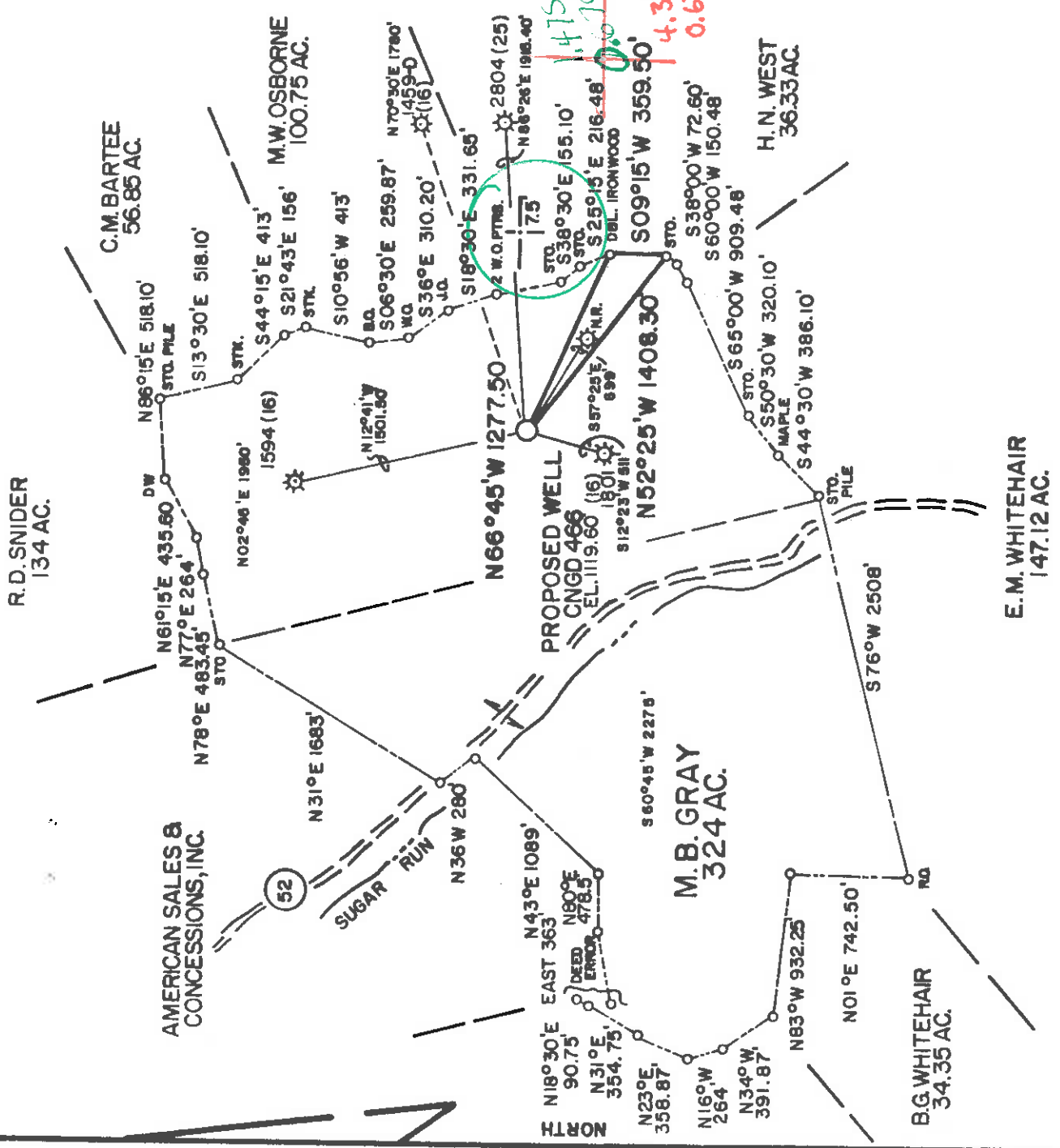


REFERENCE WELL TIES  
 CNGD 466 TO TELE. POLE S88°35'E 215.50'  
 CNGD 466 TO TELE. POLE N73°40'E 137.60'

LATITUDE 39°12'30" **2915'**

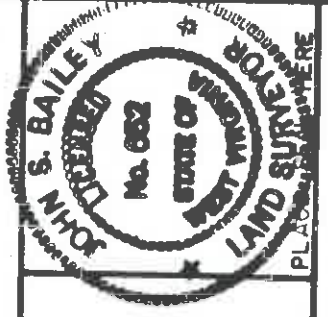
LONGITUDE 80°50'00" 7725'



PREPARED BY MSES CONSULTANTS

FILE NO. MSES.84-446  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1/16 IN 200  
 PROVEN SOURCE OF ELEVATION EL. 1051 ROAD JCT. OF RT. 22 / 18 RT. 52

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.L.S. 652



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



Department of Mines  
 Oil & Gas Division

DATE JULY 18 19 84  
 OPERATOR'S WELL NO. CNGD 466  
 API WELL NO. **47-017-3358**  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1119.60' WATER SHED SUGAR RUN  
 DISTRICT SOUTHWEST COUNTY DODDRIDGE  
 QUADRANGLE OXFORD 7.5 S&G **HOLLYWOOD 15' NC2**  
 SURFACE OWNER JEFFREY LOWTHER O.S. ACREAGE 324  
 OIL & GAS ROYALTY OWNER M.B. GRAY ET AL. LEASE ACREAGE 324

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 5320  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS 142 ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK BRIDGEPORT, WY. 26301

ALLEN BLUEPRINT Co. **66 Straight Fork Creek (133)** *Bluestone* **OK E J I - 7-27-84** Charleston, WV



MAY 16 0:55

State of West Virginia

Department of Mines  
Oil and Gas Division

Date May 8, 1985  
Operator's  
Well No. CNGD WN 466  
Farm M. B. Gray  
API No. 47-017-3358

Oil & Gas Division  
DEPT. OF MINES

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: 1119.6 Watershed Sugar Run  
District: Southwest County Doddridge Quadrangle Oxford 7 5'

COMPANY CNG DEVELOPMENT COMPANY

P. O. Box 15746  
ADDRESS Pittsburgh, PA 15244

DESIGNATED AGENT Gary A. Nicholas  
ADDRESS Rt. 2 Box 698  
Bridgeport, WV 26330

SURFACE OWNER Jeffrey Lowther  
6481 Silverleaf Ave.  
ADDRESS Reynoldsburg, Ohio 43068

MINERAL RIGHTS OWNER M. B. Gray, et al  
Mr. C.G. Lowther, 2300 Cherry St  
ADDRESS Parkersburg, WV 26101

OIL AND GAS INSPECTOR FOR THIS WORK  
Mike Underwood ADDRESS Rt. 2 Box 114  
Salem, WV 26426

PERMIT ISSUED 9-27-84

DRILLING COMMENCED 4-15-85

DRILLING COMPLETED 4-21-85

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.			
13-10"			
9 5/8			
8 5/8	1536	1536	To Surf
7			
5 1/2			
4 1/2	5290	5290	200 To 50750
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5320 feet

Depth of completed well 5339 feet Rotary X / Cable Tools

Water strata depth: Fresh        feet; Salt        feet

Coal seam depths: 1445 - 1450 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5111 - 5160 feet

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

Final open flow 1,237 Mcf/d Final open flow        Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1500 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

**MAY 28 1985**

(Continue on reverse side)

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

Superior Perforated Alexander 5111 - 5160; 11 holes (.39)  
 Halliburton 75Q Foam - Break 1800, 4 pumps, Avg. Rate 16 BPM, Avg psi 2700,  
 750 gal MOD 202 Acid, 70,000# 20/40 Sand, Total Fluid 840 BBL, ISIP 1750,  
 5 min 1680, Total Nitrogen (SCF) 840,000

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand, Shale, RR			0	1445	Including indication of all fractures and salt water, coal, oil and gas
Coal			1445	1450	
Sand, Shale, RR			1450	1900	
Big Lime			1900	1960	
Big Injun			1960	2065	
Sand, Shale			2065	2210	
Weir			2210	2290	
Sand, Shale			2290	4410	
Bradford			4410	4480	
Sand, Shale			4480	4820	
Benson			4820	4825	
Sand, Shale			4825	5075	
<u>Alexander</u>			5075	5150	
Sand & Shale			5150	<u>5339</u>	
				<u>TD</u>	
<u>LOG TOPS</u>					
Big Injun			2050	2050	
Weir			2150	2342	
Berea			2406	2410	
Warren			3285	3430	
Speechley			3770	3910	
Balltown			4050	4120	
Bradford			4236	4400	
Benson			4686	4730	
Riley			4984	4988	
Leopold			5030	5060	
Alexander			5090	5182	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY  
 Well Operator \_\_\_\_\_  
 BY: [Signature]  
 Date: May 8, 1985

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  
 those encountered in the drilling of a well."



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

4) WELL TYPE: A Oil  Gas   Deep  Shallow   
 B (If "Gas", Production  Underground storage  Watershed: Sugar Run LKH922  
 5) LOCATION: Elevation: 1119.6' District: Southwest County: Doddridge Quadrangle: Oxford 7.5'  
 6) WELL OPERATOR: CNG Development Company 7) DESIGNATED AGENT: Mr. Gary Nicholas  
 Address: c/o Paul W. Garrett, P.O. Box 15746 Address: Crosswind Corporate Park  
Pittsburgh, PA 15244 Address: Rt. 2, Box 698, Bridgeport, WV 26330  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED: 9) DRILLING CONTRACTOR:  
 Name: Mr. Mike Underwood Name: Sam Jack Drilling Company  
 Address: Rt. 2, Box 114 Address: P.O. Box 48  
Salem, WV 26426 Buckhannon, WV 26201

RECEIVED

AUG 15 1984

OIL & GAS DIVISION  
DEPT. OF MINES

10) PROPOSED WELL WORK: Drill  deeper  Redrill  Stimulate   
 Plug off old formation  Perforate new formation   
 Other physical change in well (specify): Alexander  
 11) GEOLOGICAL TARGET FORMATION, 5320 feet  
 12) Estimated depth of completed well, 1470 feet  
 13) Approximate true depths: Fresh, 150,360,1100, feet; salt, \_\_\_\_\_ feet.  
 14) Approximate coal seam depths: 340 Is coal being mined in the area? Yes \_\_\_\_\_

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.	For drilling	Left in well		
Conductor							
Fresh water	11-3/4	H-40	42	40	40	To surface	By Rule 15.05
Coal							
Intermediate	8-5/8	X-42	23	1525	1525	To surface	By Rule 15.05
Production	4-1/2	J-55	10.5	5320	5320	200-400 sks	Depths set
Tubing	1-1/2	CN-55	2.75			By Rule 15.01	By Rule 15.01
Liners							Perforations:
							Top
							Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-017-3358 Date September 27, 19 84

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 27, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>28</u>	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing	Fee
BLANKET	<u>[Signature]</u>	<u>[Signature]</u>	<u>003</u>	<u>446</u>

Margaret J. Hase  
 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

