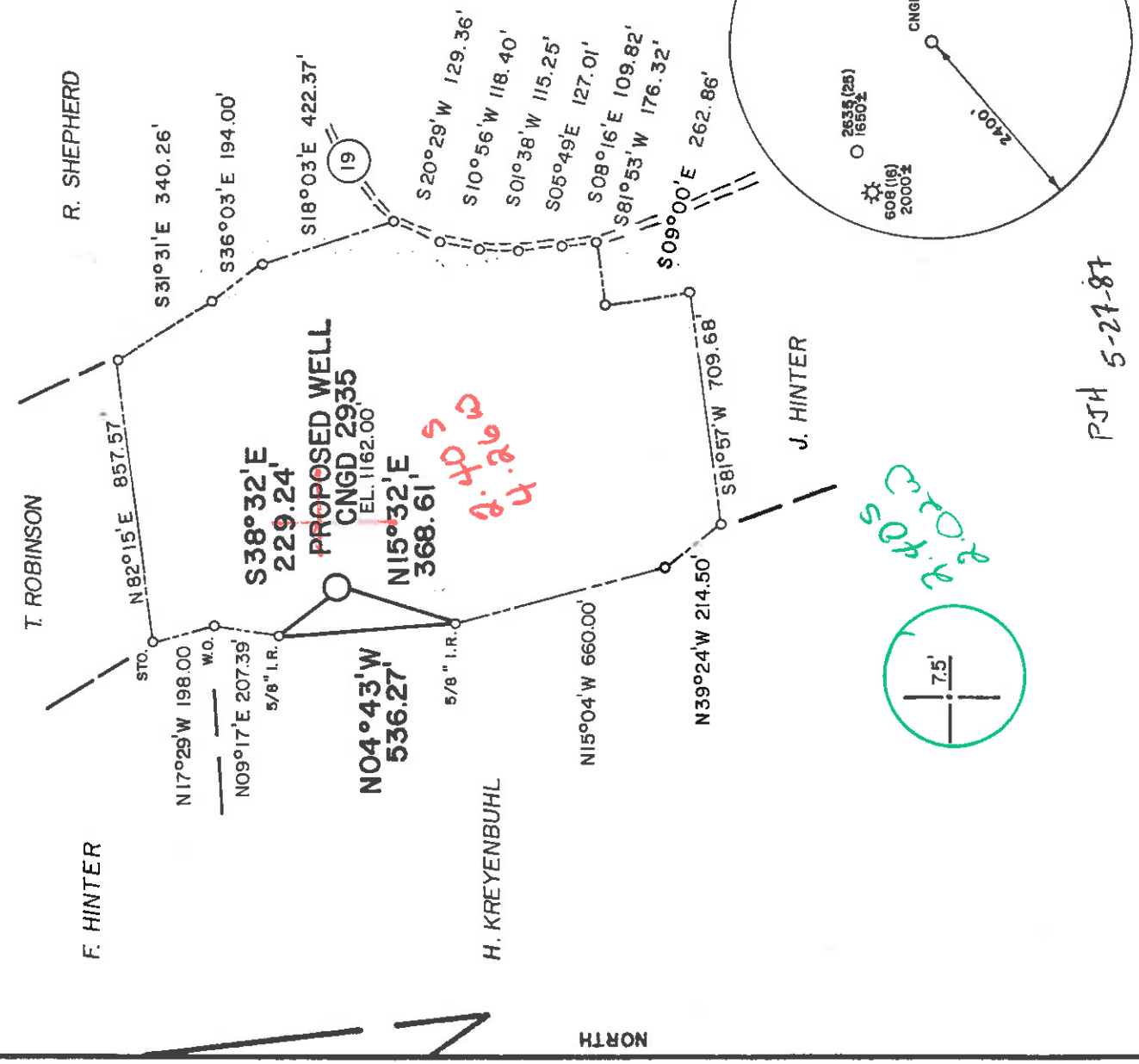


8978 6/26/87

WELL REFERENCE TIES
N 37° 49' W 229.24' TO A 5/8" I.R.
N 44° 46' W 207.61' TO A 12" S. OAK

10,700' LATITUDE 39° 10' 00"

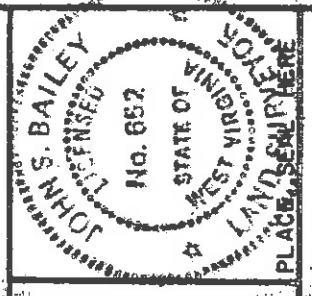
LONGITUDE 80° 42' 30" 12,725'



PJH 5-27-87

FILE NO. MSES 87-765
 DRAWN BY JSB/RVS
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION BM EL. 847' 1300' EAST
 OF LOC. ON RT. 18

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 S. Bailey
 R.P.E. L.L.S. 652



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



DATE APRIL 8 19 87
 OPERATOR'S WELL NO. CNGD 2935
 API WELL NO. 47-017-3595
 STATE WV COUNTY PUTNAM PERMIT

Department of Mines
 Oil & Gas Division

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL SHALLOW
 (IF "GAS", PRODUCTION STORAGE DEEP
 LOCATION: ELEVATION 1162.00 WATER SHED COVE CREEK OF LITTLE LEADING CREEK
 DISTRICT COVE COUNTY DODDRIDGE
 QUADRANGLE NEW MILTON 7.5' 511 NEAREST TOWN LEOPOLD
 SURFACE OWNER REXALL B. KELLEY ACREAGE 41.427
 OIL & GAS ROYALTY OWNER J. WANSTREET LEASE NO. DV-11702 LEASE ACREAGE 216

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 DEVONIAN SHALE ESTIMATED DEPTH 5570'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS SEP 28 1987
 ADDRESS P.O. BOX 15746 ADDRESS 14K
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

H.S.P. Consultants Inc. 6-6 Conings (142) Clarksburg, WV

IV-35
(Rev 8-81)

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JUN 24 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY



State of West Virginia

Department of Mines
Oil and Gas Division

Date June 9, 1988
Operator's
Well No. CNGD WN 2935
Farm Manstreet
API No. 47 - 017 - 3595

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 X / Underground Storage / Deep / Shallow X /)

LOCATION: Elevation: 1162 Watershed Cove Creek of Little Leading Creek
District: Cove County Doddridge Quadrangle New Milton

COMPANY CNG Development Company

ADDRESS P.O. Box 15746
Pittsburgh, PA 15244

DESIGNATED AGENT Gary A. Nicholas

ADDRESS Rt 2 Box 698
Bridgeport, WV 26330

SURFACE OWNER Rexall B. Kelley

ADDRESS 21 Canary Drive
Lake Milton, OH 44429

MINERAL RIGHTS OWNER J. Manstreet

ADDRESS 223 S. Walnut Street
Ravenna, OH 44266

OIL AND GAS INSPECTOR FOR THIS WORK

Mike Underwood ADDRESS Rt 2, Box 114
Salem, WV 26426

PERMIT ISSUED September 23, 1987

DRILLING COMMENCED May 16, 1988

DRILLING COMPLETED May 23, 1988

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"	252	252	To Surf.
9 5/8			
8 5/8	1466	1466	To Surf.
7			
5 1/2			
4 1/2	5546	5546	230 sks
3			
2 1/2	5297	5297	---
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5570 feet

Depth of completed well 5727 feet Rotary X / Cable Tools

Water strata depth: Fresh 2088 feet; Salt

Coal seam depths: -- Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander Benson 5411-5322 5204-5067 Pay zone depth 5204-5067 feet

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

Final open flow 103 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 950 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

(Continue on reverse side)

JUN 27 1988

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

Perf. Alexander 5406-5411, 6 holes; 5382-5389, 6 holes; 5368-5372, 4 holes; 5356-5363, 6 holes; 5346-5350, 4 holes; 5322-5326, 4 holes; Total 30 holes, .39 HSC. Water Frac 30# Gel Alex. - Break 1750, Avg TPSI 2160, Avg Rate 34.4 BPM, HHP used 1820, ISI 1800, 5 min 1150, BHTP 3600, used 500 gals 15% FE Acid for Breakdown and 500 gals 15% FE Acid & 60 7/8" Perf. Balls for compete ballout @ 3450#, Used 5,000# 80/100 Sand and 75,000# 20/40 Sand.
 Perf. Benson 5199-5204, 10 holes; 5067-5072, 10 holes, .39 HSC. Water Frac 30# Gel - Benson and Leopold - Break 2300, Avg TPSI 2436, Avg Rate 32.7 BPM, HHP used 1907, ISI 1250, 5 min 1179, used 500 gals 15% FE Acid and 5,000# 80/100 Sand, 40,000# 20/40 Sand, Max Sand Conc. 4#/gal - BHTP 3500
Leopold *Benson*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fire and salt water, coal, oil and c
Fill			0	15	
Sand, Shale & RR			15	2129	Water @ 100'
Little Lime			2129	2152	2006
Sand & Shale			2152	2177	
Big Lime			2177	2315	
Sand & Shale			2315	5069	
Benson			5069	5316	
Alexander			5316	5490	
Shale			5490	5727	
LOG TOPS ✓					
Big Lime			2180	2238	
Big Injun			2238	2324	
Weir			2420	2520	
Berea			2610	2626	
Gordon Gp.			2750	2950	
Warren			3456	3494	
Benson			5064	5130	
Leopold			5174	5206	
Alexander			5320	5444	

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JUN 24 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

ONG DEVELOPMENT COMPANY
Well Operator

By: *[Signature]*

Date: June 9, 1988

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 intervals, encountered in the drilling of a well."

FORM WW-2 (B) FILE COPY
 RECEIVED
 JUN 22 1987

- 1) Date: May 29, 19 87
 2) Operator's Well No. CNGD 2935
 3) API Well No. 47 017 3595
 State County 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 Shallow
 Elevation: 1162
 District: Cove Undergound storage Deep Shallow
 5) LOCATION: Watershed: Cove Creek of Little Leading Creek
County: Doddridge 017 Quadrangle: New Milton 510
 6) WELL OPERATOR CNG Development Co. CODE: 10110 7) DESIGNATED AGENT GARY NICHOLAS
Address c/o Cheryl S. Hartle P.O. Box 15746 Crosswind Corporate Park
Pittsburgh, PA 15244 Rt. 2, Box 698, Bridgeport, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mike Underwood
 Address Route 2, Box 114
Salem, WV 26426

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

- 11) GEOLOGICAL TARGET FORMATION, Alexander
 Other physical change in well (specify) _____
 12) Estimated depth of completed well, 5570 feet
 13) Approximate traia depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ feet. Is coal being mined in the area? Yes / No

15) CASING AND TUBING PROGRAM **No info available**

CASING OR TUBING TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS			
	Size	Grade	Weight per ft.	New			Used	Left in well	Kind
Conductor									
Fresh water	11-3/4	H-40	42	X			250	To surface	By rule 15.05
Coal									
Intermediate	8-5/8	X-42	23	X			1450	To surface	By rule 15.05
Production	4-1/2	J-55	10.5	X			5570	200 - 400	Depths set
Tubing	1-1/2	CN-55	2.75	X					By rule 15.01
Liners									Perforations:
									Top
									Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3595

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

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Fee <u>2935</u>	Other
---	--	---	-----------------	-------

John J. Johnston by Margaret J. Haase
 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

