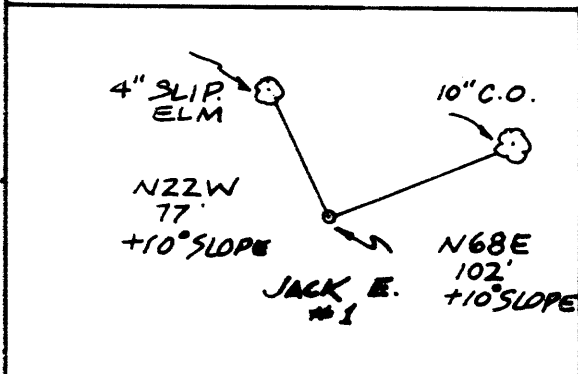
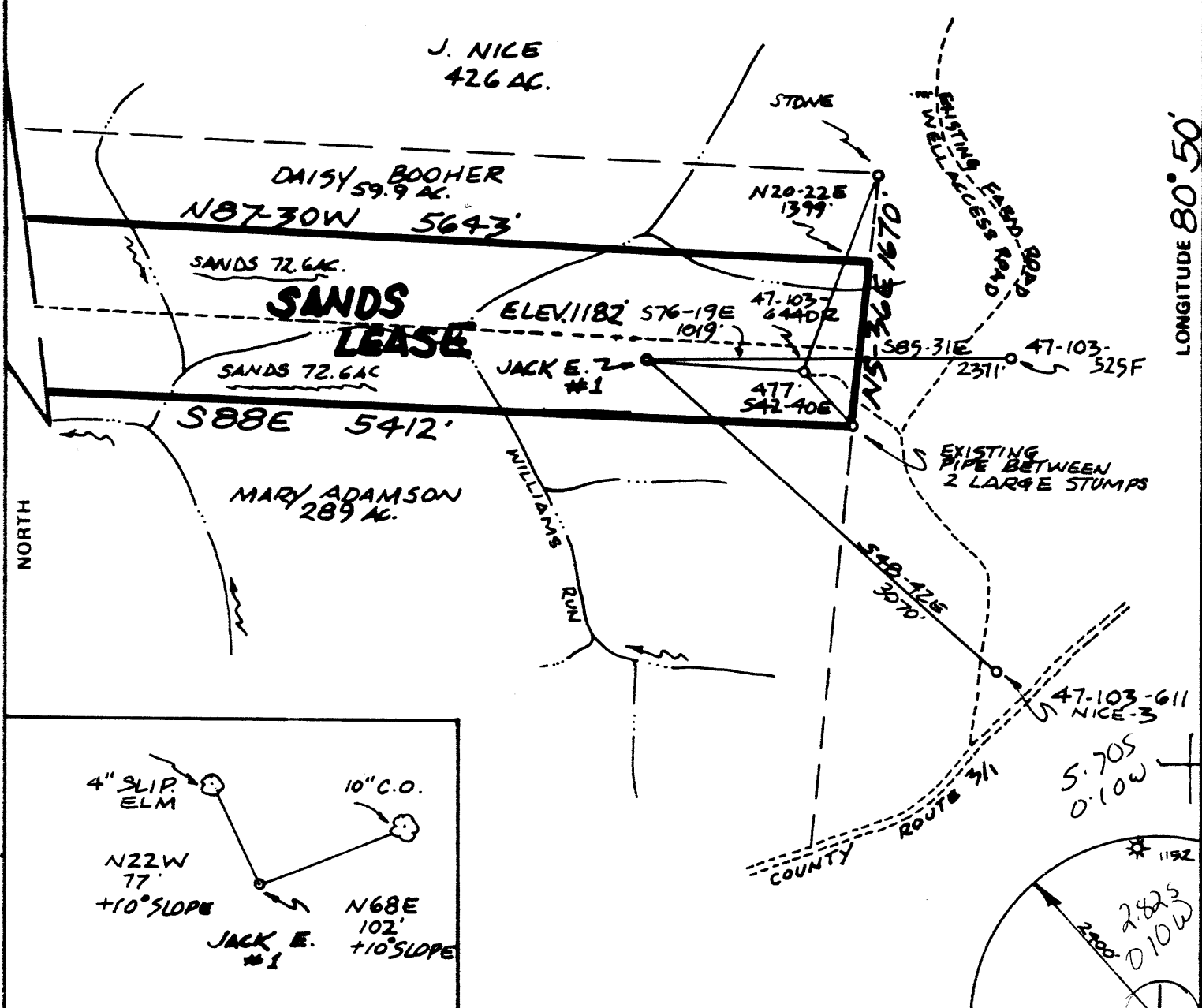


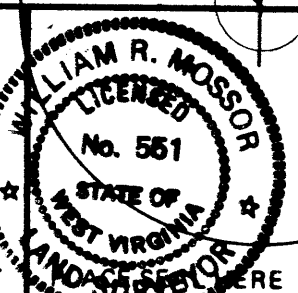
39° 45' 56" LATITUDE 39° 42' 30"

CODE \_\_\_\_\_ CARD \_\_\_\_\_ PLOT



FILE NO. MB 6-1412  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION WELL 47-103-644 DR.  
ELEV. 1260'

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) William R. Mossor  
 R.P.E. \_\_\_\_\_ L.L.S. 551



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



DATE 27 NOVEMBER 19 85  
 OPERATOR'S WELL NO. JACK E. #1  
 API WELL NO. 47-103-1382  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS.") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1182' WATER SHEET WILLIAMS RUN  
 DISTRICT MAGNOLIA 6 COUNTY WETZEL  
 QUADRANGLE NEW MARTINSVILLE 509 091 N22  
 SURFACE OWNER ANN SANDS, ETAL ACREAGE 72.6  
 OIL & GAS ROYALTY OWNER ANN SANDS, ETAL LEASE ACREAGE \_\_\_\_\_  
 LEASE NO. \_\_\_\_\_  
 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 GORDON ESTIMATED DEPTH 3100'  
 WELL OPERATOR CLAY RESOURCES DESIGNATED AGENT ANDY BROWN  
 ADDRESS 204 UNION SQUARE ADDRESS BOX 32  
MARIETTA, OHIO 45750 READER, W.VA. 26167



Date September 5, 1986  
Operator's  
Well No. Jack E. #1  
Farm ANN SANDS  
API No. 47 - 103 - 1382

State of West Virginia  
Department of Mines  
Oil and Gas Division

RECEIVED  
SEP 22 1986

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

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

LOCATION: Elevation: 1182 Watershed Williams Run  
District: Magnolia County Wetzel Quadrangle New Martinsville

COMPANY CLAY RESOURCES, INC.  
ADDRESS 286 Front St., Marietta, OH 45750  
DESIGNATED AGENT Andy Brown  
ADDRESS Box 32, Reader, WV 26167  
SURFACE OWNER Ann C. Sands etal  
ADDRESS P.O.Box 2511, Sandusky, OH 44870  
MINERAL RIGHTS OWNER SAME  
ADDRESS       
OIL AND GAS INSPECTOR FOR THIS WORK       
Mike Underwood ADDRESS Rt.#2, Box 135 Salem WV 26426  
PERMIT ISSUED February 7, 1986  
DRILLING COMMENCED April 17, 1986  
DRILLING COMPLETED April 22, 1986  
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 Cord.			
13-10"			
9 5/8			
8 5/8	1447	1447	370 SKS
7			
5 1/2			
4 1/2	2856	2856	200 SKS
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION GORDON Depth 3100 feet  
Depth of completed well 2950 feet Rotary X / Cable Tools       
Water strata depths: Fresh      feet; Salt 2162 feet  
Coal seam depths: 972 Is coal being mined in the area? NO

OPEN FLOW DATA  
Producing formation GORDON Pay zone depth 2750-2780 feet  
Gas: Initial open flow 35 Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 30 Mcf/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 72 hours  
Static rock pressure 320 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completions)  
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

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

PERFORATED: 20 HOLES: Gordon  
2754 - 2776

FRAC'D: FOAM FRAC: Broke @ 2700: ISP 1450: 400 SKS 20/40 Sand: N2 - 483,000 SCF.

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: SS:		LIMESTONE	0	2400	
SANDSTONE:		LIMESTONE: ROCK	2400	2550	Berea: 2506-2512
SANDSTONE:		SHALE	2550	<u>2950</u> TD.	<u>Gorden</u> : 2750 - 2780

(Attach separate sheets as necessary)

CLAY RESOURCES, INC.

Well Operator

By:

*Jan Ketting*

Date:

September 10, 1986

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

**RECEIVED**  
JAN 15 1986



1) Date: January 13, 1986  
2) Operator's Well No. Jack E. #1  
3) API Well No. 47 103-1382  
State County Permit

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: 1182' Watershed: Williams Run  
District: Magnolia County: Wetzel Quadrangle: New Martinsville
- 6) WELL OPERATOR Clay Resources / CODE: 10025 7) DESIGNATED AGENT Andy Brown  
Address 204 Union Square Address Box 32  
Marietta, OH 45750 Reader, WV 26167
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Don Ellis  
Address 2604 Crab Apple Lane  
Fairmont, WV 26554
- 9) DRILLING CONTRACTOR: Name Unknown  
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, Gordon 4-9
- 12) Estimated depth of completed well, 3100' feet  
13) Approximate trata depths: Fresh, 482' feet; salt, 2161' feet.  
14) Approximate coal seam depths: 972' 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	7					*512	*512	CTS Rule	Sizes 15.05
Fresh water	8 5/8					1382'	1382'	CTS	Per rule 15.05
Coal									Sizes
Intermediate									
Production	4 1/2					appr. 3100'	appr. 3100'	500 + SKS	Depths set Per rule 15.01
Tubing									
Lin...									Perforations:
									Top Bottom

*\* ONLY TO BE RUN IF FRESH WATER IS ENCOUNTERED*

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-103-1382

February 7 19 86  
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 February 7, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>KS</u>	Plat: <u>KS</u>	Casing: <u>KS</u>	Fee: <u>15.28</u>	WPCP: <u>KS</u>	S&E: <u>KS</u>	Other: _____
-------------------------------------------	------------------	-----------------	-------------------	-------------------	-----------------	----------------	--------------

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.