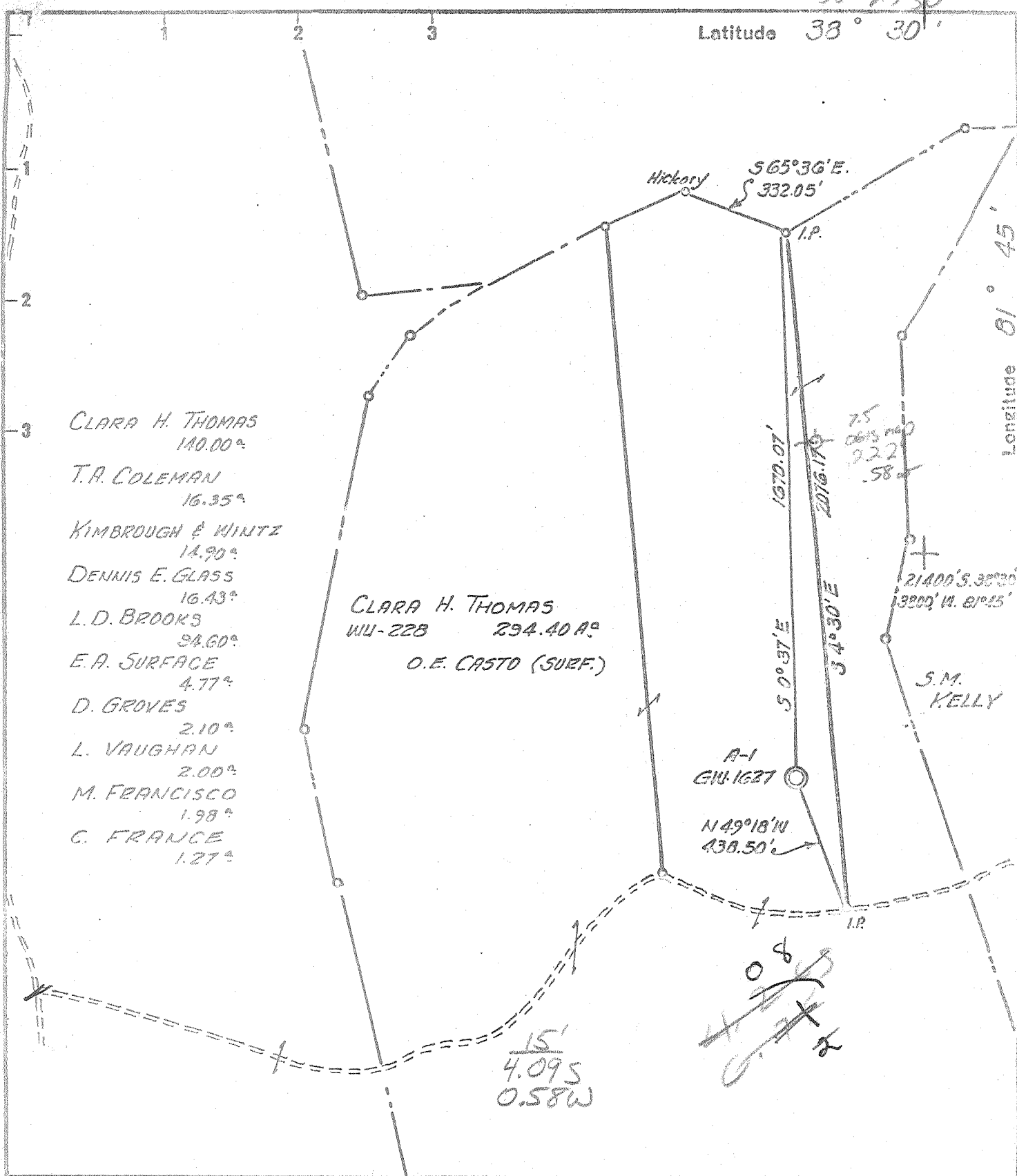


Latitude $38^{\circ} 27' 30''$
 $33^{\circ} 30'$



- Fracture
 - Before 6/5/27
 - New Location
 - Drill Deeper
 - Redrill
 - Abandonment
- LANDED 4-7-69

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.

The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.

PROVEN ELEVATION 11595 "630"

Company CITIES SERVICE OIL COMPANY
 Address BOX 873 CHARLESTON, W. VA.
 Farm CLARA H. THOMAS (CONSOL.) ET AL
 Tract Acres 140 Lease No. WU-220
 Well (Farm) No. A-1 Serial No. G.W. 1627
 Elevation (Spirit Level) 799.53
 Quadrangle ST. ALBANS NE
 County KANAWHA District UNION
 Engineer Wendell S. Mode
 Engineer's Registration No. 2113
 File No. _____ Drawing No. 10
 Date 19 JULY 67 Scale 1" = 400'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. KAN-21423-P

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

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

APR 16 1969

6-6 Rocky Fork 312

Deep Well (Newburg)

Latitude 38° 30'

Longitude 81° 45'

4,075
0.73W

CLARA H. THOMAS
140.00^a

T.A. COLMAN
16.35^a

KIMBROUGH & WINTZ
14.90^a

DENNIS E. GLASS
16.43^a

L.D. BROOKS
30.60^a

E.A. SURFACE
4.77^a

D. GROVES
2.10^a

L. VAUGHAN
2.00^a

M. FRANCISCO
1.98^a

C. FRANCE
1.87^a

CLARA H. THOMAS
NW-22B 294.40 A^a
O.E. CASTO (SURF.)

Hickory S65°36'E
332.05'

I.P.

N670.01'
2076.17'

S 4° 30' E

A-1
GW 1827

N 49° 18' W
438.50'

21400 S. 38° 30'
3800' W. 81° 45'

S.M. KELLY

Fracture
Before 6/5/27
New Location
Drift Deeper
Redrill
Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.

The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.
PROVEN ELEVATION 739.59

Company CITIZEN SERVICE OIL COMPANY

Address Box 879 Charleston, W. Va.

Farm CLARA H. THOMAS (CONSERV.) Farm

Tract Acres 140 Lease No. NW-220

Well (Farm) No. A-1 Serial No. GW-1827

Elevation (Spirit Level) 739.59

Quadrangle ST. ALBANS NE

County KANAWHA District UNION

Engineer Wendell S. Moore

Engineer's Registration No. 2113

File No. _____ Drawing No. 10

Date 19 JULY 67 Scale 1" = 400'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. KAN-2143

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

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

Deep Well (Newburg)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary *Dry*
 Spudder
 Cable Tools
 Storage
 Oil or Gas Well *gas show Newb.*
 (KIND)

Quadrangle St. Albans
 Permit No. Kan-2143

WELL RECORD

Company Cities Service Oil Company
 Address Box 873, Charleston, W. Va. 25323
 Farm Clara H. Thomas, et al Acres 294.40
 Location (waters) _____
 Well No. "A" #1 - GW-1627 Elev. 799.53'
 District Union County Kanawha
 The surface of tract is owned in fee by O. E. Gasto
Kelly Road Address Charleston, W. Va.
 Mineral rights are owned by Clara H. Thomas, et al
Box 565 Address Gauley Bridge, W. Va.
 Drilling commenced 8-10-67
 Drilling completed 8-17-67
 Date Shot not shot From _____ To _____

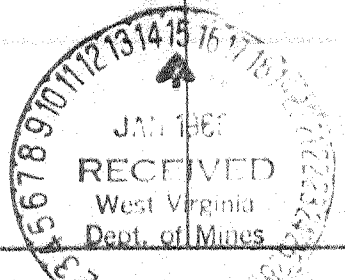
Coating and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			none
1 7/8" 48#	63'	63'	Size of
2 1/8" 32#	2118'	2118'	Depth set
3 1/4			
2 3/8" 23#	5435'	5435'	Perf. top
5 3/16			Perf. bottom
4 1/2			Perf. top
3			Perf. bottom
2 3/8" 4.7#	5494'	5494'	
Liners Used	with cage		

Open Flow /10ths Water in _____ Inch
 /10ths Merc. in _____ Inch
 Volume not enough to gauge Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls. 1st 24 hrs.
 WELL ACIDIZED (DETAILS) not acidized
 WELL FRACTURED (DETAILS) see reverse side

Attach copy of cementing record.
 CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
 Amount of cement used (bags) see reverse side
 Name of Service Co. _____
 COAL WAS ENCOUNTERED AT none FEET _____ INCHES _____
 FEET _____ INCHES FEET _____ INCHES
 FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Not enough to gauge from Newburg - strong odor H₂S
 ROCK PRESSURE AFTER TREATMENT 14 HOURS Tubing 53#, Annulus 195#
 Fresh Water 350' Feet _____ Salt Water 1,215' Feet _____
 Producing Sand Newburg (not enough to gauge) Depth 5479-5500' per electric logs

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil and Rock			0	70			
Sand and Shale			70	1185	Water	350'	hole damp
Salt Sand			1185	1655	S. Water	1215'	
Big Lime			1655	1803			
Sand			1803	1845			
Sandy Shale			1845	2220			
Sand			2220	2235			
Shale and Shells			2235	4677			
Corniferous Lime			4677	4760			
Sandy Lime			4760	5490			
Sand - <u>Newburg</u>			5490	5504			
Lime			5504	5525			
Total depth				5525'	Drillers' Meas.		
				5521'	Schlumberger Meas.		
Electric Logs show:							
Newburg Sand			5479	5500			



Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
CASING RECORD							
8-10-67							Set and cemented 13-3/8" 48# H-40 new casing at 71' KBM with 50 sacks of regular cement with 4% Calcium Chloride.
8-13-67							Set and cemented 9-5/8" 32.3# H-40 new casing with guide shoe at 2,110' with 510 sacks of Pozmix Cement and 100 sacks of regular cement with 2% Calcium Chloride in regular cement. Pumped 12 sacks of gel and lost circulation material ahead of cement. Cement circulated to the surface. Centralizers at 2,081', 1,992', 1,900' and 1,806'.
8-16-67							Set and cemented 7" 23# New N-80 casing with guide shoe at 5,403' with 124 sacks of regular cement. Pumped 250 bbls. of gel with lost circulation material ahead of cement. Gel circulated to surface. Centralizers at 5,373', 5,277', 5,184' and 5,088'. Baker float collar at 5,373'.
8-18-67							Ran Schlumberger Gamma Ray, Caliper, Temperature, Induction and Compensated Formation Density Logs.
8-24-67							Ran Correlation Log and shot 4 jets into Newburg from 5491' to 5493'.
8-24-67							<u>Fraced the Newburg Sand</u> Pumped 500 gallons mud acid and 1,000 gallons regular 15% acid into the formation. Formation broke down at 2200#. Fraced Newburg with 18,000# of 20-40 sand in 18,000 gallons of gelled salt water. Maximum treating pressure 3,500#. Average treating pressure 3,194#. Immediate S.I. pressure 3,300#. Used 918 barrels fluid total. Put radio active material in during treatment. Opened well and flowed back 11 hours and died. Ran tubing and swabbed.
1-12-68							F. O. F. Not enough gas to gauge in Newburg - strong odor of H ₂ S

Date January 12, 1968
 Cities Service Oil Company
 APPROVED L. D. Todd, Dist. Sup't, Owner
 By L. D. Todd, Dist. Sup't
 (Title)