

LATITUDE 38° 47' 30"

UNITED STATES OF AMERICA DEPARTMENT OF INTERIOR TRACT 32

MONONGAHELA NATIONAL FOREST

LITTLE BEECH MOUNTAIN

GAS WELL #7439 (RAN-84)

GAS WELL #7438 (RAN-117)

GAS WELL #7462 (RAN-123)

GAS WELL #7441 (RAN-94)

GAS WELL #7444 (RAN-125)

GAS WELL #7442 (RAN-58)

GAS WELL #7443 (RAN-96)

GAS WELL #7472 (RAN-122)

GAS WELL #7471 (RAN-124)

U.S.F.S. Corner #10 of Tract 32 2 1/2" x 36" I. Pipe W/ Brass Cap In Mound Of Stone Red Paint Stamped 10-32 1975

3" x 8" x 24" Set Stone In Mound Of Stone Red Paint Stamped FS 2-32, 1928

N82° 15' W 5278'

S77° 15' W 11716'

N52° 30' E 7392'

N64° 30' E 6138'

Gen- Aux-Activ-Tr Cntr CHARGE SIA 183-2000-W2518-2801 NOTES: REF. X-77 Storage Field No water wells within 2000' Inv. Map No. 4288/608 "BM" Elev. 2923.0' U.S.G.S. Stand. Disc set in concrete foundation of large culvert over E. Fk. Gladly Creek at No. of Look Run stamped #98 J.E.A. 1964 H.H.S. Field Bk. 2591 Pg. 26-38 REF. Field Bk. 2011 Pg. 47 Farm map sq. 166-87

5.085 3.10 W

2.205 0.80 W 2.585 0.79 W

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2")

FILE NO. DRAWING NO. 7443 SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY 1/200 PROVEN SOURCE OF ELEVATION "BM" See Note Above

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY. (SIGNED) R.P.E. L.L.S. 499



STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION



DATE November 17, 1993 OPERATOR'S WELL NO. 7443 API WELL NO.

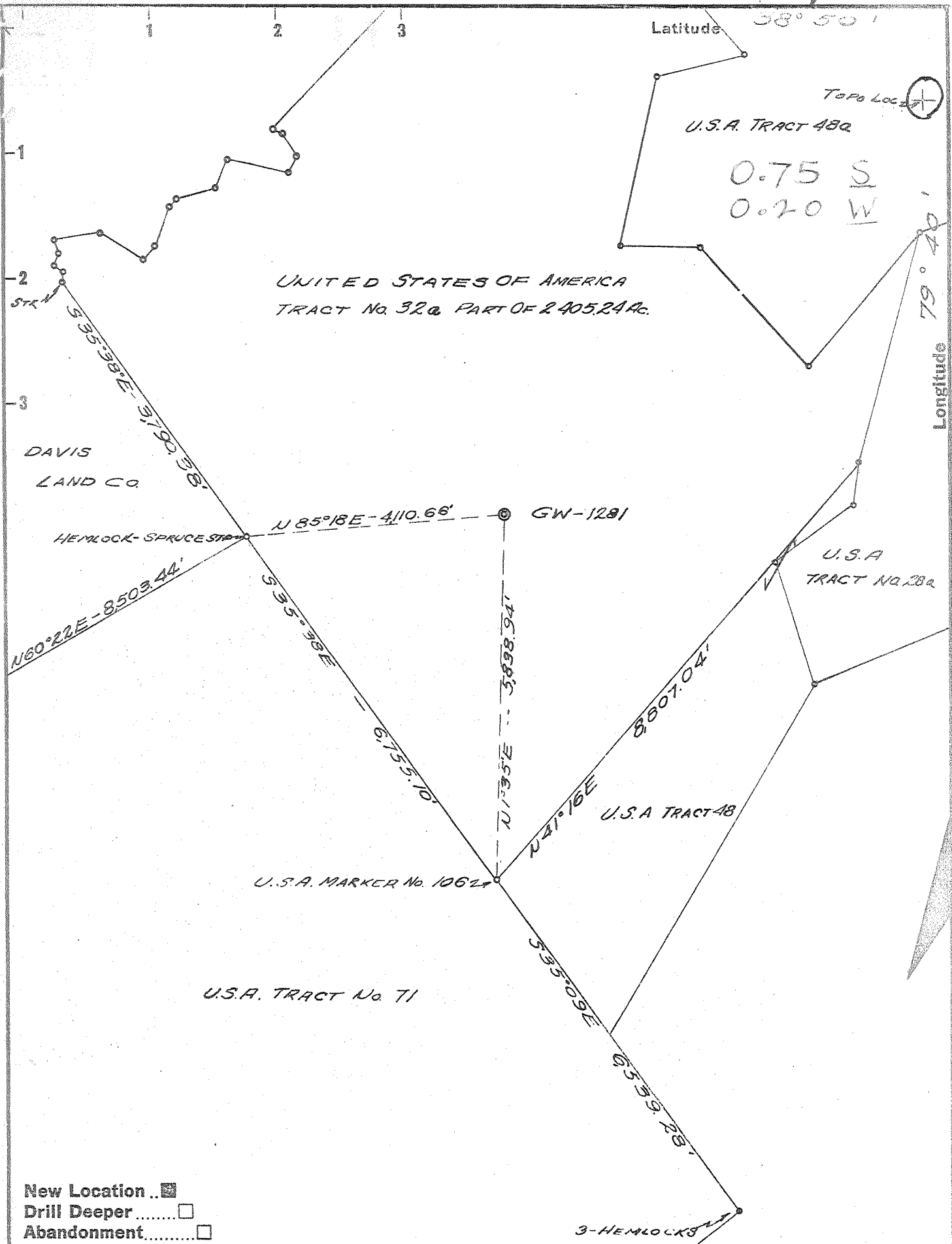
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL STATE COUNTY PERMIT 47 003 00098 - Frac (IF "GAS,") PRODUCTION STORAGE X DEEP SHALLOW LOCATION: ELEVATION 3256.90 WATER SHED Camp Hollow Of East Fork Of Gladly Fork DISTRICT Dry Fork COUNTY Randolph QUADRANGLE Gladly, WV COORDINATES LAT: 38° 45' 14" LONG: 79° 43' 23" SURFACE OWNER United States Of America (Tract 32) ACREAGE 1863.61 OIL & GAS ROYALTY OWNER United States Of America (Fee) LEASE ACREAGE 27804.07 (Randolph) COAL OWNER (Dept of Interior) LEASE NO. 90700

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Storage Recondition

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION ESTIMATED DEPTH WELL OPERATOR COLUMBIA GAS TRANS CORP DESIGNATED AGENT Robert C. Weldner ADDRESS PO Box 1273, Charleston, WV ADDRESS PO Box 1273, Charleston, WV 25325-1273

JUL 24 1994

RANDOLPH COUNTY NAME PERMIT



New Location ..
 Drill Deeper
 Abandonment

Company COLUMBIAN CARBON COMPANY
 Address BOX 873 CHARLESTON, W.VA.
 Farm UNITED STATES OF AMERICA
 Tract 32a Acres 2405.24 Lease No. PLMA-032812
 Well (Farm) No. G-6 Serial No. GW-1281
 Elevation (Spirit Level) 3325.46'
 Quadrangle HORTON-9 5072 W019 SW
 County RANDOLPH District DRY FORK
 Engineer R. D. [Signature]
 Engineer's Registration No. 2074
 File No. _____ Drawing No. W-23-59
 Date OCT 30 1957 Scale 1"=2000'

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

WELL LOCATION MAP
 FILE NO. RAN-98

+ 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.

6-6 251

Deep Well

Fract



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

Quadrangle Horton 9 SW

Permit No. RAN-98

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Columbian Carbon Company, Oper.
Address Box 873, Charleston 23, W. Va.
Farm United States of America Acres 2405.24
Location (waters) Daniels Run
Well No. G-5 - GW-1281 Elev. 3325.46'
District Dry Fork County Randolph
The surface of tract is owned in fee by Director, Bureau of Land Management
Interior Bldg. Address Washington, D. C.
Mineral rights are owned by Same
Address _____

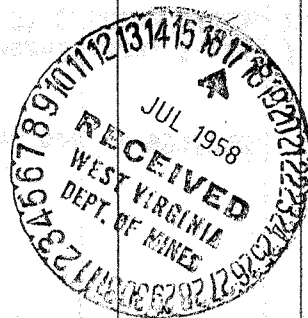
Drilling commenced 1-17-58
Drilling completed 4-10-58
Date Shot not shot From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED See reverse side.

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>None</u>
<u>13/8" 4.6"</u>	<u>31'10"</u>	<u>31'10"</u>	Size of
<u>10 3/4" 4.5"</u>	<u>1050' 2"</u>	<u>1035' 3"</u>	Depth set
<u>8 1/4"</u>	<u>6482' 5"</u>	<u>6482' 5"</u>	Perf. top
<u>5 3/16"</u>			Perf. bottom
<u>3"</u>			Perf. top
<u>2 3/8" 4.6"</u>	<u>6331' 5"</u>	<u>6331' 5"</u>	Perf. bottom
Liners Used	<u>(with cage)</u>		

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
See reverse side.
COAL WAS ENCOUNTERED AT none FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT 38/10 W 3" - 585,000 cubic feet
ROCK PRESSURE AFTER TREATMENT 42 hours - 1830' tubing - 1829' on Braden Head 9 day pr. 1856'
Fresh Water 420' Feet Salt Water 1670-1680' Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	12			
Lime			12	224			
Broken Lime			224	362			
Sand			362	520	Fresh Water	420'	2 bailers/hour
Lime			520	735			
Sand			735	785			
Lime			785	1018			
Lime and Shells			1018	1240			
Lime			1240	1530			
Lime and Shells			1530	1750	Salt water	1670-1680'	15 gal/hour
Shale			1750	1920			
Shale and Lime			1920	2265			
Shale			2265	2420			
Shale & Lime			2420	2932			
Lime			2932	3135			
Shale			3135	3185			
Lime and Shale			3185	3638			
Shale			3638	3830			
Shale and Sand			3830	3965			
Shale			3965	4145			
Shale and Lime			4145	4210			
Shale			4210	4477			
Shale & Lime			4477	4570			
Shale			4570	4965			
Shale & Lime			4965	5015			
Shale			5015	5375			
Lime and Shale			5375	5419			
Shale			5419	5794			
Chert			5794	5953			
Sand and Shale			5953	6020			



Formation	Color	Hard or Soft	Top /Z	Bottom	Oil, Gas or Water	Depth Found	Remarks
Criskany Lime			6020 6155	6155 6432			
TOTAL DEPTH			-----		6432' Rotary Measurement - 6418' Landing Flange Measurement		
Cable tools		0 - 995					
Rotary tools		995 - 6432' Rotary Measurement - 6418' Landing Flange Measurement.					
<u>CASING RECORD</u>							
2-11-58 - Ran 1060' 2" of 10 3/4" 40.5# and 32.75# casing with shoe set at 995'DLM.							Cemented with 250 sacks cement.
4-12-58 - Ran 6482' 5" of 7" 23# casing with guide shoe and 5 centralizers, 1-top, 1-bottom of Chert. 1-top, 1-middle, 1-bottom of sand. Set at 6418' Landing Flange Measurement and cemented with 285 sacks.							
<u>FRACTURING RECORD</u>							
Perforated 7" casing with 609 shots from:							
5776-78', 5798-93', 5796-99', 5802-10', 5814-20', 5824-28', 5916-24', 5924-36', 5942-58', 5972-96', 6007-11', 6014-18', 6029-46', 6073-76', 6079-81', 6083-85', 6144-76', 6202-38'.							
<u>June 4, 1958</u>							
After perforating show of gas only. Pumped in 2 bbl. kerosene and 2,000 gal MCA. Loaded tubing with kerosene. Displaced 500 gal. MCA at 1500#, 500 gal. MCA at 1700#, 500 gal. MCA at 1450#, 500 gal. MCA at 1700#. Broke down with 7 pumps at 3400# pressure. Displaced 45 bbl. kerosene. Injection rate 538 gpm. Gelled 12,000 gal. kerosene - started 1/2# Sand/gal - increased to 1#/gal when gel on bottom. Maximum pressure 3,000# - Minimum 2500#. Started neoprene balls after 4,000 gal. gel in hole. Final gel pressure 2500# - 14 minute injection rate 899 gpm. Flushed with 100 bbl. kerosene. Maximum pressure 3,400# - minimum 2500#. Injection rate for flush 466 gpm. Used 400 perf balls. 12,500# Sand.							
Final open flow 38/10 W 3" - 585MCF. 42 hour pressure 1830# on Tubing - 1829# on Braden Head. 9 day pressure 1856#.							
			5794 3325 2469	6020 3325 2695		6155 3325 2830	

Date July 16,

APPROVED Columbian Carbon Company, Operator

By R. B. Anderson, General Manager
(Title)