

API NO. 45 - 051 - 21092  
WELL NAME: New York Mining & Mfg. Co., PC-436  
DATE July 25, 1990

DI 403

Virginia Oil and Gas Inspector  
P. O. Box 1416  
Abingdon, VA 24210  
703 628-8115

REPORT OF COMPLETION OF WELL WORK

Pursuant to Regulation 4.06 of the Regulations under the Virginia Oil and Gas Act, the undersigned well operator reports completion of the type(s) of well work specified below on the referenced well in Ervinton District Dickenson County, Virginia on 17 day, May month, 19 90.

WELL TYPE: Oil  / Gas  / Enhanced Recovery  / Waste Disposal   
If Gas-Production  / Underground Storage  / Exempt by Code Section 45.1-300.B.1. from general Oil and Gas Conservation Law yes  / no   
WELL WORK: Drill  / Deepen  / Redrill  / Stimulate  / Plug Off Old Formation  / Perforate New Formation  / Plug  / Replug  / Other physical change in well (specify) \_\_\_\_\_  
The well work was done as shown in the Appendix(es) applicable to the type(s) of well work involved.

CONFIDENTIALITY STATUS UNDER CODE OF VIRGINIA SECTION 45.1-332

Ninety days from the filing of this report

OR

Two years from \_\_\_\_\_, the date on which the referenced well was completed, the well being an exploratory well as defined in Code of Virginia, Section 45.1-288.21.

APPLICANT Equitable Resources Exploration  
BY J. Matthew Conrad  
ITS Geologist  
ADDRESS 1989 E. Stone Dr., Kingsport, TN 37660  
TELEPHONE 615-378-5101



COMPLETION REPORT

WELL TYPE: Oil ( ) Gas Production ( x ) Gas-Underground Storage ( )  
Enhanced Recovery ( ) Waste Disposal ( )

LOCATION

COUNTY Dickenson DISTRICT Ervinton

SURFACE ELEVATION 2308.44' QUADRANGLE Caney Ridge

LATITUDE 11,130 'S 37° 05 ' 00 " LONGITUDE 6,920 'W 82° 22 ' 30 "

DRILLING DATA

DATE DRILLING COMMENCED 3/4/90 DRILLING CONTRACTOR Union Drilling  
DATE DRILLING COMPLETED 3/9/90 ADDRESS Drawer 40, Buckhannon, WV 26201  
DATE WELL COMPLETED 5/17/90 TELEPHONE NUMBER 304-472-4610  
TOTAL DEPTH OF COMPLETED WELL 2561 RIG TYPE x ROTARY        CABLE TOOL       

GEOLOGICAL DATA

FRESH WATER AT (1) 164 FEET 1/2" str GPM: (2) FEET        GPM  
SALT WATER AT (1)        FEET        GPM: (2)        FEET        GPM

COAL SEAMS:

NAME	TOP	BOTTOM	THICKNESS	MINING IN AREA		
				YES	NO	<del>MINED</del>
U. Horsepen	1651-1652	1	L. Horsepen 1929-1930	1	Poco #2 2394-2395	1
M. Horsepen	1685-1686	1	X-Seam 1993-1994	1	Poco #1 2432-2434	2
Warcreek	1799-1800	1	Poco #6 2160-2161	1		
Unnamed C	1837-1838	1	Poco #5 2254-2255	1		
Beckley	1865-1866	1	Poco #4 2280-2281	1		

OIL AND GAS SHOWS:

FORMATION	TOP	BOTTOM	THICKNESS	IPF (MCFD/BOPD)	PRESSURE	HOURS TESTED
None Recorded						

STIMULATION RECORD Poco #1, Poco 2, Poco 4, Poco 5, Poco 6, X-Seam, L. Horsepen, Beckley  
ZONE (1) Unnamed c, Warcreek, M & L Horespen FORMATION STIMULATED WITH 750 Limited Entry  
using 617 bbls fluid, 1,280,000 ScfN2 & 16,000 # 12/20 sand.

PERFORATED 1651 TO 2434 NO. OF PERFORATIONS 16 PERFORATION SIZE .36  
FORMATION BROKE DOWN AT 1950 PSIG AVERAGE INJECTED RATE 15.7 BPM  
INITIAL SHUT IN PRESSURE 2160 PSIG 5 MINUTE SHUT IN PRESSURE 1730 PSIG

STIMULATION RECORD

ZONE (2)        FORMATION STIMULATED WITH       

PERFORATED        TO        NO. OF PERFORATIONS,        PERFORATION SIZE         
FORMATION BROKE DOWN AT        PSIG AVERAGE INJECTED RATE        BPM  
INITIAL SHUT IN PRESSURE        PSIG        MINUTE SHUT IN PRESSURE        PSIG  
FINAL PRODUCTION: ( ) NATURAL ( x ) AFTER STIMULATION  
BOD MCFD HOURS TESTED ROCK PRESSURE HOURS TESTED

ZONE (1)         
ZONE (2)       

FINAL PRODUCTION IF GAS ZONES ARE COMINGLED \*35 MCFD        HOURS TESTED  
PSIG        HOURS TESTED

\* - This is not an absolute open flow.

CASING AND TUBING

	<u>SIZE</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>LENGTH</u>	<u>PACKERS OR</u>	
					<u>PERFORATIONS</u>	<u>BRIDGE PLUGS</u>
					<u>FEET TO FEET</u>	<u>KIND SIZE SET AT</u>
CONDUCTOR	11 3/4"		26'			

CASING

Circulated  
and Cemented  
to Surface

WATER PROTECTION

(Casing Set  
According to  
Section

45.1-334) 8 5/8" 354'

COAL PROTECTION

(Casing Set  
According to  
Section

45.1-334)

OTHER CASING &

Tubing Left 4 1/2" 2521'  
In Well 2 3/8" 2484'

LINERS

Remaining  
In Well

OTHER used and not  
left

Is the well underlain by Red Shale  Yes  No, If Yes, was coal  
protection string set to Red Shales?  Yes  No

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

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Samples and Cuttings

Will  Will not  be available for examination by a member of the Virginia Division of Mineral Resources

Will  Will not  be furnished to the Virginia Division of Mineral Resources upon request

Will  Will not  require sacks to be furnished by the Virginia Division of Mineral Resources

Electric Logs and Surveys:

Type of Electric Log(s) Ran: CDL/TEMP/GR

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

Was log made at request of a coal owner according to Section 45.1-333.B.1 of the Virginia Code? Yes  No

Note: If a coal seam was located, the part of the survey from the surface through the coal is attached in accordance with Section 45.1-333.B.3 of the Virginia Code

Deviation Surveys

Deviation surveys were  were not  required under Section 45.1-333.C of the Virginia Code "to the bottom of the lowers published coal seam depth."

Note: If a deviation survey(s) was/were required, the survey results are as follows:

<u>Depth of Survey</u>	<u>Feet/Degree Deviated From True Vertical</u>	<u>Depth of Survey</u>	<u>Feet/Degree Deviated From True Vertical</u>
	<u>See Attachment</u>		

A continuous survey was  was not  required, under Section 45.1-333.C of the Virginia Code.

Note: If a continuous survey was required, the survey results are attached.

Changes in the Permitted Well Work:

The well operator did  did not  make any change(s) in the permitted well work, verbally approved by the Inspector or Assistant Inspector under Regulation 4.03 of the Regulations under the Virginia Oil and Gas Act, for the purpose of insuring successful completion of the well work.

NOTE: The nature and purpose of each such change, if any, is set out below or on additional sheets if such are required.

Confidentiality Status:

Confidentiality status under Section 45.1-332, of the Virginia Code: The operator requests that information herein and log(s) be kept confidential (after COMPLETION DATE of the well) for a period of

Ninety (90) days

two (2) years, if the well is exploratory

## DRILLER'S LOG

Compiled by J. Matthew Conrad

Geological Age	Formation	General Lithology	Color	Depth		Thickness	Remarks
				Top	Bottom		
Pennsylvanian	Lee	Sand/Shale/Thin Coal		0	1024	1024	
		Jawbone Coal		1024	1026	2	
		Sand/Shale/Thin Coal		1026	1928	902	
		L. Horsepen Coal		1928	1930	2	
		Sand/Shale		1930	1992	62	
		X-Seam		1992	1994	2	
		Shale		1994	2004	10	
		Pocahontas	Sand/Shale/Thin Coal		2004	2110	106
	Poco #6 Coal			2110	2112	2	
	Sand/Shale/Thin Coal			2112	2279	267	
	Poco #4 Coal			2279	2281	2	
	Sand/Shale/Thin Coal			2281	2432	151	
	Poco #1 Coal			2432	2436	4	
	Sand & Shale			2436	2550	14	
	Mississippian	Bluestone	Red Shale		2550	2561	11

DIRECTIONAL SURVEY  
PC-436

DEPTH	DEGREES
227	1 °
440	1 °
661	1 °
881	1½°
1101	1 °
1288	1½°
1570	1½°
1790	1½°
1980	1½°
2168	1½°
2387	1 °
2576	1 °

Date: 1-7, 19 87

Operator's Well No. P-436-C DI-403

VIRGINIA OIL AND GAS INSPECTOR DEPARTMENT OF LABOR AND INDUSTRY DIVISION OF MINES OIL AND GAS SECTION 205 W. MAIN STREET ABINGDON, VIRGINIA 24210 PHONE 703 628-8115

WELL PLAT

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000. Latitude and longitude lines are represented by border lines as shown.

This plat is new X / updated /

This plat is X / is not / based on a mine coordinate system established for the areas of the well location.

Well operator Philadelphia Oil 1989 E. Stone Drive, 2 Executive Address Park Place Kingsport, Tenn. 3766 Farm New York Mining & Manufacturing Co. Tract TL-211 Acres 578.75 Lease No. Elevation 2308.44 Quadrangle Caney Ridge, Va. County Dickenson District Ervinton Registered Engineer Registration No. Certified Land Surveyor Z Cert. No. 986 File No. Drawing No. 1687 Date 1-7-86 Scale 1"=400'

Certification of Well Plat

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief, and shows all the information required by law and the regulations of the Virginia Well Review Board.

Donald B. Spoles Registered Engineer or Certified Land Surveyor in Charge

