

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 400'  
 MINIMUM DEGREE OF ACCURACY 1 / 2500  
 PROVEN SOURCE OF ELEVATION ROAD 1280  
 S W PROPERTY CORNER

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 Robert Gales*  
 R.P.E. 5566 L.L.S. PA. 8203-E

PLACE SEAL HERE

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



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE DEC. 14, 19 81  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47-069-0038-1

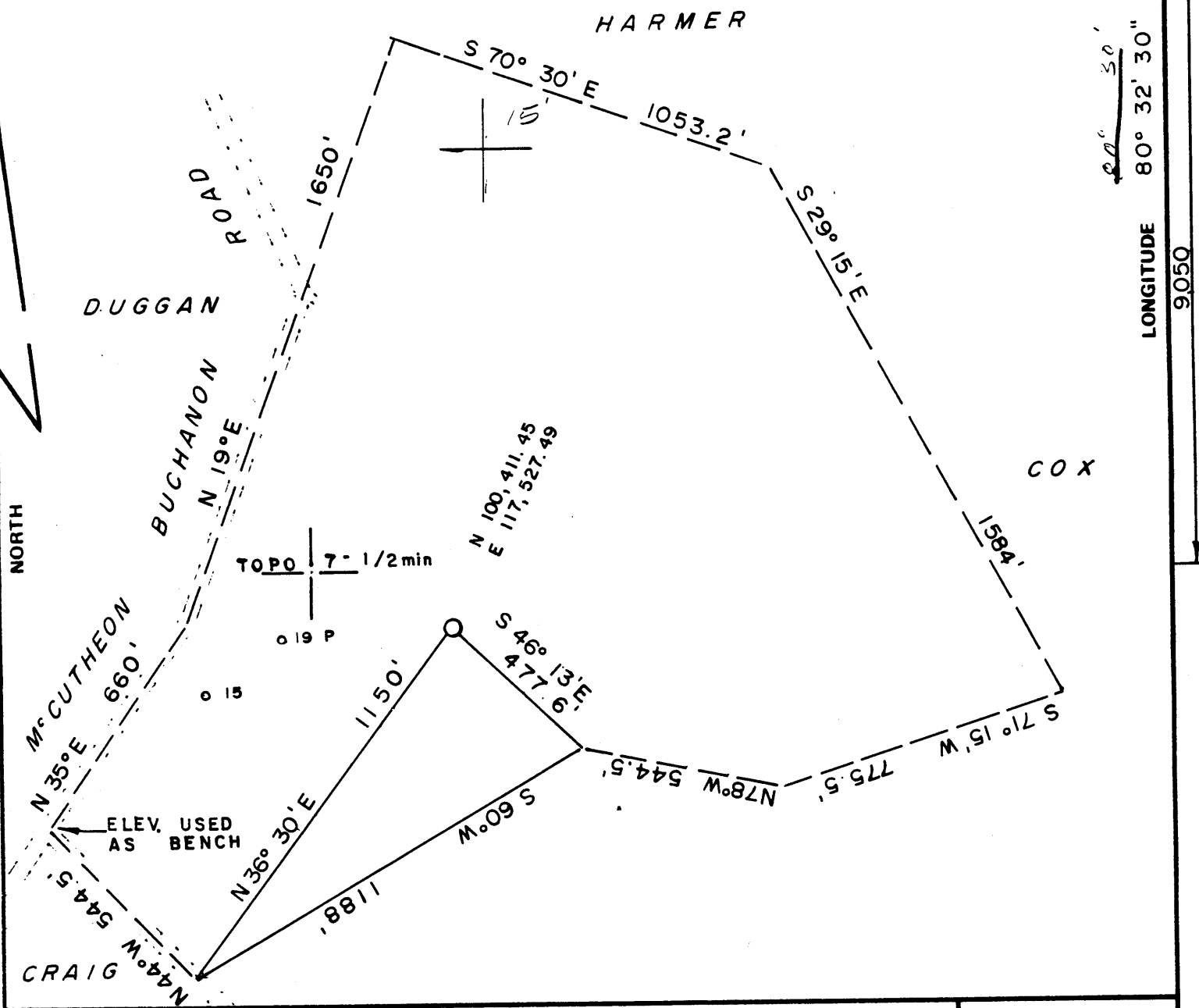
STATE COUNTY PERMIT  
*Plugging Permit Cancelled*

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1300 WATER SHED WHEELING CREEK  
 DISTRICT TRIADELPHIA 7 COUNTY OHIO  
 QUADRANGLE VALLEY GROVE 7.5' 648 134 9  
 SURFACE OWNER EUGENE C. JACK, Sr. ACREAGE 74  
 OIL & GAS ROYALTY OWNER EUGENE C. JACK, Sr. LEASE ACREAGE 74  
 LEASE NO. \_\_\_\_\_  
 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 ORISKANY Ss ESTIMATED DEPTH 6700  
 WELL OPERATOR Columbia Gas Trans. DESIGNATED AGENT James weekley  
 ADDRESS PO Box 1273 175 ADDRESS \_\_\_\_\_  
 Charleston wva 25325

JAN 12 1987

OHIO 0038 P



FILE NO. \_\_\_\_\_  
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 FORM IV-6 (8-78)

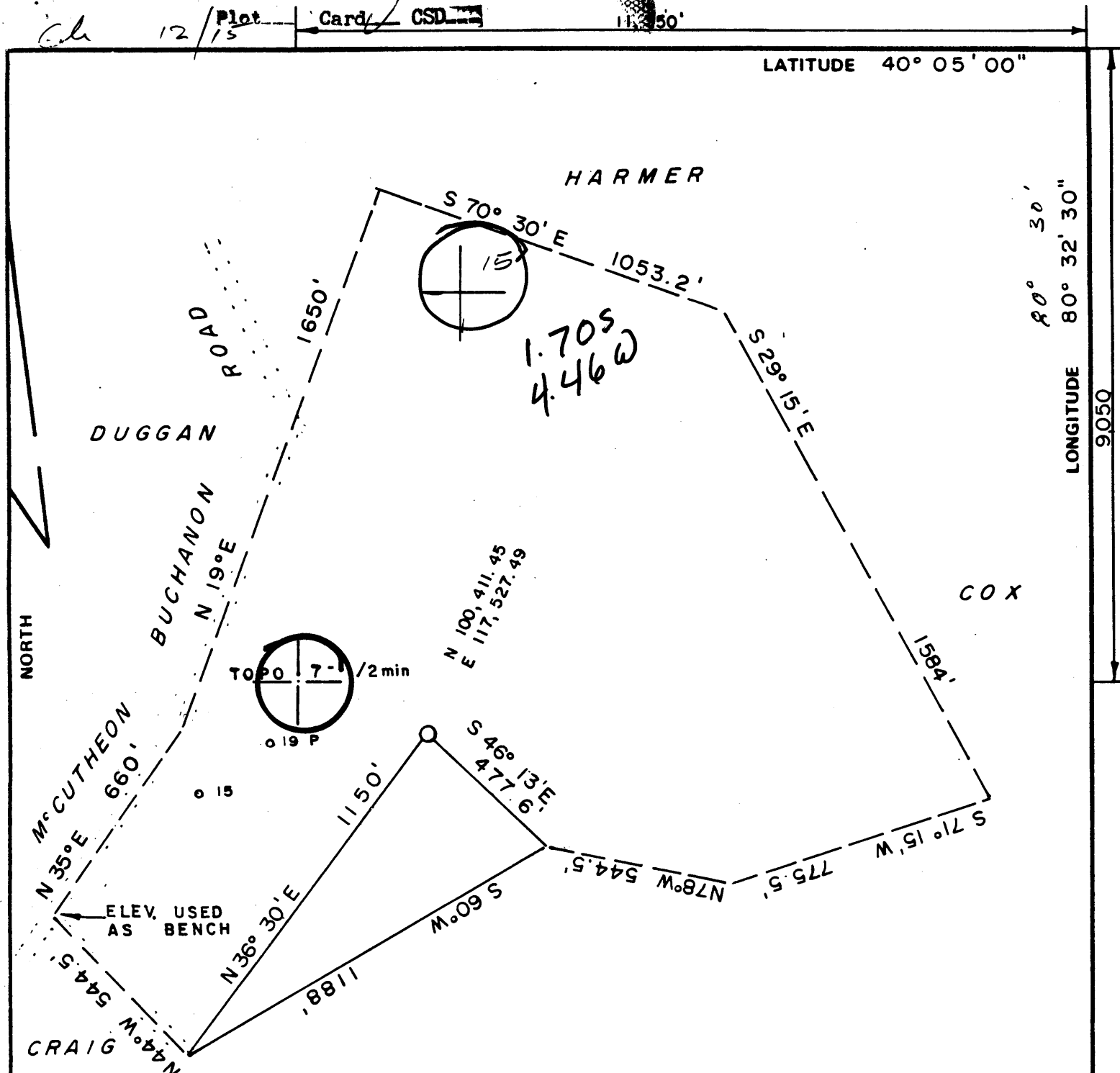


DATE DEC. 14, 19 81  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47 - 069 - 0038  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1300 WATER SHED WHEELING CREEK  
 DISTRICT TRIADELPHIA COUNTY OHIO  
 QUADRANGLE VALLEY GROVE 7.5'  
 SURFACE OWNER EUGENE C. JACK, Sr. ACREAGE 74  
 OIL & GAS ROYALTY OWNER EUGENE C. JACK, Sr. LEASE ACREAGE 74  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X 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 ORISKANY Se ESTIMATED DEPTH 6700  
 WELL OPERATOR Columbia Gas Trans. DESIGNATED AGENT. James weekley  
 ADDRESS PO Box 1273 ADDRESS Same  
Charleston wva 25325

OCT 3 1983



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
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 MINIMUM DEGREE OF ACCURACY 1 / 2500  
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 (SIGNED) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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 FORM IV-6  
 (8-78)



DATE DEC. 14, 19 81  
 OPERATOR'S WELL NO. 1  
 API WELL NO. \_\_\_\_\_  
 47 - 069 - 0038  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1300 WATER SHED WHEELING CREEK  
 DISTRICT TRIADELPHIA COUNTY OHIO  
 QUADRANGLE VALLEY GROVE 7.5' Wheeling 15' SE  
 SURFACE OWNER EUGENE C. JACK, Sr. ACREAGE 74  
 OIL & GAS ROYALTY OWNER EUGENE C. JACK, Sr. LEASE ACREAGE 74  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

JAN - 8 1982

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ORISKANY Ss ESTIMATED DEPTH 6700  
 WELL OPERATOR APPALACHIAN ENERGY INC DESIGNATED AGENT CHARLES STIMELING  
 ADDRESS 200 ROESSLER ROAD ADDRESS P. O. Box 179  
 PITTSBURGH, PA. 15220 BRIDGEPORT, W. VA. 26330



IV-35  
(Rev 8-81)

Date November 17, 1983  
Operator's  
Well No. 20779  
Farm Eugene C. Jack, Sr.  
API No. 47-069-0038

**RECEIVED**

NOV 21 1983

State of West Virginia  
Department of Mines  
Oil and Gas Division

069-0038

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 \_\_\_ /)

LOCATION: Elevation: 1300 Watershed Marlow Run  
District: Triadelphia County Ohio Quadrangle Valley Grove

COMPANY Columbia Gas Transmission Corp.  
ADDRESS P. O. Box 1273, Charleston, WV  
DESIGNATED AGENT J. W. Weekley  
ADDRESS P. O. Box 1273, Charleston, WV  
SURFACE OWNER Eugene C. Jack Sr.  
ADDRESS R. D. 1 Box 237, Triadelphia, WV  
MINERAL RIGHTS OWNER same as surface owner  
ADDRESS \_\_\_\_\_  
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther ADDRESS \_\_\_\_\_  
PERMIT ISSUED 12/16/81  
DRILLING COMMENCED 3/29/82  
DRILLING COMPLETED 4/8/82

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.	60'	60'	75 sack
<del>11-3/4"</del> 11-3/4"	785'	785'	300 sack
9 5/8			
8 5/8	2510'	2510'	600 sack
7			
5 1/2			
4 1/2	6858	6858	290 sack
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Sandstone Depth 6762 feet  
Depth of completed well 7140 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh -- feet; Salt -- feet  
Coal seam depths: --- Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Oriskany Sandstone Pay zone depth 6762 feet  
Gas: Initial open flow --- Mcf/d Oil: Initial open flow --- Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 1300 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Huntersville Chert Pay zone depth 6581-6646 feet  
Gas: Initial open flow ---- Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 47 Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure 550 psig (surface measurement) after 120 hours shut in

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

Set Bridge Plug in 4-½" casing @6700'

Perforate 4-½" casing: 6581' - 6584' - 4 holes  
 6600' - 6605' - 6 holes  
 6637' - 6646' - 5 holes

Fracture w/32,500 gals. gelled 5% HCL water & 25,000#  
 of 20/40 mesh sand w/83,000 SCF nitrogen.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal, oil and
Subsurface			0	800	
Shale			800	820	
Sandy Shale			820	1020	
Shale			1020	1116	
Sand			1116	1160	
Shale			1160	1190	
Sand & Shale			1190	1360	
Sand			1360	1400	
Shale			1400	1564	
Maxton			1564	1747	
Big Lime			1747	1807	
Big Injun			1807	2009	
Shale			2009	2370	
Berea			2370	2412	
Shale			2412	3298	
Warren			3298	3330	
Sandstone			3330	6533	
Onondaga			6533	6576	
Huntersville Chert			6576	6742	
Needmore			6742	6758	
Oriskany			6758	6848	
Helderberg			6848	7002	
Corriganville			7002	7046	
Keyser			7046	7140	T.D.

~~7140  
2412  
4728 expl ftg.~~

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation  
 Well Operator

By: *[Signature]*  
 Date: November 17, 1983

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  
 coal, encountered in the drilling of a well."



Date: December 3, 19 81

Operator's Well No. \_\_\_\_\_

API Well No. 47 - 069 - 0038

State Ohio County \_\_\_\_\_ Permit \_\_\_\_\_

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

OIL AND GAS WELL PERMIT

WELL TYPE: Oil \_\_\_\_\_ / Gas XX /  
(If "Gas", Production XX / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_ /)

LOCATION: Elevation: 1300' Watershed: \_\_\_\_\_

District: Triadelphia County: Ohio Quadrangle: Valley Grove 7 1/2

WELL OPERATOR Appalachian Energy, Inc.

Address 200 Roessler Road  
Pittsburgh, PA 15220

DESIGNATED AGENT Mr. Charles Stimeling

Address P. O. Box 179  
Bridgeport, WV 26330

OIL & GAS ROYALTY OWNER Eugene C. Jack, Sr. et ux

Address R. D. #1, Box 237  
Triadelphia, WV 26059

Acreage 74

COAL OPERATOR Valley Camp Coal Company

Address P. O. Box 218  
Triadelphia, WV 26059

COAL OWNER(S) WITH DECLARATION ON RECORD:

Name same as above

Address \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:

Name N/A

Address \_\_\_\_\_

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

RECEIVED  
DEC 9 1981

SURFACE OWNER Eugene C. Jack, Sr. et ux

Address R. D. #1, Box 237  
Triadelphia, WV 26059

Acreage 74

FIELD SALE (IF MADE) TO:

Address N/A

OIL & GAS INSPECTOR TO BE NOTIFIED

Name Phillip Lee Tracy

Address Rt. 23  
Alma, WV 26320

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_\_\_ / lease XX other contract \_\_\_\_\_ / dated September 20, 19 79, to the undersigned well operator from Eugene C. Jack, Sr.

(If said deed, lease, or other contract has been recorded:)

Recorded on December 20, 19 79, in the office of the Clerk of the County Commission of Ohio County, West Virginia in \_\_\_\_\_ Book 594 at page 289. A permit is requested as follows:

PROPOSED WORK: Drill XX / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Fracture or stimulate \_\_\_\_\_ /

Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_ /

Other physical change in well (specify) \_\_\_\_\_

—planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

Well Operator  
By Donald R. Laughlin  
Its \_\_\_\_\_

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Unknown  
Address \_\_\_\_\_

GEOLOGICAL TARGET FORMATION, Oriskany Ss

Estimated depth of completed well, 6700 feet Rotary XX / Cable tools \_\_\_\_\_ /

Approximate water strata depths: Fresh, 75 feet; salt, 1900 feet.

Approximate coal seam depths: 650 Is coal being mined in the area? Yes \_\_\_\_\_ / No XX /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS			New	Used	FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft			For drilling	Left in well		
Conductor	11 3/4	H-40	65	X		100'	100'	100'	Kinds
Fresh Water									
Coal									Sizes
Intermediate	8 5/8	J-55	24	X		2500'	2500'	2500'	
Production	4 1/2	J-55	11.6	X		6650'	6650'	<del>2500'</del> 1000'	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 8-16-82.

J. H. Hunsley  
Deputy Director - Oil & Gas Division

[Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator ✓ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

THE VALLEY CAMP COAL CO  
By James [Signature]  
Its V. PRESIDENT

Date: 12-7, 1981