

NOTE - ELEVATION TAKEN FROM USGS "710" LOCATED ON THE SE CORNER OF WING WALL AT JUNCTION OF U.S. 21 & W.VA. SEC. 21/28 FAIRPLAIN W.VA. CHISEL SQUARE PAINTED WHITE.

THE ACCURACY OF THIS SURVEY IS WITHIN THE LIMITS PRESCRIBED BY THE OIL AND GAS DIVISION OF THE DEPARTMENT OF MINES.

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 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS DIVISION OF THE MINING LAWS OF WEST VIRGINIA.

New Location
 Drill Deeper
 Abandonment
 100000 4-21-69

Company CITIES SERVICE OIL COMPANY
 Address Box 873, CHARLESTON, W.VA.
 Farm ORA BACHTEL ET AL CONSOLIDATION
 (PART OF 300[±])
 Tract Acres 04 Lease No. WU-193
 Well (Farm) No. A-1 Serial No. GW-1474
 Elevation (Spirit Level) 910.71
 Quadrangle KENNA-3-5005-W-175 NW
 County JACKSON District RIPLEY
 Engineer Wendell S Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-31-63
 Date 16 DEC. 63 Scale 1" = 600'

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

WELL LOCATION MAP
 FILE NO. JAC-1064-P

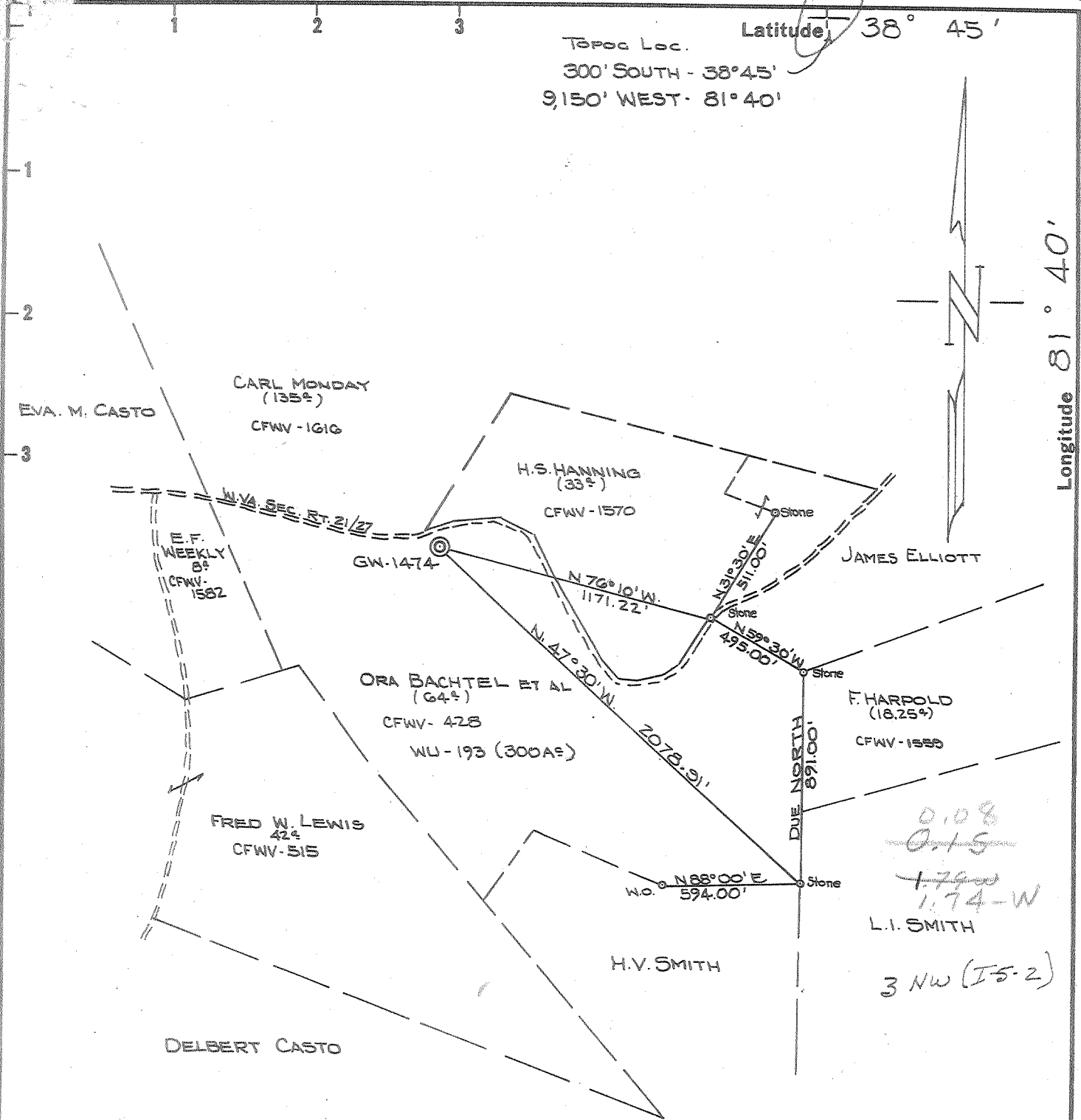
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

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

DEEP

6-6 311

APR 27 1969



0.08
~~0.15~~
~~1.79~~
 1.74-W
 L.I. SMITH
 3 NW (I-5-2)

NOTE - ELEVATION TAKEN FROM USGS "710" LOCATED ON THE SE CORNER OF WING WALL AT JUNCTION OF U.S. 21 & W.V.A. SEC. 21/28 FAIRPLAIN W.V.A. CHISEL SQUARE PAINTED WHITE.

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New Location
 Drill Deeper
 Abandonment

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Company CITIES SERVICE OIL COMPANY
 Address Box 873, CHARLESTON, W.V.A.
 Farm ORA BACHTEL, ET AL - CONSOLIDATION
 (PART OF 300⁴)
 Tract Acres 64 Lease No. WU-193
 Well (Farm) No. A-1 Serial No. GW-1474
 Elevation (Spirit Level) 910.71
 Quadrangle KENNA-3 - 5005 - W-175
 County JACKSON District RIPLEY
 Engineer Wendell Skarone
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-31-63
 Date 16 DEC. 63 Scale 1" = 600'

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

WELL LOCATION MAP
 FILE NO. JAC-1064

+ 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.

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Samples: 45'-150'
 535'-4345'-5225'

Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 12

Rotary
Spudder
Cable Tools
Storage

Quadrangle Kenna 3 SW

WELL RECORD

Oil or Gas Well Gas
(KIND)

Permit No. Jac-1064

Company Cities Service Oil Company
Address Box 873, Charleston 23, W. Va.
Farm Ora Bachtel Consolidation Acres 300
Location (waters) Grasslick Creek
Well No. A-1, GW-1474 Elev. 910.71'
District Ripley County Jackson
The surface of tract is owned in fee by Ora Bachtel et vir
R. F. D. #2 Address Ripley, W. Va.
Mineral rights are owned by Ora Bachtel, et vir, etal
(for further add. contact C. S. O. C.)
Address _____

Drilling commenced 1-22-64
Drilling completed 5-21-64
Date Shot not shot From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume shows _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED see attached sheet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16" 65#	23'	23'	Kind of Packer _____
13 7/8" 48#	818'	818'	<u>Anchor packer</u>
10 3/4" 32#	1287'	568'	Size of <u>4-1/2"</u>
8 1/4" 24#	2266'	none	Depth set <u>5151'</u>
7" 23#	5124'	5124'	
4-1/2" 9.5#	5266'	5266'	
3 7/8" 4.6#	5227'	5227'	Perf. top _____
Liners Used <u>W/ cage on bottom</u>			Perf. bottom _____
			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see attached sheet 43 sks. cement 10 sks gel
COAL WAS ENCOUNTERED AT 1390 FEET 48 INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT 60/10 M. 4" = 4,795 MCF (Oriskany)
ROCK PRESSURE AFTER TREATMENT 60 hrs. 1410# B.H.; 1350# Tubing-84 hrs. 1410#B.H., 1360# Tub.
Fresh Water 340' Feet Salt Water 1215' 1325' 1436' Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Clay			0	15			
Slate			15	25			
Red Rock			25	40			
Slate			40	50			
Red Rock			50	62			
Slate			62	81			
Red Rock			81	104			
Slate			104	124			
Red Rock			124	137			
Slate			137	144			
Red Rock			144	175			
Slate			175	190			
Red Rock			190	250			
Slate			250	273			
Red Rock			273	281			
Sand			281	291			
Red Rock			291	302			
Sand <u>1 1/2' pits. Sand?</u>			302	382	F. water	340'	2 blrs/hr.
Red Rock			382	395			
Lime			395	413			
Slate			413	430			
Lime			430	455			
Red Rock			455	485			
Slate			485	521			
Red Rock			521	537			
Lime			537	544			
Sand			544	580			



Formation	Color	Hard or Soft	Top <i>12</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			580	615			
Sand			615	630			
Slate			630	649			
Sand			649	682			
Slate			682	715			
Sand			715	781			
Red Rock			781	810			
Lime			810	837			
Slate and Shells			837	866			
Red Rock			866	905			
Sand			905	916			
Slate			916	944			
Sand			944	960			
Slate			960	968			
Lime			968	985			
Red Rock			985	1030			
Slate			1030	1080			
Lime			1080	1098			
Shale			1098	1100			
Lime			1100	1110			
Slate and Shells			1110	1181			
Sand			1181	1202			
Slate			1202	1207	S. water	1215'	2 blrs/hr.
Sand - <i>Big Dunkard?</i>			1207	1350	Gas	1235'	show
Slate			1350	1370	S. water	1325'	6 blrs/hr.
Sand - <i>Gas Sand?</i>			1370	1390			
Coal & Slate			1390	1394			
Slate			1394	1428			
Sand - <i>Salt Sand?</i>			1428	1474	S. water	1436'	hole full
Slate			1474	1523			
Sand			1523	1543			
Slate and Shells			1543	1655			
Sand			1655	1670			
Slate and Shells			1670	1773			
Sand - <i>Salt Sand?</i>			1773	1989			
Lime - <i>Big Lime?</i>			1989	2095			
Slate			2095	2108			
Sand - <i>Thin</i>			2108	2223			
Slate and Shells			2223	2629			
Herea			2629	2638	Gas	2633'	show
Slate and shells			2638	4082			
Brown Shale - <i>441</i>			4082	4236			
Slate and Shells			4236	4290			
Brown Shale			4290	4405	Temperature log showed gas:		
Slate and Shells			4405	4821		5156-72'	
Brown Shale			4821	4905		5182-88'	
Slate and Shells			4905	4935		5210-16'	
Brown Shale			4935	5055			
Corniferous Lime - <i>403</i>			5055	5151-5155			
Oriskany Sand			5151-5155	5201-5142			
Lime -			5201-5142	5214-5215			
Oriskany Sand			5214-5215	5235-5216			
			5216	5235			
Total depth-----			5235' DLM=5242'	Schlumberger Meas.			
Plugged back depth-----			70	5238'			
Schlumberger shows:				485			
Corniferous			5055	5155			
Oriskany			5155-5192				
			5203-5216				

see attached sheet for add. details

Date June 19, 1964

APPROVED Cities Service Oil Company, Owner
 By W. S. Moore, Division Supt.
 (Title)

Additional information on GW-1474, Ora Bachtel, et al Con. #1

JAC-1064

CASING RECORD

- 2-6-64 Ran 13-3/8" at 810'DLM- gelled with 10 sacks. 20' cavings - Cleaned out to bottom and set pipe down.
- 2-14-64 Ran 10-3/4" casing on shoe at 1282'DLM=1276-1/2' SLM - 10 sacks Gel. No returns on gel. Later pulled 719'
- 3-13-64 Ran 8-5/8" casing with shoe at 2249'DLM=2249'SLM. Ran 12 sacks Gel and 60 bbls. water. Returns on Gel. Pulled 8" later.
- 5-4-64 Ran 7" casing with lead packer on bottom at 5084'DLM, R/L nipple 417' off bottom. Ran on mast and jacks.
- 5-22-64 Ran 4-1/2" casing at T. D. with shoe on bottom-3 centralizers and packer in top of Oriskany Sand, R/L nipple 500' off bottom. Float insert in top of 1st joint - cemented with 43 sacks. Put 14 barrels water on top of plug to pump plug to 63' of bottom - set pipe down.
- 5-21-64 Schlumberger ran logs: Induction, Density, Gamma Ray, Temperature, Caliper, CCL and Cement Bond.
- 5-28-64 Perforated 4" 5156-78' -- 5182-88' -- 5210-16' -- 2 shots/foot

Fractured the Oriskany Sand 6-9-64

Pumped in 500 gallons MCA, 2,000 gallons 15% acid. Loaded hole with water. Displaced MCA and acid in stages - let soak 3 hours. Broke down and fractured with 726 bbls. of water, 15,000# sand and 110,000 SCF Nitrogen. Started sand 1/2#/gallon. Went to 3/4#/gallon maximum. Flushed with 85 bbls. water. Time 30 minutes. Average injection rate 27 bbls/minute. Opened well - flowed back.

Final open flow 6-11-64 60/10 M. 4" = 4,795 MCF (Oriskany)

