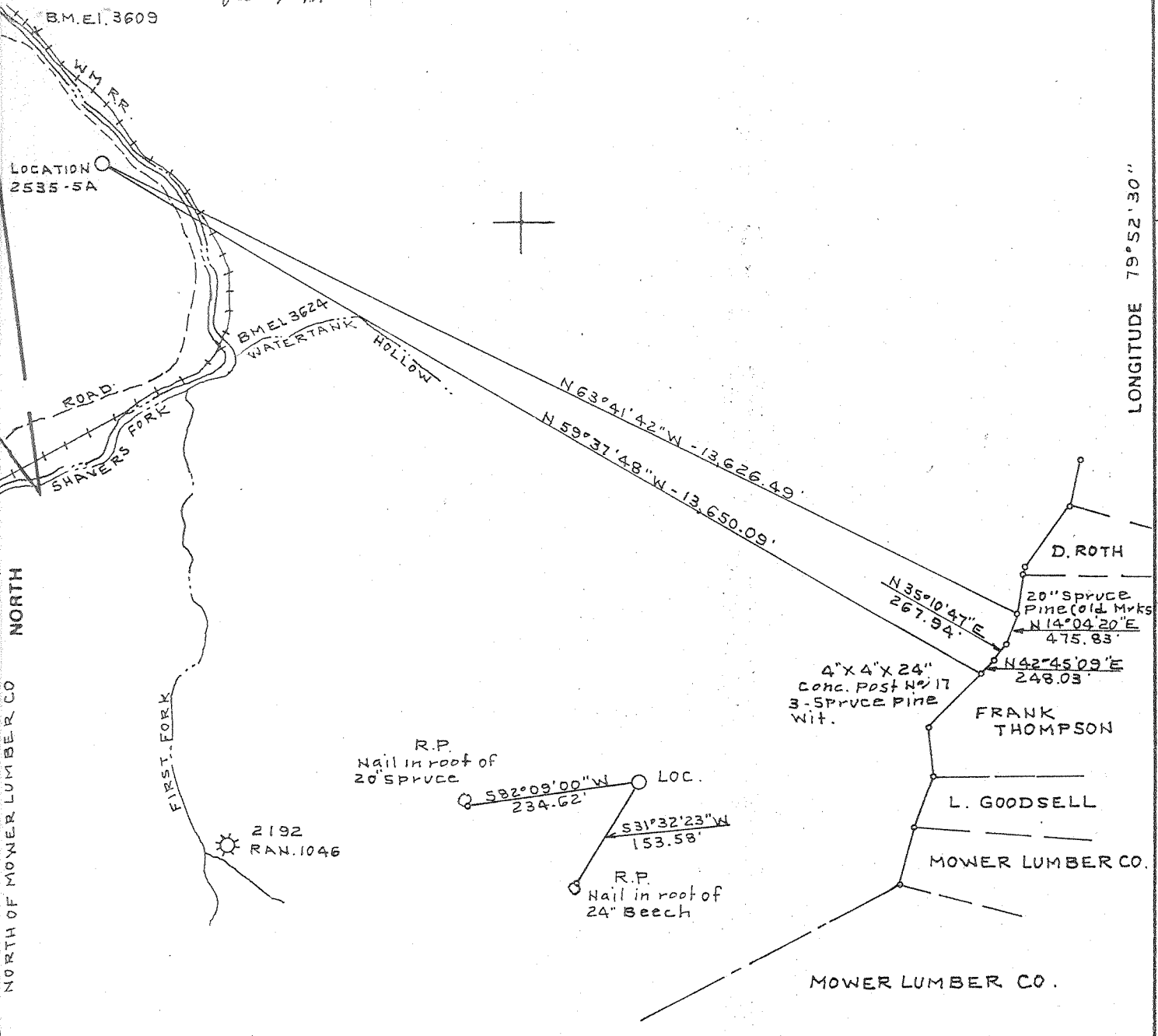


988.5/27/97



LONGITUDE 79°52'30"

NORTH
NORTH OF MOWER LUMBER CO

FILE NO. BK 106 P41
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1:5000'
 PROVEN SOURCE OF ELEVATION USGS B.M. T-265
In Top of RR. bridge pier E.I. 3624

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 MINES.
 (SIGNED) C. J. Volney Jr.
 R.P.E. _____ U.S. 92

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE APRIL 25, 1987
 OPERATOR'S WELL NO. 2535-5A
 API WELL NO. 47-083-1066-P
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 3692.88' WATER SHED SHAVERS FORK OF CHEAT RIVER
 DISTRICT HUTTONSVILLE COUNTY RANDOLPH
 QUADRANGLE SNYDER KNOB
 SURFACE OWNER MOWER LIMITED PARTNERSHIP ACREAGE 62,606.30'
 OIL & GAS ROYALTY OWNER UNION DRILLING INC. et al. LEASE ACREAGE 62,606.30
 LEASE NO. AMDCO 509310
 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 ESTIMATED DEPTH 8600'
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH C. PETTEY
 ADDRESS P.O. DRAWER 40 ADDRESS P.O. DRAWER 40
BUCKHANNON WV 26201 BUCKHANNON WV 26201

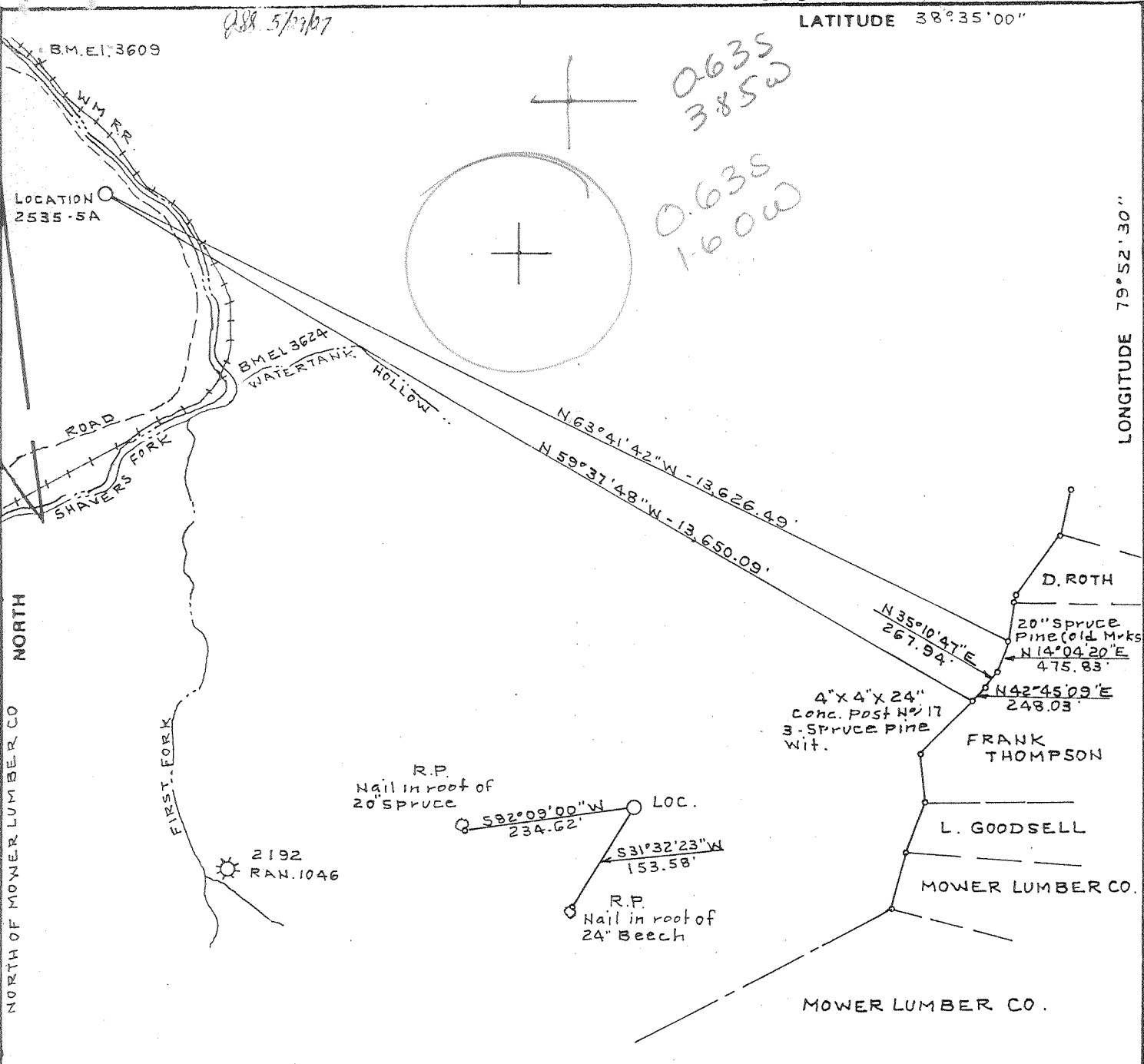
H T HALL
DEEP WELL

5-0 (369)
 Shavers Fork

LATITUDE 38°35'00"

Q88 5/1/07

0.635
3850
0.635
16000



NORTH OF MONROE LUMBER CO

LONGITUDE 79°52'30"

3375

FILE NO. BK 106 P 41
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1:5000'
 PROVEN SOURCE OF ELEVATION USGS BM T-265
In top of RR. bridge pier
E.I. 3624

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 MINES.
 (SIGNED) C. J. Volney Jr.
 R.P.E. _____ D.S. 92

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE APRIL 25, 1987
 OPERATOR'S WELL NO. 2535-5A
 API WELL NO. _____
47 - 083 - 1066
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 3692.88' WATER SHED SHIVERS FORK OF CHEAT RIVER
 DISTRICT HUTTONSVILLE COUNTY RANDOLPH
 QUADRANGLE SNYDER KNOB 614 035 SC8 Durbin
 SURFACE OWNER MOWER LIMITED PARTNERSHIP ACREAGE 62,606.30'
 OIL & GAS ROYALTY OWNER UNION DRILLING INC., et al. LEASE ACREAGE 62,606.30
 LEASE NO. AMOCO 509310

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 ESTIMATED DEPTH 8600'
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH C. PETTEY
 ADDRESS P.O. DRAWER 40 ADDRESS P.O. DRAWER 40
BUCKHANNON WY 26201 893 BUCKHANNON WY 26201



1) Date: May 1, 19 87
 2) Operator's Well No. 2535
 3) API Well No. 47 State 083 County 1066 Permit

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 MAY 27 1987

STATE OF WEST VIRGINIA
 DIVISION OF OIL & GAS DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
 DEPARTMENT OF ENERGY
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage / Deep / Shallow)
 5) LOCATION: Elevation: 3692.88 3 Watershed: Shavers Fork of Cheat River
 District: Mingo Huttonsville County: Randolph 083 Quadrangle: Snyder Knob 013
 6) WELL OPERATOR Union Drilling CODE: 50550 7) DESIGNATED AGENT Joseph C. Pettey
 Address Post Office Drawer 40 Address Post Office Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Phillip Tracy Name Union Drilling, Inc.
 Address Post Office Box 2536 Address Post Office Drawer 40
Elkins, WV 26241 Buckhannon, WV 26201
 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, Oriskany
 12) Estimated depth of completed well, 8600 feet
 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No

15) CASING AND TUBING PROGRAM

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									
Coal									Sizes
Intermediate	9 5/8	N-80	36840	X		1800	1800	to surface	Per Rule 15.05
Production	5 1/2	N-80	17	X		8500	8500	as required	Depths set
Tubing								by Rule 15.01 OR 850 SCS	
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-083-1066

June 3 19 87
Date

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 June 3, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>65.70</u> <u>307</u>	WPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input checked="" type="checkbox"/>
---	--	---	---	---------------------------------	---	--	--

NOTE: Keep one copy of this permit posted at the drilling location.

John H. Steward
Director, Division of Oil and Gas

File

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

10207



RECEIVED
JUL 24 1987

State of West Virginia
Department of Mines
Oil and Gas Division

Date July 22, 1987
Operator's
Well No. 5A - 2535
Farm Mower Lumber Co. #5A
API No. 47 - 083 - 1066

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT
OF

TO BE HELD CONFIDENTIAL

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 3692.88' Watershed Shavers Fork of Cheat River
District: Huttonsville County Randolph Quadrangle Snyder Knob

COMPANY Union Drilling, Inc.

ADDRESS P.O. Drawer 40, Buckhannon, WV 26201

DESIGNATED AGENT Joseph C. Pettey

ADDRESS P.O. Drawer 40, Buckhannon, WV 26201

SURFACE OWNER Mower Limited Partnership

ADDRESS P.O. Box 27, Durbin, WV 26264

MINERAL RIGHTS OWNER Same

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____

Phillip Tracy ADDRESS P.O. Box 2536, Elkins, WV 26241

PERMIT ISSUED 6-03-87

DRILLING COMMENCED 6-14-87

DRILLING COMPLETED 7-17-87

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	79.40	79.40	
9 5/8	1018.65	1018.65	731.60 cf
8 5/8			
7			
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 8600 feet

Depth of completed well 8431 feet Rotary XXX / Cable Tools _____

Water strata depth: Fresh _____ feet; Salt 1061 feet

Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Dry Hole Pay zone depth _____ feet

Gas: Initial open flow NS Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow NS Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 1 1/2 hours

Static rock pressure _____ psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)

Second producing formation _____ Pay zone depth _____ feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ Mcf/d Oil: Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ hours

Static rock pressure _____ psig (surface measurement) after _____ hours shut in

(Continue on reverse side)

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

Plugged 7-19-87

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Fill			0	8	
Sand & Shale			8	332	
Red Rock & Shale			332	405	
Sand			405	693	
Red Rock & Sand			693	857	
Sand & Shale			857	936	
Little Lime			936	962	
Big Lime			1056	1311	1" stream salt water at 1061'
Big Injun			1311	1508	
Bayard			2253	2284	
Lower Bayard			2301	2343	
Elizabeth			2354	2439	
Warren			2545	2473	
Speechley			2687	2835	
Balltown			2956	2977	
Bradford			3198	3229	
Riley			3540	3579	
Benson			3703	3745	
Benson Stray			3814	3932	
Alexander			4316	4323	
Lower Alexander			4543	4566	
Elk			4784	4868	
Sycamore Grit			6774	6874	
Harrell Shale			7448	7732	
Tully Limestone			7732	7746	
Upper Marcellus			7880	7908	
Purcell Limestone			7908	7940	
Lower Marcellus			7940	7962	
Onondaga Limestone			7962	7981	
Huntersville Chert			7981	8116	
Oriskany Sandstone			8116	8300	Gas Check - no show at 8151'
Helderberg Limestone			8300	8431	TD

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JUL 24 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

4216 E

(Attach separate sheets as necessary)

Union Drilling, Inc.
Well Operator

By: Joseph C. Pettey
Joseph C. Pettey, Vice President of Production
Date: 7-22-87

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 ..., encountered in the drilling of a well."

