

OK ALV

795'

WELL SITE

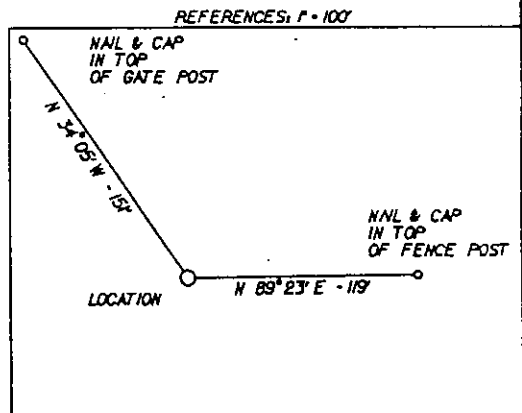
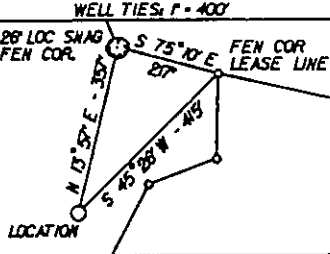
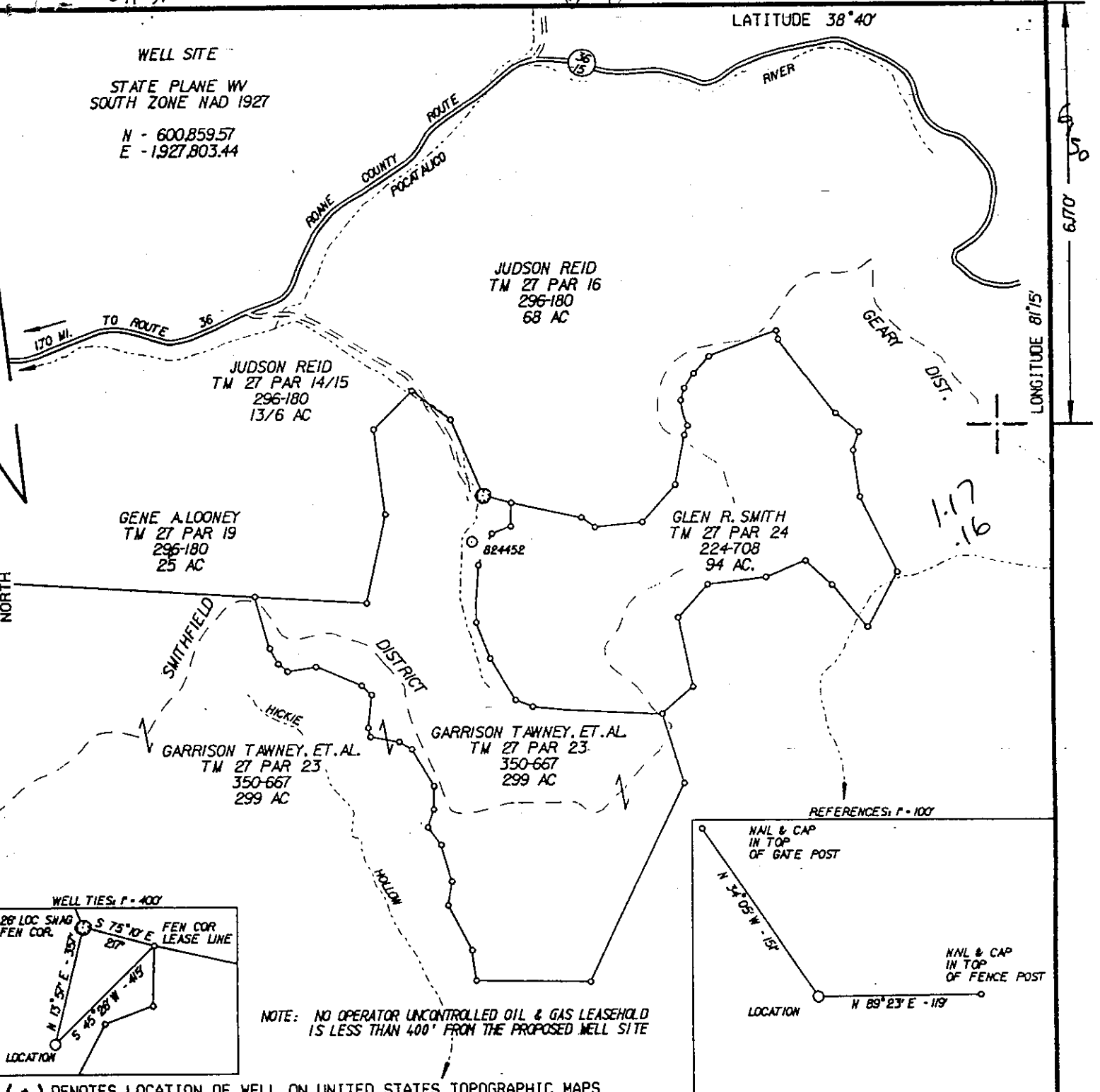
STATE PLANE WV SOUTH ZONE NAD 1927

N - 600,859.57
E - 1927,803.44

LATITUDE 38°40'

LONGITUDE 81°15'

NORTH



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

FILE NO. CNR24452(CT-19)DGN
 DRAWING NO. CNR 824452
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION SPOT ELEV. (879) 2380 +/- NW 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., 647 L.L.S.

PLACE SEAL HERE

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

DATE MARCH 29, 2000
 OPERATOR'S WELL NO. 824452
 API WELL NO. 47 087 04278
 STATE 47 COUNTY 087 PERMIT 04278

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

LOCATION: ELEVATION 938' WATER SHED POCCATALICO RIVER
 DISTRICT SMITHFIELD COUNTY ROANE
 QUADRANGLE LOONEYVILLE, WV 7.5'

SURFACE OWNER GARRISON TAWNEY, ET. AL. ACREAGE 299
 OIL & GAS ROYALTY OWNER GARRISON TAWNEY, ET. AL. LEASE ACREAGE 96
 LEASE NO. 1203122

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 ORISKANY, TUSCARORA, TRENTON BR, BEEKMANTOWN, COPPER RIDGE ESTIMATED DEPTH
 WELL OPERATOR COLUMBIA NATURAL RESOURCES, INC. DESIGNATED AGENT W.A. WATSON, JR.
 ADDRESS PO BOX 6070, CHARLESTON, WV 25362 ADDRESS SAFE

COUNTY NAME

PERMIT

ROA

4278

DEEP WELL

S-S

DEEP

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

Roanoke AMB

Farm name:Tawney, Garrison
Location Elevation:938
District:Smithfield

Operator Well No: 824452
Quadrangle: Looneyville
County: Roane

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P. O. Box 6070 Charleston, WV 25362-0070	26"		162	300
Agent: Thomas Blake				
Inspector: Homer Dougherty	13 3/8"		1,939	2,100
Date Permit Issued: 7/21/00				
Date Well work commenced: 8/10/00	9 5/8"		5,932	295
Date Well Work completed: 12/1/00				
Verbal Plugging:	7"		9,604	1,125
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>	4 1/2"		10,104	N/A
Total Depth (feet): 10,292				
Fresh Water Depth (ft): 50				
Salt Water Depth (ft.): 1,325				
Is coal being mined in area (N <input checked="" type="checkbox"/> Y <input type="checkbox"/>)				
Coal Depths (ft): N/A				

RECEIVED
Office of Oil & Gas
Permitting
MAY 10 2001
WV Division of
Environmental Protection

OPEN FLOW DATA

Producing formation: Trenton-Black River Pay zone depth(ft) from 9,604' to 10,292'***

Gas: Initial open flow 200 MMCF/d Oil: Initial open flow Bbl/d
 Final open flow 200 MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests Same Hours
 Static rock Pressure 5,800 psig (surface pressure) after 24 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

*** Well is completed. Open hole 9,604' - 10,292' with a natural flow.

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

WELL OPERATOR: COLUMBIA NATURAL RESOURCES, INC.

By: [Signature] Date: 5/1/01 Copies to:

Region
Area -
Geology: **MAY 18 2001**

ROA 4278

Columbia Natural Resources, Inc.
TAWNEY 24452

47-087-24278
Smithfield District, Roane County, WV

All depths are measured

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>
Shale & siltstone	0	1358
Salt Sand	1358	1494
Shale	1494	1550
Maxon	1550	1590
Shale	1590	1660
Little Lime	1660	1710
Big Lime	1710	1830
Injun	1830	1870
Pocono Shale	1870	2220
Sunbury Shale	2220	2242
Berea	2242	2246
U. Devonian Shale	2246	3370
Lower Huron	3370	4552
L. Devonian Shale	4552	4686
Lower Alexander	4686	4760
L. Devonian Shale	4760	4902
Rhinestreet	4902	5544
Marcellus	5544	5590
Onondaga	5590	5754
Oriskany	5754	5808
Helderberg	5808	6100
Salina	6100	6733
Newburg	6733	6748
McKenzie	6748	7090
Rose Hill	7090	7572
Tuscarora	7572	7646
Juniata (red)	7646	8250
Martinsburg (gray)	8250	9600
Trenton	9600	9732
Black River	9732	TD

