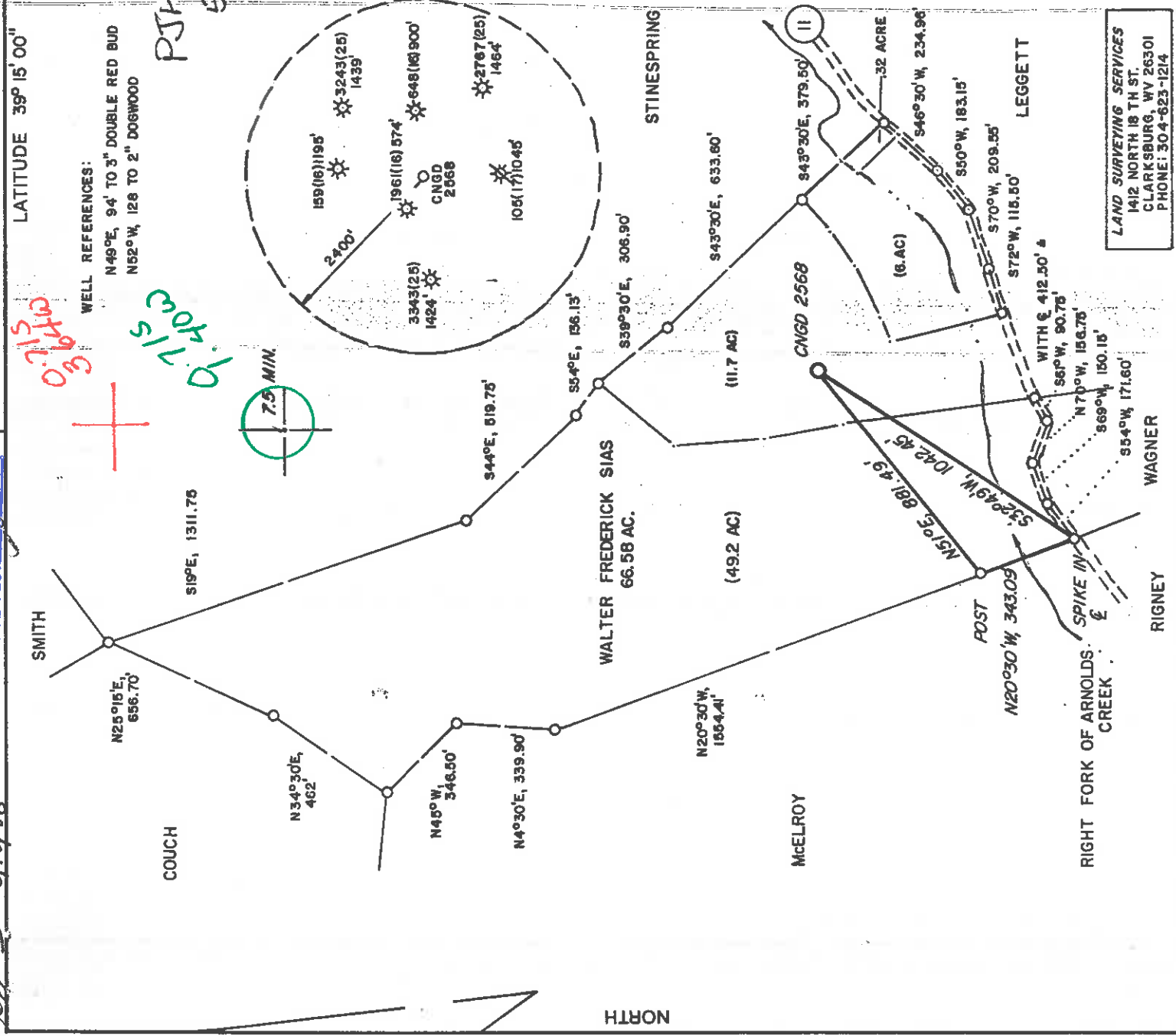
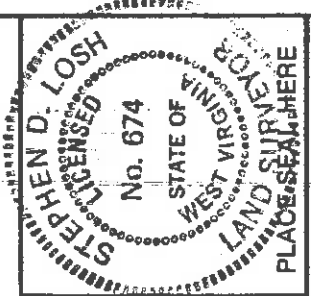


870
 CODE 110/86
 CARD
 PLOT
 7510'
 LATITUDE 39°15'00"
 LONGITUDE 80°47'30"
 3840'



LAND SURVEYING SERVICES
 1412 NORTH 18 TH ST.
 CLARKSBURG, WV 26301
 PHONE: 304-823-1214



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.
 (SIGNED) *Stephen D. Losh*
 R.P.E. _____ L.L.S. NO. 674
 STEPHEN D. LOSH

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY _____
 PROVEN SOURCE OF ELEVATION _____
 ROAD INTERSECTION 1687'
 SW. OF LOCATION AT ELEV. 922'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE APRIL 28 19 86
 OPERATOR'S WELL NO. CNGD 2568
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1036' WATER SHED RIGHT FORK OF ARNOLDS CREEK
 DISTRICT WEST UNION 2 COUNTY DODDRIDGE
 QUADRANGLE OXFORD 526 056 NE 3 Holbrook ACREAGE 66.58
 SURFACE OWNER WALTER FREDERICK SIAS LEASE ACREAGE 69.00
 OIL & GAS ROYALTY OWNER C. G. FLEMING LEASE NO. 32441

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 ESTIMATED DEPTH 5250'
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER 147 ADDRESS ROUTE 2, BOX 698
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330
6-6 Straight Fork - Bluestone Creek (133)

COUNTY NAME _____ PERMIT JUL 7 1986



State of West Virginia
Department of Mines
Oil and Gas Division

Date September 24, 1986
Operator's Well No. 2568
Farm Smith, Harry
API No. 47-017-3505

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1036 Watershed Right Fork of Arnolds Creek
District: West Union County Doddridge Quadrangle Oxford

COMPANY CNG Development Company
ADDRESS P.O. Box 15746
Pittsburgh, PA 15244
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698
Bridgport, WV 26330
SURFACE OWNER Walter Frederick Sias
ADDRESS Rt. 1, Box 70
West Union, WV 26456
MINERAL RIGHTS OWNER C. G. Fleming
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____
Mike Underwood ADDRESS Rt. 2, Box 11426
Salem, WV 26426
PERMIT ISSUED June 26, 1986
DRILLING COMMENCED July 17, 1986
DRILLING COMPLETED July 25, 1986

Casing Tubing Size	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"	349	349	To Surf.
9 5/8			
8 5/8	1790	1790	To Surf.
7			
5 1/2			
4 1/2	5220	5220	450 sks.
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Alexander Depth 5250 feet
Depth of completed well 5360 feet Rotary / Cable Tools _____
Water strata depth: Fresh 60 feet; Salt _____ feet;
Coal seam depths: 1170-1174 1385 Damp
1278-1282 Is coal being mined in the area? No _____

OPEN FLOW DATA
Producing formation Alexander Pay zone depth 5074-5116 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 581 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 250 psig (surface measurement) after 1 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)

OCT 20 1986

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

Perforated Alexander 5074 - 5116, 41 holes, .39" dia. Hollow Guns TD @ 5180'
 Foam Frac (70Q) Alexander - Break 1600, 15 BPM, Avg FPSI 2925, Avg Rate 25 BPM
 HHP used 948, ISI 1350, 5 min 1300, used 10,000# 80/100 Sand, Used 115,000 20/40 Sand,
 Used 1,167,750 SCFN₂, 7# Max Sand Conc.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fires and salt water, coal, oil and ga
SL			0	10	
Fill			10	15	Damp @ 60' 1" stream @ 180'
Sand, Shale & RR			15	1170	Damp @ 740'
Coal			1170	1174	Damp @ 1385'
Sand & Shale			1174	1278	Oil Odor @ 1020'
Coal			1278	1282	
Sand, Shale & RR			1282	1790	Coal 1170 - 1174
Big Lime & Injun			1790	1930	1278 - 1282
Sand, Shale & RR			1930	4765	
Benson			4765	4785	
Sand & Shale			4785	5360	
<u>LOG TOPS</u> ✓					
Little Lime			1770	1784	
Big Lime			1800	1900	
Big Injun			1900	1925	
Greenbrier Unconf.			1925	2200	
Weir			2084	2286	
Berea/Gantz			2282	2520	
Gordon			2466	3318	Poorly Developed
Warren			3140	4094	
Balltown			4000	4600	
Bradford			4550	4710	
Riley			4650	4812	
Benson			4762	4874	
Fault?			4980	4996	
Leopold			4980	5118	
Alexander			5039		

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY
Well Operator

By: 

Date: September 24, 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
 sand, encountered in the drilling of a well."

FORM WM-2 (B)
(Obverse)
7/85



JUN - 4 1986

1) Date: May 22, 1986
2) Operator's Well No.: 2568
3) API Well No. 47 -017-3505
County State Permit

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

4) WELL TYPE: A Oil Gas B (If "Gas", Production Underground storage Deep Shallow
Elevation: 1036
Watershed: Right Fork of Arnolds Creek
District: West Union 142-8
County: Doddridge
Quadrangle: Oxford
525
6) WELL OPERATING Development Co CODE: 10110 7) DESIGNATED AGENCY Nicholas
Address Paul W. Garrett, P.O. Box 15746
Pittsburgh, PA 15244
Address Crosswind Corporate Park
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
9) DRILLING CONTRACTOR:
Name Sam Jack Drilling Co.
Address P.O. Box 48
Buckhannon, WV 26201

10) PROPOSED WELL WORK: Drill deeper Redrill Simulate
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, 5250 feet
13) Approximate true depths: Fresh, 191 feet; salt, 1430 feet.
14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes No

15) CASING AND TUBING PROGRAM Permit # 2767

CASING OR TUBING TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used			For drilling
Conductor								
Fresh water	1-3/4	H-40	42	X		360' 248	360' 248	To surface By Rule 15.05
Coal								
Intermediate	8-5/8	X-42	23	X		1750	1750	To surface By Rule 15.05
Production	4-1/2	J-55	10.5	X		5250	5250	200 - 400 Depths set By Rule 15.01
Tubing	1-1/2	CN-55	2.75	X				Perforations: Top Bottom
Liner								

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-017-3505 Date June 26 1986

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 June 26, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: A.P.	Plat: AS	Casing: AS	Fee: 14402	WPCP: AS	S&E: AS	Other: AS
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John D. Johnston
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.

