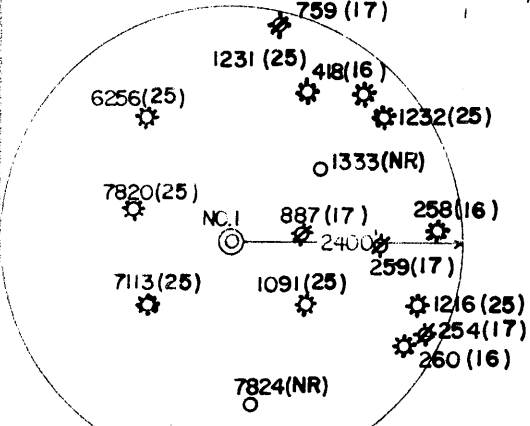
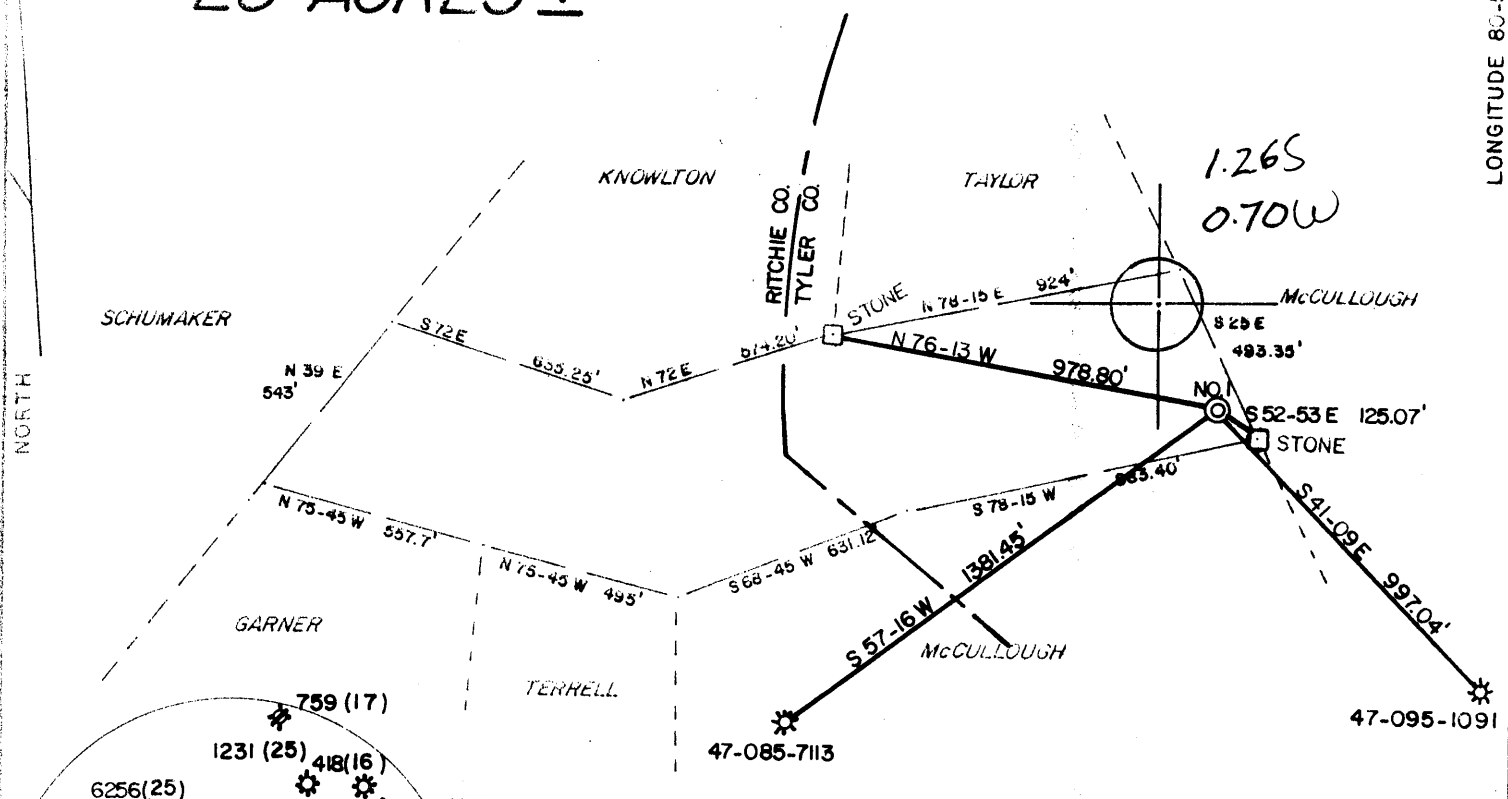


Janie 1/22/90
KOELLISCH LEASE

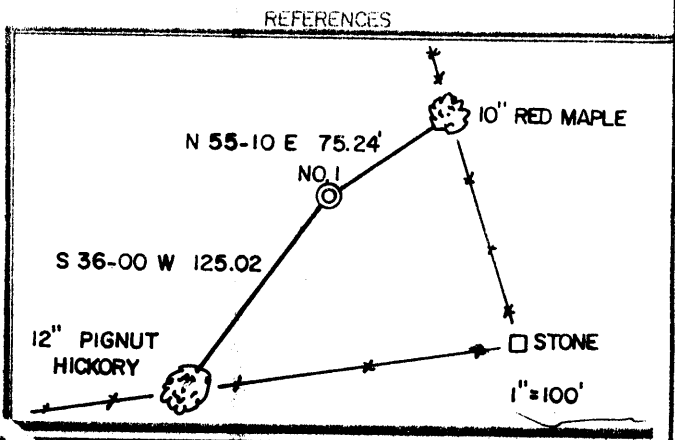
LATITUDE 39-20-00

KOELLISCH WELL NO. 1

25 ACRES ±

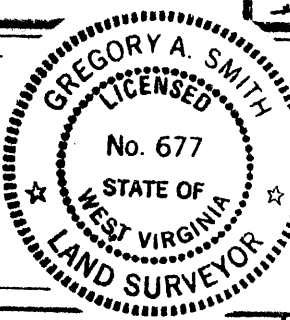


15' loc
 1.265
 2.93W



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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE DECEMBER 14, 19 89
 OPERATORS WELL NO. KOELLISCH NO. 1
 API WELL NO. 47 - 095 - 1369
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2206 (30-47)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1310' SCALE 1" = 500'

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 1090' WATERSHED MUDLICK RUN West Union SC
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 75'
 SURFACE OWNER DELLA ROSE KOELLISCH ACREAGE 25
 ROYALTY OWNER DELLA ROSE KOELLISCH LEASE ACREAGE 25
 PROPOSED WORK: LEASE NO. _____
 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 5200'

WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT INC. DESIGNATED AGENT GEORGE WILLIAMS
 ADDRESS RT. 2 BOX 499 GRAFTON, WV 26354 ADDRESS RT. 2 BOX 499 GRAFTON, WV 26354

H. T. HALL 000995 397 6-6 Stanley (090) JAN 26 1990

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Jan 31 11 46 AM '90 Operator's Report of Well Work

Farm name: KOELLISCH, DELLA ROSE Operator Well No.: KOELISCH #1

LOCATION: Elevation: 1090.00 Quadrangle: PENNSBORO

District: CENTERVILLE County: TYLER
Latitude: 6700 Feet South of 39 Deg. 20Min. 0 Sec.
Longitude 3710 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: APPALACHIAN ENERGY DEVELO
ROUTE 2, BOX 499
GRAFTON, WV 26354-0499

Agent: GEORGE WILLIAMS

Inspector: GLEN P. ROBINSON
Permit Issued: 01/19/90
Well work Commenced: 1/02/91
Well work Completed: 1/18/91
Verbal Plugging
Permission granted on:
Rotary XX Cable Rig
Total Depth (feet) 5415 ft.
Fresh water depths (ft) 40 ft

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	133	133	65 sks
8 5/8	1774	1774	480 sks
4 1/2	5355	5355	300 sks

OPEN FLOW DATA These zones are downhole comingled.

Producing formation Alexander/Benson/Riley Pay zone depth (ft) 5340
Gas: Initial open flow 35 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 510 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1660 psig (surface pressure) after 48 Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: APPALACHIAN ENERGY DEVELOPMENT, INC.

By: George Williams
Date: Jan 28, 1990

1. Alexander-Perf. 5186-5190-5211-5218 Frac w/500 Gal. 15% Acid
50 sks 80/100 Sand, 200 sks 20/40 Sand-55,000 scf N2 335 Bbls H2O
2. Benson-Perf 4868-4872-4924-4926 Frac W/500 Gal. 15% Acid-50 sks
80/100 Sand, 150 sks 20/40 Sand; 59000 N2-296 Bbls H2o.
3. Riley-Perf, 4528-4568- Frac W/500 Gal. 15% Acid. 100 sks 80/100 Sand,
300 sks 20/40 Sand 84,000 N2, 480 Bbls H2o.
4. Gordon- Perf 2879-2883
30 ft.- 2700-2707
Frac W/500 Gal, 15% Acid-50 sks 80/100 sand, 250 sks 20/40 Sand
74,000 scf N2 420 Bbls H2o

Sand & shale	0 To 153	Wet at 40 ft.
Sand	153 to 190	
Red Rock	190 to 220	
Sand & shale	1220 to 1925	
Little Lime	1900 to 1925	
Shale	1925 to 1930	
Big Lime	1930 to 1980	
Injun	1980 to 2025	
Shale	2025 to 2080	
Squaw	2080 2140	
Sand & shale	2140 to 2290	
Weir	2290 to 2350	
Berea	2470 to 2530	
Gordon	2700 to 2760	
Shale	2760 to 3736	
Riley	4492 to 4550	
Shale	4550 to 4880	
Benson	4880 to 5073	
Shale	5073 to 5220	
Alexander	5220 to 5340	
Shale	5340 to 5415	

Total Depth 5415

6,100/

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

Issued 1/19/90
Expires 1/19/92

0397

- 1) Well Operator: Appalachian Energy Development, Inc. 2375 (1) 538
- 2) Operator's Well Number: Koellisch No. 1 3) Elevation: 1090'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5200' feet
- 7) Approximate fresh water strata depths: 80' 168' 309'
- 8) Approximate salt water depths: N/A 1599'
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill & Stimulate New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
<u>2 1/2" 12/25/89</u> Conductor	11 3/4"			<u>120'</u> <u>30'</u>	<u>120'</u> <u>0'</u>	<u>CTS 14R</u> <u>0 Sacks</u>
Fresh Water	8 5/8"			1685'	1685'	CTS 38 CSR 18-11.3
Coal						<u>38 CSR 18-11.3</u>
Intermediate						
Production	4 1/2"			5200'	5200'	By Rule 38 CSR 18-11.1
Tubing						
Liners						

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JAN 03 1990

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

2061

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 C.D. Agent
 (Type)

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JAN 03 1989
40

Page 1 of 7
Form WW2-A
(09/87)
File Copy

**DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY**

1) Date: December 22, 1989
2) Operator's well number
Koellisch No. 1
3) API Well No: 47 - 095 - 1369
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name Della Rose Koellisch
Address 752 Commonwealth Ave. NE
Massoline, OH 44646
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name N/A
Address _____
 - (b) Coal Owner(s) with Declaration
 - Name N/A
Address _____
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
 - Name N/A
Address _____
- 6) Inspector Glen P. Robinson
Address RT. 1 #6 Mt. Pleasant Est.
Mineralwells, WV 26150
Telephone (304)- 489-2736

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)
 I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 7 on the above named parties, by:
 _____ Personal Service (Affidavit attached)
XX Certified Mail (Postmarked postal receipt attached)
 _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.
 I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.
 I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Appalachian Energy Development, Inc.
 By: George M. Williams
 Its: President
 Address Rt. 2 Box 499
Grafton, WV 26354
 Telephone 265-4147

Subscribed and sworn before me this 22nd day of December, 1989

My commission expires 12-7-92 Gregory A. Smith Notary Public