Operations Name: PVRC VP2325
Permit #: 2803

Department of Mines, Minerals and Energy
Division of Gas and Oil
P. O. Box 1416
Abingdon, Virginia 24210
703/676-5423

W5-445

CONFIDENTIAL TO 2/8/95

COMPLETION REPORT

WELL TYPE: Oil Gas	X Coalbed Methane	or In	jection we	ell					
Date Well Completed:	11-8-94		Total	Depth of We	ett: LT	D=4692	DTD	=4680	
Attach the Drilling Report approved after the Drill			In addition,	, submit any	changes	in casing	or tubi	ng that	were
STIMULATION RECORD Zone 1: Lower Huro w/928000 SCF N2		Formation	Stimulated Wi	ith: <u>N</u> 2	Gas		*****************	J. (*	
Perforated: 4388	то 4570	No. of	Perforations:	20	Per	rforation	Size:	3 1/8"	HSC
Formation Broke Down at:									
ISIP 1827							356	8	PSIG
Date Stimulated 10-2									
Zone 2: Berea/Cleve									
w/ 909500 SCF N ₂ Perforated: 3810	то 3906	No. of	Perforations:	19	Per	rforation	Size:	.34"	
Formation Broke Down at:	N/A	PSIG	Average Inject	tion Rate:	81420	SCFM			
ISIP 1251 Date Stimulated 10-2 Zone 3:	26-94								
Perforated:	ТО	No. of	Perforations:		Per	rforation	Size:		
Formation Broke Down at:									
ISIP									
Date Stimulated					DOLV BDES	colle		HOURS TE	CTED
7one (1)				EU	ROCK PRES	SOURE		HOURS IE	SIED
Zone (1) Zone (2)									
Zone (3)									
Final Production if Gas	Zones are Commingled	1639	MCFD 6	Hours Test	ted54	OPSIG	48	Hours	Tested
* Use additional sheets	with this format, if m	ore than t	three (3) zone	s were stimu	ulated.				
	Permittee: EQUITA	BLE RESOUR	CES EXPLORATION	ON	(Com	pany)			
	ву:	Kurke	~		(Signa	ture)			

Operations	Name:	PVRC	VP2325	
		Permit #:	2803	

-: .

Department of Mines, Minerals and Energy
Division of Gas and Oil
P. O. Box 1416
Abingdon, Virginia 24210
703/676-5423

DRILLING REPORT

			tee submits this repor		
November mo		WISE	County	y, virginia on _	
LOCATION					
County: Wise		Distri	ct: Lipps		
Surface Elevation: 2	936.02 Elevatio	n of Kelly Bushi	ng: 2946.02 Quadra	angle: Wise	
5625 FT.	S. of Latitude	36°55'00" a	and 3450 FT. W.	of Longitude	82°30'00"
Attach a final location	on plat as required	by VR 480-05-22.	1, § 1.36.		
DRILLING DATA					
Date Drilling Commence	ed: 10-14-94		_ Drilling Contractor	: _ Union Dri	illing
Date Drilling Complete	d: 10-20-94		Rig Type: X Rota	ry Cable T	ool
Total Depth of Well: _	LTD=4692 DT	D=4680	_		
GEOLOGICAL DATA					
	48 Feet 1/2"s	tream sem	462 Feet 1-1/	2"streamgen-	
	71 Feet 1 1/2-2		Feet		
	Feet		Feet		
	Feet		Feet		
COAL SEAMS:				MININ	G IN AREA
	TOP	BOTTOM	THICKNESS	wosam:	
NAME	258	261	3	YES N	O MINED OUT
GAS AND OIL SHOWS:					
FORMATION	тор воттом	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
	3402		ODOR	1.0223.02	1100110
	4680		15 MCFD		

Department of Mines, Min	eral	s and Ene	erav		Operati	ons Name:	PVRC	VP23	325		
Division of Gas and Oil		e .e.u.ee.u.	37		.,		Permit #				
privision of das and ore							r Claric n		,	-	71111
Cuttings or samples are_	X a	re not	availab	le for exam	ination by a	member of the	Virginia	Divis	ion of Mine	eral Re	sources
Cuttings or samples have											
ELECTRIC LOGS AND SURVEY	<u>'S</u>										
List logs run on wellbor	e: _	CDL/	TEMP/GF	R		***************************************					
Did log disclose vertica	l lo	cation of	f a coal	seam? Yes	No	_X_					
SURVEY RESULTS											
DEPTH DIRECT	ION/	DISTANCE	DEGREES	D	EPTH	DIRECTION	DISTANCE/	DEGREE	S		
OF SURVEY FR	OH T	RUE VERT	CAL	OF	SURVEY	FROM	TRUE VERT	CAL			
200 1	1/4	0							_		
1°									<u></u>		
402 1	1/4	0							_		
602 1	3/4	0		100					_		
802 1	3/4	0							_		
				121000							
								The London	_		
				1211-2-					_		*
				CAS	ING AND TUBI	ING					
			~~~			CEMENT USE			PACKERS OF		
		SIZE	TOP	BOTTOM	LENGTH	( IN CU/FT )	CEMEN	NTED	KIND S	IZE	SET AT
Conductor											
	11	3/4"		431	33'						
Surface											
Water Protection		STIP ME STORY									
	8	5/8"		8431	833'	220(260	) 10-	-15-9	4		
Coal Protection											
	,	1 /011		1.61.11	46341	260(335	1.0	-20-9	<i>/</i> .		
Other Casing		1/2" 3/8"		4644' 4501'	4034	200(333	, 10-	20-31	1		
and Tubing Left in Well	2	3/0		4501							
Liners											
REMARKS: Shut down, fis	hing	jobs, de	pths and	dates, cav	ing, lost ci	irculation, etc	÷.				

Form DGO-GO-14

Rev. 9/91

Operations	Name:	PVRC	VP2325

Permit #: 2803

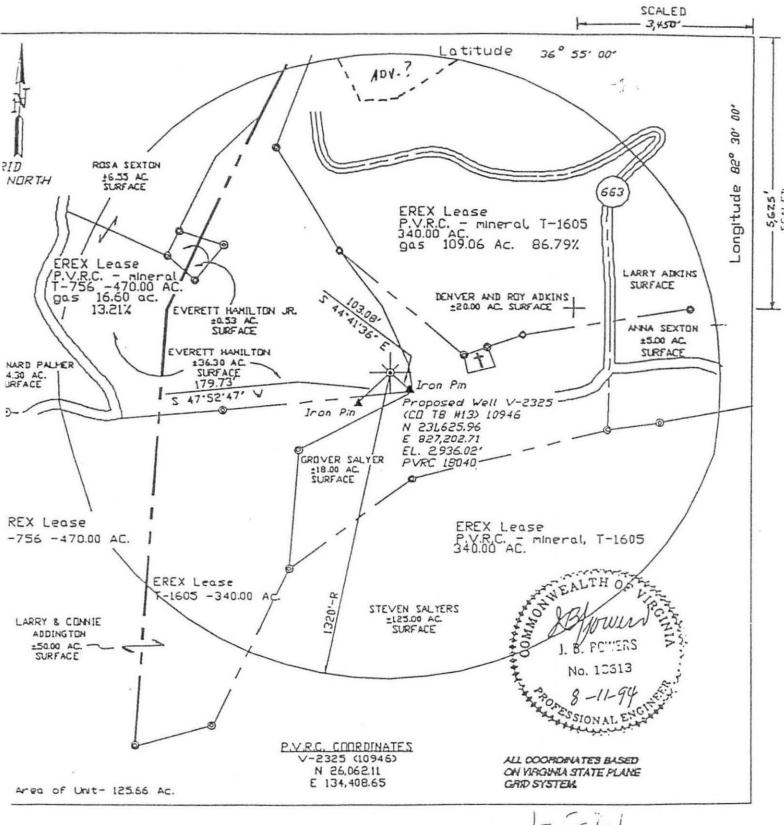
-1 1

DRILLER'S LOG

Compiled by __Geology

GEOLOGIC AGE	FORMATION	GENERAL LITHOLOGY	COLOR	DEP TOP	TH BOTTOM	THICKNESS	REMARKS	
ennsylvanian	Sand, Shale	e & Lee FM		0	473	473		
	Bluestone	FM		473	1128	655		
	Pride SH			1128	1353	225		
ississippian	Ravencliff			1353	1538	185		
	Sand & Sha	le		1538	1878	340		
	Maxon Sand			1878	2162	284		
	Sand & Sha	le		2162	2457	295		
	Little Lim	e		2457	2517	60		
	Big Lime			2517	3210	693		
	Weir			3210	3677	467		
	Coffee Sha	le		3677	3750	73		
	Berea			3750	3830	80		
evonian	Shale			3830	4370	540		
	Lower Huro	n		4370	4570	200		
	White Slat	е		4570	4692	122		
	Logger's T	otal Depth			4692			

Permittee:	EQUITABLE	RESOURCES	EXPLORATION	(Company)
~	100			
ву:/.	F. Pus	nu		(Signature)



WELL LOCATION PLAT

(CD T8 \$18

Operations Name: __PVRC VP2325 Permit #: 2803

Department of Mines, Minerals and Energy Division of Gas and Oil P. O. Box 1416

Abingdon, Virginia 24210 703/676-5423

W5-895

COMPLETION REPORT

	,	
WELL TYPE: Oil Gas X Coalbed Hethane or Inje	oction well	
Date Well Completed: 11-8-94	Total Depth of Well: LTD=4692	DTD=4680
Attach the Drilling Report, if not previously submitted.	In addition, submit any changes in casing o	r tubing that were
approved after the Drilling Report was submitted.		
STIMULATION RECORD		
Zone 1: Lower Huron Formation S	timulated With: No Gas	
W/928000 SCF No		
Perforated:         4388         TO         4570         No. of Perforation Broke Down at:         N/A         PSIG         Available           ISIP         1827         PSIG         5         MIN SIP         1656	rforations: 20 Perforation S	fze: 3 1/8" HSC
Formation Broke Down at: N/A PSIG AV	erage Injection Rate: 78600 SCFM	
ISIP 1827 PSIG 5 MIN SIP 1656	PSIG Average Injection Pressure	3568 PS10
Date Stimulated 10-26-94		
ACTION OF THE CONTROL		
Zone 2: Berea/Cleveland Shale Formation S	timulated With: No Gas	
w/ 909500 SCF N ₂ - 500 gal 15% FE Acid  Perforated: 3810 TO 3906 No. of Pe	erforations: 19 Perforation S	ize: .34"
Formation Broke Down at: N/A PSIG AV	erage Injection Rate: 81420 SCFM	
ISIP 1251 PSIG 5 MIN SIP 1089		
Date Stimulated 10-26-94	Total Mer oge Injection   1100010	1010
pate stimutator 10 10 17		
	7.1	
Zone 3: formation S	timulated bith:	
Perforated: TO No. of Pe	proporations: Parforation C	
Formation Broke Down at: PSIG AV		
ISIP PSIG MIN SIP		
	PSIG Average injection Pressure _	P516
Date Stimulated		
FINAL PRODUCTION: Natural X After Stimul		
800 MCFD		HOURS TESTED
Zone (1)		
Zone (2)		
Zone (3)		
Final Production if Gas Zones are Commingled 1639 no	FD 6 Hours Tested 540 PSIG	48 Hours Tested
* Use additional sheets with this formet, if more than the	ee (3) zones were stimulated.	
Permittee: EQUITABLE RESOURCE	S EXPLORATION (COmpany)	
J 11110		
By: P. Purkar	(Signature)	

Form DG0-G0-15 Rev. 9/91

perations Name: _	PVRC	VP2325	
	Permit #	: 2803	

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Department of Rines, Rinerals and Energy
Division of Gas and Oil
P. O. Box 1416
Abingdon, Virginia 24210
703/676-5423

## DRILLING REPORT

November month, 19 94.  LOCATION  County: Wise	Lipps	01	strict of the	Wise	Count	y, Virginia on	215T de
Surface Elevation: 2936.02 Elevation of Kelly Bushing: 2946.02 Quadrangle: Wise  5625 FT. S. of Latitude 36°55'00" and 3450 FT. W. of Longitude 82°30'00"  Attach a final location plat as required by VR 480-05-22.1, \$ 1.36.  ORILLING DATA  Date Drilling Commenced: 10-14-94			150.7%				
Surface Elevation: 2936.02 Elevation of Kelly Bushing: 2946.02 Quadrangle: Wisc 5625 FT. S. of Letitude 36°55'00" and 3450 FT. W. of Longitude 82°30'00" attack a final location plat as required by VR 480-05-22.1, \$ 1.36.  SECULING DATA Date Drilling Commenced: 10-14-94	LOCATION						
Attach a final location plat as required by VR 480-05-22.1, \$ 1.36.    String Data   Design of the commenced of the commence of	county: Wise			Distri	ct: Lipps		
Attach a final location plat as required by VR 480-05-22.1, \$ 1.36.    Standard							
Attach a final location plat as required by VR 480-05-22.1, § 1.36.    S2 70 V) V8	5625	FT. S. 0	f Latitude	36°55'00" a	nd 3450 FT. W.	of Longitude	32°30'00"
DRILLING DATA Date Drilling Commenced: 10-14-94						36 54' 4.3	18"
Date Drilling Commenced:   10-14-94   Drilling Contractor:   Union Drilling	Attach a final Loc	stion pla	t as required	by VR 480-05-22.	1, § 1.36.	82 30 47	480
Date Drilling Completed: 10-20-94 Rig Type: X Rotarycable Tool  Total Depth of Well:LTD=4692 DTD=4680  GEOLOGICAL DATA Fresh Water at:							
Total Depth of Well:   LTD=4692   DTD=4680							
GEOLOGICAL DATA   Fresh Water at:   48					Rig Type: X Rote	ry Cable To	ol
Salt Water at: Feet GPM Feet GPM  Feet GPM Feet GPM  COAL SEAMS: MINING IN AREA  MARE TOP BOTTOM THICKNESS YES NO MINED OUT  258 261 3  GAS AND OIL SHOWS: FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	Total Depth of Wel	l: LT	D=4692 DT	D=4680	_		
T1 Feet1 1/2-2"streamPH Feet GPM Feet GPM Feet GPM Feet GPM Feet GPM  COAL SEAMS:  NAME TOP BOTTOM THICKNESS YES NO MINED OUT  258 261 3  GAS AND OIL SHOWS:  FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR							
Salt Water at:  Feet GPM Feet GPM  Feet GPM  Feet GPM  Feet GPM  COAL SEAMS:  MINING IN AREA  MINED OUT  258 261 3   SAS AND OIL SHOWS:  FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	Fresh Water at:				462 Feet 1-1/	2"streamen	
Feet GPM Feet GPM  COAL SEAMS:  MINING IN AREA  TOP BOTTOM THICKNESS YES NO HINED OUT  258 261 3  SAS AND OIL SHOWS: FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	_	71_	Feet 1 1/2-2	stream.	Feet	GPM	
COAL SEAMS:  NAME  TOP BOTTOM THICKNESS YES NO HINED OUT 258 261 3  SAS AND OIL SHOWS: FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED 3402 ODOR	Salt Water at:		Feet	GPM	Feet	GPM	
NAME TOP BOTTOM THICKNESS YES NO MINED OUT  258 261 3  GAS AND OIL SHOWS: FORMATION TOP BOTTOM THICKNESS IPF (MCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	_		Feet	GPM	Feet	GPM	
258 261 3  SAS AND OIL SHOWS: FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	COAL SEAMS:		EV.			MINING	IN AREA
SAS AND OIL SHOWS:  FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR	MARE		TOP	BOTTOM	THICKNESS	YES NO	MINED OUT
FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR			258	261	3		
FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR							
FORMATION TOP BOTTOM THICKNESS IPF (HCFD/BOPD) PRESSURE HOURS TESTED  3402 ODOR							
3402 ODOR		10000			200 PM (00 00 PM		
The state of the s	ORMATION	TOP		THICKNESS		PRESSURE	HOURS TESTED
4000 13 MOED					- Indiana and a		
			4000		עזטאן כו		

Form 0G0-G0-14 Rev. 9/91

PVRC VP2325 Operations Name: Department of Mines, Minerals and Energy Permit #: 2803 Division of Gas and Oil Cuttings or samples are X are not available for examination by a member of the Virginia Division of Mineral Resources Cuttings or samples have __ have not X _ been furnished to the Virginia Division of Mineral Resources ELECTRIC LOGS AND SURVEYS List logs run on wellbore: ____CDL/TEMP/GR Did log disclose vertical location of a coal seam? Yes ____ No X SURVEY RESULTS DEPTH DIRECTION/DISTANCE/DEGREES DEPTH DIRECTION/DISTANCE/DEGREES OF SURVEY FROM TRUE VERTICAL OF SURVEY FROM TRUE VERTICAL 1 1/4° 200 261 1 1/4° 402 3/4° 602 1 3/4° 802 CASING AND TUBING CEMENT USED DATE PACKERS OR BRIDGE PLUGS SIZE TOP KIND SIZE SET AT BOTTOM LENGTH ( IN CU/FT ) CEMENTED Conductor 11 3/4" 431 331 Surface Water Protection 8 5/8" 843' 833' 220(260) 10-15-94 Coal Protection 4 1/2" 46441 46341 260(335) 10-20-94 Other Casing and Tubing Left in Well 2 3/8" 4501' Liners REMARKS: Shut down, fishing jobs, depths and dates, caving, lost circulation, etc.

Form DGO-GO-14

Rev. 9/91

Operations Name: __

PVRC VP2325

Permit #: _2803

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DRILLER'S LOG

compiled by __Gaology

GEOLOGIC		IERAL IOLOGY COLOR	DEP TOP	TH BOTTOH	THICKNESS	REMARKS
'ennsylvanian	Sand, Shale & L	Lee FM	0	473	473	
	Bluestone FM		473	1128	655	
	Pride SH		1128	1353	225	
fississippian	Ravencliff		1353	1538	185	
	Sand & Shale		1538	1878	340	
	Maxon Sand		1878	2162	284	
	Sand & Shale		2162	2457	295	
9	Little Lime		2457	2517	60	
	Big Lime		2517	3210	693	
	Weir	-274	3210	3677	467	
•	Coffee Shale		3677	3750	73	
	Berea	- 814	3750	3830	80	
Devonian	Shale		3830	4370	540	
	Lower Huron		4370	4570	200	
	White Slate		4570	4692	122	
; ;	Logger's Total	Depth		4692		

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

By: (Signature)

