Operations Name: N B SUTHERLAND VCP2596
Permit #: 3123 DI-811

(Signature)

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

### COMPLETION REPORT

WELL TYPE: Oil _ Gas _ Coalbed Methano	e X or Injection well	-	SE PARTY OF
Date Well Completed: 10-07-96	Total Depth of Well: LTD = 2677 DTD = 3	2700	
Attach the Drilling Report; if not previously sub- after the Drilling Report was submitted.	mitted. In addition, submit any changes in ca	asing or tubin	g that were approved
STIMULATION RECORD Zone 1: COAL SEAMS* W/23700# 12/20 SAND - 845000 SCF N2 - 5 Perforated: 1332.5 to 2446 Formation Broke Down at: 1721 ISIP: 1492 PSIG 5 Min SIP: Date Stimulated: 10-7-96  * GREASY CREEK, M SEABOARD, L SEABOARD	No. of Perforations: 15 Perforation PSIG Average Injection Rate: 14.2 (40 DH 1383 PSIG Average Injection Pressure:	H) BPM 3500	, POCO #3
Zone 2:	Formation Stimulated With:		
Perforated: to Formation Broke Down at: ISIP: PSIG Min SIP: Date Stimulated:	No. of Perforations: Perforation PSIG Average Injection Rate: PSIG Average Injection Pressure:		
Zone 3:	Formation Stimulated With:		
Perforated: to Formation Broke Down at: ISIP: PSIG Min SIP: Date Stimulated:	No. of Perforations: Perforation PSIG Average Injection Rate: PSIG Average Injection Pressure:		
FINAL PRODUCTION:  BOD MCFD  Zone (1)  Zone (2)  Zone (3)  Final Production if Gas Zones are Commingled	After Stimulation HOURS TESTED ROCK PRE		HOURS TESTED
* Use additional sheets with this format, if more	e than three (3) zones were stimulated.		
Permittee: FOLL	TABLE RESOLIBOES EXPLORATION (	Company)	

Form DGO-GO-15 Rev. 9/91

Operations Name: N B SUTHERLAND VCP2596
Permit #: 3123 DI-811

Department of Mines, Minerals and Energy
Division of Gas and Oil
P. O. Box 1410
Abingdon, Virginia 24210
703/676-5423

#### DRILLING REPORT

Pursuant to VR-480-05-2 <u>ERVINTON</u> District of <u>JANUARY</u> month, 19 9	the _					submits Virginia			day,	596 in	the
LOCATION											
County: <u>DICKENSON</u> Surface Elevation: <u>2444.</u> 13450 FT S. of Latitude				of Kelly B 640 F	ushing:		3_		adrangle:	DUTY	
Attach a final location pla	t as rec	uired by	VR 480	-05-22.1	, § 1.36						
DRILLING DATA			-								
Date Drilling Commenced Date Drilling Completed: Total Depth of Well: LTI	10-0	- <u>26-96</u> 01-96 ' DTD=2	2700		Drilling Rig Typ		ctor: <u>Unic</u> Rotary		g ible Tool		
GEOLOGICAL DATA											
Fresh Water at:	52	feet	DAMP		GPM	1802	feet	DAMP		GPM	
Salt Water at:		feet feet feet			GPM GPM GPM		feet feet feet			GPM GPM GPM	
COAL SEAMS:									MI	NING IN AR	EA
NAME		TOP		вотто	M	THICK	NESS	YES	NO	MINED	OUT
L SEABOARD BECKLEY X-SEAM		1432 1807 1917		1434 1810 1919		2 3 2					
GAS AND OIL SHOWS:											
FORMATION	TOP	<u>BO1</u>	TOM	THICK	NESS	IPF (	MCFD/B0	OPD)	PRESS	URE HO	URS TESTED
			2825				ODOR				

Operations Name: N B SUTHERLAND VCP2596
Permit #: 3123 DI-811

Cuttings or samples are  $\underline{X}$  available for examination by a member of the Virginia Division of Mineral Resources Cuttings or samples have  $\underline{X}$  been furnished to the Virginia Division of Mineral Resources

#### **ELECTRIC LOGS AND SURVEYS**

List logs run on wellbore: DEN/TMP/GR

Did log disclose vertical location of a coal seam? Yes X No

#### SURVEY RESULTS

DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL	DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL
52	1/4°	1590	1°
200	1/4°	1790	3/4°
255	1/2°	1802	3/4°
400	3/4°	1914	3/4°
587	3/4°	2114	1°
787	3/4°	2302	1°
1000	3/4°	2440	1°
1200	3/4°	2680	1°
1388	1°		

### CASING AND TUBING

	SIZE	TOP	воттом	LENGTH	CEMENT USED (IN CU/FT)	DATE CEMENTED	PACKEI BRIDGE KIND SIZ	
Conductor								
Surface	11 3/4"		45'	35'				
Water Protection	8 5/8"		319'	309'	80(94)	09-27-96		
Coal Protection								
Other Casing and Tubing Left in Well	4 1/2" 2 3/8"		2669' 2562'	2659'	340(428)	10-01-96		
Liners								

REMARKS: Shut down, fishing jobs, depths and dates, caving, lost circulation, etc.

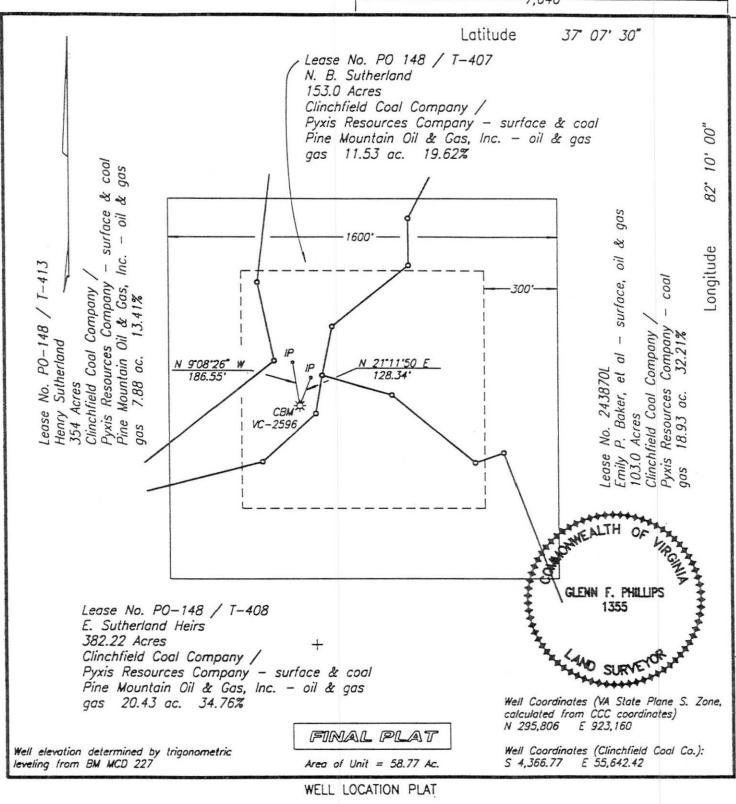
Operations Name: N B SUTHERLAND VCP2596
Permit #: 3123 DI-811

DRILLER'S LOG

Compiled by Engineering

AGE	FORMATION	GENERAL <u>LITHOLOGY</u>	COLOR	DE TOP	PTH BOTTOM	THICKNESS	REMARKS
Pennsylvanian	Sand, Shale & Thir L SEABOARD Sand, Shale & Thir BECKLEY Sand, Shale & Thir X-SEAM Sand, Shale & Thir	n Coals		0 1432 1434 1807 1810 1917 1919	1432 1434 1807 1810 1917 1919 2677	1432 2 373 3 107 2 758	
	Logger's Total Dep	oth			2677		

Permittee:	EQUITABLE RESOURCES EXPLORATION	(Company)
Ву:	Goseph a. Ang	(Signature)



COMPANY <u>Equitable Resources Exploration</u> WELL NAME AND NUMBER <u>VC-2596</u> TRACT NO. <u>PO-148 / T-407</u> ELEVATION <u>2444.84</u> QUADRANGLE <u>Duty</u>
COUNTY <u>Dickenson</u> DISTRICT <u>Ervinton</u> SCALE <u>1" = 400'</u> DATE <u>11-14-1996</u>
This Plat is a new plat; an updated plat; or a final location plat _x
+ Denotes the location of a well on United States topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.
Den Flielliges
Licensed Professional Engineer or Licensed Land Surveyor