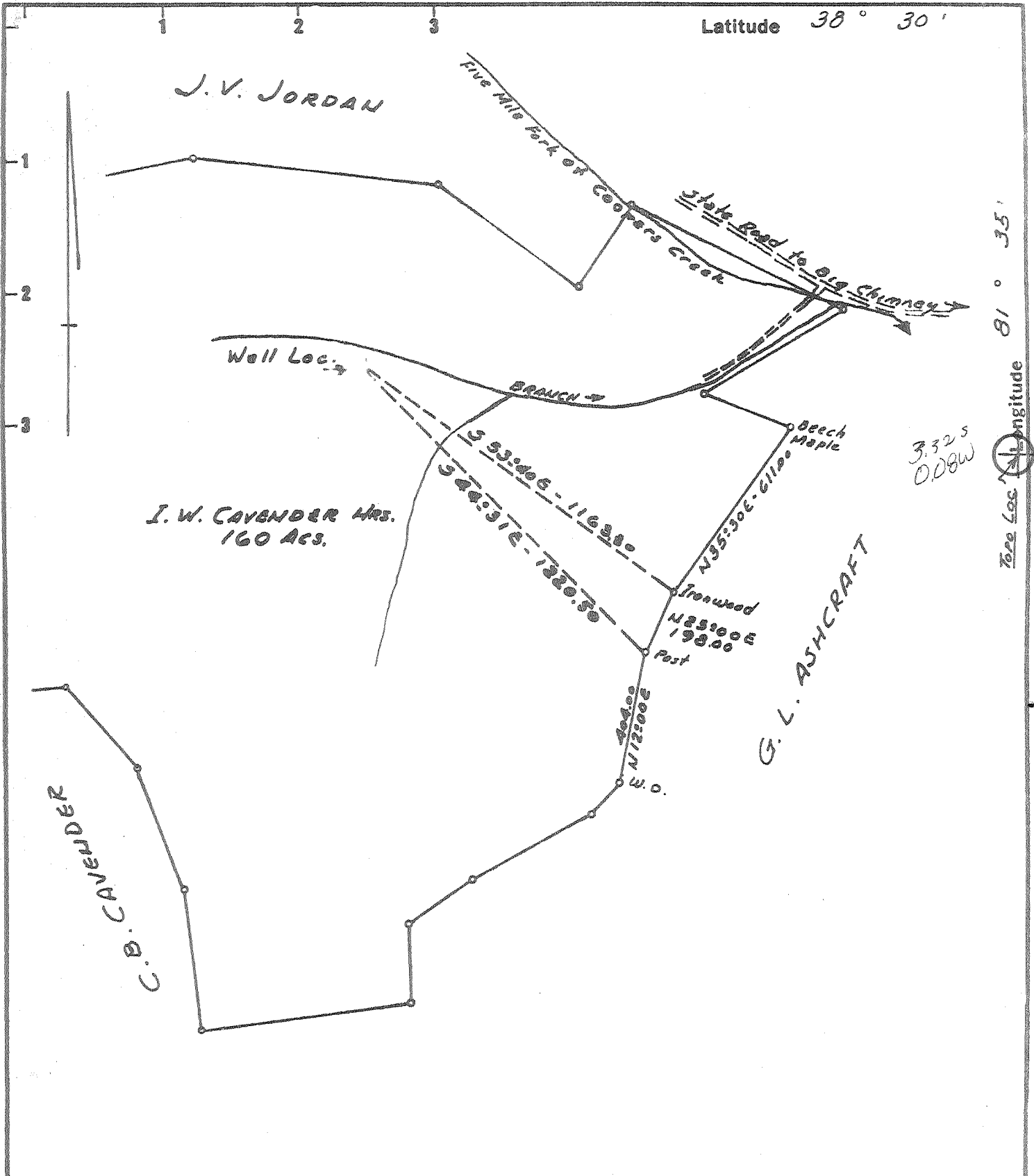


Latitude 38° 30'



- Fracture
 - Before 6/5/27
 - Well location
 - Drill Deeper
 - Redrill
 - Abandonment
- Issued 6-7-74

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 U.S.G.S. Elev. 710. Road Intersection**

Big B Drilling Co., Inc.
 Company James E. McGinnis
 Address PO Box 20, Sissonville, W.Va. 25185
Douglas, Texas

Farm J. W. CAVENDER HEIRS

Tract _____ Acres 160 Lease No. _____

Well (Farm) No. 1 Serial No. _____

Elevation (Spirit Level) 763.56

Quadrangle CHARLESTON NC

County KANAWHA District ELK

Engineer H. J. Peyton

Engineer's Registration No. 1032

File No. _____ Drawing No. _____

Date AUG. 5 1968 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. KAN-2295-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.

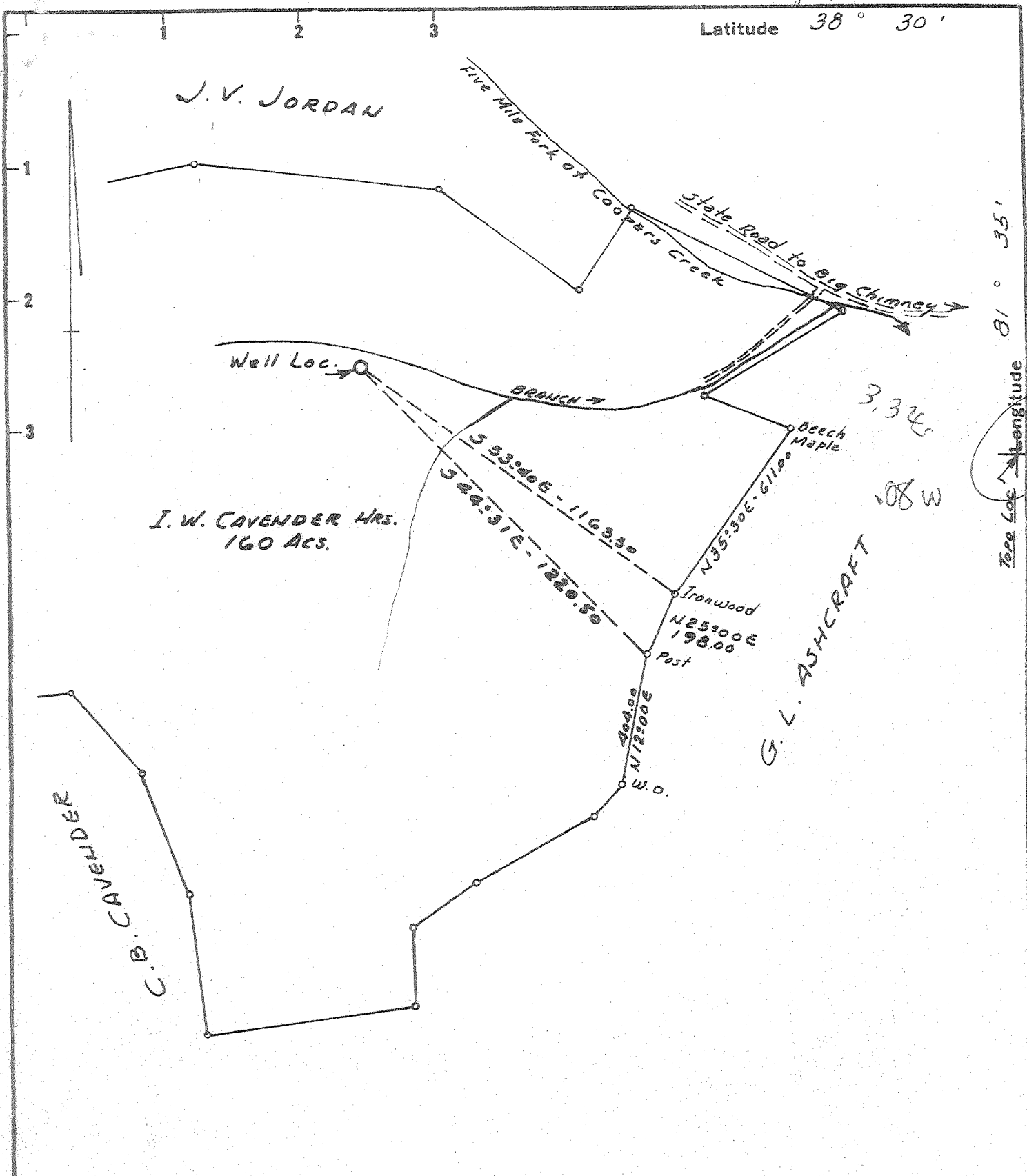
- Denotes one inch spaces on border line of original tracing.

47-039

Deep well

JUL 1 1974

Latitude 38° 30'



- Fracture Before 6/5/27
- 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 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 U.S.G.S. ELEV. 710 ROAD INTERSECTION

Company JANFORD E. MCCORMICK
 Address HOUSTON, TEXAS
 Farm I. W. CAVENDER HEIRS
 Tract _____ Acres 160 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 763.56
 Quadrangle CHARLESTON *NC*
 County KANAWHA District ELK
 Engineer V. J. Defton
 Engineer's Registration No. 1832
 File No. _____ Drawing No. _____
 Date AUG. 5 1968 Scale 1" = 400'

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

WELL LOCATION MAP
 FILE NO. KAN-2295

+ 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.

6-6 Cooper Creek 331 Deep well (Newburg) AUG 26 1968



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

Rotary
Spudder
Cable Tools
Storage

WELL RECORD

Oil or Gas Well Gas
(KIND)

Quadrangle Charleston
Permit No. KAN-2295

Company Sanford E. McCormick
Address 1204 Tenneco Bldg., Houston, Texas
Farm I. W. Cavender Hrs. Acres 160
Location (waters) Five Mile Fk., Coopers Creek
Well No. One (1) Elev. 778.5 KB
District Elk County Kanawha
The surface of tract is owned in fee by I. W. Cavender Hrs.
Rt. 5, Box 324 Address Charleston, W. Va.
Mineral rights are owned by I. W. Cavender Hrs.
Rt. 5, Box 324 Address Charleston, W. Va.
Drilling commenced August 16, 1968
Drilling completed August 27, 1968
Date Shot Not From To

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer <u>None</u>
<u>16</u>			Size of <u> </u>
<u>13 3/8</u>	<u>226</u>	<u>226</u>	Depth set <u> </u>
<u>9 5/8</u>	<u>1800</u>	<u>1800</u>	Perf. top <u>5652</u>
<u>8 1/4</u>			Perf. bottom <u>5657</u>
<u>7"</u>	<u>5618</u>	<u>5618</u>	Perf. top <u> </u>
<u>5 3/16</u>			Perf. bottom <u> </u>
<u>4 1/2</u>			
<u>3</u>		<u>5617</u>	
<u>2 3/8</u>			
Liners Used			

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) NO

Attach copy of cementing record. (SEE REVERSE SIDE)
CASING CEMENTED SIZE No. Ft. Date
Amount of cement used (bags)
Name of Service Co.
COAL WAS ENCOUNTERED AT FEET INCHES
 FEET INCHES
 FEET INCHES

WELL FRACTURED (DETAILS) NOT FRACTURED.
Calculated open flow from 4 point test - 16.7 MMCFD Natural 16,700 MCF
RESULT AFTER TREATMENT (Initial open Flow or bbls.)
ROCK PRESSURE AFTER TREATMENT 2270 HOURS 72 hours
Fresh Water Feet Salt Water Feet
Producing Sand Newburg Sand Depth 5650 - 5666

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand & Shale			Surface	310			
Sand			310	360			
Shale			360	395			
Sand			395	450			
Shale			450	460			
Sand			460	470			
Shale			470	510			
Sand			510	535			
Shale			535	635			
Sand			635	660			
Shale			660	675			
Sand			675	720			
Shale			720	760			
Sand			760	805			
Shale			805	860			
Sand			860	885			
Shale			885	950			
Sand			950	1230			
Shale			1230	1285			
Sand			1285	1345			
Shale			1345	1390			
Sand			1390	1447			
Shale			1447	1480			
Maxon			1480	1500			
Little Lime			1500	1648			
Pencil Cave			1648	1653			
Big Lime			1653	1688			
Shale			1688	2084			
Injun							
Shale							



Formation	Color	Hard or Soft	Top //	Bottom	Oil, Gas or Water	Depth Found	Remarks
Coffee Shale			2084	2098		5650	5650
Berea Horizon			2098	----			
Shale			2098	4766		4868	779
Corniferous Limestone			4766	4868			
Oriskany Sandstone			4868	4916		782	4871
Limestone & Dolomite			4916	5650			
Newburg Sandstone			5650	5666	Gas		
Dolomite	Mckenzie		5666	5681			
TOTAL DEPTH				5681			

CEMENTING RECORD

Casing	Depth	Date	Amount	Company
13 3/8"	226	8-18-68	200 sx.	Halliburton
9 5/8"	1800	8-25-68	150 sx.	Halliburton
7"	5618	8-31-68	150 sx.	Halliburton

Date MARCH 25, 1969

APPROVED _____, Owner
 By [Signature] (Title)