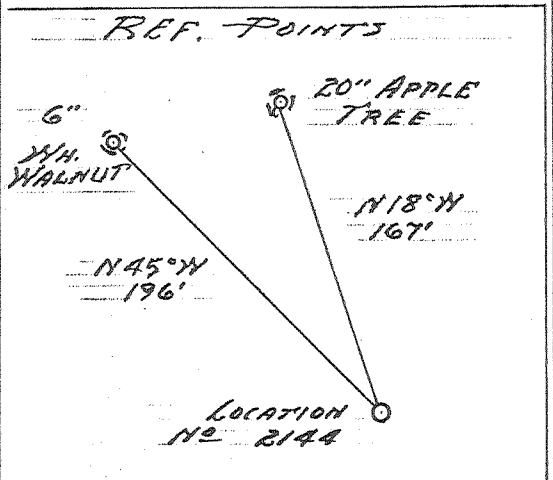
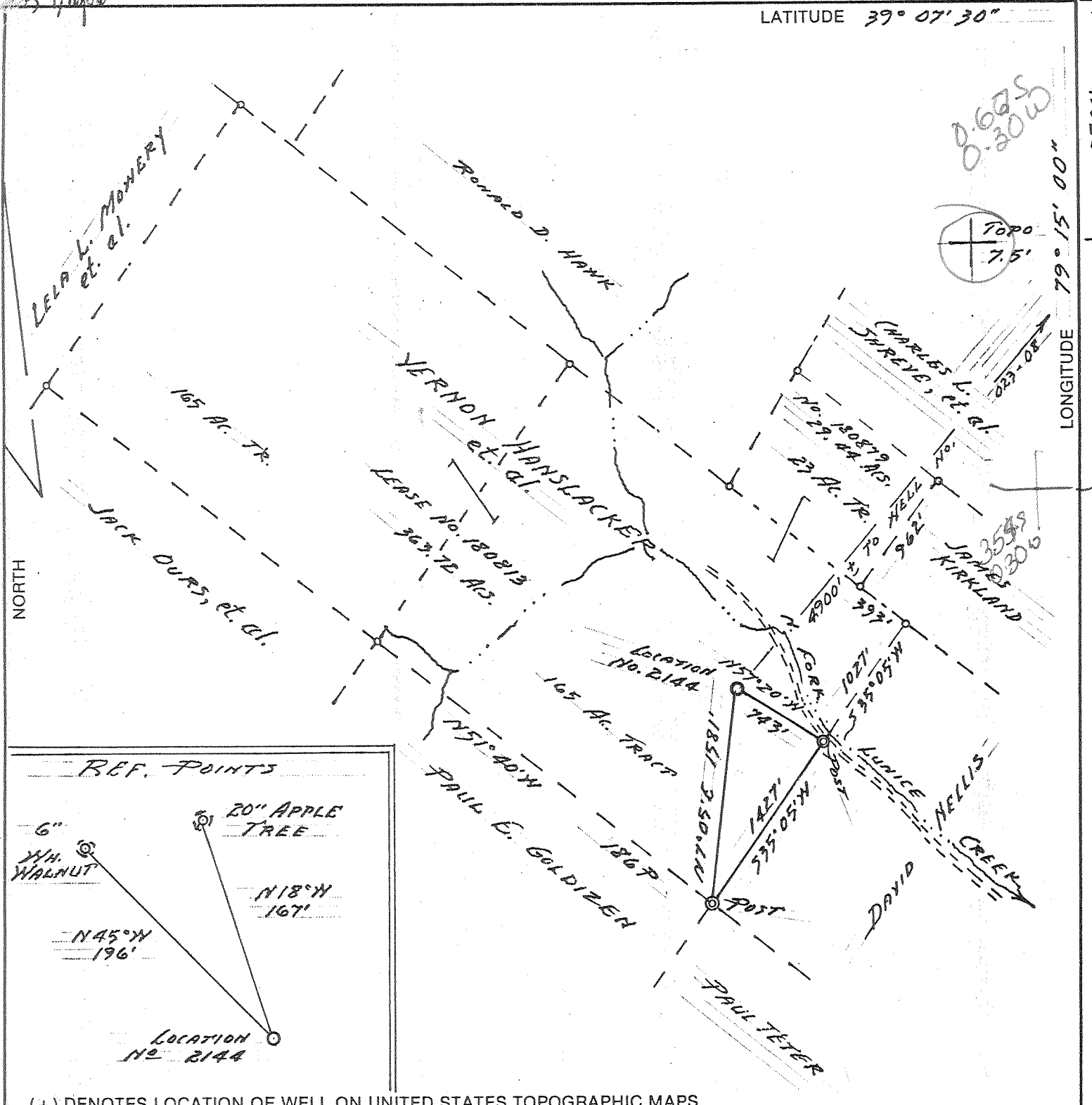


4/10/86



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

FILE NO. U.D.I. 4-35
 DRAWING NO. 36-2
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION B.M. E. SIDE JORDAN RUN ROAD, 9000' ± S.E. OF LOC.
EL. = 1731

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) Thomas F. Weaver, Jr.
 R.P.E. _____ L.L.S. 410

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE MARCH 11, 1986
 OPERATOR'S WELL NO. 2144
 API WELL NO. CNR# 21444-PI
47-023-0014
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP SHALLOW ___
 LOCATION: ELEVATION 2115 WATERSHED NORTH FORK LUNICE CREEK
 DISTRICT UNION 3 COUNTY GRANT
 QUADRANGLE BLACKBIRD KNOB 255 034 EC6 Davis
 SURFACE OWNER VERNON HANSLACKER et. al. ACREAGE 165
 OIL & GAS ROYALTY OWNER VERNON HANSLACKER et. al. LEASE ACREAGE 393.16
 LEASE NO. 180813 F 180879
 PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

APR 28 1986

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 8300'
 WELL OPERATOR UNION DRILLING, INC. 893 DESIGNATED AGENT JOSEPH C. PETTEY
 ADDRESS P. O. DRAWER 40, BUCKHANNON, WV. ADDRESS P. O. DRAWER 40, BUCKHANNON, WV.
6-6 Jordan Run (370) 26201 Goodwell 26201

COUNTY NAME GRANT
 PERMIT _____

FORM IV-6 (8-78)



IV-35
(Rev 8-81)

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date December 4, 1986
Operator's
Well No. 1 - 2144
Farm Vernon Haslacker #1
API No. 47 - 023 - 0014

CONFIDENTIAL

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 ___ / DeepXX / Shallow ___ /)

LOCATION: Elevation: 2115' Watershed North Fork Lunice Creek
District: Union County Grant Quadrangle Blackbird 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 vernon Haslacker
ADDRESS Rt.3, Box 152, Maysville, WV 26833
MINERAL RIGHTS OWNER same as surface
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____
Phil Tracy ADDRESS P.O. Box 2536, Elkins, WV
26241
PERMIT ISSUED 4/21/86
DRILLING COMMENCED 6/12/86
DRILLING COMPLETED 8/6/86

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.	17.00'	17.00'	
13-10"	298.35'	298.35'	271 cf
9 5/8	2581.13'	2581.13'	1006 cf
8 5/8			
7			
5 1/2		7955.29'	681 cf
4 1/2			
3			
2 .375		7788.46'	
Liners used			

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

GEOLOGICAL TARGET FORMATION Oriskany Depth 8300' feet
Depth of completed well 7980' feet Rotary XXX / Cable Tools _____
Water strata depth: Fresh 245', 330' feet; Salt 468', 540' feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth _____ feet
Gas: Initial open flow 442 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow N/A Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure N/A 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)

DEC 15 1986

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

Halliburton - 1 stage frac - 9/23/86

Oriskany - 7724/7762 - 226,500# sand, 2355 gals water, 5000 gal methanol and 28.5 tons C

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	335	1 1/2" stream fresh water @245'
Red Sandstone			335	356	1" stream fresh water @330'
Red Rock			356	420	1/2" stream fresh water @468'
Shale			420	562	2 1/2" stream fresh water @540'
Gray Shale			643	650	
Sand & Shale			650	6740	
Harrel Shale			6740	6924	
Tully Limestone			6926	6950	
Chaneyville Limestone			7049	7052	
Upper Marcellus			7346	7370	
Purcell			7372	7440	
Lower Marcellus			7442	7496	
Needmore			7498	7605	
Oriskany			7607	7814	
Helderberg			7816	7918	
				7980'TD	Gas check @TD 110/10ths thru 2" w/v = 442 mcf.

(Attach separate sheets as necessary)

Union Drilling, Inc.

Well Operator

By: Joseph C. Petty
Date: Joseph C. Petty, Vice President of Production

12/4/86

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."

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1) Date: April 1, 19 86
2) Operator's Well No. 2144
3) API Well No. 47 -023-0014
State County Permit

**** TO BE HELD CONFIDENTIAL ****
DEPARTMENT OF OIL & GAS
DEPARTMENT OF ENERGY
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas XX /
B (If "Gas", Production XX / Underground storage / Deep XX / Shallow /)
- 5) LOCATION: Elevation: 2115' Watershed: North Fork Lunice Creek
District: Union County: Grant Quadrangle: Blackbird Knob
- 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 Donald Ellis Phillip Tracy Name Union Drilling, Inc.
Address 2604 Crab Apple Lane PO, Box 2536 Address Post Office Drawer 40
Fairmont, WV 26554 ELKINS WV 26241 Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill XX / Drill deeper / Redrill / Stimulate XX /
Plug off old formation / Perforate new formation
Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Oriskany 475
- 12) Estimated depth of completed well, 8300 feet
- 13) Approximate strata depths: Fresh, feet; salt, feet.
- 14) Approximate coal seam depths: Is coal being mined in the area? Yes / No XX /
- 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	11-3/4		32	X		30'	30'		Kinds
Fresh water									
Coal									
Intermediate	9-5/8			X		8300 2500'	8300 2500'	to surface	Sizes <u>Per Rule 15.05</u>
Production	5-1/2			X		8300'	8300'	as required	Depths set <u>By Rule 15.01</u>
Tubing									Perforations:
Lin...									Top Bottom

**OFFICE USE ONLY
DRILLING PERMIT**

Permit number 47-023-0014 Date April 21 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 April 21, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>ALB</u>	Plat: <u>AS</u>	Casing: <u>AS</u>	Fee: <u>43456</u>	WPCP: <u>AS</u>	S&E: <u>AS</u>	Other: <u> </u>
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