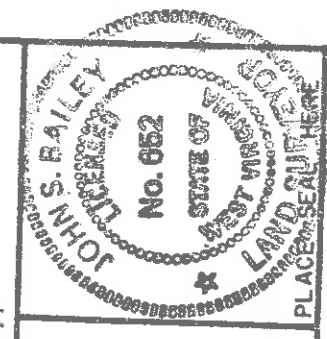


MAGNETIC REFERENCE TIES
 CNGD 1617 TO 40" R.O.
 S35°30'E 162.0'
 CNGD 1617 TO EDGE OF 7' DIA.
 WATERING TROUGH
 N69°30'E 207.7'

FILE NO. MSES 85-595
 DRAWN BY SARC
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION JCT. CO. RT. 48 & 15.
1700' NW OF LOCATION; ELEV. 932.1

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

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) John A. Bailey
 R.P.E. L.V.S. 652



Department of Mines
 Oil & Gas Division

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 975.1 WATER SHED WOLFFPEN RUN
 DISTRICT GREENBRIER 4 COUNTY DODDRIDGE 017
 QUADRANGLE BIG ISAAC, WV 7.5' 1964 (1976) Vada's 151' NC2 123
 SURFACE OWNER HOMER LEROY FORD 252 ACREAGE 54.25
 OIL & GAS ROYALTY OWNER HOMER LEROY FORD LEASE NO. 88196 LEASE ACREAGE 88.9
 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 ALEXANDER 142 ESTIMATED DEPTH 5425'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT. 2, BOX 698
PITTSBURGH, PA 15244 ADDRESS BRIDGEPORT, WV 26330

DATE JANUARY 8, 19 85
 OPERATOR'S WELL NO. CNGD 1617
 API WELL NO. 47-017 - 3424
 STATE WV COUNTY WV PERMIT 3424

DODD 3424

6-C Zinnia (145)



WR-35

Date JANUARY 20, 86
Operator's
Well No. FORD #1 327-S
Farm FORD
API No. 47-017 - 3424

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

FEB 4 1986

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 975 Watershed WOLFFEN RUN
District: GREENBRIER County DODDRIDGE Quadrangle BIG ISAAC

COMPANY STONEWALL GAS COMPANY

ADDRESS PO DRAWER R, JANE LEW, WV 26378

DESIGNATED AGENT CHARLES W. CANFIELD

ADDRESS PO DRAWER R, JANE LEW, WV 26378

SURFACE OWNER HOMER FORD

ADDRESS RT 3, BOX 102, SALEM, WV 26426

MINERAL RIGHTS OWNER SAME AS SURFACE

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK MIKE

UNDERWOOD ADDRESS RT 2, BOX 114

PERMIT ISSUED SALEM, WV 26426

DRILLING COMMENCED 12-27-85

DRILLING COMPLETED 01-05-86

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

GEOLOGICAL TARGET FORMATION ALEXANDER

Depth of completed well 5405 feet Rotary X / Cable Tools _____ feet Depth 5425 feet

Water strata depth: Fresh 60 feet; Salt 980 feet

Coal seam depths: 240-243 Is coal being mined in the area N/A

OPEN FLOW DATA

Producing formation BENSON Pay zone depth 4880 feet

Gas: Initial open flow 10 Mcf/d Oil: Initial open flow - Bbl/d

Final open flow 452 Mcf/d Final open flow - Bbl/d

Time of open flow between initial and final tests 72 hours

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

(If applicable due to multiple completion--)

Second producing formation ALEXANDER Pay zone depth 5120 feet

Gas: Initial open flow 10 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 452 Mcf/d Oil: Final open flow SHOW Bbl/d

Time of open flow between initial and final tests 72 hours

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

(Continue on reverse side) **FEB 10 1986**

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16			
Condu. 1 3/4			
13-10"	210	210	115 SKS
9 5/8			
8 5/8	1815	1815	390 SKS
7			
5 1/2			
4 1/2	5359	5359	540 SKS
3			
2			
Liners used			

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

FRAC-TWO STAGE 01-10-86

PERFS	HOLES	BBL	SAND	BD	ISIP
ALEXANDER 5216-62 ⁵¹⁴⁷	10	600	60,000	3250	2100
BENSON 4880-90	20	800	75,000	3500	1900

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
SHALE	BLACK	M	0	10	
SAND & SHALE	GREY	M	10	205	
RED ROCK & SHALE	RED	H	205	605	GAS CK @ 2091 NO ODOR
SAND & SHALE	GREY	M	605	1900	2184 NO SHOW
BIG LIME	BROWN	M	1900	1948	2464 NO SHOW
BIG INJUN ^{G&R @ P&O}	BROWN	H	1948	2052	2681 NO SHOW
WEIRT	GREY	M	2052	2180	2742 16/10 2" H ₂ O
GANTZ	BROWN	M	2340	2344	2868 14/10 2" H ₂ O
FIFTY FOOT	GREY	S	2425	2469	
GORDON	BROWN	M	2539	2633	3242 12/10 2" H ₂ O
SPEECHLEY	BROWN	H	3535	3590	3865 36/10 2" H ₂ O
BALLTOWN	BROWN	M	3686	3847	
RILEY	GREY	H	4555	4740	4759 44/10 2" H ₂ O
BENSON	BROWN	M	4836	4857	
ALEXANDER	BROWN	M	5117	5216	5220 64/10 2" H ₂ O
					GAS CK @ TD 64/10 2" H ₂ O

TD 5220
5405

(Attach separate sheets as necessary)

STONEMALL GAS COMPANY
Well Operator

By: *Benjamin A. Hardesty*
Date: BENJAMIN A. HARDESTY, VICE PRESIDENT

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 voids, encountered in the drilling of a well."

FORM IV-20
(Obverse)
7-83

RECEIVED

MAR 14 1985

1) Date: February 28, 19 85
 2) Operator's Well No. 1617
 3) API Well No. 47 - 017 - 3424
 State County Permit



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

OIL & GAS DIVISION
 DEPT. OF MINES

4) WELL TYPE: A Oil Gas
 B (If "Gas", Production Underground storage Deep Shallow
 Elevation: 9751
 District: Greenbrier
 County: Doddridge
 Quadrangle: Big Isaac W.VA. 7.5
 6) WELL OPERATOR: CNG Development Company 10110
 Address: One Park Ridge Center P.O. Box 15746
 Pittsburgh, PA 15244
 7) DESIGNATED AGENT: Gary Nicholes
 Address: Crosswind Corporate Park Ridge Rt 2 Box 698
 Bridgeport W. VA. 26330
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: Mike Underwood
 Address: Rt. 2 Box 114
 Salem, WV 26426
 9) DRILLING CONTRACTOR:
 Name: Sam Jack Drilling Company
 Address: P.O. Box 48
 Buckhannon, W. VA. 26201

10) PROPOSED WELL WORK: Drill deeper Redrill Stimulate
 Plug off old formation Perforate new formation
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION: Alexander
 12) Estimated depth of completed well, 5425 feet
 13) Approximate true depths: Fresh, 296,622 feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ 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							
Fresh water	11-3/4	H-40	42	X		40	40
Coal							
Intermediate	8-5/8	X-42	23	X		1900	1900
Production	4-1/2	J-55	10.5	X		5425	5425
Tubing	1-1/2	CN-55	2.75	X			
Liners							

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3424 Date April 3, 19 85

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 3, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
28	SW	Qnt. Qnt.		6981

M. Argent J. Shaw
 Administrator, Office 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

