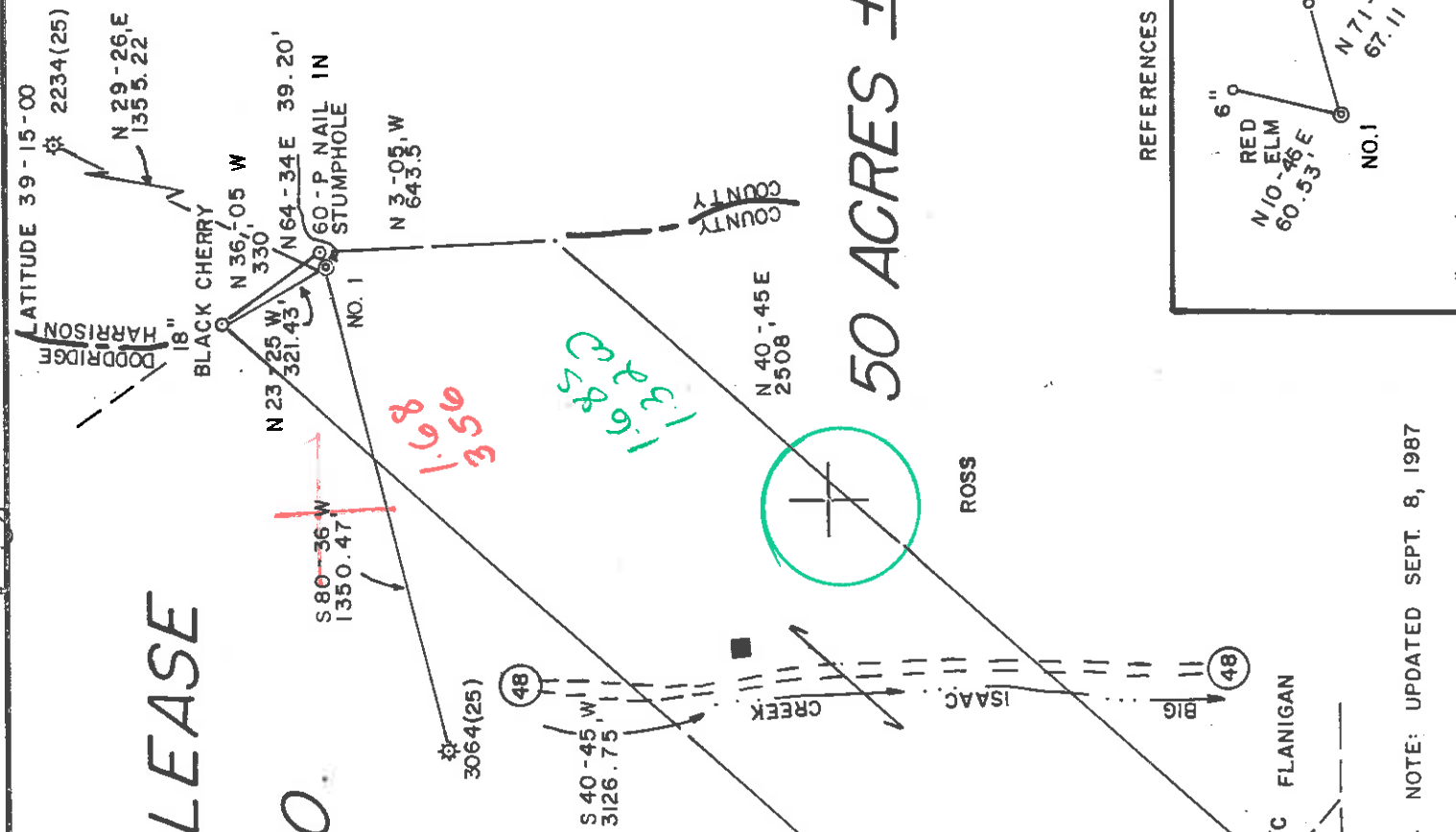
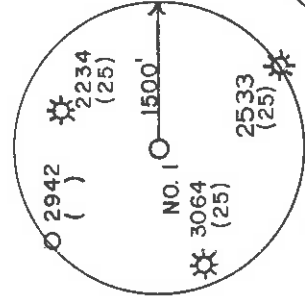


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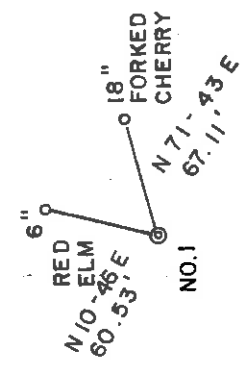
ROSS LEASE WELL NO. 1

DAVIS



50 ACRES ±

REFERENCES



NOTE: UPDATED SEPT. 8, 1987

SLS SMITH LAND SURVEYING

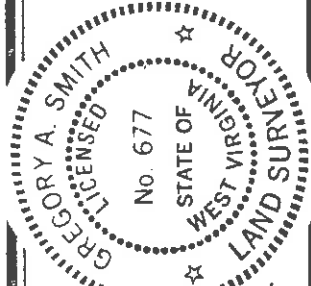
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE SEPTEMBER 26, 19 85
 OPERATORS WELL NO. ROSS NO. 1
 API WELL NO. 47-017-3596

STATE WV COUNTY ROSS PERMIT 3596

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.

L.L.S. *Gregory A. Smith*
 677



MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. (18-46) 1336
 SCALE 1" = 500'
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEV. = 1526'



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1491' WATERSHED BIG ISAAC CREEK
 DISTRICT GREENBRIER 4 COUNTY DODDRIDGE QUADRANGLE BIG ISAAC 7.5' 252
 SURFACE OWNER JAMES ROSS ACREAGE 50
 OIL & GAS ROYALTY OWNER JAMES ROSS, et al. LEASE ACREAGE 50
 LEASE NO. 3

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF
 OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION ALEXANDER
 ESTIMATED DEPTH 5800'

WELL OPERATOR EXCEL ENERGY, INC. 1028 DESIGNATED AGENT H.L. BARNETT
 ADDRESS P.O. BOX 1020, BRIDGEPORT, WV 26330 ADDRESS P.O. BOX 1020, BRIDGEPORT, WV 26330
 PERMIT 3596 SEP 28 1987

60851

6-6 Meathouse Fork - Bristol (146)



IV-35
(Rev 8-81)

F 366

Date 10-12-87
Operator's Well No. E-35
Farm Ross
API No. 47 - 017 - 3596

State of West Virginia
Department of Mines
Oil and Gas Division

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: 1491' Watershed
District: Greenbrier County Doddridge Quadrangle Big Isaac

COMPANY Excel Energy, Inc.
ADDRESS P.O. Box 1020, Bridgeport, WV 26330
DESIGNATED AGENT H. L. Barnett
ADDRESS P.O. Box 1020, Bridgeport, WV 26330
SURFACE OWNER James Ross
ADDRESS
MINERAL RIGHTS OWNER James Ross et, al.
ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK
Mike Underwood ADDRESS Rt. 2 Box 135, Salem, WV 26426

PERMIT ISSUED September 23, 1987
DRILLING COMMENCED September 30, 1987
DRILLING COMPLETED October 03, 1987

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

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

GEOLOGICAL TARGET FORMATION Alexander Depth 5800 feet
Depth of completed well 5780 feet Rotary X / Cable Tools
Water strata depth: Fresh 120-220 feet; Salt None feet
Coal seam depths: None Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Alexander & Benson Pay zone depth Alexander 5646-5652 Benson 5303-18feet
Gas: Initial open flow 267 Mcf/d Oil: Initial open flow -0- Bbl/d
Final open flow (1,799) Mcf/d Final open flow -0- Bbl/d

Time of open flow between initial and final tests 6 hours
Static rock pressure 1,550 psig (surface measurement) after 24 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

MAK 4 1988
(Continue on reverse side)

017 3596

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

Alexander: Perf. - 5646 -12 .39 holes

Frac. Using - 245 bbls. H₂O, 40,000# 80-100-3500# 20-110, 500 gals. Acid
700,000# s.c.f. N₂.

Benson : Perf. - 5303 -18 .39 holes

Frac. Using - 315 bbls. H₂O, 10,000# 80-100-50,000# 20-40,500 gals. Acid
900,000#s.c.f. N₂.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Clay	yellow	Soft	0	20	
Shale	gray	Soft	20	120	
Sand	White	Hard	120	160	
Shale&Sand	Gray&Brown	Medium	160	790	
Red&Rock	Red	Soft	790	830	H2O 120
Shale	Gray	Soft	830	860	H2O 220
Sand	Gray	Medium	860	890	
Shale&Sand	Gray	Medium	890	2390	
<u>LOG TOPS</u>					
Big Lime	Gray	Hard	2390	2430	
Big Injun	Gray	Hard	2430	2496	
Shale&Sand	Gray	Medium	2496	3012	
50ft. Sand	Gray	Medium	3012	3036	
Shale	Gray	Soft	3036	3086	
GordonStray	Gray	Medium	3086	3109	
Shale	Gray	Soft	3109	3128	
Gordon	Gray	Medium	3128	3152	
Shale	Gray	Soft	3152	3239	
5th Sand	Gray	Soft	3239	3244	
Shale	Gray	Soft	3244	3895	
Balltown	Gray	Soft	3895	4040	
Shale	Gray	Soft	4040	5300	
Benson	Brown	Soft	5300	5320	
Shale	Gray	Soft	5312	5590	
Alexander	Gray	Soft	5590	5700	
Shale	Gray	Soft	5700	5800 T.D.	
			5800	5800 T.D.	

(Attach separate sheets as necessary)

EXCEL ENERGY, INC.
Well Operator

By: *A. J. [Signature]* President

Date: October 12th, 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
and, encountered in the drilling of a well."

MAR 4 1988

FORM WM-2 (B) FILE COPY
RECEIVED
 SEP 23 1987



1) Date: September 14, 1987
 2) Operator's Well No. ROSS E-35
 3) API Well No. 017 State 47 County 3596 Permit

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

4) WELL TYPE: A Oil Gas B (If "Gas", Production Undergrnd storage Deep Shallow
 5) LOCATION: Elevation: 1491' Watershed: Big Isaac Creek
 District: Greenbrier A County: Doddrige 017 Quadrangle: Big Isaac 7.5 252
 6) WELL OPERATOR: Excel Energy, Inc. CODE: 10570 DESIGNATED AGENT H. L. Barnett
 Address: P.O. Box 1020 Address: P.O. box 1020
Bridgeport, WV 26330 Bridgeport, WV 26330

8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: ~~Steve Casey~~ Mike Underwood
 Address: Rt. 2 Box 222-D, P.O. 135
Franklin, WV 26038 SALEM, W.Va. 26426 - 782-1043

10) PROPOSED WELL WORK: Drill deeper Redrill Stimulate
 Plug off old formation Perforate new formation

11) GEOLOGICAL TARGET FORMATION, Alexander
 Other physical change in well (specify) _____

12) Estimated depth of completed well, 5800' feet
 13) Approximate trata depths: Fresh, 100, 280, 580, 1050; salt, 2140 feet.
 14) Approximate coal seam depths: 480, 700, 1050 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		
Conductor	11 3/4	NEW				40'	
Fresh water							
Coal							
Intermediate	8 5/8		23 lb.	X		1300'	
Production	4 1/2	J55	10.5	X		5700'	
Tubing							
Lith.							

Kind: OK. A.O. Sizes: OKCSR19-11.3
To surface OKCSR19-11.3
500 sks. OKCSR19-11.22
OKCSR19-11.1
 Perforations: _____
 Top _____ Bottom _____

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3596

September 23 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. September 23, 1989 unless well work is commenced prior to that date and prosecuted with due diligence. Permit expires

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>231</u>	Other: <input checked="" type="checkbox"/>
-------------------------------------------	--------------------------------------------	-------------------------------------------	---------------------------------------------	-----------------	--------------------------------------------

John H. Barnett
 Director, Division of Oil and Gas

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

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

File