INSPECTIONS		inntales bus, a	pplication, pl	,, bus sonov	oribed in the f		
Well Record received		inntales bus, a	pplication, pl	,, bus sono	oribed in the f		

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



DATE April 4, 1984

WELL NO. Black Betsey Land Corp.

State of Mest Airginia

Bepartment of Mines Bil and Ges Bivision

Construction and Reclamation Plan

I	NO.	47	079	0113	
	M	इछ।	BUVI		
		MAY	7 1984		
	LIV	Scott	Depet 5	117/84	

COMPANY NAME Cabot Oil & Gas Corporation ADDRESS P.O. Box 628, Chas. WV 2532 TEPEPHONE 304-347-1600 LANDOWNER P. Benjamin Crosscup Jr. Revegetation to be carried out by	<u>22</u> 	DESIGNATED AGENT Steve Turk ADDRESS P.O. Box 628 Chas. WV 25322 TELEPHONE 304-347-1600 SOIL CONS. DISTRICT Western The contractor (Agent)
This plan has been reviewed by Z and additions have become a part of this	V. ls Tay, plan.	SCD. All corrections #-27-8# (Date) Clay Edwards (SCD Agent)
ACCESS ROAD STRUCTURE Ditch Relief Cross Drain SPACING Per Plan PAGE REF. MANUAL 2-1, 7-2, 2-3, 2-4 STRUCTURE SPACING		LOCATION STRUCTURE MATERIAL PAGE REF. MANUAL OIL & GAS DIVISION STRUCTURE MATERIAL MAY 2 5 1984 PAGE REF. MANUAL DEPT. OF MINES MATERIAL
PAGE REF. MANUAL	(c)	PAGE REF. MANUAL STRUCTURE Sediment Barrier (3) MATERIAL Straw Bales PAGE REF. MANUAL 2:16 & 2:18

All structures should be inspected regularly and repaired if necessary. All commerical timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before earth work begins.

TREATMENT AREA I	Revegeta	tion	TREATMENT AREA	II	
Lime	Tons/acre	Lime			Tons/acre
or correct to pH 6.5	*** L	or o	correct to pH 6.5		
Fertilizer 500	lbs/acre	Fertili:	zer 500		lbs/acre
(10-20-20 or equivalent)	1.11. 1.12	(10-20-20 or equ:	ivalent	:)
fulch Hay or Straw @13	Tons/acre	Mulch 1	Hay or Straw @ 1½	4.1	Tons/acre
Seed* Ky 31 Tall Fescue 40	lbs/acre	Seed* k	(y 31 Tall Fescue	40	lbs/acre
Redtop 5	_lbs/acre	F	Redtop	5	lbs/acre
	_lbs/acre			. 10. 17	lbs/acre
				1	

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X the recommended amount.

Note: Please request landowner cooperation to protect new seedlings for one growing season. Attach separate sheets as necessary for comments.

PLAN PREPARED BY

Cabot Oil and Gas Corporation

ADDRESS P.O. Box 628

Charleston, WV 25322

PHONE NO. (304) 347-1600

LEGEND

ATTACH OR P	нотосору	SECTION	OF
INVOLVED TO	POGRAPHIC	MAP.	
QUADRANGLE	Bancroft	7.5'	

WELL SITE	*
ACCESS ROAD	

PHOTOCOPY ATTACHED

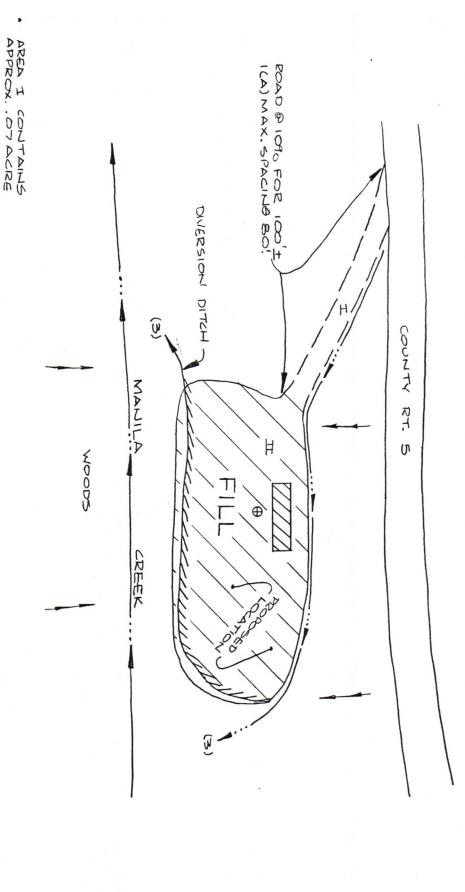
WELL SITE PLAN

SKETCH TO INCLUDE WELL LOCATION, EXISTING ACCESS ROAD, ROADS TO BE CONSTRUCTED, WELLSITE, DRILLING RITS AND NECESSARY STRUCTURES NUMBERED OR LETTERED TO CORRESPOND WITH THE FIRST PART OF THIS PLAN. INCLUDE ALL NATURAL DRAINAGE.

LEGEN	D
WELL LOCATION \oplus	DRILLING PIT
PROPOSED ROAD ========	EXISTING ROAD
PROPERTY BOUNDARY	DIVERSION
EXISTING FENCE × × ×	PROPOSED FENCE
STREAM	SPRING
WET SPOT	OPEN DITCH
DRAIN PIPE O O	BUILDING
WATERWAY $\leftarrow = = = = = = = = = = = = = = = = = = $	CULVERT
RIP RAP	SLOPE OF LAND

SKETCH ATTACHED

NTS:				
Man and the second of the second				
	100 100 100 100 100 100 100 100 100 100		7	19 mg 1 kg
•				
	distribution of the second			
		74 1977		



CABOT OIL & GAS CORPORATION CHARLESTON, W. VA.

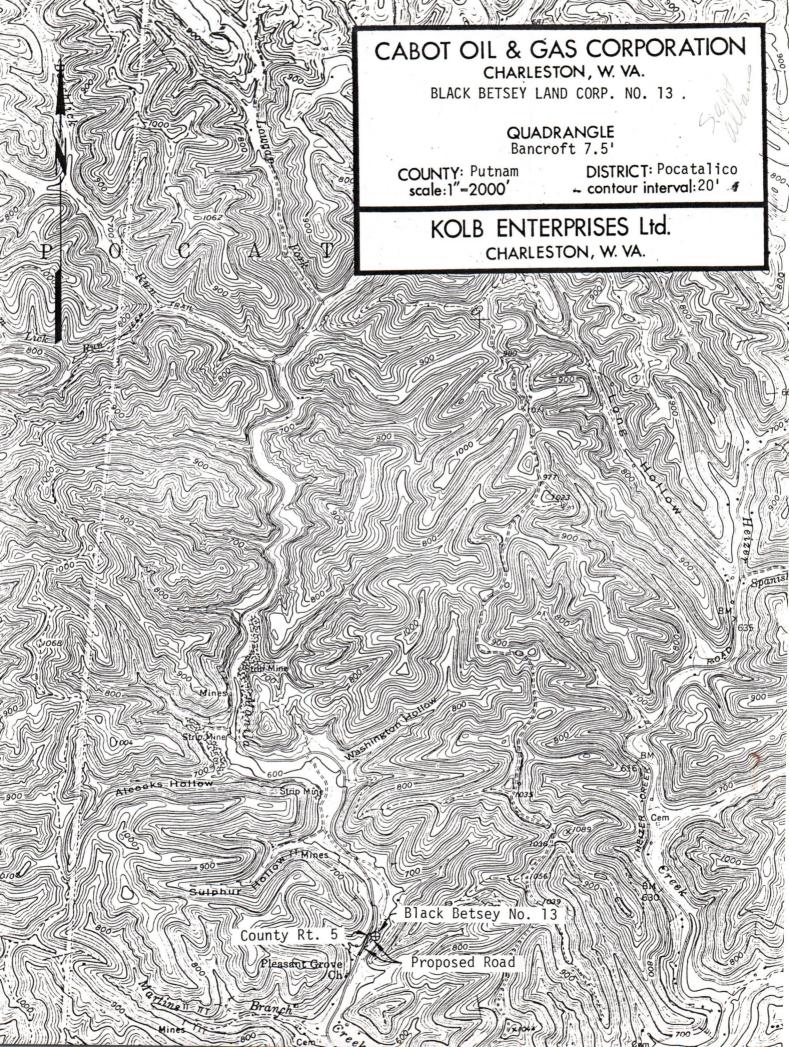
ABOVE CREEK LEVEL WITH

LOCATION TO BE BUILT-UP

APPROX. - ACRE.

BLACK BETSEY LAND CORP. NO. 13

KOLB ENTERPRISES Ltd.



Notary Public, Kanawha State of West Virginia

Kanawha

County,

1) Date: May 21 ,19 84

2) Operator's

Well No. Black Betsy #13
3) API Well No. 47 ~ 079 - ///3

State County Permit

STATE OF WEST VIRGINIA DEPARIMENT OF MINES, OFFICE OF OIL & GAS

NOTICE OF APPLICAT	TION FOR A WELL	WORK PERMIT
) SURFACE OWNER(S) OF RECORD TO BE SERV	ÆD 5(i)	COAL OPERATOR NOT OPERATED
(i) Name P. Benjamin Grosscup, Jr.	1-7	Address
Address 37 Woodland Avenue		
Greensburg, Pennsylvania	T5061 5(ii)	COAL OWNER(S) WITH DECLARATION ON RECOR
(ii) Name Charles Tillis	And the same of th	Name I.V. Cummingham
Address Rt.1, Box 218		Address 431 McKinley Avenue
Poca, West Virginia 25159	7	Charleston, WV 25314
iii) Name	-	Name
Address	7004 200	Address
	264 326	
RECEIPT FOR	CERTIFIED MAIL	DAL LESSEE WITH DECLARATION ON RECORD:
NO INSURANCE (NOT FOR IN	COVERAGE PROVIDED—	Address
	Reverse)	
TO THE PERSON(S Sent to	1	Form and the following documents:
(1) The Apr Mr. P. Ben	jamin Grosscup,	JB) (or Form IV-4 if the well is
Street and No.		n the drilling or other work.
Cement 37 Woodland	d Avenue	icable, the proposed casing and
(2) The pl (3) The Co Greenshurg	, PA 15061	on Form IV-6; and
plug a		unless the well work is only to d sediment control and for
reclam Postage	\$	seatment control and for
THE REASON WHICH ARE SUMMA (FORM IV-2(B) C	75	RIGHTS REGARDING THE APPLICATION E OF THE COPY OF THE APPLICATION
ACTION AT ALL. Special Delivery Fe	е	E NOT REQUIRED TO TAKE ANY
Take notic # erator proposes		ode, the undersigned well op-
for a Well Work Department of N		ion and accompanying documents f Oil and Gas, West Virginia
and depicted or W Return Receipt Sho	owing 60	escribed on attached Application
Construction are to whom and Date by hand to the Return Receipt Showi	Delivered	the Application, the plat, and the ered or certified mail or delitered
before the day Date, and Address of		ertain circumstances) on or AMAY 2 5 1984
00	1.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	W// 2 J 1304
6	1 Fees \$1.69	OIL & GAS DIVISION
Included Fostmark or Date	Maria	•
I hold So	541	ntract or contracts by which DEPT. OF MINES
	100	e reverse side for specifics.)
7) ROYALTY PRO E Is the righ C	15	
or other co		based upon a lease or leases
for compense	OTT OT AND THE PATRICE M	yalty or any similar provision hich is not inherently related
	racted, produced or mar	keted? Yes No y
If the answer above is No, you may use Affidavit Form IV-60.	nothing additional is	needed. If the answer is Yes,
2/10 2/2 2		
See the reverse side for line the required copies of the No.	item instructions, and	for instructions concerning
the required copies of the No Reclamation Plan.	tice and Application, pl	lat, and Construction and
The truth of the information on the	TATEST T	
Notice and Application is verified	WELL	TOD Cabot Oil & Cap Ca
and sworn to and the Notice is	OPERAT	Cabot Oil & Gas Corporation of WV
signed on behalf of the Well Operator	Dee	51.4
in my County and State by	By Its	District Deillie
Steven D. Turk		
this 23" day of MAY , 1984	7.	P.O. Box 628
My commission expires Sept. 8, 1988	Tolo	Charleston, West Virginia 25322
6/ . / - / - / - / - / -	- rete	

ONS TO APPLICANT P522 P522 264 325 CONC RECEIPT FOR CERTIFIED MAIL RECEIPT FOR CERTIFIED MAIL NO INSURANCE COVERAGE PROVIDED-NO INSURANCE COVERAGE PROVIDED-NOT FOR INTERNATIONAL MAIL NOT FOR INTERNATIONAL MAIL f Oil & Gas. (See Reverse) (See Reverse) Sent to Sent to Mr. I.V. Cunningham served with 1 Mr. Charles Tillis ore than thre Street and No. Street and No. 431 McKinley Avenue n subsection Route 1, Box 218 P.O., State and ZIP Code P.O., State and ZIP Code Charleston, WV 25314 firm, parts Poca, West Virginia 25159 does operat \$ Postage 5(ii, Postage 75 Certified Fee in lieu of Certified Fee t may fill 75 Special Delivery Fee Special Delivery Fee Restricted Delivery Fee Restricted Delivery Fee Return Receipt Showing AND SERVI Return Receipt Showing 60 to whom and Date Delivered to whom and Date Delivered Return Receipt Showing to whom, 60 Return Receipt Showing to whom, 7.02 pro Date, and Address of Delivery ust be f Date, and Address of Delivery ribed by **TOTAL Postage and Fees** or in 1 TOTAL Postage and Fe on requi Postmark or Date Postmark of Date 2) Form 3800, he cons on thin 20 % Form made o e § §

INFORMATION SUPPLIED UNDER CODE § 22-4-11 (d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that-

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc. Grantee, lessee, etc. Book Page

Black Betsey Consolidated Godfrey L. Cabot, Inc. Coal Company

(COGC of WV

483

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IV-35 (Rev 8-81)

DECENTAL!	M
RECEIVE 9 1984	state of Mest
DCT 9 1984	Banushmant of

Bepariment of Mines

OIL & GAS DIVISION Gil and Cas Bivision DEPT. OF MINES

Operator's Well No. #13 Black Betsy Farm API No. 47 - 079 1113

Date October 4, 1984

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

WELL TYPE: Oil / Gas XX / Liquid Injection (If "Gas," Production XX / Undergrou	/ Was	te Disposa ge/ Deep	l/ p/ Sha	illow_XX_/)
LOCATION: Elevation: 591' Watershed Ma	nila Cree	ek .		
District: Pocatalico County Putnan	1	Quadrangle	e Bancro	ft
COMPANY Cabot Oil & Gas Corporation of WV				
ADDRESS P. O. Box 628, Charleston, WV 25322	G :	I		Cement
DESIGNATED AGENT David G. McCluskey	Casing	Used in	Left	fill up
ADDRESS P. O. Box 628, Charleston, WV 25322	Tubing	Drilling	in Well	Cu. ft.
SURFACE OWNER See Attached List	Size 20-16			
ADDRESS	Cond.			
MINERAL RIGHTS OWNER Cabot Oil & Gas Corp. of NV	13-3/8	48	48	10 sks.
ADDRESS Box 628, Charleston, WV 25322	9 5/8	497	497	200 sks.
OIL AND GAS INSPECTOR FOR THIS WORK Jerry	8 5/8			
Holcomb ADDRESS RR1, Box 28, Hamlin, WV 25523	7	1792	1792	
PERMIT ISSUED 6/18/84	5 1/2			
DRILLING COMMENCED 8/6/84	4 1/2	4097	4097	110 sks.
DRILLING COMPLETED 8/13/84	3			
IF APPLICABLE: PLUGGING OF DRY HOLE ON	1-1/2	3832.20	3832.20	
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners used			
GEOLOGICAL TARGET FORMATION Huron	-	Den	th 3350-3	3834 fee t
	Potary)	X / Cable	A LANGE OF THE SECOND	
Water strata depth: Fresh 30 feet;				
Coal seam depths: 291 solid				area? No
	15 COAL	being mun	ed III die	area:
OPEN FLOW DATA Producing formation Huron	_		. 3320-	2012
		y zone dep		
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opa. 220		nal open f		- Bbl/d
Time of open flow between initi				
Static rock pressure 690 psig(surface		ment) after	rhou	urs shut in
(If applicable due to multiple completion-				
		y zone dep	Colorest of the Colorest	feet
		itial open		Bbl/d
Final open flow Mcf/d			ACCOUNTS TO THE PARTY OF THE PA	Bbl/d
Time of open flow between initi				
Static rock pressurepsig(surface	measurem	ent) after	hou	urs shut in

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

Perf Shale 3320-43 (7 holes), 3546-52 (3 holes), 3562-64 (2 holes), 3674-92' (5 holes), 3723-74 (7 holes), 3806-3813' (3 holes). Total 27 holes. Prep to frac. R/U B. J. Hughes. Dumped 750 gal, 15% HCL. Displaced w/55,000 SCF of N2. BD @ 2300 psi. ISIP 1300 psi. Pumped 1,000,000 SCF of N2 w/95 bbls foam pad. Treated w/40 sks 20/40 Sand @ 1#/gal, 160 sks @ 2#/gal & 100 sks 10/20 @ 2#/gal. Pumped 10 bbls/min treated H20 & 15,000 SCF N2/min for 75 quality foam. AIR 40 bbls/min foam. ATP for N2 1970 psi. ATP for foam, 1600 psi. TF 160 bbls, S/L 101 bbls. Total N2 1,280,000 SCF. ISIP 1200#, 5 min 410#, 10 min 400#, 15 min 400#. Shut down to fix N2 leak after pumping 20 bbls of 20/40 sand @ 2#/gal. Pumped 64 bbls of foam before going back to 20/40 sand @ 2#/gal to be sure well did not sand off. Released thru 1/8" choke for 8 hrs. Changed to 1/4" choke. Flowing & cleaning up.

WELL LOG

			REMARKS
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	(BEST 1997 - 1997 - 1993) 전 19 19 19 19 19 19 19 19 19 19 19 19 19
Shale Sand Shale Sand and Shale Shale Shale Sand Big Lime Shale Big Injun Shale Sunbury Berea Shale Huron Shale	0 340 430 622 850 1150 1444 1631 1660 1725 2120 2139 2152 3350 3834	340 430 622 850 1150 1444 1631 1660 1725 2120 2139 2152 3350 3834 T.D.	Gas check @ T.D. NSR
DTD LTD	4130' KB 4136' KB		

(Attach separate sheets as necessary)

Cabot Oil & Gas Corporation of West Virginia

Well Operator

y: Wavid.

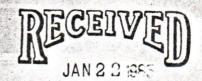
Date: October 4, 1984

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 coul, encountered in the drilling of a well."







OIL & GAS DIVISION
DEPT. of MINES

State of West Virginia

Bepartment of Mines Gil and Gas Bivision

Charleston 25305

FINAL INSPECTION REPORT INSPECTORS COMPLIANCE REPORT November 8, 1984

COMPANY	Cabot, Oil & Gas Corp. of WV	PERMIT NO	079-1113
P. O.	Box 628	FARM & WELL NO	P.B. Grosscup
			Black Betsy #13
Charle	eston, West Virginia 25322	DIST. & COUNTY	Pocatalico/Putnam
		IN	COMPLIANCE
RULE	DESCRIPTION	YES	S NO
23.06	Notification Prior to Starting Wor	k	
25.04	Prepared before Drilling to Preven		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing	-	
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing	-	
15.04	Adequate Cement Strenght		
15.05	Cement Type		
23.02	Maintained Access Roads		
25.01	Necessary Equipment to Prevent Was		
23.04	Reclaimed Drilling Pits		
23.05	No Surface or Underground Pollution	n	
23.07	Requirements for Production & Gathe		
16.01	Well Records on Site		
16.02	Well Records Filed	age of the contract of the con	
7.05	Identification Markings	and the second second	
I HAVE I	NSPECTED THE ABOVE CAPTIONED WELL AN	ND RECOMMEND THAT IT	BE RELEASED:
		SIGNED Carlo DATE 1-17	sa Hirely
		DATE _/- />	- 85
with Cha	l record was received and reclamation pter 22, Article 4, Section 2, the a for the life of the well.		

Administrator-Oil & Gas Division

January 25,1985

DATE