

HUBBARD SPRINGS  
6-1

API No. 45-105-20463-00-03 VDMR Well Rep. No. \_\_\_\_\_  
DMQ File No. LE-75

Operator APACO PETROLEUM INC.

Farm AUBRA P. DEAN

Co. Well No. #1

County LEE Quadrangle HUBBARD SPRINGS - 7½'

Location (UTM) N4,064,350; E308,160 UTM Zone 17

(Lat. and Long.) \_\_\_\_\_

Field BEN HUR Province VALLEY AND RIDGE

Elev. (specify) 1720' GR TD 2664 Form. at TD EGGLESTON

Age ORDOVICIAN

Date compl. or abandoned MARCH 15, 1982

Result OIL WELL

Gas Shows \_\_\_\_\_

Gas Pays \_\_\_\_\_

Main Production 1950'-1955 Prod. Form. \_\_\_\_\_

Age \_\_\_\_\_

Treatment: 11 HOLES FROM 2265' TO 2316'; 1000 GALLONS OF 28% HCL;  
1946' TO 2020-1000 GALLONS OF 28% HCL.

Initial Production 10 BARRELS PER DAY

Oil shows 1625; 1950 OIL PAYS: 1625' TO 1630; 1950 TO 1955

Water FW YES at 215' at 315' at \_\_\_\_\_

SW YES at 1625' at 1650 at \_\_\_\_\_

Coal \_\_\_\_\_

Plat X Plotted X Completion Report X

Drillers Log \_\_\_\_\_ Geologic Log \_\_\_\_\_

Samples \_\_\_\_\_ Interval Sheet \_\_\_\_\_

Sample Interval \_\_\_\_\_

Remarks \_\_\_\_\_

Geophysical Logs S.P. \_\_\_\_\_ Res \_\_\_\_\_ Gamma \_\_\_\_\_ Neutron \_\_\_\_\_

Density \_\_\_\_\_ Sonic \_\_\_\_\_ Other DUAL INDUCTION, FRACTURE

IDENTIFICATION

Stratigraphic Data Source FRED YORKE

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
<u>OVERBURDEN</u>	<u>0</u>	<u>1720</u>	<u>65</u>
<u>HANCOCK</u>	<u>65</u>	<u>1655</u>	<u>495</u>
<u>CLINTON</u>	<u>560</u>	<u>1160</u>	<u>380</u>
<u>CLINCH</u>	<u>940</u>	<u>780</u>	<u>60</u>
<u>SEQUATCHIE</u>	<u>1000</u>	<u>720</u>	<u>360</u>
<u>REEDSVILLE</u>	<u>1360</u>	<u>360</u>	<u>395</u>
<u>TRENTON</u>	<u>1755</u>	<u>- 35</u>	<u>850</u>
<u>EGGLESTON</u>	<u>2605</u>	<u>- 885</u>	<u>59</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Remarks  

References  

Released to Open File: Completion JUNE 13, 1982

Samples NO

(Note: UTM measurements in meters, all others in feet)

OIL AND GAS WELL SUMMARY REPORT

API No.: 45-105-20463-00-03

VDMR Well Rep. No.

Div. Gas & Oil File No.: LE-75

Operator: APACO PETROLEUM INC.

Farm: AUBRA P. DEAN

County: LEE

Co. Well No.: #1

Quadrangle: HUBBARD SPRINGS - 7-1/2'

Location (UTM): N 4,064,350; E 308,160 UTM Zone: 17

Field: BEN HUR

Province: VALLEY AND RIDGE

Elev. (specify): 1720' GR TD: 2664 Formation at TD: EGGLESTON

Initial Gas Flow

Age: ORDOVICIAN

Date compl. or abandoned: MARCH 15, 1982

Result: OIL WELL

Gas Shows

Gas Pays

Main Production: 1950'-1955

Producing Formation

Final Gas Flow

Treatment: 11 HOLES FROM 2265' TO 2316'; 1000 GALLONS OF 28% HCL; 1946' TO 2020-1000 GALLONS OF 28% HCL.

Initial Oil Production: 10 BARRELS PER DAY

Settled Oil Production

Oil Shows: 1625; 1950

Oil Pays: 1625' TO 1630; 1950 TO 1955

Water

FW: YES

at: 215'

at: 315'

at

SW: YES

at: 1625'

at: 1650

at

Coal

Plat: X

Plotted: X

Completion Report: X

Drillers Log

Geologic Log

Samples

Interval Sheet

Sample Interval

Geophysical Logs

S.P.

Res

Gamma

Neutron

Density

Sonic

Other: DUAL INDUCTION, FRACTURE IDENTIFICATION

Stratigraphic Data Source: FRED YORKE

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
OVERBURDEN	0	1720	65
HANCOCK	65	1655	495
CLINTON	560	1160	380
CLINCH	940	780	60
SEQUATCHIE	1000	720	360
REEDSVILLE	1360	360	395
TRENTON	1755	- 35	850
EGGLESTON	2605	- 885	59

Remarks:

References:

Released to Open File: Completion: JUNE 13, 1982  
Samples: NO

(Note: UTM measurements in meters, all others in feet)



API No.: 45-105-20463-00-03

VDMR Well Rep. No.:

Div. Gas & Oil File No.: LE-75

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County: LEE

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Quadrangle: HUBBARD SPRINGS - 7-1/2'

Location (UTM): N 4.064.350; E 308.160

UTM Zone: 17

Field: BEN HUR

Province: VALLEY AND RIDGE

Elev. (specify): 1720' GR TD: 2664

Formation at TD: EGGLESTON

Initial Gas Flow:

Age: ORDOVICIAN

Date compl. or abandoned: MARCH 15. 1982

Result: OIL WE::

Gas Shows:

Gas Pays:

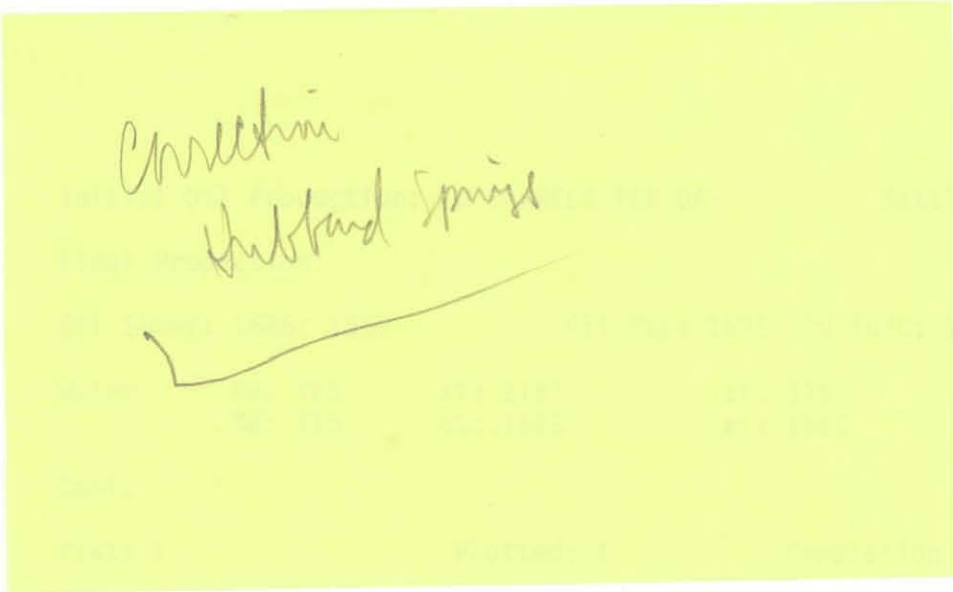
Main Production: 1950'-1955'

Producing Formation:

Final Gas Flow

Age:

Treatment: 11 HOLES FROM 2265' TO 2316'; 1000 GALLONS OF 28% HCL; 1946' TO 2020-1000 GALLONS OF 28% HCL.



ed Oil Production

950 TO 1955

at  
at

Report: X

API No.: 45-105-20463-00-03

VDMR Well Rep. No.:

Div. Gas &amp; Oil File No.: LE-75

Operator: APACO PETROLEUM INC.

Farm: AUBRA P. DEAN

County: LEE

Co. Well No.: #1

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UTM Zone: 17

Field: BEN HUR

Province: VALLEY AND RIDGE

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Formation at TD: EGGLESTON

Initial Gas Flow:

Age: ORDOVICIAN

Date compl. or abandoned: MARCH 15. 1982

Result: OIL WE;;

Gas Shows:

Gas Pays:

Main Production: 1950'-1955'

Producing Formation:

Final Gas Flow

Age:

Treatment: 11 HOLES FROM 2265' TO 2316'; 1000 GALLONS OF 28% HCL; 1946' TO 2020-1000 GALLONS OF 28% HCL.

Initial Oil Production: 10 BARRELS PER DAY

Settled Oil Production

Final Production:

Oil Shows: 1625; 1950

Oil Pays 1625' TO 1630; 1950 TO 1955

Water:	FW: YES	at: 215'	at: 315'	at
	SW: YES	at: 1625'	at: 1650'	at

Coal:

Plat: X

Plotted: X

Completion Report: X

Drillers Log:

Geologic Log:

Samples:

Interval Sheet:

Sample Interval:

Geophysical Logs

S.P.

Res

Gamma:

Neutron:

Density:

Sonic

Other: DUAL INDUCTION, FRACTURE IDENTIFICATION

Stratigraphic Data Source: FRED YORKE

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
OVERBURDEN	0	1720	65
HANCOCK	65	1655	495
CLINTON	560	1160	380
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REEDSVILLE	1360	360	395
TRENTON	1755	- 35	850
EGGLESTON	2605	- 885	59

Remarks:

References:

Release to Open File: Completion: JUNE 13, 1982  
Samples: NO

(Note: UTM measurements in meters, all others in feet)

OIL AND GAS WELL  
SUMMARY REPORT

API No. 45-105-20463-00-03 VDMR Well Rep. No. \_\_\_\_\_

DMQ File No. LE-75

Operator APACO LTD.

Farm AUBRA P. DEAN

Co. Well No. #1

County LEE Quadrangle HUBBARD SPRINGS - 7 1/2"

Location (UTM) N4,064,350; E 308,160 UTM Zone 17

(Lat. and Long.) \_\_\_\_\_

Field BEN HUR Province VALLEY AND RIDGE

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Age ORDOVICIAN

Date compl. or abandoned MARCH 15, 1982

Result OIL WELL

Gas Shows \_\_\_\_\_

Gas Pays \_\_\_\_\_

Main Production 1950' - 1955' Prod. Form. \_\_\_\_\_

Age \_\_\_\_\_

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Water FW YES at 215' at 315' at \_\_\_\_\_

SW YES at 1625' at 1650 at \_\_\_\_\_

Coal \_\_\_\_\_

Plat x Plotted x Completion Report x

Drillers Log \_\_\_\_\_ Geologic Log \_\_\_\_\_

Samples \_\_\_\_\_ Interval Sheet \_\_\_\_\_

Sample Interval \_\_\_\_\_

Remarks \_\_\_\_\_

Geophysical Logs S.P. \_\_\_\_\_ Res \_\_\_\_\_ Gamma \_\_\_\_\_ Neutron \_\_\_\_\_

Density \_\_\_\_\_ Sonic \_\_\_\_\_ Other \_\_\_\_\_



<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
<u>OVERBURDEN</u>	<u>0</u>	<u>1720</u>	<u>65</u>
<u>HANCOCK</u>	<u>65</u>	<u>1655</u>	<u>495</u>
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<u>EGGLESTON</u>	<u>2605</u>	<u>-885</u>	<u>59</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

**Remarks****References**Released to Open File: Completion JUNE 13, 1982Samples NO

(Note: UTM measurements in meters, all others in feet)

OIL AND GAS WELL  
SUMMARY REPORT

API No. 45-105-20463-00-03 VDMR Well  
Rep. No. \_\_\_\_\_  
DMQ File No. LE-75

Operator APACO, LTD.  
Farm AUBRA P. DEAN  
Co. Well No. 1

County LEE Quadrangle HUBBARD SPRINGS-7½'  
Location (UTM) N4,064,340; E308,160 UTM Zone 17  
(Lat. and Long.) \_\_\_\_\_  
Field BEN HUR Province VALLEY AND RIDGE

Elev. (specify) 1720' GR. TD 2664' Form. at TD EGGLESTON  
INITIAL FLOW - Age ORDOVICIAN

Date compl. or abandoned MARCH 15, 1982  
Result OIL WELL  
Gas Shows \_\_\_\_\_  
Gas Pays \_\_\_\_\_

Main Production 1950' TO 1955' Prod. Form. TRENTON  
Age ORDOVICIAN

Treatment: 11 HOLES FROM 2265' TO 2316', 1000 GALLONS OF 28% HCL;  
1946' TO 2020', 1000 GALLONS OF 28% HCL

Initial Production 10 BARRELS PER DAY  
FINAL FLOW - \_\_\_\_\_

Oil shows 1625'; 1950'; OIL PAYS - 1625' TO 1630'; 1950' TO 1955'

Water FW X at 215' 5GPM at 315' 6GPM at 565  
SW X at 1625' at 1650' at \_\_\_\_\_

Coal \_\_\_\_\_

Plat X Plotted X Completion Report X  
Drillers Log X Geologic Log \_\_\_\_\_  
Samples \_\_\_\_\_ Interval Sheet \_\_\_\_\_  
Sample Interval \_\_\_\_\_  
Remarks \_\_\_\_\_

Geophysical Logs S.P. \_\_\_\_\_ Res \_\_\_\_\_ Gamma \_\_\_\_\_ Neutron \_\_\_\_\_  
Density \_\_\_\_\_ Sonic \_\_\_\_\_ Other \_\_\_\_\_

Stratigraphic Data Source FRED G. YORK

APACO, ITD.

<u>Formation</u>	<u>Top</u>	<u>Datum (Subsea)</u>	<u>Thickness</u>
<u>OVERBURDEN</u>	<u>0</u>	<u>+1720GR</u>	<u>65</u>
<u>HANCOCK DOLOMITE</u>	<u>65</u>	<u>1655</u>	<u>495</u>
<u>CLINTON</u>	<u>560</u>	<u>1160</u>	<u>380</u>
<u>CLINCH</u>	<u>940</u>	<u>780</u>	<u>60</u>
<u>SEQUATCHIE</u>	<u>1000</u>	<u>720</u>	<u>360</u>
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<u>TRENTON</u>	<u>1755</u>	<u>-35</u>	<u>850</u>
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Remarks

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

References

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Released to Open File: Completion JUNE 13, 1982  
 Samples NO

(Note: UTM measurements in meters, all others in feet)

(To be filled in by  
Division of Mines)

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF LABOR AND INDUSTRY

(To be filled in by  
Division of Mines)

LEE

County

JONESVILLE

District

HUBBARD SPRINGS

Quadrangle

LE-75

File

DIVISION OF MINES

BIG STONE GAP, VIRGINIA

DEEPENED  
OIL AND GAS WELL COMPLETION REPORT  
ABANDONMENT

Well No. APACO #1

Permit No. 463

County Code 105

Well  
Classification DEVELOPMENT

(This report and a copy of electrical log, if made, must  
be submitted to the Division of Mines within 30 days after  
abandonment or completion of well, as required by Section  
45-113, Code of Virginia, 1950.)

Company Apaco, Ltd.

Address Box 98  
St. Charles, Va. 24282

Farm Aubra P. Dean

Acres 377.91

County Lee

District Jonesville

Well No. (Company) #1

Elevation (ground surface) 1720 + ft.

Location: (Give direction and distance in feet from two (2) map coordinates (Latitude and Longitude) shown  
on location plat or map previously filed with the Division of Mines or shown on quadrangle topo-  
graphic map of area.)

15,560 feet South of 36° 45' 00" and

6,610 feet West of 83° 07' 30"

Surface of tract is owned in fee simple by Aubra P. & Sue Dean

Address Rte. 4 Jonesville, Virginia

Mineral rights are owned by Same as Above

Address \_\_\_\_\_

Location made by Aubra p. Dean

Drilling commenced 2-1-82 Drilling contractor Funk Drilling Co., Inc.

Drilling completed 2-18-82 Address Box 569 Coeburn, Va. 24230

Well completed as <sup>gas</sup> well on 3-15-82  
<sub>oil</sub>

Well abandoned at N/A feet on \_\_\_\_\_: Reason \_\_\_\_\_

Well plugged on N/A, 19\_\_\_\_ Affidavit filed \_\_\_\_\_, 19\_\_\_\_

Total depth 2664 feet. Steel line measurement \_\_\_\_\_ feet.

Commenced producing on 3-26-, 1982

Oil Well

Initial production, 10 Barrels per day.

Stimulation Record 11-Holes From 2265 to 2316' 1000 gal 28% HCL @ 7 BPM - 1700 Psiq

151P 1550 5min SIP 1200 Psiq - 1946' to 2020' 1000 gal 28% HCL @ 4 BPM - 2000 Psiq

WELL ON VACUM

Breakdown Pressure 2500 psi; Average Injection Pressure 2000 psi;

Average Injection Rate 3-BBL MIN BPM; Instant Shut-in Pressure 1550 psi;

5 Min. Shut-in Pressure 1200 psi;

Final Production \_\_\_\_\_ Barrels per day.

Gravity and grade of oil \_\_\_\_\_

Oil pays at (1) 1625 feet to 1630 feet. Oil shows at (1) 1625 feet to \_\_\_\_\_ feet.

(2) 1950 feet to 1955 feet. (2) 1950 feet to \_\_\_\_\_ feet.

(3) \_\_\_\_\_ feet to \_\_\_\_\_ feet. (3) \_\_\_\_\_ feet to \_\_\_\_\_ feet.

(4) \_\_\_\_\_ feet to \_\_\_\_\_ feet. (4) \_\_\_\_\_ feet to \_\_\_\_\_ feet.

Main production at 1950 feet to 1955 feet. (5) \_\_\_\_\_ feet to \_\_\_\_\_ feet.

Gas Well

Initial open flow, gas: Gaged \_\_\_\_\_/10ths. Water in \_\_\_\_\_ inch.

Volume \_\_\_\_\_ Mcf.; Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.

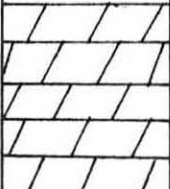
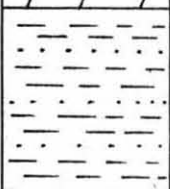
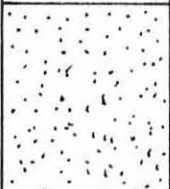
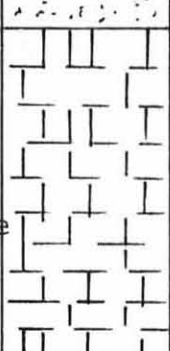
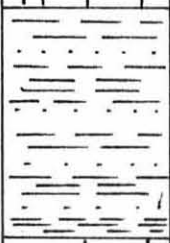
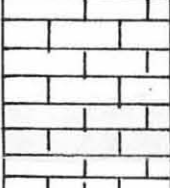
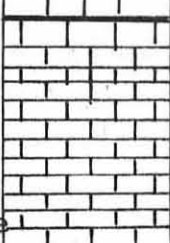
Stimulation Record \_\_\_\_\_

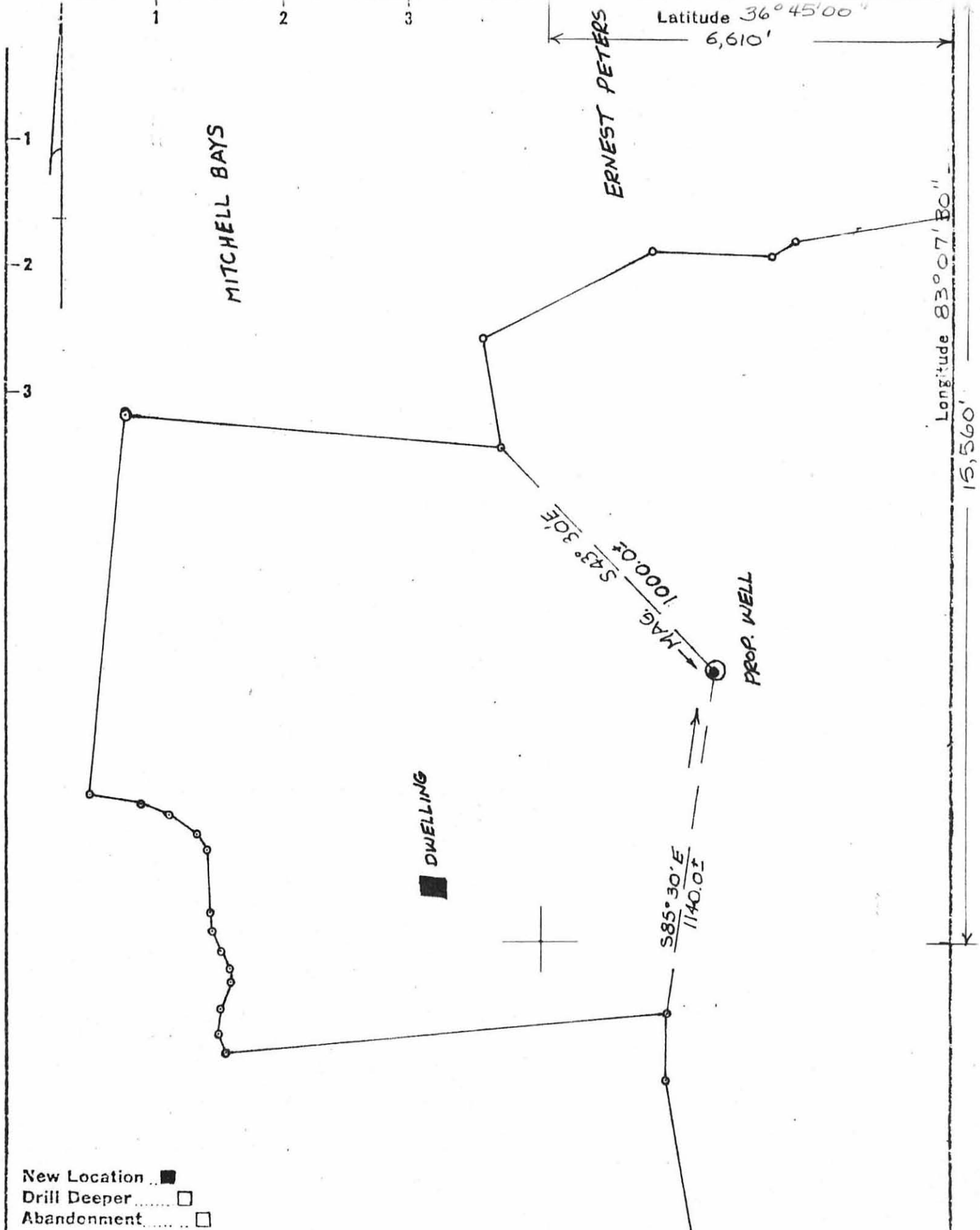




## LOG

Furnished by APACO LTD Date 6-4-82Compiled by FRED G. YORKE Date 6-4-82

GEOLOGIC AGE	FORMATION	GENERAL LITHOLOGY	COLOR	TOP (feet)	BOTTOM (feet)	THICKNESS (feet)	REMARKS OIL, GAS WATER DEPTHS SHUT DOWN FISHING, ETC.
	Overburden		Brown	0	65	65	
Silurian	Hancock Dolomite		White	65	560	495	Water at 215' and 315'
Silurian	Clinton Shale		Green & Red	560	940	380'	Water at 565'
Silurian	Clinch Sandstone		Buff	940'	1000'	60'	
Ordovician (Upper)	Sequatchie		Green & Red	1000'	1360'	360'	
Ordovician (Upper)	Shale Reedsville		Green, Gray	1360'	1755'	395'	1625' oil & salt water
Ordovician (Middle)	Trenton Limestone		Gray	1755'	2605'	850'	1950' oil
Ordovician (Middle)	Eggleston Limestone & Bentonite		Buff	2605'	2664'	59'	



New Location    
 Drill Deeper    
 Abandonment

Company	Apaco, Ltd.
Address	Box 98 St. Charles, Va. 28242
Farm	Aubra P. Dean
Tract	1 Acres 399.91 Lease No. 001
Well (Farm) No.	001 Serial No. 001
Elevation (Spirit Level)	1720+
Quadrangle	Hubbard Springs
County	Lee District Jonesville
Engineer	Joseph Rajbansee
Engineer's Registration No.	
File No.	001 Drawing No. 001
Date	1-21-82 Scale 1" = 400'

COMMONWEALTH OF VIRGINIA  
 DIVISION OF MINES  
 BIG STONE GAP, VA.

WELL LOCATION MAP

FILE NO. \_\_\_\_\_

† Denotes location of well on United States Topographic Maps, scale 1 to 25,000 latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.