

8203 10/8/86

9420'

LATITUDE 37°55'00"

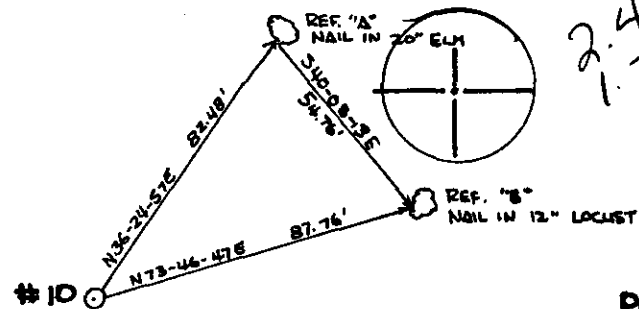
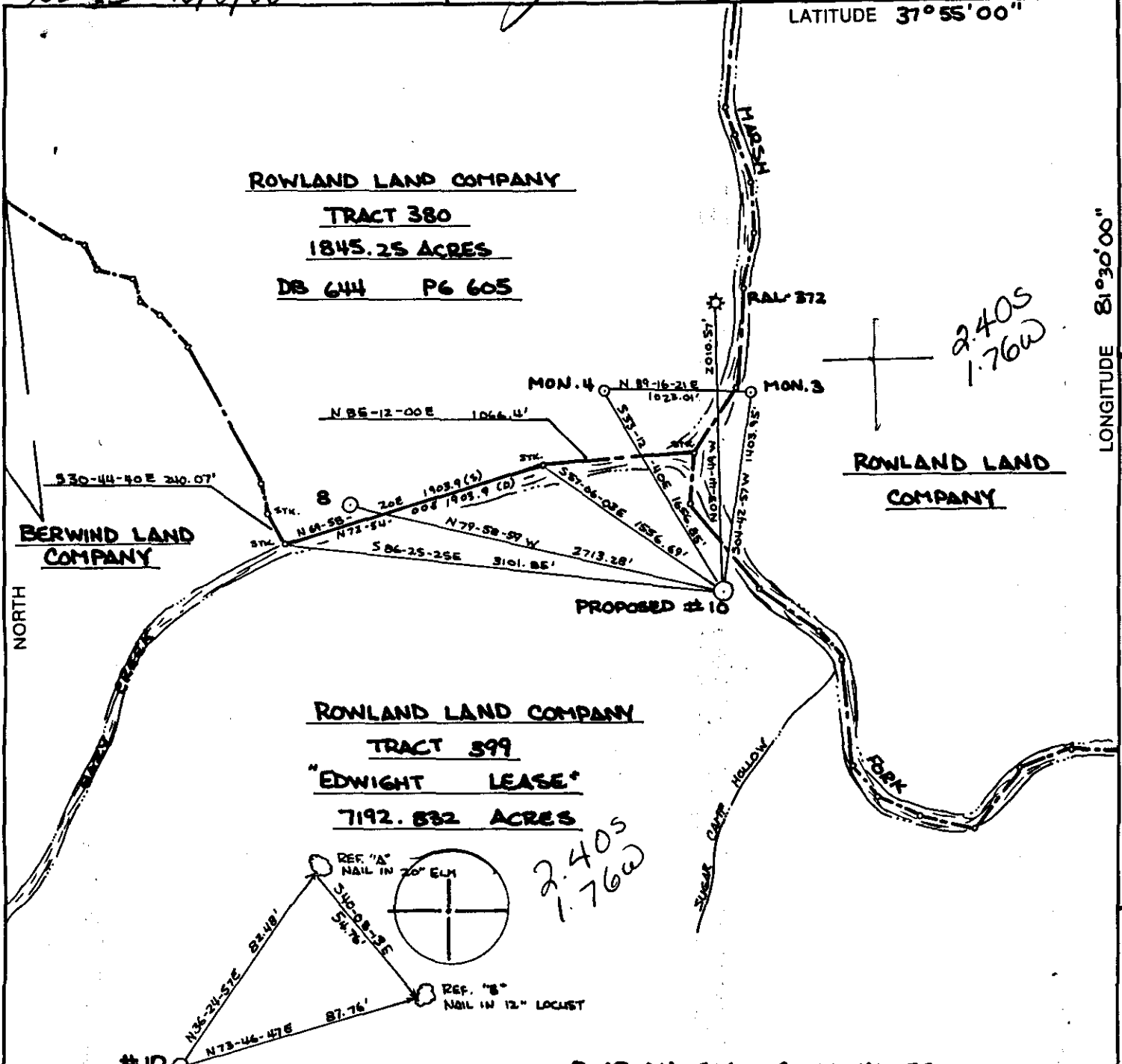
ROWLAND LAND COMPANY
TRACT 380
1845.25 ACRES
DB 644 P6 605

ROWLAND LAND COMPANY

ROWLAND LAND COMPANY
TRACT 399
"EDWIGHT LEASE"
7192.832 ACRES

BERWIND LAND COMPANY

PROPOSED #10



PEABODY COAL COORDINATES:

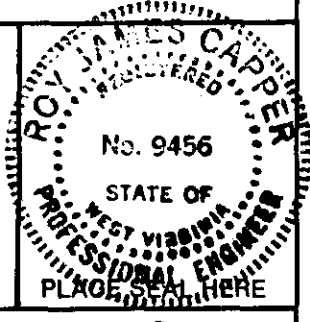
N: 590847.73
E: 3216923.55

REFERENCES
1" = 50'

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

FILE NO. 86-081-013
 DRAWING NO. 86037
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 5000
 PROVEN SOURCE OF ELEVATION BM N-40x ± 800'
NORTH OF LOCATION
 ELEVATION = 984.657

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) Ray James Capper
 R.P.E. 9456 L.L.S.



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE 15 SEPTEMBER, 19 86
 OPERATOR'S WELL NO. ROWLAND #10
 API WELL NO.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 991.3' WATERSHED MARSH FORK
 DISTRICT MARSH FORK 2 COUNTY RALEIGH
 QUADRANGLE WHITESVILLE 7.5' 677 006 EC.6 Bald Knob
 SURFACE OWNER ROWLAND LAND COMPANY ACREAGE 7192.832
 OIL & GAS ROYALTY OWNER ROWLAND LAND COMPANY LEASE ACREAGE 15000

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

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION MARCELLUS SHALE ESTIMATED DEPTH 5300'
 WELL OPERATOR ALLEGHENY + WESTERN DESIGNATED AGENT DENNIS L. MANN
 ADDRESS P.O. Box 2567 0019 ADDRESS P.O. Box 2567
CHARLESTON, WEST VIRGINIA 25329 CHARLESTON, WEST VIRGINIA 25329

OCT 14 1986

6-6 Hopkins Fork Jarrolds Valley (247)

FORM WW-6 H.T. HALL 48673

COUNTY NAME PERMIT

1

2



IV-35
(Rev 8-81)

Date April 6 1987
Operator's
Well No. Rowland 10
Farm Rowland Land
API No. 47 - 081 - 0741

RECEIVED
OCT 05 1987

State of West Virginia
Department of Mines
Oil and Gas Division

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 991 Watershed Marsh Fork
District: Marsh Fork County Raleigh Quadrangle Whitesville 7.5

COMPANY Allegheny & Western Energy Corp
ADDRESS P.O. Box 2587, Charleston, W.Va., 25329
DESIGNATED AGENT Dennis L. Mann
ADDRESS P.O. Box 2587, Charleston, W.Va., 25329
SUREACE OWNER Rowland Land Co
ADDRESS 1033 Quarrier St, Charleston, W.Va
MINERAL RIGHTS OWNER Same
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Rodney
Dillon P.O. Box 1526
ADDRESS Sophia, W.Va
PERMIT ISSUED 10/8/86
DRILLING COMMENCED 10/30/86
DRILLING COMPLETED 11/14/86

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	24	0	0
9 5/8	376	376	375 sks
8 5/8			
7	1959	1959	175 sks
5 1/2			
4 1/2	5567	5567	260 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5300 feet
Depth of completed well 5617 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 30 feet; Salt 1472 feet
Coal seam depths: N/A Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Big Lime/ Weir Pay zone depth 2187 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 53 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 800 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)

Second producing formation Devonian Shale Pay zone depth 2834 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 300 Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 800 psig (surface measurement) after 24 hours shut in

353 Mcf.
POP. for
well

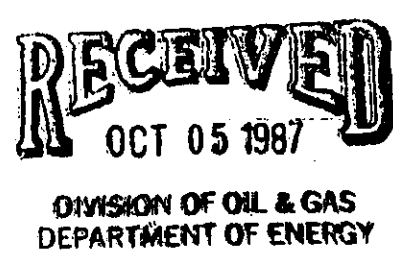
(Continue on reverse side)

OCT 12 1987

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

U. Well
 2187-2346 perf w/ 10 holes frac w/ 10,000 gal gel acid + 100,000 scf n2
 2454-4215 perf w/ 40 holes frac w/ 60,000# 20/50 sd + 1,116,000 scf n2
 4236-5478 perf w/ 50 holes frac w/ 60,000# 20/50 sd + 1,144,000 scf n2

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
sandstone & shale			0	1404	 TD 5612 KB
salt sand			1404	1472	
shale & sand			1472	1933	
little lime			1933	1957	
slate & shale			1957	2001	
big lime			2001	2370	
shale & siltstone			2370	2452	
upper weir			2452	2487	
shale			2487	2576	
weir (middle)			2576	2602	
shale			2602	2825	
sunbury shale			2825	2834	
sandy siltstone & shale			2834	3030	
gordon			3030	3043	
grey & brown shale			3043	5540	
marcellus shale			5540	5612	

404 284
 80 4034
 822 4784
 825 5084
 830 5384

(Attach separate sheets as necessary)

Allegheny & Western Energy Corp
 Well Operator

By: David L. Mc..., Vice President

Date: April 6, 1987

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



1) Date: 4 October, 1986
 2) Operator's Well No. Rowland Land #10
 3) API Well No. 47 - 081-0741
 State County Permit

RECEIVED
OCT 7 1986

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: Gas / Oil / Other / None
- B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 991.3 Watershed: Marsh Fork of Big Coal River
 District: Marsh Fork 0042 County: Raleigh Quadrangle: Whitesville 7.5 476
- 6) WELL OPERATOR A&W Energy Corp CODE: 1100 7) DESIGNATED AGENT Dennis L. Mann
 Address P.O. Box 2587 Address P.O. Box 2587
Charleston, WV 25329 Charleston, WV 25329
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Rodney Dillon
 Address P.O. Box 1526
Sophia, West Virginia 25921
- 9) DRILLING CONTRACTOR: Name Not Available
 Address _____
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Weir, Devonian Shales 401
- 12) Estimated depth of completed well, 5300' feet
- 13) Approximate strata depths: Fresh, 30 373 feet; salt, 1472 feet.
- 14) Approximate coal seam depths: none expected Is coal being mined in the area? Yes / No
- 15) CASING AND TUBING PROGRAM (Ral-372)

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	9-5/8	smls	32	x		424	424	300 cts	by rule 15.05
Coal	7	smls	23	x		2439	2439	200cts	Sizes
Intermediate									
Production	4-1/2	smls	10.5	x		5300	5300	200-400 cts	Depths set or as required
Tubing									by rule 15.01
Lin.									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-081-0741 Date October 8 19 86

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires October 8, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>ASB</u>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>3906</u>	WPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
		<u>Ann</u>	<u>Steve</u>	<u>198</u>		<u>Rod</u>	

NOTE: Keep one copy of this permit posted at the drilling location. [Signature] Director, Division of Oil and Gas File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

7574

