

OIL AND GAS WELL
SUMMARY REPORT

API No. 45-105-20014-00-03 VDMR Well
Rep. No. W-1919
DMQ File No. LE-23

Operator WILSHIRE OIL COMPANY OF TEXAS

Farm JAMES V. GRAHAM

Co. Well No. J.V. GRAHAM #1

County LEE Quadrangle BEN HUR - 7 $\frac{1}{2}$ '

Location (UTM) N4,067,070; E 315,450 UTM Zone 17

(Lat. and Long.) _____

Field BEN HUR Province VALLEY AND RIDGE

Elev. (specify) 1500 TD 2525 Form. at TD TRENTON

Age ORDOVICIAN

Date compl. or abandoned APRIL 1967

Result OIL WELL

Gas Shows _____

Gas Pays _____

Main Production 2235' to 2525' Prod. Form. TRENTON

Age ORDOVICIAN

Treatment: ACIDIZED FROM 2535' TO 2525' TO 2525' WITH 5000 GALLONS OF 28% HCL

Initial Production 47 BARRELS; SETTLED PRODUCTION - 200 BARRELS

Oil shows _____

Water FW YES at 85' at 400' at _____

SW _____ at _____ at _____ at _____

Coal _____

Plat X Plotted X Completion Report X

Drillers Log X Geologic Log X

Samples X Interval Sheet X

Sample Interval 10' TO 2521'

Remarks _____

Geophysical Logs S.P. _____ Res _____ Gamma X Neutron X

Density X Sonic _____ Other _____

Formation.	Top	Datum (Subsea)	Thickness
NO SAMPLES	0	+1500	10
TRENTON	10	+1490	42
EGGLESTON	52	+1448	125
HARDY CREEK	177	+1323	52
BEN HUR	229	+1271	44
WOODWAY	273	+1227	137
PINE MTN FAULT	410	+1090	
CHATTANOOGA	410	+1090	1
HANCOCK	411	+1089	291
CLINTON	702	+ 798	398
POORVALLEY RIDGE	1100	+ 400	181
HAGAN	1281	+ 219	69
REMARKS SEQUATCHIE	1350	+ 150	269
REEDSVILLE	1619	- 119	586
TRENTON	2205	- 705	252

ORIGIANLLY DRILLED AS THE DAVID LAW # 1, TAKEN OVER BY WILSHIRE OIL OF TEXAS:
VERIFIED DEPTH TO BE 2781. ACIDIZED FROM 2200' to 2475' AND 2224' TO 2750'.

PRODUCED 700 BARRELS, THEN DIED.

References

Released to Open File: Completion JULY 1967
Samples YES

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

OIL AND GAS WELL
SUMMARY REPORT

API No. 45-105-20014-00-03 VDMR Well Rep. No. W-1919
DMQ File No. LE-23

Operator WILSHIRE OIL COMPANY OF TEXAS
Farm JAY GRAHAM
Co. Well No. # 1-A

County LEE Quadrangle BEN HUR - 7-1/2'
Location (UTM) N 4,067,070; E 315,040 UTM Zone 17
(Lat. and Long.) _____

Field _____ Province VALLEY AND RIDGE
Elev. (specify) 1500' GR. TD 2781' Form. at TD TRENTON
INITIAL FLOW - Age ORDOVICIAN

Date compl. or abandoned OPERATIONS SUSPENDED ON 10-8-67

Result OIL WELL

Gas Shows 2235'

Gas Pays _____

Main Production _____ Prod. Form. _____
Age _____

Treatment: WELL ACIDIZED FROM 2200' to 2475' WITH 5,000 GALLONS OF 28%
ACID AND FROM 2224' to 2750' WITH 2,000 GALLONS OF 15% ACID.

Initial Production _____

Oil shows _____

Water FW _____ at _____ at _____ at _____
SW _____ at _____ at _____ at _____

Coal _____

Plat Plotted Completion Report

Drillers Log Geologic Log _____

Samples Interval Sheet

Sample Interval 10' to 2521'

Remarks _____

Geophysical Logs S.P. _____ Res _____ Gamma Neutron

Density Sonic _____ Other CALIPER;

1962

Oil was discovered in the Rose Hill District of Lee County on May 7, 1962 and resulted in significant production in the State of Virginia. This is the only production ever found East of the Appalachian Plateaus.

A continuous search for oil was carried on even before this date as far back as 1922 when the first well ever drilled in Lee County was in Possum Hollow at a depth of 300 feet and resulted in a few barrels of oil production. Since the completion of the discovery well in 1922, 57 additional wells have been drilled of which 32 were producers. In April 1947, there were 15 oil wells producing at the rate of 600 barrels per day. On March 1, 1950, a total of 100 to 200 barrels were being produced. Since that time a new discovery has been made in the vicinity of Ben Hur, Virginia.

The general geology of this area is that the overriding block known as Cumberland Overthrust Block has been eroded to the stationary block and has exposed a fenester known as the Sulphur Spring Fenester area. Two wells have been drilled into this fenester; namely, the Browning Wynn Well #1 and the Roy L. Bledsoe Well #1.

The Browning Wynn was drilled to the depth of 2,207 feet into the Trenton Limestone resulting in a dry hole. The discovery well, Roy E. Bledsoe #1, was drilled through the Trenton Limestone and resulted in an oil well in which the oil rose to 1,000 feet in a seven-inch hole. The well now produces approximately eight barrels per day.

Mr. David Law, an oil producer from Parkersburg, West Virginia, has bought out all of the interest owned by Joe Miloncus, Sulpitt, Illinois, and proceeded to develop the area around Ben Hur.

Two wells were started in this area. On one, drilling difficulties developed and it has penetrated to the depth of approximately 800 feet; on the other known as the James B. Graham Well #1, drilling proceeded to a depth of approximately 2,235 feet when on March 22, 1967 a tremendous gas flow caught on fire at about 5:45 P.M. The fire was being fed by gas coming from oil in the Trenton Limestone formation. After the initial blowout, oil followed the gas snuffing out the fire and filled the seven-inch hole with 1,500 feet of crude oil in the hole estimated to be about 75 barrels.

712
2305

The operator is preparing to set a battery of tanks and drilling is proceeding through the Trenton Limestone.

It is believed that this is a significant discovery and in all probability will create an interest in drilling several other wells in this immediate vicinity.

1967

Operator: Wilshire Oil Company of Texas
(Commenced by David Law et al)

Farm: James V. Graham

Well No. : 1

Location: Lee County

6150' S. of 36°45' }
3550' E. of 83°07'30" } approximate

Elevation:

Total Depth: 2781'

Drilling Commenced:

Drilling Completed: 1967

Result:

Remarks: The well was drilled with a cable tool rig. On March 22, 1967, the well encountered a large flow of gas while drilling at 2235', reportedly in the Trenton limestone. After the initial blow-out, oil followed the gas into the hole evidently snuffing out the fire. The flow of oil filled the seven-inch hole with 1500' of crude oil, estimated to be approximately 75 barrels. The operator subsequently continued drilling through the Trenton and erected tanks.

On April 28, 1967, the well was acidized with 5,000 gallons of 28% hydrochloric acid at a constant pressure of 1200 lbs. The well blew for approximately 3 hours when a mist of crude oil and gas began to show up, followed by slugs of oil and gas. The operator diverted the oil into three 210-barrel tanks. The well flowed approximately 42 barrels of oil for the first three hours, and began to diminish because of loading of the hole with crude oil. On May 3, 1967, production had declined to about 1 barrel per hour. During April and May, 1967, 519 barrels of oil were produced.

June 1, 1967 - Standing at 2525'. Running occasional tests, preparing to drill deeper with cable tools.

June 15, 1967 - Fishing for bit. Attempting to drill deeper.

June 23, 1967 - standing with fish in hole.

August 3, 1967 - standing, rig has been removed. Electric logs were run about August 1. A small tripod is over the hole. Well being taken over by Wilshire Oil Co. of Texas.

Operator: Wilshire Oil Company of Texas
 Farm: James V. Graham
 Well No.: 1
 Location: Lee County
 6150' S of 36°45' N.)
 3550' E of 83°07'30" W) approximate
 Elevation: 1500' Gr.
 Total Depth: 2781'
 Drilling Commenced: —
 Drilling Completed: 1967
 Result: Operations suspended October 10, 1967

DRILLERS LOG

<u>Formation</u>	<u>Top (feet)</u>	<u>Bottom (feet)</u>
Limestone, green, hard	0	410
Dolomite, grey, hard	410	702
Sandstone, grey, hard	702	722
Shale, red, soft	722	1100
Sandstone, white, hard	1100	1280
Shale, grey, soft	1280	1350
Shale, red, soft	1350	1628
Limestone, grey, hard	1628	1900
Shale, grey, hard	1900	2204
Limestone, grey, hard	2204	2781

Remarks: Test was originally drilled as the David Law No. 1
 J. V. Graham and was subsequently taken over by the Wilshire
 Oil Co. of Texas on August 1, 1967, at total depth.

Well acidized from 2200-2475' with 5000 gal. of 28% acid.
 Well acidized from 2224-2750' with 2000 gal. of 15% acid.
 Well flowed after acidizing open hole 2200-2475. Produced
 +700 bbls. 41° Penn Grade crude then died. No production
 since.

INTERVAL SHEET

Page 1 of 3

VDMR Well No: 1919

Date rec'd: 7/25/67

Sample Interval: from 10' to: 2521'

PROP: J. V. Graham, Well No. 1

Number of samples: 281

COMP: David Law

Total Depth: 2525'

COUNTY: Lee

Oil or Gas: X Water: Exploratory:

From-To	From-To	From-To	From-To
-	243 - 252	441 - 450	698 - 702
10 - 15	252 - 262	450 - 459	702 - 707
15 - 27	262 - 270	459 - 465	707 - 712
27 - 37	270 - 276	465 - 473	712 - 716
37 - 47*	276 - 281	473 - 480	716 - 720
-	281 - 286	480 - 487	720 - 725
85 - 90	286 - 295	487 - 495	725 - 732
90 - 95	295 - 306	495 - 500	732 - 735
95 - 99	306 - 310	500 - 508	735 - 738
99 - 105	310 - 316	508 - 515	738 - 748
105 - 110	316 - 324	515 - 522	748 - 758
108 - 115*	324 - 328	522 - 533	758 - 765
115 - 124	328 - 334	533 - 541	765 - 775
124 - 130	334 - 338	541 - 550	775 - 782
130 - 135*	338 - 343	550 - 563	782 - 790
135 - 138	343 - 349	563 - 577	790 - 795
138 - 143	349 - 354	577 - 587	795 - 808
143 - 148*	354 - 360	587 - 599	808 - 818
148 - 150*	360 - 368	599 - 607	818 - 825
150 - 160	368 - 375	607 - 617	825 - 834*
160 - 167	375 - 381	617 - 625	834 - 843
167 - 175*	381 - 387	625 - 633	843 - 851
175 - 182	387 - 392	633 - 640	851 - 857
182 - 188	392 - 397	640 - 649	857 - 865
188 - 194	397 - 403	646 - 658	865 - 872*
194 - 203	403 - 409	658 - 667	872 - 885
203 - 217	409 - 417	667 - 675	885 - 896
217 - 225	417 - 425	675 - 681	896 - 905
225 - 233	425 - 432	681 - 694	905 - 911
233 - 243	432 - 441	694 - 698	911 - 916

*unwashed samples only

INTERVAL SHEET

Page 2 of 3

VDMR Well No: 1919

Date rec'd: 7/26/67

Sample Interval: from 10' to: 2521'

PROP: J. V. Graham, Well No. 1

Number of samples: 281

COMP: David Law

Total Depth: 2525'

COUNTY: Lee

Oil or Gas: XWater: Exploratory:

From-To	From-To	From-To	From-To
916 - 926	1135 - 1138	1298 - 1300	1513 - 1518
926 - 936	1138 - 1142	1300 - 1307	1518 - 1523
936 - 941	1142 - 1146*	1307 - 1312	1523 - 1532
941 - 948	1146 - 1150	1312 - 1317	1532 - 1538
948 - 955	1150 - 1158*	1317 - 1324	1538 - 1544
955 - 962	1158 - 1166	1324 - 1335	1544 - 1548
962 - 969	1166 - 1170	1335 - 1342	1548 - 1552
969 - 980	1170 - 1175	1342 - 1349	1552 - 1557
980 - 986	1175 - 1180	1349 - 1360	1557 - 1566
986 - 993	1180 - 1182	1360 - 1372	1566 - 1573
993 - 998	1182 - 1185	1372 - 1375	1573 - 1579*
998 - 1007	1185 - 1190	1375 - 1380	-
1007 - 1015	1190 - 1195	1380 - 1383	1890 - 1900*
1015 - 1025	1195 - 1201	1383 - 1390	-
1025 - 1033	1201 - 1209	1390 - 1404	1920 - 1930*
1033 - 1045	1209 - 1215*	1404 - 1408	-
1045 - 1050	1215 - 1219	1408 - 1415	1938 - 1948*
1050 - 1057	-	1415 - 1423	1948 - 1953*
1057 - 1062*	1226 - 1236	1423 - 1428	-
1062 - 1067*	1236 - 1247	1428 - 1438*	1965 - 1972*
1067 - 1071	1247 - 1250	1438 - 1446	1972 - 1984*
1071 - 1076	1250 - 1255	1446 - 1454	1997 - 2003*
1076 - 1085	1255 - 1257	1454 - 1463	2003 - 2013*
1085 - 1101	1257 - 1260	1463 - 1469*	2013 - 2019*
1101 - 1109	1260 - 1268	1469 - 1478	2019 - 2029*
1109 - 1117*	1268 - 1273	1478 - 1488	2029 - 2038*
1117 - 1120	1273 - 1278*	1488 - 1496	2038 - 2045*
1120 - 1124	1278 - 1281	1496 - 1503	2045 - 2057*
1124 - 1129	1281 - 1287	1503 - 1509	2057 - 2070*
1129 - 1135*	1287 - 1298	1509 - 1513	2070 - 2086*

* unwashed samples only

INTERVAL SHEET

Page 3 of 3

VDMR Well No: 1919

Date rec'd: 7/29/67

Sample Interval: from 10' to: 2521'

PROP: J. V. Graham, Well No. 1

Number of samples: 281

COMP: David Law

Total Depth: 2525'

COUNTY: Lee

Oil or Gas ~~X~~ Water: Exploratory:

From-To	From-To	From-To	From-To
2086 - 2099*	2322 - 2327	-	-
2099 - 2113*	2327 - 2343	-	-
2113 - 2124*	2343 - 2349	-	-
2124 - 2134*	2343 - 2353 #1	-	-
-	2343 - 2353 #2	-	-
2137 - 2143*	2349 - 2354	-	-
-	2353 - 2363*	-	-
2147 - 2157*	2354 - 2356*	-	-
2157 - 2170*	2363 - 2373	-	-
2170 - 2178*	2373 - 2383	-	-
2178 - 2193*	2383 - 2393	-	-
2193 - 2201*	2393 - 2400	-	-
2201 - 2209*	2395 - 2400*	-	-
2209 - 2221*	2400 - 2403*	-	-
2221 - 2231*	2403 - 2412*	-	-
2231 - 2239*	2404 - 2412*	-	-
2235 - 2239*	2412 - 2417*	-	-
-	2417 - 2425	-	-
2243 - 2249*	2425 - 2435	-	-
2246 - 2256*	2435 - 2447	-	-
2244 - 2258*	2447 - 2457	-	-
2255 - 2268*	2457 - 2470	-	-
2256 - 2266*	2470 - 2485	-	-
2268 - 2274*	2485 - 2495	-	-
2274 - 2285*	2495 - 2503	-	-
2285 - 2295*	2503 - 2515	-	-
2295 - 2305*	-	-	-
2305 - 2313*	2517 - 2521	-	-
2313 - 2322	-	-	-
2320 - 2327*	-	-	-

* unwashed sample only

Formerly operated by
David Law

—
Taken over by
Wilshire Oil Co
of Texas

TD 2781 acc. to
Lineberg

(To be filled in by Division of Mines)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

(To be filled in by Division of Mines) J.V. Graham #1

LEE County Jonesville District Ben Hur Map LE - 23 File

DIVISION OF MINES

BIG STONE GAP, VIRGINIA

DEEPEINED OIL AND GAS WELL COMPLETION REPORT ABANDONMENT

Well No. 1 Permit No. 14 Office No. LE - 23 Location Plat LE - 23

(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 David Law -> WILSHIRE OIL OF TEXAS Address Parkersburg, W. Va. Farm James Graham Acres 525 County Lee District Jonesville Well No. (Company) 1 Elevation (ground surface) ft.

Location: (Give direction and distance in feet or tenths of a mile from two (2) location reference points or map coordinates shown on location plat or map previously filed with the Division of Mines or shown on quadrangle topographic map of area.)

4,000 feet East of Longitude 85° 05' and 6,400 feet South of Latitude 36° 45'

Surface of tract is owned in fee simple by James V. Graham Address Pennington Gap, Virginia Mineral rights are owned by James V. Graham Address Pennington Gap, Virginia Location made by David Law Drilling commenced December 1966 Drilling contractor Grover Neal Drilling completed April 1967 Address Ewing, Virginia

Well completed as ~~gas~~ oil well on April 1967

Well abandoned at feet on Reason Well plugged on 19 Affidavit filed 19 Total depth 2525 feet. Steel line measurement feet. Commenced producing on April 1967, 19

Oil Well Initial production, oil 1st 24 hours 47 bbls 1st 3 hrs. bbls.; 2nd 24 hours bbls.

After shot on from feet to feet with lbs. qts. After shot on from feet to feet with lbs. qts.

1st 24 hours bbls.; 2nd 24 hours bbls. Settled production 200 bbls bbls. per day after producing three days weeks

Gravity and grade of oil Oil pays at (1) 2235 feet to 2525 feet. Oil shows at (1) feet to feet. (2) feet to feet. (2) feet to feet. (3) feet to feet. (3) feet to feet. (4) feet to feet. (4) feet to feet. Main production at feet to feet. (5) feet to feet.

Gas Well Gaged /10ths. Water in inch. Initial open flow, gas: /10ths. Mercury in inch. Volume cu. ft.

Gas shows at (1) feet to feet. Gas shows at (1) feet to feet.
 (2) feet to feet. (2) feet to feet.
 (3) feet to feet. (3) feet to feet.
 (4) feet to feet. (4) feet to feet.
 Main production feet to feet. (5) feet to feet.

Fresh water at (1) 85 feet, Hole Full GPM; (2) 400 feet, Hole Full GPM; (3) feet, GPM.
 Salt water at (1) feet; (2) feet; (3) feet; (4) feet.
 Coal: from feet inches to feet inches; from feet inches to feet inches; from feet inches, to feet inches.
 Well acidized from 2235 feet to 2525 feet with 5,000 (quantity) of 28% HCL acid.
 from feet to feet with (quantity) of acid.
 from feet to feet with (quantity) of acid.
 Remarks: The well blew for approximately three hours before the appearance of crude oil.

CASING AND TUBING				PACKERS		
SIZE	USED IN DRILLING	LEFT IN WELL	PERFORATED	KIND	SIZE	SET AT
(inch)	(feet)	(feet)	(feet) to (feet)			
7	1085	1085		Upside down packer was used during the acid treatment.		
2	2232	2232				

Casing Cemented: inch. from feet to feet. Date
 inch. from feet to feet. Date
 inch. from feet to feet. Date

Remarks: (Shut down, depths, dates; fishing jobs, depths, dates; caving; other notes)

Samples or cuttings will be available for examination by a member of the Virginia Geological Survey (Yes)
 (No)
 Will be furnished the Virginia Geological Survey upon request Yes (Yes) ~~(No)~~, if sacks for same are furnished by the
 Survey Yes (Yes)
 (No)
 Electrical log made or not made (check which). Gamma Ray
 Copy furnished herewith or will be submitted on or by 19.....
 Depths

The operator requests that information given herein and log or logs be kept confidential for a period of ninety days after

Well No. 1

File No. LE - 23

Permit No. 14

James V. Graham

LOG

Furnished by Clyde Law Date 5/22/67

Compiled by Same Date

SAMPLE No.	FORMATION	COLOR	HARD OR SOFT	Top (feet)	BOTTOM (feet)	THICKNESS (feet)	REMARKS OIL, GAS, WATER DEPTHS SHUT DOWN FISHING, ETC.
	No Samples			0	10		
	Trenton L. S.			10	52		
	Eggleston L.S.			52	177		
	Hardy Creek L.S.			177	229		
	Ben Hur L.S.			229	273		
	Woodway Limestone			273	410		
	Pine Mountain Fault			410			
	Chattanooga Shale along Fault			410	411		
	Hancock Dolomite & L. S.			411	702		
	Clinton Shale			702	1100		
	Poor Valley Ridge member of Clinch Sandstone.			1100	1281		
	Hagan Shale member of Clinch Sandstone			1281	1350		
	Sequatchie			1350	1619		
	Reedsville Shale			1619	2205		
	Trenton L.S.			2205	2457		
	Total depth			2525			Produced 200 barrels per day

RECEIVED

MINE DIVISION

COMMONWEALTH OF VIRGINIA
VA. DEPT. OF LABOR & INDUSTRY
DEPARTMENT OF LABOR AND INDUSTRY

DIVISION OF MINES

REOPENED
OIL AND GAS WELL COMPLETION REPORT
ABANDONMENT

(To be filled in by
Division of Mines)

Well No. 1
Permit No. 19
Office No. LE-23
Location Plat LE-23

(To be filled in by
Division of Mines)

LEE
County
Jonesville
District
Ben Hur
Map
LE-23
File

(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 Wilshire Oil Company of Texas Address 300 Fillmore Street
Denver, Colorado 80206
Farm Jay Graham Acres 525
County Lee District Jonesville
Well No. (Company) #1-A (P) Elevation (ground surface) 1500' ft.

Location: (Give direction and distance in feet or tenths of a mile from two (2) location reference points or map coordinates shown on location plat or map previously filed with the Division of Mines or shown on quadrangle topographic map of area.)

6000 feet South of 36°45'0" and
miles
3500 feet East of 83°5'0"
miles

Surface of tract is owned in fee simple by Jay V. Graham
Address Pennington Gap, Virginia
Mineral rights are owned by Wilshire Oil Company of Texas et al
Address 300 Fillmore Street, Denver, Colorado 80206
Location made by Wilshire assumed operations 8-1-67, at total depth.
Drilling commenced unknown Drilling contractor Neal
Drilling completed Address
ORIGINALLY DRILLED AS THE LAW #1 GRAHAM
Well completed as ^{gas}oil well on Operations suspended 10-8-67

Well abandoned at _____ feet on _____ : Reason _____
Well plugged on _____, 19____ Affidavit filed _____, 19____
Total depth 2,781 feet. Steel line measurement _____ feet.
Commenced producing on _____, 19____

Oil Well
Initial production, oil: 1st 24 hours _____ bbls.; 2nd 24 hours _____ bbls.
After shot on _____ from _____ feet to _____ feet with _____ lbs. _____ qts.
After shot on _____ from _____ feet to _____ feet with _____ lbs. _____ qts.
1st 24 hours _____ bbls.; 2nd 24 hours _____ bbls. _____ days
Settled production _____ bbls. per day after producing _____ weeks
Gravity and grade of oil 41⁰ Penn Grade
Oil pays at (1) _____ feet to _____ feet. Oil shows at (1) _____ feet to _____ feet.
(2) _____ feet to _____ feet. (2) _____ feet to _____ feet.
(3) _____ feet to _____ feet. (3) _____ feet to _____ feet.
(4) _____ feet to _____ feet. (4) _____ feet to _____ feet.
Main production at _____ feet to _____ feet. (5) _____ feet to _____ feet.

Gas Well Gaged _____/10ths. Water in _____ inch.
Initial open flow, gas: _____/10ths. Mercury in _____ inch.
Volume _____ cu. ft.
After shot on _____ from _____ feet to _____ feet with _____ lbs. _____ qts.
After shot on _____ from _____ feet to _____ feet with _____ lbs. _____ qts.
1st 24 hours _____ cu. ft., 2nd 24 hours _____ cu. ft.

are: Initial lbs.; after hours lbs. days
 production cu. ft. per day after producing weeks
 as pays at (1) feet to feet. Gas shows at (1) feet to feet.
 (2) feet to feet. (2) feet to feet.
 (3) feet to feet. (3) feet to feet.
 (4) feet to feet. (4) feet to feet.
 Main production feet to feet. (5) feet to feet.

Fresh water at (1) feet, GPM; (2) feet, GPM; (3) feet, GPM.
 Salt water at (1) feet; (2) feet; (3) feet; (4) feet.
 Coal: from feet inches to feet inches; from feet inches to
 feet inches; from feet inches, to feet inches.
 Well acidized from 2200 feet to 2475 feet with 5000 (quantity) of 28% acid.
 from 2224 feet to 2750 feet with 2000 (quantity) of acid.
 from feet to feet with (quantity) of 15% acid.
 Remarks: Well flowed after acidizing open hole 2200-2475. Produced + 700 bbls.
 41° Penn Grade crude then died. No production since.

CASING AND TUBING				PACKERS		
SIZE	USED IN DRILLING	LEFT IN WELL	PERFORATED	KIND	SIZE	SET AT
(inch)	(feet)	(feet)	(feet) to (feet)			
13-3/8	85					
7"	1100	Pulled				
4-1/2		2780	2224-31 2658-69 2728-33 2745-50			
				LINERS		
SIZE	USED IN DRILLING	LEFT IN WELL	PERFORATED			
(inch)	(ft.)	(ft.)	(ft. to ft.)			

Casing Cemented: 4-1/2 inch. from 2780 feet to 1800 feet. Date 10-1-67
 inch. from feet to feet. Date
 inch. from feet to feet. Date

Remarks: (Shut down, depths, dates; fishing jobs, depths, dates; caving; other notes)

Samples or cuttings will be available for examination by a member of the Virginia Geological Survey Yes (Yes) (No)
 Will be furnished the Virginia Geological Survey upon request Yes (Yes) (No), if sacks for same are furnished by the
 Survey No knowledge of samples (Yes) (No)

Electrical log made X or not made (check which).
 Copy furnished herewith or will be submitted on or by Sent by Schlumberger, 19.....
 Depths

The operator requests that information given herein and log or logs be kept confidential for a period of ninety days after
 completion of the well covered by this report No (Yes) (No)

Well No. 1File No. LE-23Permit No. 14

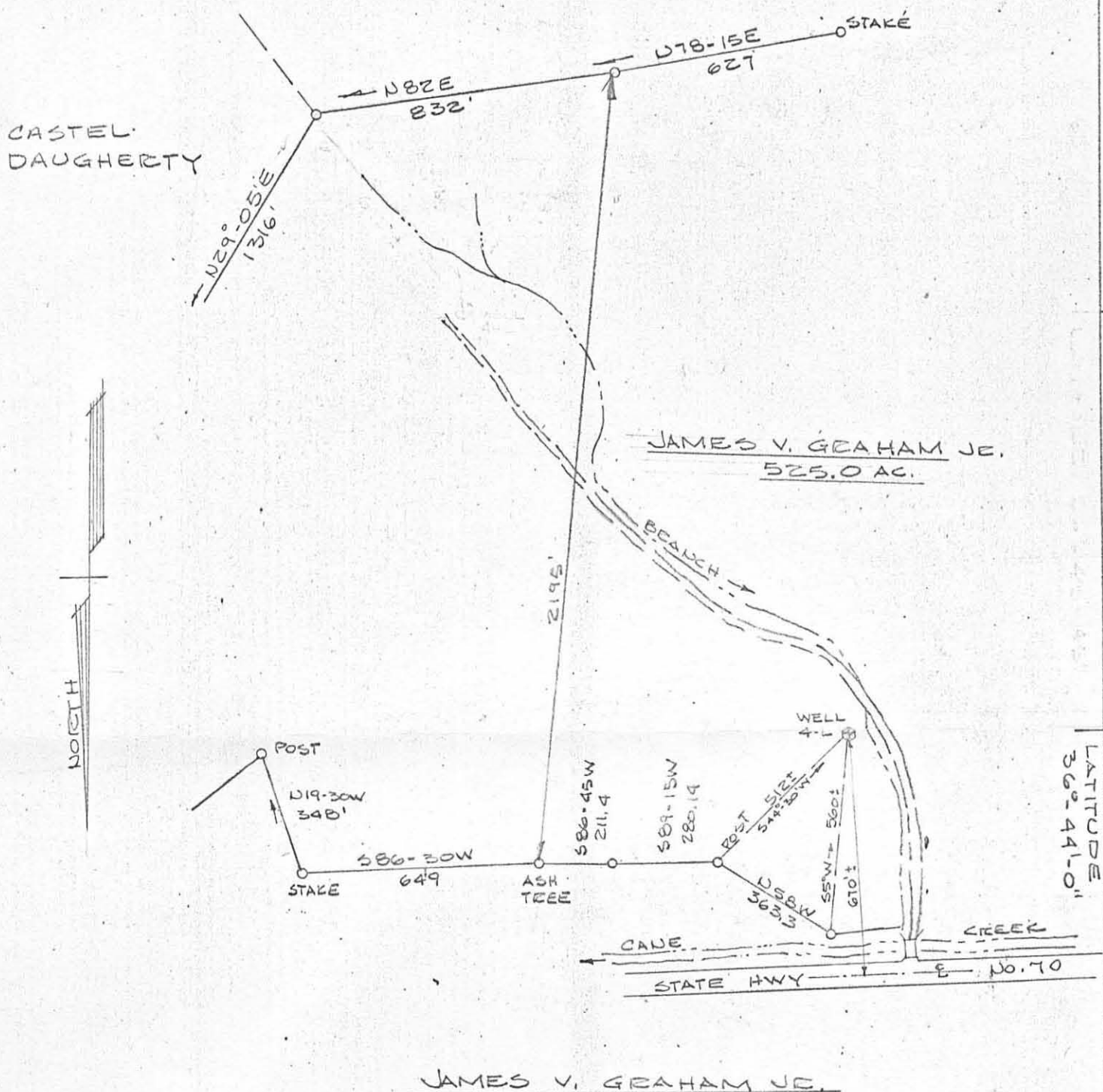
LOG

Furnished by Wilshire Date 1-12-68Compiled by H. Trepagnier Date 1-12-68

SAMPLE No.	FORMATION	COLOR	HARD OR SOFT	Top (feet)	BOTTOM (feet)	THICKNESS (feet)	REMARKS OIL, GAS, WATER DEPTHS SHUT DOWN FISHING, ETC.
1	Limestone	Green	Hard	0	410	410	
2	Dolomite	Grey	Hard	410	702	292	
3	Sandstone	Grey	Hard	702	722	20	
4	Shale	Red	Soft	722	1100	378	
5	Sandstone	White	Hard	1100	1280	180	
6	Shale	Grey	Soft	1780	1250	70	
7	Shale	Red	Soft	1350	1628	278	
8	Limestone	Grey	Hard	1628	1900	272	
9	Shale	Grey	Hard	1900	2204	304	
10	Limestone	Grey	Hard	2204	2781	577	

LONGITUDE
83°-04'-05"

RALPH HOWARD



LATITUDE
36°-41'-00"

NEW LOCATION DRILL DEEPER ABANDONMENT

• COMPANY DAVID LAW ET-AL
 • ADDRESS 413 UNION TRUST BLDG. PARKEESBURG, W. VA.
 • FARM JAMES V. GRAHAM
 • TRACT 1 ACRES 525.0 LEASE NO. 112
 • WELL (FARM) NO. 4-L SERIAL NO. _____
 • ELEVATION (SPIRIT LEVEL) _____ GROUND
 • QUADRANGLE BEN HUR
 • COUNTY LEE DISTRICT JONESVILLE
 • ENGINEER THOMPSON & LITTON, L.LADKINS
 • ENGINEER'S REGISTRATION NO. P.L.S. 871
 • FILE NO. 1198 DRAWING NO. _____
 • DATE 2 DEC, 1966 SCALE 1" = 400'

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

WELL LOCATION
MAP

FILE NO. LE-23

☒ DENOTES LOCATION OF WELL ON U. S. TOPOGRAPHIC MAPS. SCALE 1 TO LATITUDE AND LONGITUDE BEING REPRESENTED BY BORDER LINES AS SHOWN.

— DENOTES 1" SPACES ON BORDER LINE OF ORIGINAL TRACING.