

IV-35 (Rev 8-81)





MAY 1 9 1983

State of Mest Birginia

OIL & GAS DIVISION Bepartment of Mines DEPT. OF MINESBIL und Gas Bivision

Date 5/6/	/83	Per
Operator's Well No.	2-A	818 E-Wall
	eardmore	Una
API No. 47	_ 035	- 1782

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

77 1 1	1 90F	Oradrandle	Liverp	001 7-5
District: Washington County Jack	cson	Quantangre		YAID
each atell co.				<u> </u>
OMPANY DELTA DRILLING CO., N.E. PROD. DIV.	1 1			EXON GOLD
ADDRESS 200 Fleet St Suite 4005, Pittsburgh,	Casing	Used in	Left	Cement fill up
DESIGNATED AGENT J.O. Kizer PA. 15220	Tubing	Drilling	in Well	Cu. ft.
DDRESS P.O. Box 951, Charleston, W. Va. 25323	Size		3.1	233142
SURFACE OWNER J. Beardmore	20-16 Cond.		ED ROOK	i e alesc
DDRESS Route 1 - Box 207, Fleming, Ohio 45729	13-10"		205'	205'
INERAL RIGHTS OWNER J. Beardmore	9 5/8			2422
DDRESS same as above	8 5/8		2301.9'	2300'
OIL AND GAS INSPECTOR FOR THIS WORK Homer Linden Route - Box #3-A	7			8778 F.TT2
Dougherty ADDRESS Looneyville. W. VA.25259	The second secon			2,142
PERMIT ISSUED December 1, 1982	4 1/2		5230'	2530'
DRILLING COMMENCED January 31, 1983	3	(Top	of cemen	@ 2700')
ORILLING COMPLETED February 10, 1983	2			SHALE
IF APPLICABLE: PLUGGING OF DRY HOLE ON	5		3.12	F00008
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED	Liners			
ON		7.44		ARRES
Brown shale	57	Dep	th 523	0 fee
SPOLOGICAL TARGET FORMATION DIGHT STATE		37 / - 12	4/1	
FULLGICAL TARGET FOR FILE	otary	X / Cabi	e Tools_	
Depth of completed well 5230 feet F		- feet		
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet;	Salt_			
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths:	Salt_	feet	ed in the	e area? No
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths:	Salt Is coal	feet being min	ed in the	e area? No
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: OPEN FLOW DATA Producing formation Brown Shale	Salt_ Is coal	feet being min	ed in the	e area? No
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d	Salt_ Is coal Pa Oil: In	being min	ed in the seth 518	e area? No Beach 66 fee - Bbl,
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d Final open flow 335 Mcf/d	Salt_ Is coal Pa Oil: In	being min y zone dep	ed in the seth 518 flow	e area? No Beach 66 fee - Bbl,
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d Final open flow 335 Mcf/d Time of open flow between initial	SaltPa Oil: Ir Fi ial and f	being min y zone dep itial open nal open f inal tests	ed in the	e area? No Beach feed - Bbl, - Bbl, burs
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d Final open flow 335 Mcf/d Time of open flow between initial static rock pressure 1050 psig (surface)	Salt_ Is coal Pa Oil: Ir Fi ial and f	being min y zone dep itial open nal open f inal tests	ed in the	e area? No Beach feed - Bbl, - Bbl, burs
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d Final open flow 335 Mcf/d Time of open flow between initial Static rock pressure 1050 psig (surface (If applicable due to multiple completion)	SaltPa	being min y zone dep itial open nal open f inal tests	ed in the sth 518 flow 10w 24 hour 72 hou	e area? No Beach fee - Bhl, - Bbl, burs urs shut :
Depth of completed well 5230 feet F Water strata depth: Fresh 700 feet; Coal seam depths: Coal seam depths: DPEN FLOW DATA Producing formation Brown Shale Gas: Initial open flow Mcf/d Final open flow 335 Mcf/d Time of open flow between initial Static rock pressure 1050 psig (surface)	Salt	being min y zone dep nal open f inal tests ment) after	ed in the sth 518 flow 10w 124 hour 72 hoursth	e area? No Beach fee - Bhl, - Bbl, burs urs shut :

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

Perforations	75 quality foam volume	Sand	Ave. Injection rate
Phines 5186 - 4336 (15)	32,000	50,000#	45 BPM
Perforations 5186 - 4336 (15) 4090 - 3222 (13)	32,000	50,000#	40 BPM

WELL LOG

DEPT. OF MINESHI und Sea Biolision

CLAY SAND & SHALE 10 150 Hole damp RED ROCK 150 180 2" Flow @ 700' SAND & SHALE 800 900 SHALE & RED ROCK 900 1460 SHALE & LIMESTONE SALT 1507 1577 SILT STONE 1577 1680 SALT 1680 1750 SALT 1680 1750 SALT 1887 SALT 1887 2010 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE 2146 2566 COFFEE SHALE 2583 DEVONIAN SHALE 2584 T.D. 5230 2584 COOM SHALE 2584 COOM S	SAND & SHALE RED ROCK	10		District: Washingto
SAND & SHALE RED ROCK SAND & SHALE SAND & SHALE SAND SAND & SHALE SAND SAND & SHALE SOO SAND & SHALE SOO SHALE & RED ROCK SHALE & LIMESTONE SALT SALT SILT STONE SALT 1680 1750 1887 SALT 1680 SALT 1680 1750 SALT 1887 2010 BIG LIME LOYALHANNA LINE 2026 LOYALHANNA LINE 2026 COFFEE SHALE POCONO SHALE COFFEE SHALE 2583 DEVONIAN SHALE 2584 T.D. SCAND SALT SALT SALT SALT SALT SOLUTION SALT SOLUTION SALT SOLUTION SALT SOLUTION SALT SALT SOLUTION SALT SOLUTION SALT SOLUTION SALT SALT SOLUTION SALT SALT SALT SALT SOLUTION SALT SALT SALT SALT SALT SOLUTION SALT SALT	SAND & SHALE RED ROCK	10		
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SAND & SHALE SAND SAND SAND & SHALE SAND & SHALE SOU SHALE & RED ROCK SHALE & LIMESTONE SALT SILT STONE SALT SILT STONE SALT SILT STONE SALT SILT STONE SALT 1887 SALT BIG LIME LOYALHANNA LINE 2010 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE 2584 DEVONIAN SHALE 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584	CAND C CHAIR	150	and the later to the same of t	Hole damp
SAND & SHALE 800 900 SHALE & RED ROCK 900 1460 SHALE & LIMESTONE 1460 1507 SALT 1507 1577 SILT STONE 1750 1887 SALT 1887 2010 BIG LIME 2010 2026 LOYALHANNA LINE 2026 2122 SHALE 2122 2146 POCONO SHALE 2146 2566 COFFEE SHALE 2583 2584 DEVONIAN SHALE 2584 T.D. SALT D. SALT 2584 T.D. SALT 25	CAND & SHATE		180	COMPANY DELTA DETILLING CO., N.E
SAND & SHALE SHALE & RED ROCK SHALE & LIMESTONE SALT 1507 SILT STONE SALT 1680 1750 SILT STONE SALT 1887 SALT 1887 SALT 1887 SALT 1090 BIG LIME 1074 LOYALHANNA LINE 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE 2016 2056 COFFEE SHALE 2146 POCONO SHALE 2583 DEVONIAN SHALE 2584 T.D. S230 2584 DEVONIAN SHALE	SALE & STATE	180	680	2" Flow @ 700"
SAND & SHALE SHALE & RED ROCK SHALE & LIMESTONE SALT 1507 1507 1577 SILT STONE SALT 1680 1750 SALT 1587 SILT STONE 1750 1887 SALT BIG LIME 1094 1094 1094 1094 1094 1094 1094 1094 1094 1094 1095 1094 1094 1095	SAND	680	800	THEST ACTOR JULY J.O. KLEET
SHALE & RED ROCK SHALE & LIMESTONE SALT 1507 1507 1577 151T STONE SALT 1680 1750 SILT STONE SALT 1680 1750 SILT STONE 1750 SILT STONE 1750 SILT STONE 10887 SALT 1887 2010 BIG LIME 2010 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE 2583 2584 DEVONIAN SHALE 2584 T.D. ST30 2584	SAND & SHALE	800	900	
SHALE & LIMESTONE SALT 1507 1577 1577 1680 SALT 1680 1750 1887 SALT 1887 2010 BIG LIME 10YALHANNA LINE 2026 COFFEE SHALE BEREA DEVONIAN SHALE 2120 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584 2584	SHALE & RED ROCK	900	1460	
SALT SILT STONE SALT 1507 1577 1680 1750 SILT STONE SALT 1887 2010 BIG LIME LOYALHANNA LINE 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE 2583 2584 T.D. S230 2584 T.D. S230 2584 T.D. S230 2584	SHALE & LIMESTONE	1460	1507	Committee of the Commit
1577 1680 1750 1887 1750 1887 1887 2010 2026 10941	SALT	1507	1577	
SALT SILT STONE 1750 1887 2010 BIG LIME 2010 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE 2583 2584 T.D. \$230 2589		1577	1680	MINISAL RIGHTS OWNER
SALT BIG LIME LOYALHANNA LINE SHALE POCONO SHALE COFFEE SHALE BERFA DEVONIAN SHALE CORDA Devonian Shale Corda Devonian Shale Devonian Shale Corda Devonian Shale	SALT	1680	1750	ADDRESS same as above
BIG LIME 2010 2026 LOYALHANNA LINE 2026 2122 SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE 2584 2584 T.D. \$230 \$2589 \$446	SILT STONE	1750	1887	OIL AND CAS INSPECTOR FOR THE
LOYALHANNA LINE SHALE POCONO SHALE COFFEE SHALE BEREA DEVONIAN SHALE COGOR © 5231-WIL 2026 2122 2146 2566 2583 2584 T.D. \$7230 2584	SALT	1887	2010	Dougher by ADDRASS Lonner
SHALE POCONO SHALE 2122 2146 2566 2583 BEREA DEVONIAN SHALE 2584 T.D. \$230 \$289 \$44 6	BIG LIME	2010	2026	PERMIT ISSUED December
POCONO SHALE 2146 2566 2583 EEREA DEVONIAN SHALE 2584 T.D. 5230 2584 7646	LOYALHANNA LINE	2026	2122	DRIFILING COMMENCED January 3
COFFEE SHALE BEREA DEVONIAN SHALE 2566 2583 2584 T.D. \$230 2589 2646	SHALE	2122	2146	DENILING COMPLETED February I
DEVONIAN SHALE 2583 2584 T.D. \$230 2589 2646	POCONO SHALE	2146	2566	IF APPLICABLE: PROPERTY OF D
DEVONIAN SHALE 2583 2584 T.D. \$230 2589 2584 T.D. \$230 2589 2646	COFFEE SHALE	2566	2583	CONTINUOUS PROGRESSION FROM DI
200 2584 2646	BEREA	2583	2584	PSYCHOLOGY ANGENT ANALYST ON
Onon @ 5231-WTL	DEVONIAN SHALE	2584	WIND OF THE PERSON	2584
Onon @ 5231-WTL		et Rotary	CONTRACTOR CONTRACTOR AND ADDRESS OF THE PARTY OF THE PAR	2646
Coal seam depths:	2000 @ 5231-WIL	ett Salt_	2 00V rb	
		aso al		Coal seam depths:

(Attach separate sheets as necessary)

We	11 Ope	rator	TOTAL AND ALAST
By:	(Sollie	was with the transfer to
Date:_	V.	5/17/83	has furninged purpose

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 well, encountered in the drilling of a well."

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DRILLING CONTRACTOR:



1)	Date:	DECEMBER # 1 , 19 82	
2)	Operator's	T BELDEVIOLE SO	
	Well No.	J. BURKUMURE #Z	

3) API Well No. 47 State County Permit

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

OIL AND GAS WELL PERMIT APPLICATION

LOCATION		tion:	oduction _					M GAP RIM	_/ Deep	/ Shallow/)
LOCATION			AVENSHO						Quadrangle:	UPPROOF
WELL OPE									AGENT	
Address			RET ST.				11)	Address	P.O. B	
Address			TRCH_ P					Address		ON. W. WA. 2532
OIL & GAS										
ROYALTY	WNER	JEFFREY	BEARD	MORE			12)	COAL OPERAT	OR N/A	
Address			BOX 2					Address		
		FLEMING	OIRO .C	457	29					
Acreage		95 A	kC.				13)	COAL OWNER	(S) WITH DECLAR	ATION ON RECORD:
SURFACE C	WNER	TIE EA	LDS .					Name	N/A	
Address		5329 PT	IKE STR	EET				Address _		
	SOUTH	CHARI	LESTON.	W.	VA. 2	5309				
Acreage		48	L.5 AC					Name		
FIELD SAL	E (IF MAD	E) TO:						Address		
Address									DECEMBER STORY	
							14)	COAL LESSEE	WITH DECLARAT	ION ON RECORD:
OIL & GAS	INSPECTO	R TO BE	NOTIFIED)				Name	N/A	
Name	ER H. I	DOUGHER	CTY					Address _		
Address	LINDER	RT.	BOX 3-	A						
	LOONES	VILLE.	W. VA	. 25	259					
PROPOSED	WORK:	Drill		Drill de	eeper	/ Redr	ill	/ Fract	ure or stimulate	
		Plug off	old forma	tion		_/ Perforate	new	formation		
		Other ph	ysical chang	ge in w	vell (speci	fy)				
GEOLOGIC	AL TARGE	T FORMA	ATION, _		RROU	N SHALE				
						feet				
8) Approxi	mate water	strata depti	hs: Fresh,			feet;	salt	,	feet.	
9) Approxi	mate coal se	am depths	:			Is co	oal be	ing mined in the a	area? Yes	/ No
CASING AN	D TURING	S PROGR	AM							
CASING AI	D TOBIN	J I KOOKA	MAI							
CASING OR TUBING TYPE		SPE	ECIFICATION	S		FOOTA	GE IN	ITERVALS	CEMENT FILL-UP OR SACKS	PACKERS
TOBING TIFE	Size	Grade	Weight per ft.	New	Used	For drilling		Left in well	(Cubic feet)	
onductor	13 3/8	11				20 FT		20 FT		Kinds
resh water	11 3/2	11	District in			200 FT		200 PT	To Surface	
oal	BAR HARD									Sizes
ntermediate	8 5/	18				2500 PT	2	300 FT	To Surface	
roduction	4 1/3	#				5300 PT	5	300 FT	1000 SKS	Depths set
ubing										
iners						sa to statist		encial ent e		Perforations:
										Top Bottom
						1029 WEEK				
EXTRACTIO	N RIGHT	S								
Check and pr										
									right to extract oil or	gas.
			4-1-(c) (1)	throug	jh (4). (S	See reverse side	for s	pecifics.)		
ROYALTY F			anlest the of	1	a based w		hora	antinuina contra	et or contracts providi	ng for flat well royalty or
is the right to	ion for co	nnensation	to the ow	ner of	the oil o	r gas in place w	which	is not inherently	related to the volum	ne of oil or gas so extrac
produced or				1101 01	the on o	gus in piace ii		10 1101 111101 01101		
The state of the s	Carlot of the Contract			eded.	If the ans	swer is Yes, you	may	use Affidavit Fo	orm IV-60.	
Required Cop										
										elivered by hand to the al
named coal of Mines at Cha				lessee	on or be	fore the day of	tne i	nailing or deliver	y of this Permit App	lication to the Departmen
ivinies at Ch	arieston, W	est virginia	ta.						40	
otary:	70.00	The state of the s		418	Pre-		S	igned:	all Dues	
y Commissio	n Expires_		12.7	- A - N	79			Its:	Al Prick	Project Mar
				1	*	DDIGE TO	-		17764	
						FFICE USE				
					D.	RILLING PI	ERN	111		19
									Dat	
it number _			and wall to	ontion	shown b	elow is evidence	Of -			e ce with the pertinent lega
	ma 41- 11	Ome				CILIW IS EVIDENCE				
permit cover	ing the well	operator	ntained her	ein and	d on the	reverse hereof	Noti	ication must be	given to the District	oil and Gas Inspector.
permit cover	t to the cor	ditions con	ntained her	ein and	d on the	reverse hereof.	Noti	ication must be a	given to the District (oil and Gas Inspector.
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permit cover ments subject or to No. 10) or district oil	t to the cor Prior to the	ditions con	ntained heron of roads	ein and , locati	d on the i	reverse hereof. I pits for any perm ted work has co	Notification in the common series of the common ser	ication must be a work. In addition enced.)	given to the District (n, the well operator or	Dil and Gas Inspector. his contractor shall notif
permit cover ements subject er to No. 10) er district oil	t to the cor Prior to the	constructions constructions constructions	ntained heron of roads	rein and , location re actua	d on the i	reverse hereof. I pits for any perm ted work has co	Notification in the common series of the common ser	ication must be a work. In addition enced.)	given to the District (n, the well operator or	oil and Gas Inspector. his contractor shall notif
ements subjecter to No. 10)	t to the cor Prior to the and gas ins	constructions constructions constructions	ntained her on of roads hours befor	rein and , location re actua	d on the i	pits for any perm ted work has co unless	Notification in the common series of the common ser	Cation must be a work. In addition enced.) ng is commenced	given to the District (n, the well operator or	Dil and Gas Inspector. his contractor shall noti prosecuted with due dilig