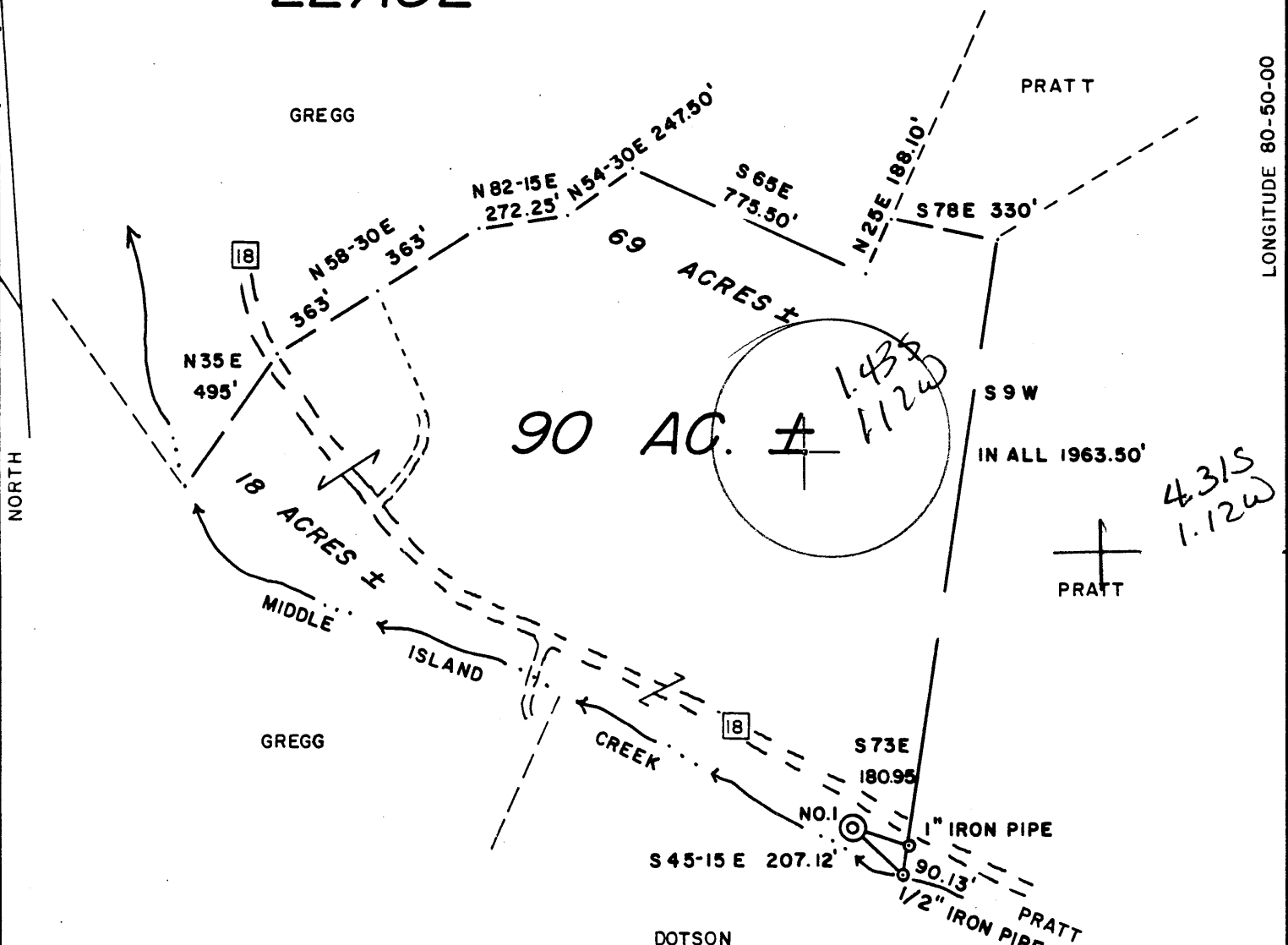


CODE _____ CARD _____ PLOT _____

LATITUDE 39-22-30

IRELAND LEASE



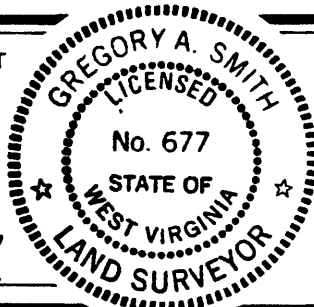
NOTE: CORNERS ARE REFERENCES

WELL NO. 1

NO WELLS WITHIN 1200'



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.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE APRIL 23, 19 86
 OPERATORS WELL NO. IRELAND NO. 1
 API WELL NO. 47 - 095 - 1150
 STATE COUNTY PERMIT

L.L.S. Gregory A. Smith
 677

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 19-27 J-1469
 PROVEN SOURCE OF ELEVATION BM. ELEV. = 737' 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 719' WATERSHED MIDDLE ISLAND CREEK
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE WEST UNION 7.5' 671

SURFACE OWNER MILDRED GREGG, ET AL. ACREAGE 90
 ROYALTY OWNER MILDRED GREGG, ET AL. LEASE ACREAGE 90

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 BENSON
 ESTIMATED DEPTH AUG 11 1986

WELL OPERATOR ANVIL OIL CO., INC. 048 DESIGNATED AGENT JUSTIN HENDERSON
 ADDRESS P.O. BOX 2566, CLARKSBURG, WV. 26301 ADDRESS P.O. BOX 2566, CLARKSBURG, WV. 26301

LONGITUDE 80-50-00
7552

COUNTY NAME PERMIT

575

IV-35
(Rev 8-81)

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AUG 29 1986



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
Department of Mines
Oil and Gas Division

Date August 27, 1986
Operator's
Well No. #1 Gregg
Farm Ireland
API No. 47 -095 - 1150

**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: 719 Watershed Middle Island Creek
District: Centerville County Tyler Quadrangle West Union

COMPANY Anvil Oil Co., Inc.

ADDRESS P.O. Box 2566, Clarksburg, WV 26301

DESIGNATED AGENT Justin L. Henderson

ADDRESS 906 Stewart Pl, Box 8, Morgantown, WV

SURFACE OWNER Gregg Heirs

ADDRESS Alma, WV 26320

MINERAL RIGHTS OWNER Gregg Heirs

ADDRESS same

OIL AND GAS INSPECTOR FOR THIS WORK Robert

Lowther ADDRESS General Delivery, Middlebourne

PERMIT ISSUED 8/4/86

DRILLING COMMENCED 8/10/86

DRILLING COMPLETED 8/15/86

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	<u>42</u>	<u>42</u>	
13-10"			
9 5/8			
8 5/8	<u>923</u>	<u>923</u>	<u>210 sks</u>
7			
5 1/2			
4 1/2	<u>4645</u>	<u>4695</u>	<u>225 sks</u>
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4616-4622 feet

Depth of completed well 4795 feet Rotary X / Cable Tools

Water strata depth: Fresh 30' feet; Salt none feet

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

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4616-4622 feet

Gas: Initial open flow commingled Mcf/d Oil: Initial open flow -0- Bbl/d

Final open flow 189mcf Mcf/d Final open flow -0- Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1600 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation Riley Pay zone depth 4197-4243 feet

Gas: Initial open flow commingled 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)

SEP 2 1986

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

Benson- perf 4616-4622-13 .39 holes: Fraced using 230 bbl water, 500 gal acid, 10,000# 80-100 sand; 60,000# 20-40 sand & 830,000 scf N2

Riley-perf 4197-4243-11 .39 holes: Fraced using 286 bbls water, 500 gal acid, 10,000# 80-100 sand; 60,000# 20-40 sand & 670,000 scf N2

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Clay & Sand	-	soft	-0-	15	
Sand	white	hard	15	180	
Redrock	red	soft	180	185	
Sand	white	hard	185	300	
Shale	gray	hard	300	350	
Coal	black	soft	350	352	
Shale & sand	gray	medium	352	681	
Redrock	red	soft	681	720	
Shale & sand	gray	med	720	1576	
Big Lime	gray	hard	1576	1645	
Big Injun	gray	medium	1635	1773	
Shale	gray	soft	1773	1903	
Weir	gray	medium	1903	2049	
Shale	gray	soft	2009	2124	
Berea	gray	hard	2124	2130	
Shale & sand	gray	soft	2130	4195	
Riley	gray	soft	4195	4249	odor
Shale	gray	soft	4249	4597	
Benson ✓	brown	soft	4597	4655	odor
Shale	gray	soft	4597	4795	
			4795	TD	

(Attach separate sheets as necessary)

Anvil Oil Co., Inc.
Well Operator

By: 
Date: August 27, 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 coal, encountered in the drilling of a well."

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JUL 31 1986



1) Date: _____, 19 86
2) Operator's Well No. #1 Gregg
3) API Well No. 47-095-1150
State _____ County _____ Permit _____

DIVISION OF OIL & GAS 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 _____ / Underground storage _____ / Deep _____ / Shallow)
- 5) LOCATION: Elevation: 719' Watershed: Middle Island Creek
District: Centerville County: Tyler Quadrangle: West Union 670
- 6) WELL OPERATOR Anvil Oil Co., Inc. CODE: 2275 7) DESIGNATED AGENT Justin L. Henderson
Address P.O. Box 2566 Address C/O Anvil Oil Co., Inc.
Clarksburg, WV. 26301 P.O. Box 2566, Clarksburg, WV. 26301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert Lowther 9) DRILLING CONTRACTOR:
Address General Delivery Name The Coastal Corporation
Middlebourne, WV. 26149 Address 3501 Emerson AV. Suite 4B
Parkersburg, WV. 26102
- 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, Alexander 439
- 12) Estimated depth of completed well, 5400 feet
- 13) Approximate trata depths: Fresh, 265 feet; salt, N/A feet.
- 14) Approximate coal seam depths: None 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	11 3/4	New		X		40'			Kinds	
Fresh water										
Coal									Sizes	
Intermediate	8 5/8	New		X		925'	925'	225 Sks.		
Production	4 1/2	J55		X		5040'	5040'	250 Sks.	Depths set	
Tubing										
Liners									Perforations: Top Bottom	

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-095-1150 Date August 4 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 August 4, 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>SFB</u>	Casing: <u>mn</u>	Fee: <u>2167</u>	WPCP: <u>mn</u>	S&E: <u>mn</u>	Other: <u>RAZ</u>
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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.

6476