

DEEP WELL

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1	APR 26 2000	100
*	VVV B. ABICA of Environmental Pretaction	

## REVISED

DATE: 10-SEP-99 API#: 47-77-00320

Division of Enviro	est Virginia onmental Protec Oil and Gas	ction	Howe	ed X
Well Operator's R	eport of Well V	Work		
Farm name: HOWDERSHELT, CHAS. & MAXINE	Operator	Well No.: 6	23953	
LOCATION: Elevation: 2,051.00	Quadran	gle: VALLE	Y POINT	
District: PLEASANT	County:	Preston		
Latitude: 1000 Feet S of 39	Deg. 35	Min. 0	Sec.	
Longitude 6775 Feet W of 79		Min. 0	Sec.	
Company: COLUMBIA NATURAL RESOURCES				
	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: Rt. 1, Box 107-10	11-3/4	325	325	CTS
Buckhannon, WV 26201	8-5/8	3133	3133	CTS
Agent: R. Mark Hackett	4-1/2	8215	8215	655 SXS
Inspector: Phil Tracy				
Date Permit Issued: 09/10/99				
Date Well Work Commenced: 10/13/99				
Date Well Work Completed: 04/03/00				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				-
Total Depth (feet): 8293				
Fresh Water depths (ft): 60				
Salt water depths (ft): None				
Is coal being mined in area (Y/N)? N	1			
Coal Depths (ft): 106-112, 451-478	<del>                                     </del>			
	I	1		'
OPEN FLOW DATA				
D 1 . C Ob	Pay zone o	donth (ft) 79	78-7984	
Producing formation Chert  Gas: Initial open flow 0 MCF/d		• ' /	n/a Bbl/d	_
•		•	/a Bbl/d	
Final open flow 119 MCF/d Time of open flow between initial and fi	•	4 Hours		
	face pressure) a		Hours	
Static fock Flessure psig (sur	race pressure)	<u> 72</u>		
Second producing formation Bradford/Ben	. Pay zone o	denth (ft) '	3608-4834	
Gas: Initial open flow 0 MCF/d		· ` ′	n/a Bbl/d	<del></del>
** Final open flow 335 MCF/d		•	n/a Bbl/d	
Time of open flow between initial and f		4 Hours	<del></del>	
<u>•</u>	face pressure)		Hours	
** Comingled	·		<del></del>	
NOTE: ON BACK OF THIS FORM PUT THE B	OLLOWING:	: 1). DETA	AILS OF P	ERFORATED
INTERVALS, FRACTURING OR STIMULATING LOG WHICH IS A SYSTEMATIC DETAILED	GEOLOGIC	AL RECORD	OF ALL F	ORMATIONS,
INCLUDING COAL ENCOUNTERED BY THE V	VELLBORE.	_		•

Signed: COLUMBIA NATURAL RESOURCES, INC.

By: 4/30/7000

MPR 28 2000

platinglislag batch

FORMATION RECORD:
0 to 3604 from Driller's Log Book, 3604 to TD from Gamma Ray Log

		ROCK TYPE	7 .	•		
FROM	TO	(described rock types and other minerals penetrated and record occurrences of oil, gas and water from surface to total depth)				
0	25	Clay	WATER:	D4-(6)		
25	106	Sd. & Sh.	WATER	Depth (ft)	Amount 2"	Type
106	112	Coal	-	. 60	2"	fresh
112	451	Sd. & Sh.	-			
451	478	Coal	-			
478	600	Sd. & Sh.	_			
600	710	Red Rock	4			
710	1610	Sd. & Sh.	-			
1610	1710	Red Rock	-	•		
1710	3604	Sd. & Sh.	GAS CHECKS:	Donath (6)	) (CE/D	
3604	3620	Benson K	GAS CHECKS:		MCF/D	
3620	4798	Sd. & Sh.	-	All	NS	
4798	4834	Bradford	-	ļ		
4834	7326	Sd. & Sh.	-			
7326	7420	Tully	_			
7420	7764	Sd. & Sh.				
7764	7854	Marcellus	_			
7854	7874	Onondaga	_			
7874	7990	Chert	_			
7990	8024	Needmore	4	ļ		
8024	8084	Oriskany	1			
8084	0004	Helderberg	-			
	8293	DTD	1			
	8290	LTD	OH CHOWG			
	0270		OIL SHOWS:	<u>Depth</u>	Amount	
				None		
			DEDEOD ATTOM	2		
			PERFORATIONS		,	
			Chert (31 holes) 7	8/8'-/984' KE	3.	
			Bradford (14 hole	s) 4821'-4834'	KB.	
			Benson (14 holes	3608'-3617'	K D	
			Benson (14 holes	, 5008-5017	ND.	
		,			-	
			CTD ALL ATTON			
			STIMULATION:		17.000 11 0	0/40 1 10-
			Chert - 15,000 lbs gel & 5% HCL ac	id solution thr	oughout the jo	0/40 sd. w/30 ob.
			Bradford - 75Q fo 484,500 Scf N2.	am w/20 # gel	. 30,000 lbs. 2	20/40 sd. &
			Benson - 75Q foar 397,000 Scf N2.	m w/20 # gel.		/40 sd. &

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u 로양호에 V 로그 Office of Oil & Gas DATE: 10-SEP-99 API#: 47-77-00320 WR-35 Permitting State of West Virginia Division of Environmental Protection JAN 10 2000 Section of Oil and Gas www Division of Well Operator's Report of Well Work anmental Protection Farm name: HOWDERSHELT, CHAS. & MAXINE Operator Well No.: 623953 Quadrangle: VALLEY POINT LOCATION: Elevation: 2,051.00 District: PLEASANT County: Preston Feet of 39 Deg. 35 Min. 0 of 79 Deg. 40 Min. 0 Sec. Latitude: 1000 S Sec. W Longitude 6775 Feet Company: COLUMBIA NATURAL RESOURCES Used in Left in well Casing & Tubing 11-3/4 drilling 325 325 Address: Rt. 1, Box 107-10 8-5/8 3133 3133 Buckhannon, WV 26201 R. Mark Hackett 8215 8215 4-1/2 Agent: Phil Tracy Inspector: Date Permit Issued: 09/10/99 Date Well Work Commenced: 10/13/99 Date Well Work Completed: 11/30/99 Verbal Plugging: Date Permission granted on: Rotary X 8293 Total Depth (feet): Fresh Water depths (ft):

## OPEN FLOW DATA

Salt water depths (ft): None

Is coal being mined in area (Y/N)? N Coal Depths (ft): 106-112, 451-478

Produc	cing formation Ch	nert			Pay zone depth (ft)	7878	3-7984
Gas:	Initial open flow	0	MCF/d	Oil:	Initial open flow	n/a	a Bbl/d
	Final open flow	119	MCF/d		Final open flow	n/a	Bbl/d
	Time of open flow	between i	nitial and	final t	tests 4	Hours	
Static	rock Pressure	2200	psig (su	ırface	pressure) after	72	Hours
Secon	d producing formati	on			Pay zone depth (ft)	)	
Gas:	Initial open flow		MCF/d	Oil:	Initial open flow	<i></i>	Bbl/d
	Final open flow		MCF/d	•	Final open flow		Bbl/d
	Time of open flow	between i	nitial and	final (	tests	Hours	
Static	rock Pressure		psig (su	ırface	pressure) after		Hours
			-				

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.

Signed:	COLUMBIA NATURAL RESOURCES, I	NC.
	R. Mark 12 hood	
•	21.10/ 12000	
Dat	:e: <u>01/06/2000</u>	

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Cement fill

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180 SXS

up Cu. Ft.

FORMATION RECORD: 0 to 3133 from Driller's Log Book, 3133 to TD from Gamma Ray Log

		ROCK TYPE (described rock types and other minerals				
FROM	то	penetrated and record occurrences of oil.				
0	25	gas and water from surface to total depth)				
25	106	Clay Sd. & Sh.	WATER:	Depth (ft)	Amount	Type
106	112	Coal		60	2"	fresh
112	451	Sd. & Sh.	_			
451	478	Coal	_			
478	600	Sd. & Sh.	_			
600	710	Red Rock	_			
710	1610	Sd. & Sh.	4			
1610	1710	Red Rock	-			
1710	3133	Sd. & Sh.	CASCUTTOTA			
3133	3604	Sd. & Sh.	GAS CHECKS:		MCF/D	
3604	3620	Benson		All	NS	
3620	7326	Sd. & Sh.	4			
7326	7420	Tully	-			
7420	7764	Sd. & Sh.	4	<u> </u>		
7764	7854	Marcellus	-			
7854	7874	Onondaga	-			
7874	7990	Chert	1			
7990	8024	Needmore	-{			
8024	8084	Oriskany	1 .			
8084		Helderberg	4			
	8293	DTD				
	8290	LTD	-			
			OIL SHOWS:	Donah		
			OIL SHOWS:	<u>Depth</u> None	Amount	
				None		
			-			
			PERFORATIONS	2.		
			Chert (31 holes) 7		<u>.</u>	
			(51 110103) /	070 7704 KD	·•	
			STIMULATION:	_		
			Chert - 15,000 lbs.	80/100 sd. &	17,000 lbs. 20	)/40 sd w/3
			gel & 5% HCL aci	d solution thro	ughout the iol	b.
					<b>,</b>	