

FILE NO. MSES-84-423

DRAWING NO. \_\_\_\_\_

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY 1 IN 200

PROVEN SOURCE OF ELEVATION INT. OF RT. 11 & 11/6  
ELEV. 922

PREPARED BY MSES CONSULTANTS.

DATE JUNE 15 19 84

OPERATOR'S WELL NO. CNGD NO. 1090

API WELL NO. 47-017-033437

STATE WEST VIRGINIA COUNTY PERMIT

PLACEMENT OF SURVEY MONUMENTS BY JOHN S. BAILEY  
No. 652  
STATE OF WEST VIRGINIA  
LAND SURVEYOR

WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
#10 McJUNKIN ROAD  
NITRO, WEST VIRGINIA 25143-2506

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1026.80 WATER SHED RIGHT FORK

DISTRICT WEST UNION COUNTY DODDRIDGE

QUADRANGLE OXFORD 7.6 1984 (PHOTO INSPECTED 1970)

SURFACE OWNER RONNIE McELROY SR. ET UX. ACREAGE 130

OIL & GAS ROYALTY OWNER UNION NATIONAL BANK, ET AL LEASE ACREAGE 450 AC  
(421.5 Per Abstract)

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR  
STIMULATE  PLUG OFF  OLD FORMATION  PERFORATE NEW  
FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

*At Company Plus Squeeze*  
PLUG AND ABANDON  CLEAN OUT AND REPLUG



TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'

CNG Producing Company  
Rt. 2 Box 698  
IGNATE Rodney J. Biggs  
RESS - Same Address  
PH: 304-627-8860

**JUN 6 1997**

0000 3343

MAP/PARCEL	SURFACE OWNER	AC.
15	GLENN C. CUNNINGHAM, ET UX	65
15	"	62.89
15	DAVID ELLIOT, JR.	64
17	ELWIN LEGGETT	165 AC. 14 P.
18	DAVID ELLIOT, JR.	25
19	SHIRLEY O. COUCH	51.2
22	LARRY DOTSON	20.3
22	"	4.9
22	"	15.25
22	WALTER F. & CHRISTINE SIAS	5.68
22	RONNIE McELROY SR., ET UX	130
22	DANNY E. O'NEAR, ET AL	47
22	WALTER F. & CHRISTINE SIAS	49.2
22	JOHN E. WAGNER III, ET UX	22
22	DANNY E. O'NEAR, ET AL	65
22	FRED WOODS, ET UX	47
22	CLETUS RAY & CHARLOTTE RIGNEY	18.5
22	CARSON E. LEGGETT	59.3
22	DILLON ESTATE	6
22	JERRY & MAMIE ALLMAN	25
22	HAESLY HARDWOOD LUMBER	485
22	CORNELIUS U. ELLIOT	84

LEGEND:  
 MAP NO.  
 PARCEL NO.

NOTE:  
 SURVEYED ON  
 1984 MAGNETIC  
 MERIDIAN.

WEST UNION DIST.  
 CENTRAL DIST.

NORTH

PROP. WELL  
 CNGD NO. 4110  
**H. SMITH**  
**421.5 AC.**

PROP. WELL  
 CNGD NO. 408

PREPARED BY  
 MSES CONSULTANTS.

DEED DESCRIPTION

- 1 N61°W 418'
- 2 N56°30'W 276'
- 3 N85°30'W 770'
- 4 S43°W 177'
- 5 S07°30'E 315'
- 6 S10°30'W 158'
- 7 S15°W 236'
- 8 N71°W 1190'
- 9 N59°W 303'
- 10 N43°E 148'
- 11 N38°E 236'
- 12 N59°30'E 161'
- 13 N68°30'E 368'
- 14 N01°30'W 578'
- 15 N61°30'W 413'
- 16 N34°45'W 230'
- 17 N14°30'E 435'
- 18 N37°E 207'
- 19 S58°30'E 1069'
- 20 S58°30'E 780'
- 21 S07°23'W 191.00'
- 22 N29°15'E 172.10'
- 23 N53°15'E 541.1'
- 24 S21°E 310'
- 25 S31°E 213'
- 26 S33°30'E 305'
- 27 S17°E 203'
- 28 S27°W 258'
- 29 S06°30'W 294'

REFERENCE TIE LINES

PROPOSED WELL TO 12" AM.BCH. S05°18'W 147.38'  
 PROPOSED WELL TO 24" POPLAR S23°55'W 185.70'

FILE NO. MSES-84-423  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF  
 ACCURACY 1/16" IN 200  
 PROVEN SOURCE OF  
 ELEVATION INT. OF RT. 11.8 11/6  
 ELEV. 922

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

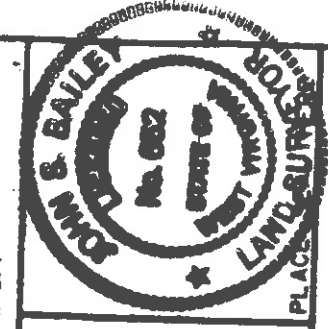
I, THE UNDERSIGNED, HEREBY CERTIFY  
 THAT THIS PLAT IS CORRECT TO THE  
 BEST OF MY KNOWLEDGE AND BELIEF AND  
 SHOWS ALL THE INFORMATION REQUIRED  
 BY LAW AND THE REGULATIONS ISSUED  
 AND PRESCRIBED BY THE DEPARTMENT OF  
 MINES.  
 (SIGNED) John S. Bailey  
 P.E. L.L.S. 652



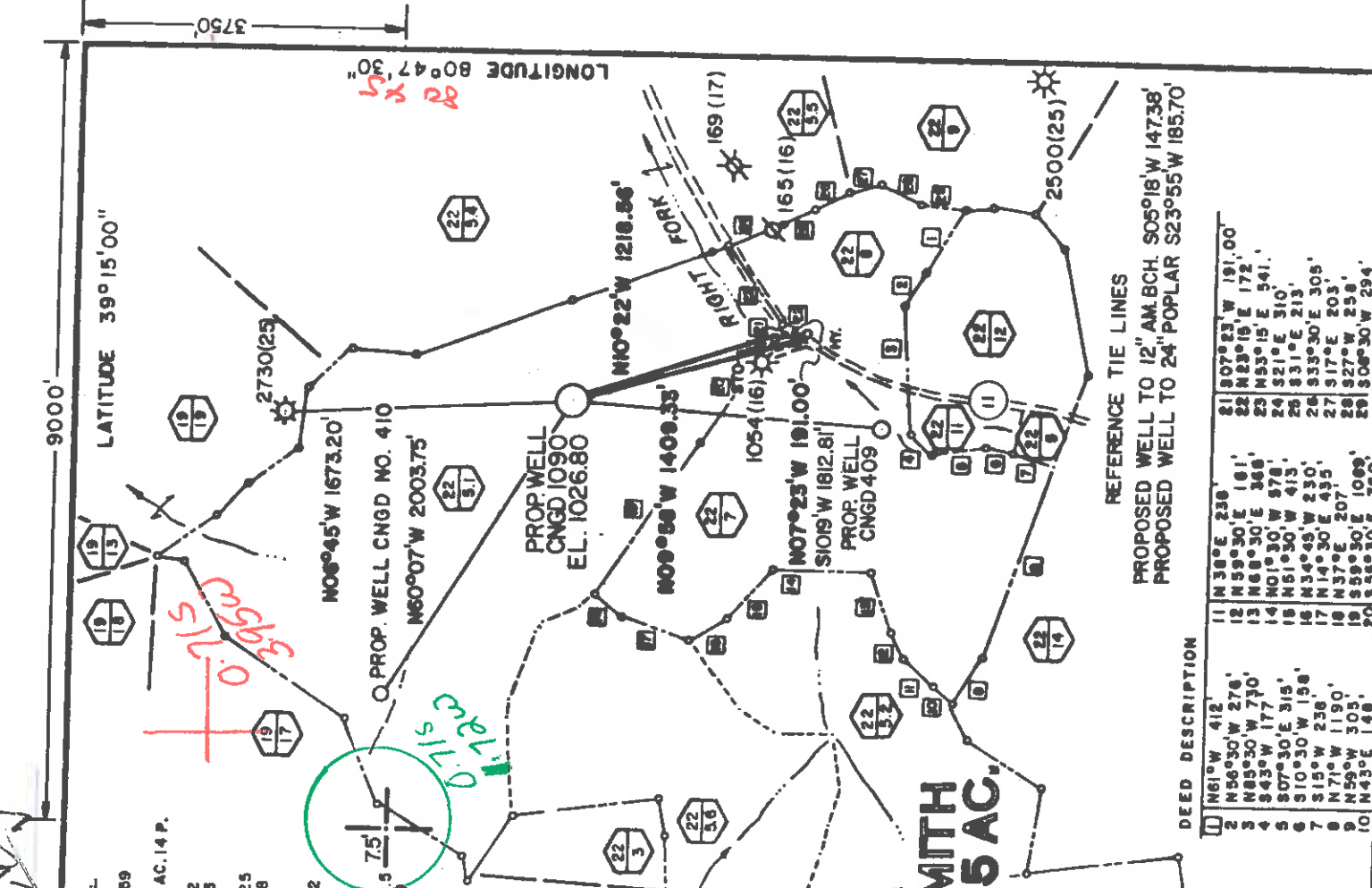
Department of Mines  
 Oil & Gas Division

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS", PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1026.80 WATER SHED RIGHT FORK  
 DISTRICT WEST UNION COUNTY DODDRIDGE  
 QUADRANGLE OXFORD-7.5' 1964 (PHOTOINSPECTED 1976) Holbrook 15' NE3  
 SURFACE OWNER RONNIE McELROY SR. ET UX ACREAGE 130  
 OIL & GAS ROYALTY OWNER UNION NATIONAL BANK, ET AL LEASE ACREAGE 450 AC  
 LEASE NO. 3390 (421.5 Per Abstract)

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 5400' 6-6 Straight Fork  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS CROSSWIND CORPORATE PARK (133)  
PITTSBURGH, PA 15224 ROUTE 2, BOX 698  
BRIDGEPORT, WV 26330



DATE JUNE 15 19 84  
 OPERATOR'S WELL NO. CNGD NO. 1090  
 API WELL NO. 47-017 - 3343  
 STATE WEST VIRGINIA COUNTY PERMIT



LONGITUDE 80°47'30"

LATITUDE 39°15'00"

9000

3750

0.715  
395m

75'  
1210'

PROP. WELL CNGD NO. 410  
 N08°45'W 1673.20'  
 N60°07'W 2003.75'

PROP. WELL  
 CNGD. 1090  
 EL. 1026.80

PROP. WELL  
 CNGD 409  
 S106°W 1812.81'

PROP. WELL  
 CNGD 408  
 N07°23'W 191.00'

N10°22'W 1218.86'

N09°56'W 1408.33'

1054 (16)

165 (16)

2500 (25)

169 (17)

2730 (25)

22 (12)

22 (11)

22 (10)

22 (9)

22 (8)

22 (7)

22 (6)

22 (5)

22 (4)

22 (3)

22 (2)

22 (1)



State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: McELROY, RONNIE SR. ETUX Operator Well No.: CNGP 1090

LOCATION: Elevation: 1,026.80 Quadrangle: OXFORD

District: WEST UNION County: DODDRIDGE  
Latitude: 3750 Feet South of 39 Deg. 15Min. 0 Sec.  
Longitude 9000 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: CNG PRODUCING COMPANY  
RR 2 BOX 698  
BRIDGEPORT, WV 26330-0698

Agent: RODNEY J. BIGGS

Inspector: MIKE UNDERWOOD  
Permit Issued: 06/02/97  
Well work Commenced: 07/18/97  
Well work Completed: 07/28/97  
Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary Cable  
Total Depth (feet) \_\_\_\_\_  
Fresh water depths (ft) \_\_\_\_\_

Salt water depths (ft) \_\_\_\_\_  
Is coal being mined in area (Y/N)? \_\_\_\_\_  
Coal Depths (ft): \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.

OPEN FLOW DATA

Big Lime  
Producing formation Big Injun  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: \_\_\_\_\_ MCF/d  
Final open flow \*50 \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ 4 \_\_\_\_\_ Hours  
Static rock pressure 42 \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ 12 \_\_\_\_\_ Hours  
\*Commingled with existing production  
Second producing formation  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: \_\_\_\_\_ MCF/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Bbl/d  
Static rock pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

*RJA Biggs*

For: CNG PRODUCING COMPANY  
By: Rodney J. Biggs, Production Manager, Appalachian Region  
Date: 22-Jan-98

FEB 20 1998

CNGP Well # WV01090

7/18/97 - Set bridge plug @ 2050' and perforated squeeze holes @ 2044'

7/23/97 - Perforated Injun, 1894' - 1914' and Big Lime @ 1810' - 1814'.

7/24/97 - Fraced:

Injun w/ 35,000# 20/40 sand. Avg. psi - 2600, Avg. rate - 1600. Ran 750 gal.  
15% HCl to breakdown and acidize Big Lime.

7/28/97 - TIL F.O.F. - 531 mcf/d - 42#

8/12/97 - Moved swab rig in. Kicked well off. Flowed water and sand.

9/8/97 - Sand pumped 5102-5130.

9/9/97 - swabbed and sand pumped 5130-5190. Hooked well up. Move off location.

RECEIVED

IV-35 OCT 15 1984  
(Rev 8/82) GAS DIVISION

DEPT. OF MINES



State of West Virginia

Department of Mines

Oil and Gas Division

Date October 9, 1984

Operator's

Well No. CNGD WN 1090

Farm H. Smith

API No. 47-017-3343

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: 1026.8' Watershed Right Fork (OM1401)

District: West Union County Doddridge Quadrangle Oxford 7.5'

COMPANY CNG Development Company

ADDRESS P.O. Box 15746, Pittsburgh, PA 15275

DESIGNATED AGENT Gary A. Nicholas

ADDRESS Rt. 2 Box 698, Bridgeport, WV 26330

SURFACE OWNER Ronnie McElroy, Sr., et ux

ADDRESS Rt. 1 Box 72, West Union, WV 26456

MINERAL RIGHTS OWNER Union National Bank, et al

ADDRESS P. O. Box 442, Clarksburg, WV 26301

OIL AND GAS INSPECTOR FOR THIS WORK

Mike Underwood, ADDRESS Rt. 2 Box 114

PERMIT ISSUED Salem, WV 26426

8-14-84

DRILLING COMMENCED 9-19-84

DRILLING COMPLETED 9-24-84

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

CN

Casing & Tubing Size	Used in Drilling in Well	Left in Well	Cement fill up Cu. ft.
20-16			
Cond.			
11-3/4	203	203	To surf
9 5/8			
8 5/8	1543	1543	To surf
7			
5 1/2			
4 1/2	5309	5309	285 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander

Depth of completed well 5375' feet Rotary X / Cable Tools            feet

Water strata depth: Fresh 48' feet; Salt            feet

Coal seam depths:            feet

Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander

Pay zone depth 5114 - 5116 feet

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

Final open flow 1492 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 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

NOV 13 1984

(Continue on reverse side)

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

Allegheny Perf. Alexander 5114 - 5116; 3 holes  
 5126 - 5132; 4 holes  
 5140 - 5142; 3 holes  
 Halliburton Foam 75 Quality Frac; Break 2900, 1000 HHP, Avg. BPM 20, Avg. Psl 3300,  
 500 gal MOD 202 Acid, 70,000# 20/40 Sand, 850 bbl Foam, ISIP 1500 w/75  
 bbl water & 10 bbl foam in pipe, 5 min 1400, SCF N<sub>2</sub> 775,000  
 BHTP 3500 psl

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand, Shale & RR			0	1790	Including indication of all fresh and salt water, coal, oil and gas
Lime			1790	1865	
Sand, Lime & Shale			1865	5375	1/2" stream water @ 48' 1/2" stream water @ 460 water @ 925' - 1"
<u>LOG TOPS</u>					
Big Injun			1891	1975	
Weir			2134	2257	
Warren			3210	3264	
Upper Speechley			3360	3424	
Speechley			3660	3740	
Balltown			3998	4217	
Bradford			4370	4441	
Riley			4628	4684	
Benson			4827	4842	
Alexander			5069	5168	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: 

Date: October 9, 1984

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  
 events, encountered in the drilling of a well."







017-3343 Frac

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator: CMG Producing Company (10110) 3 526

Operator's Well Number: CNGP 1090 W

3) Elevation: 1027'

Well type: (a) Oil / or Gas X /

Issued 06/02/97  
Expires 06/02/99

(b) If Gas: Production X / Underground Storage /  
Deep / / Shallow /

Proposed Target Formation(s): Big Injun feet

6) Proposed Total Depth: 1892-1914

7) Approximate fresh water strata depths: \_\_\_\_\_

8) Approximate salt water depths: \_\_\_\_\_

9) Approximate coal seam depths: \_\_\_\_\_

10) Does land contain coal seams tributary to active mine? Yes / No /

11) Proposed Well Work: Squeeze cement to cover interval. Perf and frac proposed zone. Clean well up. Comingle with existing production.

12) \_\_\_\_\_

RECEIVED  
WV Division of  
Environmental Protection  
MAY 15 1997  
Permitting  
Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						Fill-up (cu. ft.)
Fresh Water	11 3/4	H-40		203	203	To surf. <u>Perf</u>
Coal						
Intermediate	8 5/8	J-55	23	1543	1543	To surf.
Production	4 1/2	J-55	10.5	5309	5309	285 sks
Tubing						
Liners						

PACKERS : Kind \_\_\_\_\_ Sizes \_\_\_\_\_ Depths set \_\_\_\_\_

2 1/2

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond \_\_\_\_\_ (Type)  
 Agent 4

