



NOTE: NEAREST LEASE BOUNDARY THAT IS NOT HELD BY THE OPERATOR'S OIL & GAS LEASE IS GREATER THAN 400'

(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. CNR24317.DGN  
 DRAWING NO. CNR 824317  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION USGS BM (1047')  
4.350' ± NORTH OF LOCATION

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 ENVIRONMENTAL PROTECTION.  
 (SIGNED) [Signature]  
 R.P.E. \_\_\_\_\_ L.L.S. 647

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIROMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE MARCH 21, 2000  
 OPERATOR'S WELL NO. 824317  
 API WELL NO. 47 043 03 104  
 STATE COUNTY PERMIT

WELL TYPE: OIL X GAS X LIQUID INJECTION     WASTE DISPOSAL      
 (IF "GAS,") PRODUCTION X STORAGE     DEEP X SHALLOW    

LOCATION: ELEVATION 1110' WATER SHED DIVIDING RDG. BETWEEN BIG CREEK & BOBBY CREEK  
 DISTRICT JEFFERSON COUNTY LINCOLN  
 QUADRANGLE BIG CREEK, WV 75'

SURFACE OWNER CHARLES HAGER ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER COLUMBIA NATURAL RESOURCES, INC. LEASE ACREAGE \_\_\_\_\_  
 LEASE NO. FEE LANDS

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

PLUG AND ABANDON     CLEAN OUT AND REPLUG      
 TARGET FORMATION TRENTON, BLACK RIVER, BEEKMANTOWN ESTIMATED DEPTH 9,929'  
 WELL OPERATOR COLUMBIA NATURAL RESOURCES, INC. DESIGNATED AGENT W.A. WATSON, JR.  
 ADDRESS P.O. BOX 6070, CHARLESTON, WV 25362 ADDRESS SAFE

DEEP WELL 6-0 Paler No 234 MAY 26 2000

COUNTY NAME LIN PERMIT 3104

DEEP

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work

Farm name: Charles Hager  
Location Elevation: 1110'  
District: Jefferson

Operator Well No: 824317  
Quadrangle: Big Creek  
County: Lincoln

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P.O. Box 6070	30"	15	15	240
Charleston, WV 25362	20"	230	330	600
Agent: Michael A. John	13 3/8"	2115	2115	1730
Inspector: D. Belcher/R. Triplett	9 5/8"	4514	4514	354
Date Permit Issued: 5/24/00	7"	7035	7035	565
Date Well work commenced: 8/28/00				
Date Well Work completed: 10/22/00				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 9596'				
Fresh Water Depth (ft): N/A				
Salt Water Depth (ft): 1050'				
Is coal being mined in area (No)				
Coal Depths (ft): N/A				

OPEN FLOW DATA  
(See Attachment)

**Producing formation:** Pay zone depth (ft) from to; from to  
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
 Final open flow MCF/d Final open flow Bbl/d  
 Time of open flow between initial and final tests Hours  
 Static rock Pressure psig (surface pressure) after Hours

**2nd producing formation:** Pay zone depth (ft) from to; from to  
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
 Final open flow MCF/d Final open flow Bbl/d  
 Time of open flow between initial and final tests Hours  
 Static rock Pressure psig (surface pressure) after Hours

**3rd producing formation:** Pay zone depth (ft) from to; from to  
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
 Final open flow MCF/d Final open flow Bbl/d  
 Time of open flow between initial and final tests Hours  
 Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATION, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

RECEIVED

JUL 23 2004

WELL OPERATOR: COLUMBIA NATURAL RESOURCES, INC.

By: Robert E. Schindler  
Robert E. Schindler, Technical Administrator

WV Department of Environmental Protection  
Date: 7/20/04

AUG 13 2004

Columbia Natural Resources  
 Charles Hager #824317  
 Jefferson District, Lincoln County, West Virginia  
 47-43-03104

Well was logged and filled with Polymer Mud for a future completion or potential kick.

Columbia Natural Resources  
 Columbia Natural Resources Fee Land #824317  
 Jefferson District, Lincoln County, West Virginia  
 47-043-03104  
 GL 1110 ft/KB 1125 ft

Formation	Top	Bottom
Siltstone & shale	0	1026
- Salt sand	1026	1434
Siltstone & shale	1434	1588
- Salt sand	1588	1706
Siltstone & shale	1706	1812
- Maxon sand	1812	1848
Shale	1848	1872
- Little Lime	1872	1910
- Big Lime	1910	2054
Shale	2054	2072
- Injun sand	2072	2086
Shale	2086	2204
- Weir siltstone	2204	2265
Shale	2265	2562
- Coffee shale	2562	2586
- Berea siltstone	2586	2602
- Devonian shale	2602	3632
- Lower Huron shale	3632	3922
- Java shale	3922	4220
- Rhinestreet shale	4220	4355
- Marcellus shale	4355	4382
- Onondaga lime	4382	4586
- Salina dolomite & shale	4586	5183
- Big Six sand	5183	5214
- Rose Hill shale	5214	5599
- Tuscarora sand	5599	5735
- Juniata Shale	5735	5880
- Martinsburg shale	5880	7218
- Trenton limestone	7218	7452
- Black River limestone	7452	8108
- Wells Creek limestone & dolomite	8108	9034
- St. Peter sandstone	9034	9062
- Beekmantown dolomite	9062	9390
- Rose Run sandstone	9390	9574
- Copper Ridge dolomite	9574	9594

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Office of Oil & Gas

JUL 23 2004

WV Department of  
Environmental Protection

AUG 16 2004 LTD