

3.69 W
1.90 S

NOTE - ELEVATION TAKEN FROM U.S.C.G. "T-133"

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 SECTION OF THE MINING LAWS OF WEST VIRGINIA.

New Location
 Drill Deeper
 Abandonment

Company CITIES SERVICE OIL COMPANY
 Address BOX 873, CHARLESTON, W.VA.
 Farm V. B. CHAPMAN
 Tract _____ Acres 156 Lease No. I-11-47-00870
 Well (Farm) No. 4 Serial No. GW-1535
 Elevation (Spirit Level) 979.41'
 Quadrangle CENTER POINT-9 SW 3175 W 370
 County DODDRIDGE District WEST UNION
 Engineer Wardell S. Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-12-65
 Date 8 MARCH 65 Scale 1" = 600'

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

WELL LOCATION MAP
 FILE NO. DOD-1234-R

+ Denotes location of well on United States Topographic Maps, scale 1 to 62500 latitude and longitude lines being represented by border lines as shown.

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

6-6 94

Angle 1200 - TD (1969)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3

Rotary
Spudder
Cable Tools
Storage

Quadrangle Centerpoint 9 SW

Permit No. Dod-1234

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Cities Service Oil Company
Address P. O. Box 873, Charleston, W. Va. 25323
Farm V. B. Chapman Acres 156
Location (waters) Joskey Run
Well No. 4 - GW-1535 Elev. 979.41'
District West Union County Doddridge
The surface of tract is owned in fee by C., L., & J. G. Charter
Address West Union, W. Va.
Mineral rights are owned by C., L., & J. G. Charter, etal
(For further add. contact C. S. Oil Co)
Address _____

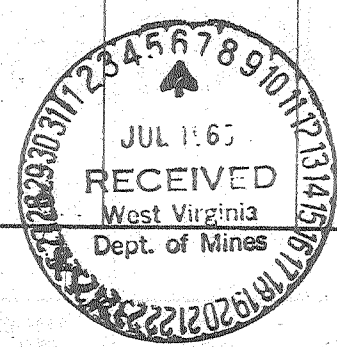
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>none</u>
13			Size of
<u>3/4" 32#</u>	<u>72'</u>	<u>72'</u>	Depth set
<u>8 1/4" 24#</u>	<u>553'</u>	<u>553'</u>	Perf. top
<u>7" 22#</u>	<u>1162'</u>	<u>97'</u>	Perf. bottom
<u>4-1/2" 9.5#</u>	<u>1990'</u>	<u>1990'</u>	Perf. top
3			Perf. bottom
2			
Liners Used			

Drilling commenced 5-11-65
Drilling completed 6-16-65
Date Shot _____ From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume show _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED see attached sheet

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see attached sheet
COAL WAS ENCOUNTERED AT none FEET _____ INCHES _____
FEET _____ INCHES _____ FEET _____ INCHES _____
FEET _____ INCHES _____ FEET _____ INCHES _____

RESULT AFTER TREATMENT 60/10 W. 4" = 1,299 MCF (Big Injun)
ROCK PRESSURE AFTER TREATMENT 24 hours 320# 72 hours 358#
Fresh Water 95' 116' Feet Salt Water 1160' 1325' Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Clay			0	2			
Sandstone			2	20			
Slate			20	23			
Sand			23	30			
Slate and Shells			30	60			
Red Rock			60	67			
Slate			67	77			
Red Rock			77	90			
Sand			90	115	F. water	95'	2-1/2-10" bph
Shale			115	118	F. water	116'	hole full
Slate			118	130			
Red Rock			130	150			
Slate and Shells			150	160			
Red Rock			160	185			
Slate and Shells			185	215			
Red Rock			215	230			
Sand			230	260			
Slate and Shells			260	285			
Sand			285	304			
Slate and Shells			304	355			
Lime			355	374			
Slate			374	378			
Lime			378	420			
Slate and Shells			420	455			
Lime			455	515			
Sand			515	545			



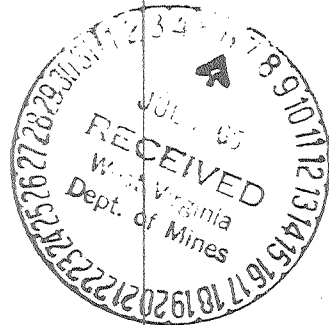
Formation	Color	Hard or Soft	Top ³	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			545	590			
Lime			590	610			
Pink Rock			610	630			
Slate and Shells			630	700			
Lime			700	735			
Sand			735	755			
Slate			755	765			
Sand			765	770			
Slate and Shells			770	875			
Sand			875	895			
Broken Lime			895	925			
Sand			925	945			
Lime			945	970			
Slate and Shells			970	975			
Sand			975	1038			
Lime			1038	1055			
Sand			1055	1120			
Lime			1120	1135			
Sand			1135	1175	S. water	1160'	hole full
Lime			1175	1220			
Sand			1220	1360	S. water	1325'	1-1/2 6''bph
Slate and Shells			1360	1380			
Broken Lime			1380	1416			
Sand			1416	1460			
Slate and Shells			1460	1470			
Sand			1470	1537	Gas	1500'	show
Slate and Shells			1537	1605			
Broken Lime			1605	1637			
Red Rock			1637	1640			
Slate and Shells			1640	1675			
Lime			1675	1695			
Slate			1695	1700			
Sand			1700	1716			
Big Lime			1716	1778			
Big Injun Sand			1778	1875	Gas	1803-1827'	
Slate			1875	1880	Oil	1860'	show
Sand			1880	1909			
Slate			1909	1969			
Total depth-----				1969' DLM=1980' Schl. Meas.			
<u>Schlumberger Log showed:</u>							
2nd Salt Sand			1414	1460	Temperature Log showed gas:		
3rd Salt Sand			1474	1531		1817-1848'	
Maxon Sand			1611	1631		1872'	
Little Lime			1682	1696		1881'	
Blue Monday Sand			1703	1718		1894'	
Big Lime			1722	1782		1903'	
Big Injun			1782	1924			
See additional information on attached sheet							

Date _____, 19__

APPROVED _____, Owner

By _____ (Title)

Formation	Color	Hard or Soft	Top 3A	Bottom	Oil, Gas or Water	Depth Found	Remarks
Additional information on GW-1535, V. B. Chapman #4							
CASING RECORD							
5-19-65							Set 8-5/8" 24# casing with shoe at 552' in 20' of red mud.
5-22-65							Set 7" 22# J-55 casing on shoe in 20' red mud at 1047'. Did not cement. R/L nipple at 950'. Underreamed hole and lowered 7" to 1170' - set in 20' red mud.
6-16-65							Ran 4-1/2" 9.5# J-55 casing on shoe at 1,980'. Float insert at 1,948'. Centralizers at 1948', 1789' and 1726'. R/L nipple at 1,469'. Circulated hole with 70 bbls. mud. Cemented with 40 sacks. Pumped plug to 1,948' at 200#. Later pulled all but 97'.
6-16-65							Schlumberger ran Logs: Gamma Ray, Temperature, Caliper, Induction and Density.
6-18-65							Ran Gamma Ray Correlation Log and perforated Big Injun Sand 1824-1849', 1892-1904' and 1919-1921' with 2 jets/foot. Gas testing 23 MCF
6-23-65							<u>Frac'd Big Injun Sand</u> Frac'd Big Injun with 500 gallons MCA, 2,000 gallons 15% regular acid. Breakdown 3400# to 1000#. Injected 60 perf balls during breakdown. No pressure change. Used 75,000# 20-40 sand. Treating pressure 2200# minimum-2750# average. Started 1/4# sand/gallon. Maximum average rate 34.6 gallons/minute. When frac was one half in ran 70 perf balls-no change in pressure. Total 130 perf balls, 1370 bbls. water, 70 Moreflo, 1100# WAC-#10.
Final open flow 6-28-65 60/10 W. 4" = 1,299 MCF after blowing 120 hours.							



Date July 2, 19 65

APPROVED Cities Service Oil Company, Owner

By L. D. Todd, District Sup't
(Title)