

Latitude 38 30

Longitude 81 30

R.H. LEGG } 35<sup>±</sup>  
S.F. SPENCER }

D.L. HINKLE  
(103.52<sup>±</sup>)

(54<sup>±</sup>)  
W.B. DONNALLY

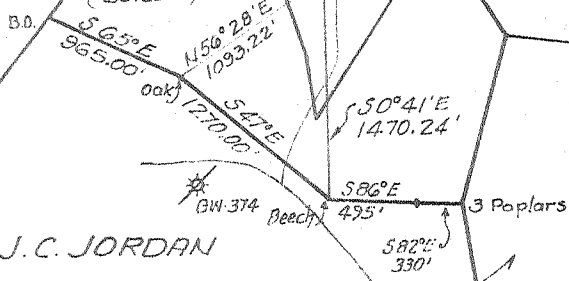
THE DOMINION CORP.

R. HALL  
(60.38<sup>±</sup>)

GW-1662  
A-1

J.C. JORDAN  
(29<sup>±</sup>)

J.C. JORDAN



1.765  
402 W

7.5' 0625 loc 504 15'  
38°30' 1.705 1.705  
81°32'30" 1.646 3.90w

- New Location
- Drill 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 B of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

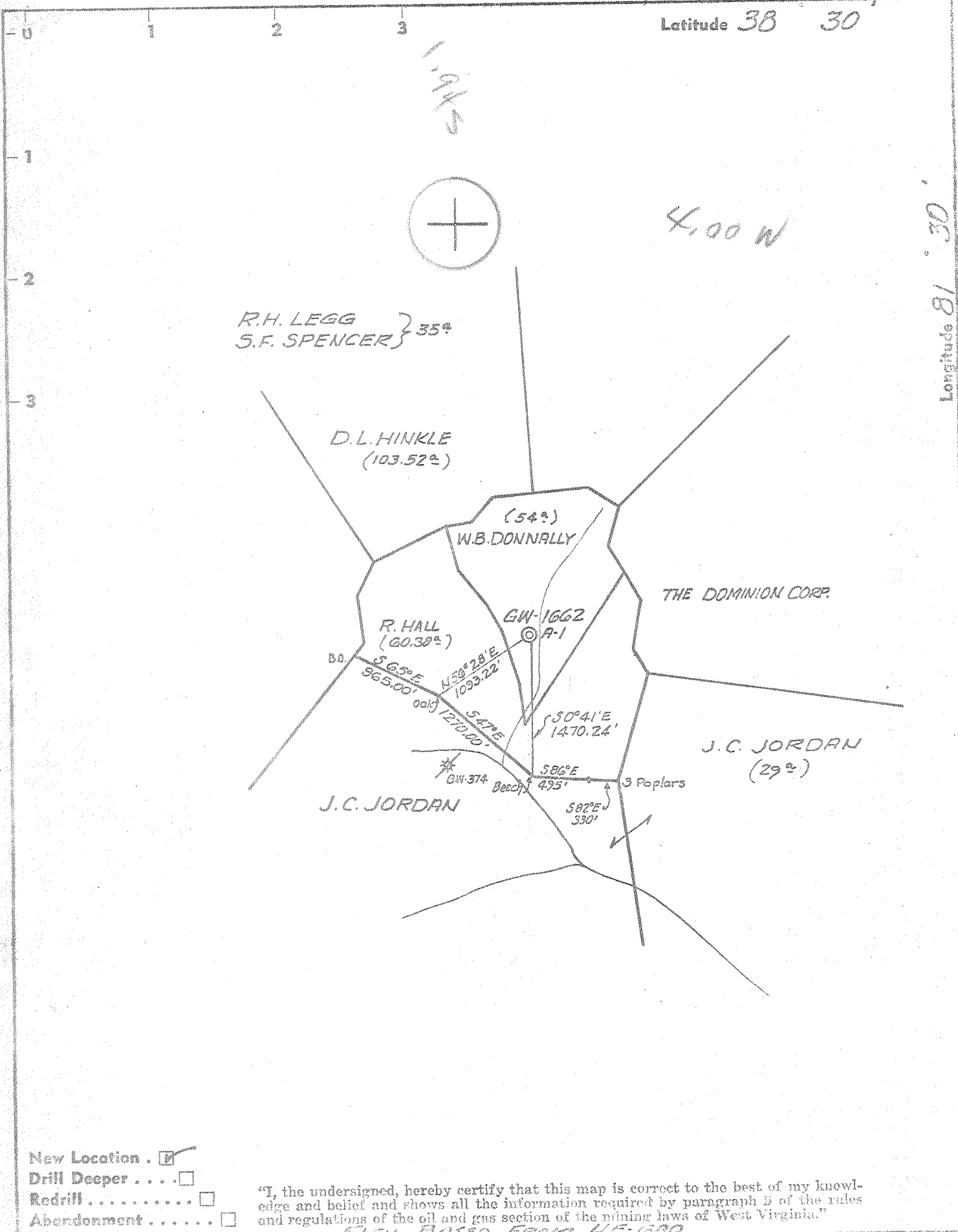
Company CITIES SERVICE OIL COMPANY  
 Address BOX 873 CHARLESTON, W.VA.  
 Farm W.B. DONNALLY ET AL. CONS.  
 Part of 281.89<sup>±</sup>  
 Tract Acres 54 Lease No. WU-247  
 Well (Farm) No. A-1 Serial No. GW-1662  
 Elevation (Spirit Level) 820.37  
 Quadrangle CHARLESTON-1 NE  
 County KANAWHA District ELK  
 Engineer Wendell S. Morris  
 Engineer's Registration No. 2113  
 File No. \_\_\_\_\_ Drawing No. W 860  
 Date SEPT. 15, 1969 Scale 1" = 1320'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. Kan-2430-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

12/2/69



- New Location
- Drill 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 B of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

ELEV. BASED FROM U.S. 1000

Company CITIES SERVICE OIL COMPANY  
 Address Box 873 CHARLESTON, W. Va.  
 Farm W.B. DONNALLY ET AL. CONS.  
 Part of 281.89<sup>±</sup>  
 Tract Acres 54 Lease No. WV-247  
 Well (Farm) No. A-1 Serial No. GW-1662  
 Elevation (Spirit Level) 820.37  
 Quadrangle CHARLESTON-1 NE  
 County KANAWHA District FLK  
 Engineer Wendell S. Moore  
 Engineer's Registration No. 2113  
 File No. \_\_\_\_\_ Drawing No. W-B-69  
 Date SEPT. 15, 1969 Scale 1" = 1320'

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

**WELL LOCATION MAP**  
 FILE NO. Kan-2430

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Deep Well (Newburg)



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

Rotary   
Spudder   
Cable Tools   
Storage

28° 30'  
Quadrangle Charleston 1 3-2/  
Permit No. KAN-2430

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company Cities Service Oil Company  
Address Box 873, Charleston, W. Va. 25323  
Farm W. B. Donnally, et al Acrea. 281.89  
Location (waters) Coopers Creek  
Well No. "A" #1, GW-1662 Elev. 820.37'  
District Elk County Kanawha  
The surface of tract is owned in fee by W. B. Donnally, et al  
819 Middle Road Address Charleston, W. Va.  
Mineral rights are owned by same  
(for further add. contact C. S. O. Co)  
Address  
Drilling commenced 10-19-69  
Drilling completed 10-30-69  
Date Shot not shot From                      To                       
With                       
Open Flow                      /10ths Water in                      Inch  
                     /10ths Merc. in                      Inch  
Volume                      Cu. Ft.  
Rock Pressure                      lbs.                      hrs.  
Oil                      bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) not acidized  
WELL FRACTURED (DETAILS) see reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13 3/8" 48#	81'	81'	none
10			Size of
8 1/4" 24#	1843'	1843'	
6 5/8" 17#	5698'	5698'	Depth set
4 1/2			
3			Perf. top
2 3/8"	5735'	5735'	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

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

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 239 MCFD - gas wet 739,000  
ROCK PRESSURE AFTER TREATMENT                      HOURS                       
Fresh Water 200' Feet                      Salt Water                      Feet                       
Producing Sand Newburg Sand Depth 5705-5723' per electric logs

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand			0	45			
Sand and Shale			45	81			
Sand			81	91			
Shale			91	116			
Sandy Shale			116	442	F. Water	200'	
Shale			442	945		5705	
Sand			945	1080			
Sand and Shale			1080	1200	5705		
Sand			1200	1407	820		
Shale			1407	1442			
Sandy Shale			1442	1482-40	4885		
Lime			1482	1678-196			
Sand			1678	1720-42			
Sand and Shale			1720	1964			
Shale			1964	4814			
Lime			4814	5701			
Newburg Sand			5701	5713			
Lime McKenzie			5713	5752			
Total depth							
				5752'	Drillers' meas. =		
				5759'	Schlumberger's meas.		
Electric logs show:							
Newburg Sand			5705	5723			

RECEIVED  
DEC 31 1969  
& GAS DIVISION  
OF MINES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
<b>Casing Record</b>							
10-19-69							Set and cemented 13-3/8" 48# H-40 casing at 81' with 100 sacks of cement with 3% ca. cl. Cement circulated to surface.
10-23-69							Ran 8-5/8" J-55 24# casing at 1845'. Guide shoe at 1845'. Fillup disc at 1815'. Centralizers 1815', 1725' and 1639'. Cemented to surface with 250 sacks Lite Poz and 100 sacks regular cement. Circulation and returns on gel.
10-27-69							Set and cemented 5-1/2" 17# J-55 new casing at 5660' with 125 sacks Pozmix and 35 sacks Latex. Pumped 250 bbls. 6% gel ahead of cement. Gel circulation to the surface.
10-30-69							Ran 5,735' of 2" J-55 EUE tubing.
10-30-69							Ran Schlumberger Gamma Ray, Density and Caliper Logs.
11-13-69							<b>FRACTURED THE NEWBURG SAND</b> Pumped 500 gallons mud acid and 1000 gallons 15% regular acid followed with 28,000# 20-40 sand in 28,000 gallons gelled water. Maximum pressure 4400#. Average treating pressure 4,318#. AIR 24 bbls/min. Used 910 bbls. total fluid.
11-25-69							Open flow 239 MCFD - gas wet.

Date December 30, 19 69

APPROVED Cities Service Oil Company, Owner  
By L. D. Todd, Region Manager  
(Title)