





(Rev 8-81)

State of West Wirginia

Bepartment of Mines Gil und Gas Zivision

Date	September 18, 1984						
Operator's Well No. #1							
	Lindsay-Rand						
API No.	. 47 - 103 - 1288						

WELL OPERATOR'S REPORT

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

LOCATION: Elevation: 1387.75 Watershed Mi	ddle Fork	, a branch	of Lynn	Camp Run
District: Proctor County Wet	zel	Quadrangle	e Wileyv	ille 7.5
COMPANY Haddad and Brooks, Inc.				
ADDRESS 905 Washington Rd., Washington, PA 1530	Casing	Used in	Left	Cement
DESIGNATED AGENT Henry M. Parsons	Tubing	Drilling		fill up Cu. ft.
ADDRESS 121 Glenview Dr., N. Martinsville, WV 26155				
SURFACE OWNER Russell Rand-Herbert Lindsay	20-16	861		
ADDRESS Peoria, IL 61614 Franklin, NC 28734	Cond.	1		
MINERAL RIGHTS OWNER Same	13-10"			
ADDRESS	9 5/8	37301	37301	100 sks Nea CaCl, 300 s
OIL AND GAS INSPECTOR FOR THIS WORK Robert	8 5/8	1718'	1718'	50:50 Poz +
A. Lowther ADDRESS Middlebourne, WV 26149	7			
PERMIT ISSUED 7-29-83	5 1/2	2206	2206	110 eke TH:
DRILLING COMMENCED 12-18-83	4 1/2	3396	3396	110 sks Thi
DRILLING COMPLETED 1-4-84	3			
IF APPLICABLE: PLUGGING OF DRY HOLE ON	2			
CONTINUOUS PROGRESSION FROM DRILLING OR	Liners			
REWORKING. VERBAL PERMISSION OBTAINED ON	used	• executive control of the control o		
GEOLOGICAL TARGET FORMATION Gordon		Dep	th 32	296 feet
Depth of completed well 3394 feet				
Water strata depth: Fresh Unknown feet;				
Coal seam depths: 1187 (Pittsburgh Coa				•
OPEN FLOW DATA	•	_		4, Anticologic Commission of Pro-
Producing formation Gordon Stray, Gordon	Des	u zona dan	th 3284-1	3318 feet
Calculated Cas: Initial open flow 1349 Mcf/d				
Final open flow N/A 7 Mcf/d			***************************************	WATER TO SERVICE THE PARTY OF T
Time of open flow between init				
Static rock pressure 1125 psig(surface				
(If applicable due to multiple completion				Carried Carried
try approcurate and manages compagation		v zone dep	th	feet
Second producing formation				
Second producing formation Gas: Initial open flow Mcf/d	OIT: III		400000000000000000000000000000000000000	- · - y
Gas: Initial open flowMcf/d		nal open f	low	Bb1/d
	Oil: Fi			

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. Perforate Gordon with 15 holes from 3312'-3315.75'. Perforate Gordon Stray with 4 holes from 3285'-3289'. Fractured with 420 barrels foamed diesel, 7000 lbs. of 20/40 sand. ATP 3400-4000 psi. ATR 20 BPM. ISIP: 1200 psi.

WELL LOG

FORMATION COLOR	R HARD OR	SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and ga
Jndifferentiated	Sand & Sha	ıle	0	2378'	Pittsburgh Coal @ 1187'.
Greenbrier	Tn-Wt	Н	2378'	2451'	
Big Injun	Clr-Wt	M-H	2451'	2682 '	
Shale & Slst	Gy-Bn	M-S	26821	2834	
Veir	Wt	H-S	2834'	2868 '	Shaley
Shale & Slst	Gy-Gn	S	28681	3028'	
Berea	Clr.	Н	30281	3069'	Broken, SG
Shale + Slst	Gy-Gn	S	3069'	3274'	
Gordon Str ay	Wt	М	3274'	3281'	SG
Shale	Gy	H-S	3281 '	3296'	
Gordon	Wt	М	3296'	32081	SG
Shale	Gy-Bn	S	3208 '	3232'	
ourth	Wt	М	3232'	3241'	SG
Shale	Gy	S	3241'	3394'	T.D.
				Commission of the production of the second s	
				oppinion of the control of the contr	All depths measured from G.L.
			W-100-00-00-00-00-00-00-00-00-00-00-00-00		
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				1.0	
					w w

(Attach separate sheets as necessary)

	Hadda	d and Brooks, Inc.	
	We:	ll Operator	
	Ву:	Carl a Boe	
×	Date:_	September 18, 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 earl, encountered in the drilling of a well."



1)	Date: Janu	. 19	91			
2)	Operator's Well No	Lindsay	Rand #1			ં હ
3)	SIC Code					
4	API Well NO.	47	103		288 -	LT
	•	State	County	Peri		سلسة
5.	UIC Permit No.		JIC2R1030	3AP		

STATE OF WEST VIRGINIA

NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION

for the

DEPARTMENT OF TAXABLE PROPERTY OF TAXA

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

									- th	C-Section	04/29/
6)	WELL TY	PE: Ligu	id injectio	on . /	Gas i	niection	(not storage)	/ Waste dispose	1		
	LOCATIO		tion:	1388'		,		ershed: Middl	e Fork, a bran	ch of I was C	'omn D
•		Distr		Procto				nty: Wetze		gle: Willeyv	
8)	WELL OP	ERATOR				Broo	ks, Inc.		TED AGENT		
- ,				shingto			0847		ddress 121 Glen		20112
				gton, P				Λ		rtinsville. W	V 26155
10)	OIL & GA					12			- NEW Ma	rmsvine, W	V 20133
	Name	Donal					•.,	II) DRIIIIN	G CONTRACTOR:		
	Address	26	04 Cra	b Apple	Lan	e	· ·		None required		
		Fa	irmont	, WV	2655	4			ADMINISTRAÇÃO DE CONTRACTOR DE		
12)	PROPOSE	in weii	WODK.	Drill		/ Dei	ll deser-	/ D = 3=111			
,		.D WELL	WORK.				ion_/ Perforate		/ Stimulate		
							in well (specify)	new formation/	Convert_A/		
13)	GEOLOGI	CAL TAR	CET FOR	MATION	iysicai	Gord	on Stray, Gor	ion (1) 9	Depth 3284 fe	222	20
14)							existing well)3		Deptn	eet(top) to332	feet(bottom)
15)								12. It.			
16)							gh Coal	E_ZUUU			
17)	Is coal being		-				Bu Ocai				
18)							nsia Source	BHP Test			
19)	Estimated i	reservoir fra	cture nre	ceure	382	2 2	psig. Source	psig (BHFP)			
20)							Volume per hour:		Dames halasas	ssure 2600	neia
21)							E INJECTED, INC		Bottom hole pre ES: Natural		poig
,							-2 1110C12D, 111C	בייווע אווייייייייייייייייייייייייייייייי	ES	Cas S.G.	
22)	FILTERS (IF ANY):		None							
23)				HODIC PR	OTEC	TION A	ND OTHER CORR	OSION CONTROL	Insulated	hammer unio	ons
24)	CASING A	ND TUBE	NG PRO	GRAM							
CA	SING OR	11	SPEC	IFICATIONS			FOOTAGE	INTERVALS	CEMENT FILLUP	11	_
TU	BING TYPE	Size	Grade	Weight per ft.	New	Used	For drilling	1	OR SACKS	PACKER	is .
Cond	uctor	11 3/4'		42	X		To Brimes	Left is well	(Cabic feet)	-	
Fresh	water	1			-22			- 00	None	Kinds	
Coai		8 5/8"	J-55	23	X			1718'	400 sks	 	
Interr	nediate							1110	100 313	Sizes	
Produ	iction	4 1/2"	J-55	10.5	X			3396'	110 sks	100	
Tubin	8								I II GRO	Depths set	
Liner				**************************************	-					P	
										Perforations:	Bostom 3315'
										100 3203	BOXCOM JJIJ
										1	
25)	APPLICAN	NT'S OPER	LATING F	RIGHTS we	re acq	uired fro	mTa	a Corporation	n	п	
		/ lea						y 17	, 19	82 061	record in the
								tzel	Book 63A	at page 68	

	CTOTIMED into a of Energy Oil and Gas AN 2 2 91	•	1) 2) 3) 4)	
\	UIC Section STATE	OF WEST VI	DCTNT A	State County Permit
	OTICE OF LIQUID INJECTION OR WA	ASTE DISPO		WORK PERMIT APPLICATION
	DIVISION OF OUR AN	for the	D 4 D 600 601 3300	
6) SURFACE OW	DIVISION OF OIL AN INDER(S) OF RECORD TO BE SERVED		•	
o, boldred of			COAL OPE	
(i) Name Addres	Herbert W. Lindsay ss_1228 Old Murphy Road Franklin, NC 28734			NER(S) WITH DECLARATION ON RECORD:
(ii) NameAddres	Russell & Gwendolyn Rand ss Route 2 Box 664		Address_	
(iii) Name Addres	Old Town, FL 32680 or ss 5023 Circle Court		COAL LES Name Address	SSEE WITH DECLARATION ON RECORD:
	Peoria, IL 61614		-	
TO THE PERSON((S) NAMED ABOVE: You should ha	ve receive	d this I	Form and the following documents:
(2) The p (3) The C to pl recla	(B), which sets out the parties olat (surveyor's map) showing to construction and Reclamation Places awell), which sets out the amation for the site and access proposed for the first injection	he well lo an on Form plan for road.	cation of WW-9 (u	on Form WW-6; and unless the well work is only and sediment control and for
WHICH ARE SUMM	J RECEIVED THESE DOCUMENTS IS TO MARIZED IN THE "INSTRUCTIONS" OF DESIGNATED FOR YOU. HOWEVER,	N THE REVE	RSE SIDE	OF THE COPY OF THE APPLICATION
proposes to fi Well Work Perm of Energy, wit depicted on at Construction a ered by hand t	tat under Chapter 22B of the Westle or has filed this Notice and all with the Director of the Director of the Director of the local tached Form WW-6. Copies of the Reclamation Plan have been to the person(s) named above (or of mailing or delivery to the	d Applicat vision of ation desc his Notice mailed by r by publi	ion and Oil and ribed on , the Ap register cation i	accompanying documents for a Gas, West Virginia Department the attached Application and oplication, the plat, and the
The person sig following cert	ning this document shall make ification:	the		
personall informati attachmen those ind obtaining	y under penalty of law that I had y examined and am familiar with on submitted in this document at and that, based on my inquisividuals immediately responsible the information, I believe the on is true, accurate, and complete	h the and all ry of le for at the	By	addad and Brooks, Inc. Well Operator SLSwort Vice President
am aware submittin	that there are significant penag false information, including ty of fine and imprisonment.	alties for	Teleph	one 412-228-8811
		and the second		tika maka kecamatan di sebagai kecamatan di sebagai di sebagai kecamatan kecamatan kecamatan kecamatan di seba Bilanggaran

- / Atlantic Richfield c/o Anaconda Minerals Corporation 555 17th Street Denver, CO 80202
- / Julia Littlejohn 425 South Spring LaGrange, IL 60525
- Hester B. Byrum 10 Highland Park Wheeling, WV 26003
- Consolidated Land Development Company 6451 Pleasant Street 2nd Floor Library, PA 15129

RECTIVED
Division of Energy
Oil and Gas JAN 2 2 91

UIC Section

DRILLING CONTRACTOR:

)	Date:	June	28	
*	-			

2) Operator's

		State	Country	D.
) AP	API Well No.	47	103	128
	Well No.	THE PARTY	CONTROL BY S	

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

200 117	1		OIL ANI	D GAS WELL	PERMIT APPLICATION	ON .	
4) WELL TY	YPE: A Oil	X G	Х				
		Gas", Productio		/			
5) LOCATIO		ion:			round storage	/ Deep	/ Shallow/)
	Distric	t: _ Procto	or	Country	ed: Naters of 1	modie rork, a	COLUMN TO THE PARTY OF THE PART
6) WELL OF		addad & Br		IC.		Quadrangle:	Wileyville 7.5
Addres	s 905 Wa	shington I	ld., P.O.	Box 714	Address	ED AGENT	
7) 011 0 0		gton, PA	15301-1	153	Address	New Martins	ville UV ogre
7) OIL & GA	S	See Attach	ad Idea			- Carlo Silia	71115 NV 2010
Address		nac noonen	ien rist		12) COAL OPER	RATOR	N/A®
***************************************					Address		in the same
Acreage	10	51.01					
8) SURFACE	OWNER_S	e Attache	d List		13) COAL OWN	ER(S) WITH DECLA	RATION ON RECORD:
Address	4 -				Name	See Attach	ed List
					Address	-	-31-10
Acreage		1.01			Name	-	
9) FIELD SAI		TO:			Name		
Address	111/	n.			Address		
10) OH 9 CAS					14) COAL LESSE	E WITH DECLARAT	TION ON PROPERTY
10) OIL & GAS	INSPECTOR	TO BE NOTIFI	ED		Name	E WITH DECLARAT	ION ON RECORD:
Address		Delivery	1		Address		
Address		bourne, WV					9-Fi #
15) PROPOSED							1018
		ug off old for	Drill deeper_	/ R	edrill/ Fra	cture or stimulate	X
		ther physical cha	ilution	/ Perfor	ate new formation		
16) GEOLOGIC	AL TARGET F	ORMATION	inge in well (s)				
17) Estimate	ed depth of com	pleted well,	344	8		- de la constitución	
18) Approxi	mate water stra	ta depths: Fres	h. N//		eet 2420		7.4-5
19) Approxi	mate coal seam	depths:	1197	feet;	sait,	feet.	500 D 00
20) CASING AN					s coal being mined in the	area? Yes	/ No/
	"	TOOKAIVI					
CASING OR TUBING TYPE		SPECIFICATIO Weight	NS	Foo	TAGE INTERVALS	CEMENT FILL-UP	
-	1 1 1 1 1 1	Grade per ft.	New Used	For drilling	Left in well	OR SACKS	PACKERS
Conductor	11 3/4			60 .	001	(Cubic feet)	
Fresh water Coal							Kinds
Intermediate	8 5/8						Ci
Production	4 1/2			1581,	1267	325 sacks	Sizes
Tubing	17-			3448	3448	200 sacks or	Depths set
Liners						as required	Deptilo del
						by rule 15.	Perforations:
							Top Bottom
	CHARLES OF						
21) EXTRACTION	N RIGHTS	ease assi	onments (on file w	ith permit Nos		
22) ROYALTY PR Is the right to eximilar provision produced or ma If the answer above 23) Required Copies 24) Copies of this leads to the copies of the copie	d is the lease or direment of Couriement of	leases or other of de 22-4-1-(c) (1) or market the oil ation to the own No additional is need ide.) tion and the enclurer(s), and coal leginia.	or gas based under of the oil of eded. If the and cosed plat and dessee on or be	ipon a lease or o or gas in place	ther continuing contract which is not inherently in may use Affidavit Form have been mailed by rethe mailing or delivery of Signed: Its:	or contracts providing related to the volume of IV-60.	for flat well royalty or any of oil or gas so extracted, ered by hand to the above tion to the Department of
	17-203-	1289		RILLING PI			
Permit number				LLING I'I	ANIVII I		10
proper district oil and	gas inspector		ocations and pi			Date o drill in accordance we n to the District Oil ar the well operator or his	with the pertinent legal re- nd Gas Inspector. contractor shall notify the
Permit expires		y any ann	9# 1985			or to that data	0
Bond:	Agent:	Plat:	Casing	Fee	l commenced pric	or to that date and pros	ecuted with due diligence.
		1	1	11/2/	- 627		
	1				Admin	istrator, Office of Oil	and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
 - "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less then six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
 - Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
 - 16) Anticipated formation for which well will be completed
 - 17) Self explanatory
 - 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
 - 19) All coal seam depths
 - 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
 - 21) Code 22-4-11(c) In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1)A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4)A brief description of the royalty provisions of each such lease or contract.
 - 22) Code 22-4-11(d) and 22-4-11(e).
 - Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

		== ===-	
amined this proposed well location. If	a mine map exists ved has no objection	which covers the are to the work propos	of the coal under this well location has exea of the well location, the well location has been sed to be done at this location, provided, the well a Code and the governing regulations.
Date:, 19		By	