

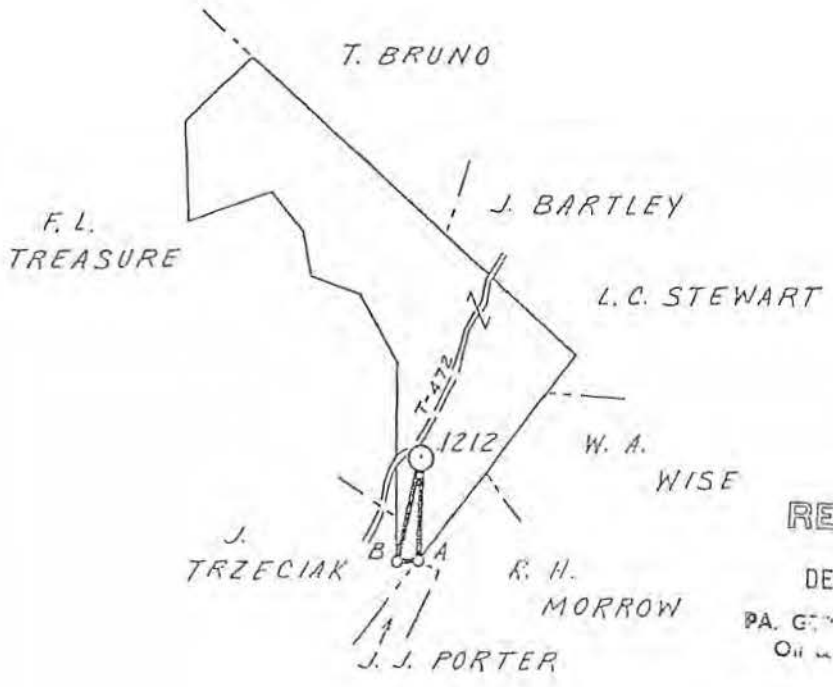
3,650' SOUTH OF LATITUDE 40° 32' 30"

129-21590

A - W. OAK COR.  
 A - WELL = N 00° 49' E 924.48'  
 WELL - B = S 12° 47' W 956.79'  
 B - COR STONE  
 B - A = N 87° 29' E 198.61'

TOPO.  
 (+) REF.

3650 WEST OF LONGITUDE 79° 40'



RECEIVED

DEC 10 1979

PA. GEOL. & MET. SURV.  
 Oil & Gas Div.

3,600

<input type="checkbox"/> NEW LOCATION <input type="checkbox"/> REVISED LOCATION <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> ABANDONMENT <input checked="" type="checkbox"/> RE-DRILL <input type="checkbox"/> REPAIRS	DIVISION <b>NORTHERN</b>	SURVEYED BY <b>KUNCHEFF</b>		MAP <b>NK10 EH 6</b>					
	LOC. MADE (Date) <b>11 / 28 / 78</b>	BOOK <b>1858</b>	PAGE <b>20-21</b>	EL. BOOK <b>1858</b>	PAGE <b>19</b>				
	APPROVED <b>E. O. Campbell</b>				DATE <b>11 / 20 / 79</b>				
THE PEOPLES NATURAL GAS COMPANY TWO GATEWAY CENTER, PITTSBURGH, PENNSYLVANIA 15222		COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BX-C 12-6-79 DIVISION OF OIL AND GAS PITTSBURGH							
FARM <b>WM. F &amp; R. N CROOKS</b>		WELL LOCATION MAP <b>129-21590</b>							
TRACT <b>1</b>	ACRES <b>120</b>	LEASE NO. <b>8649</b>		DEPT. FILE NO. <b>WES-21590-R</b>					
WELL (FARM) NO. <b>1</b>	CO. SERIAL NO. <b>1212</b>		(+) DENOTES LOCATION OF WELL ON UNITED STATES 7 1/2' TOPOGRAPHIC MAP						
ELEVATION <b>901'</b>	QUADRANGLE <b>NEW KENSINGTON E.</b>		WORKABLE COAL SEAMS, IF ANY						
COUNTY <b>WESTMORELAND</b>		<table border="1"> <thead> <tr> <th>NAME OF SEAM</th> <th>OWNER OF SEAM</th> </tr> </thead> <tbody> <tr> <td><b>ALL SEAMS</b></td> <td><b>CONSOLIDATION COAL CO.</b></td> </tr> </tbody> </table>				NAME OF SEAM	OWNER OF SEAM	<b>ALL SEAMS</b>	<b>CONSOLIDATION COAL CO.</b>
NAME OF SEAM	OWNER OF SEAM								
<b>ALL SEAMS</b>	<b>CONSOLIDATION COAL CO.</b>								
DR. BY <b>ASK / PCK</b>		DATE <b>11-21-79</b>							

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
DIVISION OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

*BXC*  
Office Use Only

129-21590

(H)  
3650 S 40° 32' 30"  
8650 W 79° 40' 00"

ORIGINAL WELL RECORD Available

PERMIT NO.

Wes-21590-R

PROJECT NO.

[ ]

TYPE OF WELL

Gas

129-21590

ONWOC

WELL OPERATOR

The Peoples Natural Gas Company

TELEPHONE NO. 412-471-5100

ADDRESS

Two Gateway Center, Pittsburgh, Pa.

15222

FARM NAME

W.F. & R.N. Crooks

FARM NO.

1

SERIAL NO.

1212

ACRES

20

TOWNSHIP

Upper Burrell

COUNTY

Westmoreland

DRILLING COMMENCED

1-12-17

DRILLING COMPLETED

2-14-17

ELEVATION

901'

QUADRANGLE

New Kensington E.

7 1/2'

15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
10"	112'6"						1917
8 1/4"	820'6"						1917
6-5/8"	1780'			Anchor	8 x 6-5/8"	1780'	1917
3"	2793'3"			Hook Wall	6-5/8 x 3"	2774'	1917
		I.D.	D.D.	D.P.I.			Lease

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED		DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
	FROM	TO					
	none				none		

NATURAL OPEN FLOW

1,591,980 CF/D

NATURAL ROCK PRESSURE

????

HRS.  
DAYS

AFTER TREATMENT OPEN FLOW

AFTER TREATMENT ROCK PRESSURE

HRS.  
DAYS

REMARKS:

*For use of well*

MAR 4

DA. SEC.

Oil & Gas

(FORMATION ON REVERSE SIDE)

129-21590

FORMATIONS						
NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Coal	320					Drillers Log
Sand	725	780				
Sand	820	990				
Sand	1530	1640				
Sand	1640	1770	1701			
Sand	2060	2161				
Sand	2871	2900				
Sand	2956	2982				
Sand	3265	3280				
Sand	3561	3579	3563			
Total depth		3609				

DEN-TGS  
 129-21590-23  
 129-21590-23

February 27, 19 81

DATE

E. O. Campbell

APPROVED BY E. O. Campbell

Manager, Production & Storage

TITLE

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
DIVISION OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

129-21590

3650' S 40° 32' 30"  
8650' W 79° 40' 00"  
(H) (8) ✓  
129-21590

Office Use Only

WELL RECORD  
Pine Run Field

[Blank Box]

PERMIT NO. WES-21590-R

PROJECT NO. [Blank Box]

TYPE OF WELL Gas

WELL OPERATOR The Peoples Natural Gas Company TELEPHONE NO. 412-471-5100  
ADDRESS Two Gateway Center, Pittsburgh, Pa. ZIP 15222  
FARM NAME Wm.F. & R.N. Crooks FARM NO. 1 SERIAL NO. 1212 ACRES 20  
TOWNSHIP Upper Burrell COUNTY Westmoreland  
REPAIR COMMENCED 1-14-80 REPAIR COMPLETED 2-16-81  
ELEVATION 901' QUADRANGLE New Kensington EAST 7 1/2'  15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
10"	112'6"						1917
8 1/2"	820'6"						1917
6-5/8"	1780'			Anchor	8 x 6-5/8"	1780'	1917
3"	2793'3" (Pulled)			Hook Wall	6-5/8 x 3"	2774'	1917
1/2"	3088'11"	140	1200#			3066'	1-28-81

PERFORATION RECORD			STIMULATION RECORD				
DATE	INTERVAL PERFORATED FROM TO		DATE	INTERVAL TREATED	AMOUNT FLUID [gal]	AMOUNT SAND #	INJECTION RATE bbl/min.
2-3-81	2878 2880		2-3-81	2878-2982	24000	37500	20.0
2-3-81	2887 ----						
2-3-81	2974 2982						

3609 Lease

NATURAL OPEN FLOW 49,500 CF/D	NATURAL ROCK PRESSURE Not taken	HRS. DAYS
AFTER TREATMENT OPEN FLOW 62,000 CF/D	AFTER TREATMENT ROCK PRESSURE 780 psi	4 DAYS

REMARKS:

RECEIVED

Completed 2/19/81 MAR 17

PA. GEOLOGIC SURVEY  
Oil & Gas Division



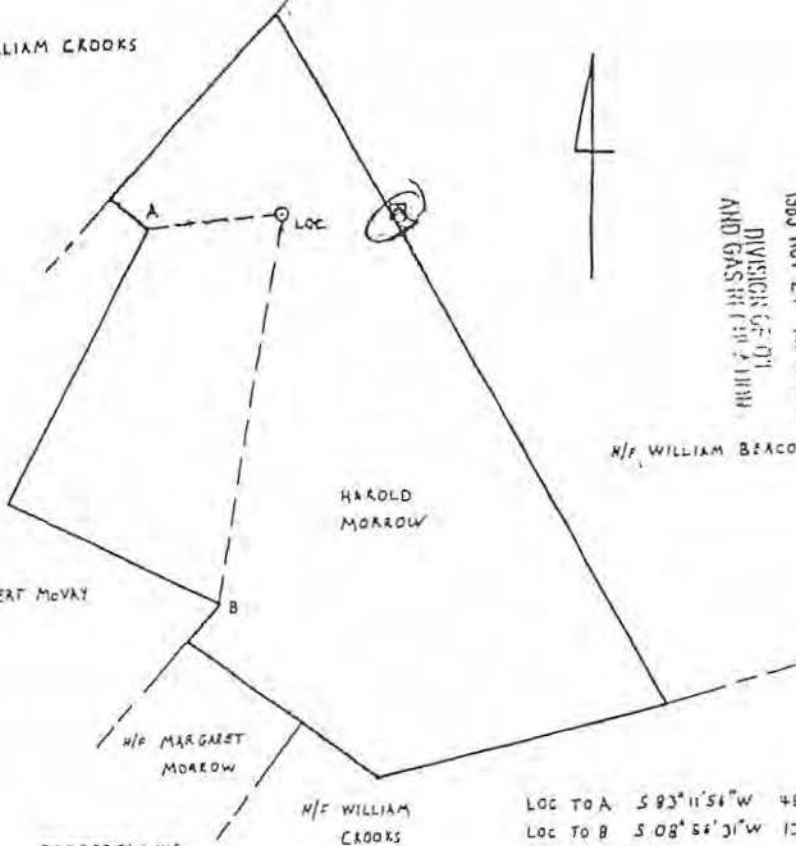
WELL LOCATION PLAT

129-22777

Well is located on topo map 4425 feet south of LATITUDE 40° 31' 30"

Well is located on topo map 2130 feet west of LONGITUDE 79° 40' 00"

N/F WILLIAM CROOKS

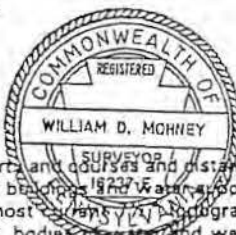


DER-TGS  
1985 NOV 27 AM 11:08  
DIVISION OF OIL  
AND GAS IN PENN.

Loc TO A S 83° 11' 54" W 486.04'  
Loc TO B S 08° 54' 31" W 1091.20'  
A = IRON PIN ON CORNER  
B = IRON PIN ON CORNER

--- PROPERTY LINE  
— LIMIT OF LEASE

SCALE 1" = 500



*William D. Mohney*

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most recent topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging.

☐ Denotes location of well on 7 1/2" topo map Permit # 37-129-22777-00 Project #

Well Operator Pennaco Oil Company, Inc.	Revision Re-issue Alteration Storage Recondition New Location Drill Deeper Abandonment Registration Plugging	Surveyor/Engineer William D. Mohney Drawing Number 48 Date 10/30/85
Address U.S. Route 22 Delmont, PA 15626	Surface landowner and water purveyor with water supply within 1,000'	Approximate course and distance to water supply
Surface Owner Harold V. Murrow	William Venter William Wise	N 37° W 950' S 82° E 475'
Surface Lessor (if any) PA GEOLOGICAL SURVEY (Oil & Gas Geology Division)	Acres 71.83	Ground Elevation 1185
Firm Name Murrow	Well No #1	Serial No PM-37
Topo Quadrangle New Kensington East	Section 8	Political Subdivision Upper Burrell
County Westmoreland	Angle of Deviation None	Associated TO 4,000
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management		Owner/Operator Consolidation Coal Co. Villa Coal Company
		Workable Coal Seams Name of Seam Upper Freeport Upper Freeport
		TRENTON MINE
		12-10-85

RECEIVED

JAN 6 1986

ER 99-4: Rev. 10/82

4425' S 140° 32' 30"  
7950' W 179° 46' 00"

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

NEW KENSINGTON  
129-22777

Office Use Only

WELL RECORD DER-TGS COMPUTERIZED

129-22777

1986 MAR 23 AM 11:26

PERMIT NO. 37-129-22777-00

PROJECT NO. [ ]

TYPE OF WELL Gas

PIKE RUN FIELD

WELL OPERATOR Penneco Oil Company, Inc.

TELEPHONE NO. 412-468-8232

ADDRESS U. S. Route #22, Delmont, PA 15626

ZIP

FARM NAME Harold V. Morrow FARM NO. 1 SERIAL NO. PM-37 ACRES 72

TOWNSHIP Upper Burrell COUNTY Westmoreland

DRILLING COMMENCED 2-24-86 DRILLING COMPLETED 2-28-86

ELEVATION 1185' QUADRANGLE New Kensington East  7 1/4'  15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
11-3/4"	42'	Cuttings	None	N/A	N/A	N/A	2-24-86
8-5/8"	1,952	370	12	Float Shoe	8-5/8"	1,962	2-26-86
4-1/2"	3,323	425	4	Float Shoe	4-1/2"	3,333	2-28-86
1-1/2"	3,230	N/A	N/A	Packer	4 1/2" x 1 1/2"	3,230	3-5-86

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED FROM	TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
3-5-86	3220	3244	3-5-86	3220-3244	54,170	60,000#	30 BPH
3-5-86	3138	3142	3-5-86	3138-3142	21,300	18,000#	20 BPH
3-5-86	2388	2400	3-5-86	2388-2400	34,200	32,000#	28 BPH
3-5-86	1966	1994	3-5-86	1966-1994	33,870	32,000#	32 BPH

T.D.	D.D.	D.P.I.	Class	o	G	Lease
3380		3244	D	0	9 1/2	1

NATURAL OPEN FLOW 10 MCF NATURAL ROCK PRESSURE Not Taken HRS. DAYS

AFTER TREATMENT OPEN FLOW 300 MCF AFTER TREATMENT ROCK PRESSURE 200# Tubing, 400# Anulus 72 HRS. XDXV6

REMARKS: Good cement returned to surface after setting 8-5/8" casing.

VENANGO & BRADFORD

CHE  
4-25-86  
LEE

(FORMATION ON REVERSE SIDE)  
RECEIVED  
JUL 12 1986

PA GEOLOGICAL SURVEY  
(02 & Gas Control Division)

28-22777

500-885 FORMATIONS

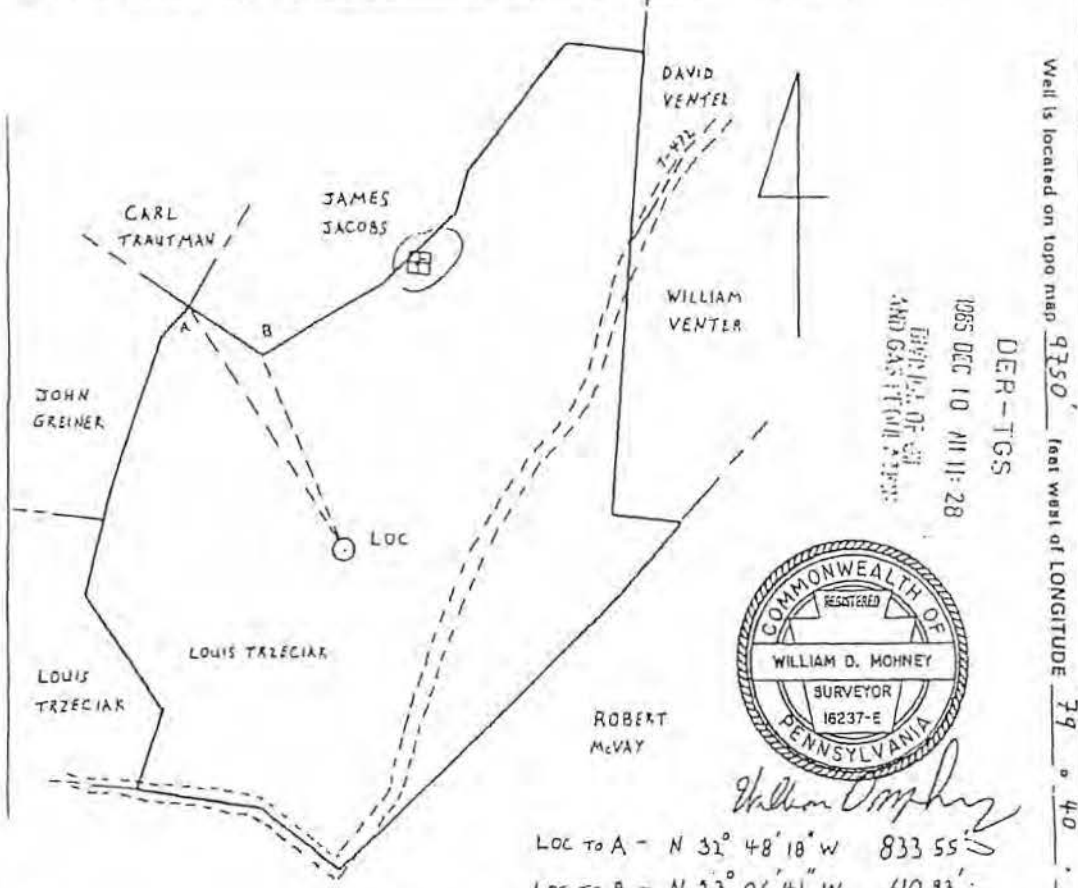
NAME	TOP	BOTTOM	GAS AT	DIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Clay	0	10				Driller's Log
Clay	10	15				
Shale	15	25				
Red Rock	25	35				
Shale	35	55				
Red rock	55	60				
Shale	60	80				
Sandy Shale	80	95			65' - Fresh	
Red Rock	95	115				
Shale	115	175				
Sand	175	220				
Shale	220	230				
Red Rock	230	235				
Shale	235	245				
Red Rock	245	250				
Shale	250	260				
Red Rock	260	275				
Shale	275	290				
Red Rock	290	295				
Coal And Shale	295	299				
Sandy Shale	299	305			300' - Fresh	
Sand	305	355				
Sandy Shale	355	390				
Sand	390	465				
Shale	465	480			470' - Fresh	
Sandy Shale	480	502				
Shale	502	545				
Sand	545	582				
Coal	582	589				
Shale	589	630				
Sandy Shale	630	870				
Coal	870	875				
Shale	875	930				
Sandy Shale	930	965				
Shale	965	1000				
Sandy Shale	1000	1070				
Shale	1070	1110				
Sandy Shale	1110	1130				
Sand	1130	1190				
Red Rock	1190	1200				
Sand	1200	1255				
Sandy Shale	1255	1295				
Black Shale	1295	1305				
Shale	1305	1325				
Sand	1325	1410				
Shale	1410	1495				
Red Rock	1495	1500				
Sandy Shale	1500	1570				
Shale	1570	1735				
Sandy Shale	1735	1760				
Shale	1760	1825				
Sandy Shale	1825	1850				
Sand	1850	1910				
Sandy Shale	1910	2070				
Shale	2070	2120				
Red Rock	2120	2360				
Sandy Shale	2360	2540				
Sand	2540	2730				
Sandy Shale	2730	2800		100' - 1900' - 2000'		
Sand	2800	2880		5th - 2368' - 2402'		
Sandy Shale	2880	2975	Speachley	Stray - 3136' -	3146'	
Shale	2975	3005	Speachley	- 3220' -	3246'	
Sandy Shale	3005	3040				
Shale	3040	3185				
Sandy Shale	3185	3210				
Sand	3210	3225				
Shale	3225	3290				
Sandy Shale	3290	3380				
T.D.	3380					

152

DATE March 26 1986  
 APPROVED BY [Signature]  
 TITLE Vice President

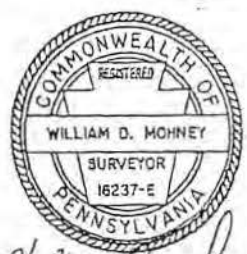
129-22783

Well is located on topo map 4525 feet south of LATITUDE 40 0 32 30



Well is located on topo map 9350 feet west of LONGITUDE 79 0 40 00

DER-TGS  
1085 DEC 10 AM 11:28  
BUREAU OF OIL AND GAS TECHNOLOGY



*William D. Mohney*

LOC TO A - N 32° 48' 18" W 833.55'  
LOC TO B - N 23° 06' 41" W 610.93'

A = PROPERTY CORNER  
B = PROPERTY CORNER

— LIMIT OF LEASE  
- - - PROPERTY LINE  
SCALE 1" = 400'

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging

☐ Denotes location of well on 7 1/2" topo map Permit # 37-129-22783-00 Project #

Well Operator Pennaco Oil Company, Inc.	Revision Re-Issue Alteration Storage Recondition New Location Drill Deeper Abandonment Registration Plugging	Surveyor/Engineer William D. Mohney
Address U.S. Route 22	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Drawing Number 41
Delaware, PA 15626		Date 10/22/85
Surface Owner Louis Trzeciak, Jr. & Cynthia Louise Trzeciak	Surface landowner and water purveyor with water supply within 1,000'	Date
Surface Lessor (if any) None	Michael T. Vichuk	Approximate course and distance to water supply S 43° W 800'
Farm Name Trzeciak		<b>RECEIVED</b>
Well No. #1	Serial No. PI-11	<b>JAN 6 1986</b>
Acres 443	Ground Elevation 1000'	
Topo Quadrangle New Kensington East	Section H 8	
County Stairland	Political Subdivision Upper Merion	Owner/Operator Consolidation Coal Co.
Depth of Deviation None	Anticipated TD 4,000	Workable Coal Seam Name of Seam Upper Freeport
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management		Upper Freeport

129-22783-00 *Routin*



EG-04; Rev. 10/82

4525' S 40° 32' 30" W  
9,750' W 79° 40' 00" W

NEW KENSINGTON CO

129-22783

(8)

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

6

Office Use Only

129-22783

34827  
34878  
34879

WELL RECORD

PERMIT NO. 37-129-22783-00

PROJECT NO. PINE RUN-DEV

TYPE OF WELL Gas

WELL OPERATOR Penneco Energy Corporation TELEPHONE NO. 412-488-8232

ADDRESS U. S. Route #22, Delmont, PA 15626 ZIP

FARM NAME Louis Trzeciak, Jr. FARM NO. SERIAL NO. PT-36 ACRES 49.3

TOWNSHIP Upper Burrell COUNTY Westmoreland

DRILLING COMMENCED 6-2-86 DRILLING COMPLETED 6-9-86

ELEVATION 1000' QUADRANGLE New Kensington East  7 1/2'  15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
11-3/4"	38	Cuttings	None	N/A	N/A	N/A	6/2/86
8-5/8"	1,718	350	10	Float Shoe	8-5/8"	1,728	6/7/86
4-1/2"	3,142	265	5	Float Shoe	4-1/2"	3,152	6/9/86
1-1/2"	3,060	N/A	N/A	N/A	N/A	3,060	6/18/86
		TD	DD	D.P.I.	Class	OG	Lease
		3184		3116	D	2	1

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED FROM	TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
6-18-86	3,082	3,116	6-2-86	3082-3116	40,000	75,000#	33.0BPN
6-18-86	2,270	2,276	6-2-86	2270-2276	17,200	18,700#	17.8BPN

NATURAL OPEN FLOW 100 MCF NATURAL ROCK PRESSURE Not Taken HRS. DAYS  
AFTER TREATMENT OPEN FLOW 237 MCF AFTER TREATMENT ROCK PRESSURE 700# 72 HRS. DAYS

REMARKS: Good cement returned to surface after setting 8-5/8" casing.

U energy  
Bradford

CHE  
9-24-86  
led

(FORMATION ON REVERSE SIDE)  
RECEIVED

NOV 5 1986

PA GEOLOGICAL SURVEY  
(Oil & Gas Geology Division)

129-22783

FORMATIONS						
NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Clay	0	10				Driller's Log
Clay	10	15				
Shale	15	80			30' - Fresh	
Red rock	80	110				
Sand and Shale	110	120				
Red Rock	120	145				
Shale	145	200				
Sand and Shale	200	230			200' - Fresh	
Shale	230	280				
Sand and Shale	280	365				
Shale	365	450				
Coal	450	455				
Shale	455	545				
Sand and Shale	545	580				
Shale	580	625				
Sand and Shale	625	675				
Black Shale and Sand	675	700				
Sand and Shale	700	795				
White Sand	795	815				
Black Shale and Sand	815	845				
Sand and Shale	845	860				
White Sand	860	880				
Sand and Shale	880	995				
Sand	995	1310				
Shale	1310	1360				
Sand and Shale	1360	1420			1,360 - Salt	
Red Rock Shale	1420	1450				
Sand and Shale	1450	1580				
Shale	1580	1620				
Sand and Shale	1620	1640				
Shale	1640	1780			1,750 - Salt	
Sand	1780	1820				
Sand and Shale	1820	1895				
Shale	1895	1985				
Red Rock	1985	2010				
Shale	2010	2020				
Red Rock	2020	2069				
Shale	2069	2080				
Sand and Shale	2080	2100				
Red Rock and Shale	2100	2175				
Sand, Shale and Red Rock	2175	2240				
White Sand and Shale	2240	2270				
Sand, Shale and Red Rock	2270	2290				
Sand and Shale	2290	2300				
Shale	2300	2375				
Sand and Shale	2375	2975				
Shale	2975	3020	3,020	3,020		
Sand and Shale	3,020	3120				
Shale	3120	3184				
T.D.	3184					
BRAD			GEOFYSICAL LOG DATA			
			Fifth Speedley		2238-2276 3080-3120	

DATE Dec 11, 1982

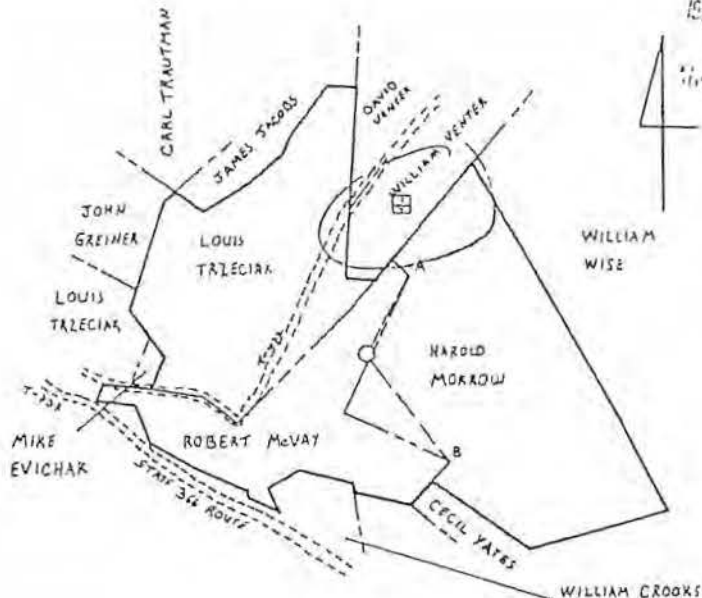
APPROVED BY [Signature]

TITLE Wm. Brundage

WELL LOCATION PLAT

Well is located on topo map 4725' feet south of LATITUDE 40° 32' 30"

129-22830

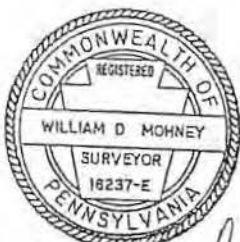


Well is located on topo map 8280' feet west of LONGITUDE 79° 0' 00"

DER-704  
REC'D MAR 12 1985

— LIMIT OF LEASE  
- - - PROPERTY LINE

SCALE 1 = 1000



LOC TO A N 29° 17' 38" E 69.92'  
LOC TO B S 37° 37' 23" E 95.05'

A - IRON PIN ON PROPERTY CORNER  
B - IRON PIN ON PROPERTY CORNER

*William D. Moliney*

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging

Denotes location of well on 7 1/2" topo map Permit # 25730 Project # \_\_\_\_\_  
129-22830-22870

Well Operator <u>Princeton Oil Company, Inc</u>	Revision <input type="checkbox"/> Re Issue <input type="checkbox"/> Alteration <input type="checkbox"/> Storage Recondition <input checked="" type="checkbox"/> New Location <input type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input type="checkbox"/> Registration <input type="checkbox"/> Plugging	Surveyor/Engineer <u>William D. Moliney</u> Drawing Number  Date <u>11/1/85</u> Date
Address <u>64 Route 22</u>	Surface landowner and water purveyor with water supply within 1000 <u>N/A</u>	Approximate course and distance to water supply  <u>N/A</u>
Delmont, PA 15626		<b>RECEIVED</b>
Surface Owner <u>Robert D &amp; Joyce S. McVay</u>		<u>JUN 30 1985</u>
Surface Lessor (if any) <u>None</u>		
Firm Name <u>McVay</u>		
W. 1 No <u>#1</u>	Senior No <u>PM-6</u>	
Acres <u>64.3</u>	Ground Elevation <u>1040</u>	
Topo Quadrangle <u>New Amintion east</u>	Section <u>8</u>	
County <u>Westmoreland</u>	Political Jurisdiction <u>Upper Burrell Twp</u>	Owner/Operator <u>Wills Coal Co</u>
Angle of Deviation <u>None</u>	Anticipated TD <u>4,000</u>	Workable Coal <u>Upper Freeport</u>
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management		<u>3-17-86</u>
		<u>REPTON</u> <u>MIWE</u>

R-OG-4: Rev. 10/82

36184  
36185  
36186

49° 75' S 40° 32' 30"  
8,730' W 79° 40' 00"

(8)

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

NEW KENINGTON EXT

127-22830

Office Use Only

129-22830

WELL RECORD



PERMIT NO. 37-129-22830-00 PROJECT NO. [ ] TYPE OF WELL Gas

PINE RUN-DEV

WELL OPERATOR Penneco Energy Corporation TELEPHONE NO. 412-468-8232

ADDRESS U. S. Route 122, Delmont, PA ZIP 15626

FARM NAME Robert D. McVey FARM NO. SERIAL NO. PM-6 ACRES 49

TOWNSHIP Upper Burrell COUNTY Westmoreland

DRILLING COMMENCED 1-26-87 DRILLING COMPLETED 1-30-87

ELEVATION 1040' QUADRANGLE New Kensington East  7'  15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
11-3/4"	41	Cuttings	None	N/A	N/A	N/A	1-26-87
8-5/8"	1,966	275	10	Float Shoe	8-5/8"	1,976	1-28-87
4-1/2"	3,294	255	5	Float shoe	4-1/2"	3,304	1-30-87
1-1/2"	3,089	N/A	N/A	N/A	N/A	3,089	2-7-87

ID	DD	DPI	Class	O/G	Lease
3277		3115	D	2	1

PERFORATION RECORD			STIMULATION RECORD				
DATE	INTERVAL PERFORATED FROM	TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
2-5-87	3,086	3,115	2-5-87	3086-3115	30,600	50,000#	34.8BPM
2-5-87	3,014	3,015	2-5-87	3014-3022	8,500	12,000#	24.0BPM
2-5-87	3,019	3,022	2-5-87	2262-2274	23,750	29,600#	31.6BPM

NATURAL OPEN FLOW	Not Taken	NATURAL ROCK PRESSURE	Not Taken	HRS. DAYS
AFTER TREATMENT OPEN FLOW	411 MCF	AFTER TREATMENT ROCK PRESSURE	800#	72 HRS. DAYS

REMARKS: Good cement returned to surface after setting 8-5/8" casing

VENANGO

BROOKS

DER-TGS  
JUL 20 1987

RECEIVED

(FORMATION ON REVERSE SIDE)

JUL 20 1987

PA GEOLOGICAL SURVEY  
(Oil & Gas Geology District)

cbe  
5-26-87  
Lcd



129-22836.

FORMATIONS						
NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Sub	0	10				Driller's Log
Shale	10	85				
Red Rock	85	135				
Shale	135	225			225' Fresh	
Sand	225	280				
Sand and Shale	280	335				
Shale	335	390				
Coal	390	393				
Shale	393	415				
Sand and Shale	415	440				
Shale	440	535				
Sand	535	595				
Shale	595	680				
Coal	680	683				
Shale	683	730				
Sand and Shale	730	765				
Shale	765	975				
Sand	975	1040				
Shale	1040	1105				
Sandy Shale	1105	1195				
Sand	1195	1230				
Shale	1230	1265				
Sand	1265	1290				
Shale	1290	1385				
Sandy Shale	1385	1490				
Shale	1490	1695				
Sand and Shale	1695	1775				
Sand	1775	1840				
Red Rock	1840	1850				
Sand	1850	1980	1855'			
Red Rock	1980	2050				
Shale	2050	2100				
Red Rock	2100	2175				
Shale	2175	2310				
Sand	2310	2520				
Shale	2520	2685				
Sandy Shale	2685	2850				
Sand	2850	3015				
Shale	3015	3185				
Sand	3185	3277				
T.D.	3277					
GEOPHYSICAL LOG DATA						
	Speechley		3,080	3,118		
	Speechley Stray		3,004	3,024		
	Fifth		2,260	2,276		

BRADY

March 17,

1987

DATE

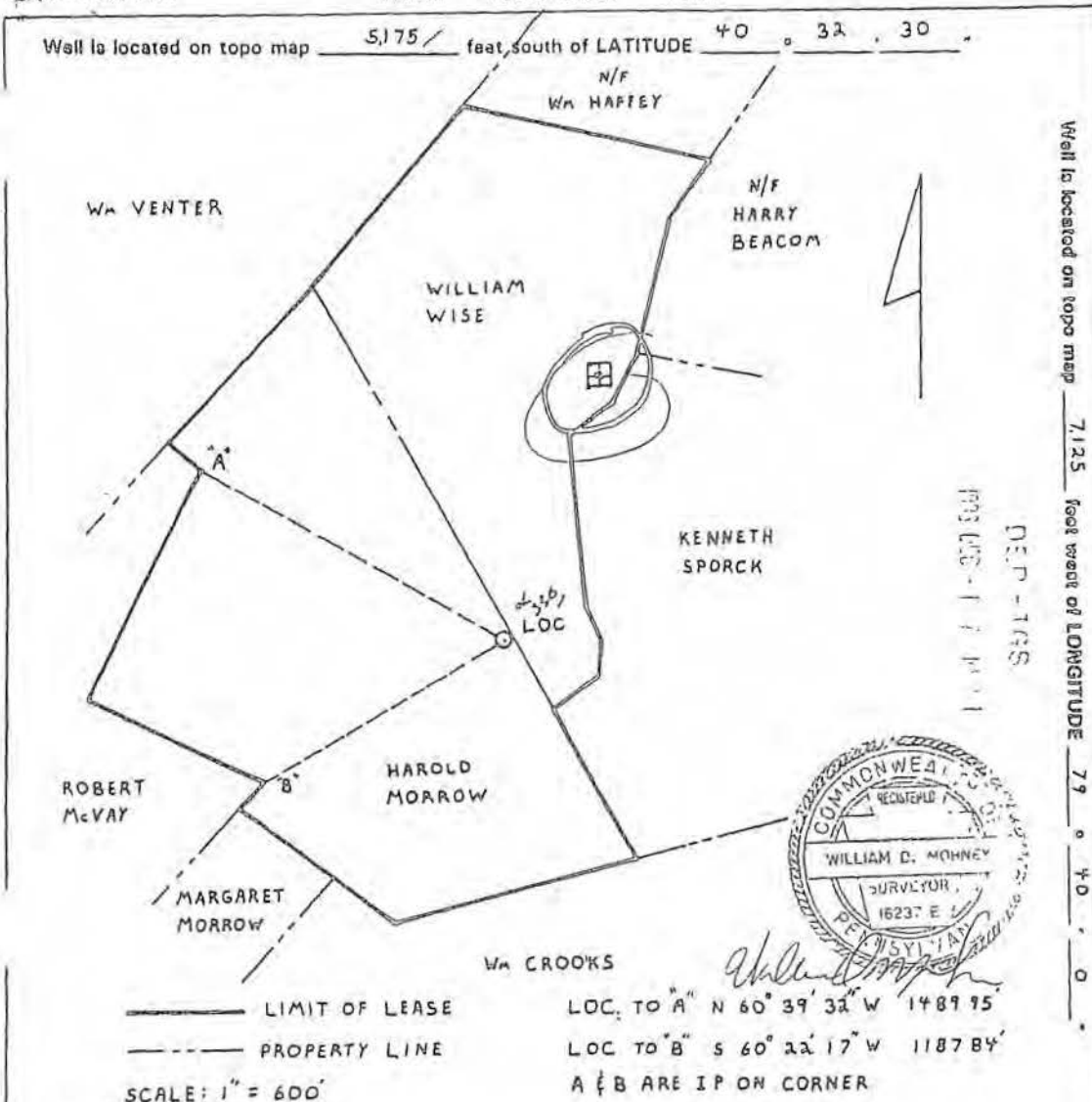
*[Signature]*

APPROVED BY

*[Signature]*

TITLE

WELL LOCATION PLAT



\_\_\_\_\_ LIMIT OF LEASE  
 \_\_\_\_\_ PROPERTY LINE  
 SCALE: 1" = 600'  
 LOC TO "A" N 60° 39' 32" W 1489.95'  
 LOC TO "B" S 60° 22' 17" W 1187.84'  
 A & B ARE IP ON CORNER

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging.

Denotes location of well on 7 1/2" topo map    Permit # 31-129-22913-00    Project # \_\_\_\_\_

Well Operator Penneco Oil Company, Inc.	Revision Re-Issue <input type="checkbox"/> Alteration <input type="checkbox"/> Storage Recondition <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input type="checkbox"/> Registration <input type="checkbox"/> Plugging <input type="checkbox"/>	Survivor/Engineer W.D. Mohney
Address U.S. Route #22		Drawing Number PM - 2
Delmont, PA 15626		Date 11/18/86
Surface Owner Harold V. Morrow	Surface landowner and water purveyor with water supply within 1,000'	Approximate course and distance to water supply
Surface Lessor (if any) N/A		
Firm Name Morrow		
Well No #2		
Acres 71.83	Ground Elevation 1160	
Quadrangle New Kensington East	Section 8	
County Westmoreland	Political Subdivision Upper Burrell	
Angle of Deviation None	Anticipated TD 3,500'	
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management		
Owner/Operator Villa Coal Co.	Workable Coal Seams Upper	Name of Seam Upper
		PA GEOLOGICAL SURVEY Geology Division
	RENTON	12-3-86

RECEIVED

DEC 16 1986

PA GEOLOGICAL SURVEY  
Geology Division

12-3-86

ER-OG-9: Rev. 10/82

5175' S 40°32'30"  
7125' W 79°40'00"

181

"CORRECTED"

COLLECTED COPY  
NEW KENSINGTON EAST

129-22943

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15222

Office Use Only

WELL RECORD

PERMIT NO. 37-129-22943-00

PROJECT NO. [ ]

TYPE OF WELL Gas and Oil

PINE RUN-DEV

WELL OPERATOR Penneco Energy Corporation		TELEPHONE NO. 412-468-8232	
ADDRESS U. S. Route #22, Delmont, PA			ZIP 15626
FARM NAME Harold V. Morrow	FARM NO.	SERIAL NO. PH-38	ACRES 72
TOWNSHIP Upper Burrell	COUNTY Westmoreland		
DRILLING COMMENCED 1-30-87	DRILLING COMPLETED 2-3-87		
ELEVATION 1160'	QUADRANGLE New Kensington East <input checked="" type="checkbox"/> 7 1/2' <input type="checkbox"/> 15'		

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN	
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH		
11-3/4"	42	Cuttings	None	N/A	N/A	N/A	1-30-87	
8-5/8"	2,033	360	12	Float Shoe	8-5/8"	2,043	2- 1-87	
4-1/2"	3,287	425	4	Float shoe	4-1/2"	3,291	2- 3-87	
1-1/2"	3,162	N/A	N/A	N/A	N/A	3,162	2-13-87	
		T.O.	D.D.	D.P.I.	Class	O	G	Loss
		3900		3142	D			

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED FROM	TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
2-12-87	3122	3146	2-12-87	3122-3146	26,300	42,600#	35.3BPM
2-12-87	3040	3043	2-12-87	3040-3043	6,000	9,600#	26.0BPM
2-12-87	2290	2302	2-12-87	2290-			
2-12-87	2307	2310	2-12-87	2310	20,750	31,200#	33.2BPM
2-12-87	2214	2220	2-12-87	2214-2220	10,250	11,400#	16.0BPM

NATURAL OPEN FLOW 60 MCF	NATURAL ROCK PRESSURE Not Taken	HRS. DAYS
AFTER TREATMENT OPEN FLOW 500 MCF	AFTER TREATMENT ROCK PRESSURE 730#	22 HRS. DAYS

REMARKS: Good cement returned to surface after setting 8-5/8" casing.

VENANGO

BRADFORD

RECEIVED

NOV 22 1988

PA GEOLOGICAL SURVEY  
800 G. Stra. Geology Division

(FORMATION ON REVERSE SIDE)

CSE  
10-25-88

FORMATIONS

NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Sub	0	10				Driller's Log
Shale	10	40				
Sand	40	85				
Shale	85	165				
Red Rock	165	180				
Shale	180	245				
Sand	245	290				
Sand and Shale	290	330				
Shale	330	375				
Coal	375	378				
Shale	378	565				
Sand	565	640				
Coal	640	643				
Shale	643	820				
Sand	820	835				
Shale	835	885				
Sand	885	925				
Shale	925	1000				
Sand	1000	1080				
Sand and Shale	1080	1105				
Shale	1105	1150				
Sand	1150	1310				
Sand and Shale	1310	1350				
Sand	1350	1440				
Sand and Shale	1440	1580				
Sand	1580	1640				
Shale	1640	1760				
Sand and Shale	1760	1810				
Sand	1810	1880				
Shale	1880	2085				
Red Rock	2085	2100				
Shale	2100	2170				
Red Rock	2170	2240				
Shale	2240	2415				
Sand	2415	2620				
Sandy Shale	2620	2785				
Shale	2785	2940				
Sandy Shale	2940	3100				
Sand	3100	3260				
Shale	3260	3400				
TD	3400					
<u>BRUNER</u>						
<u>GEOPHYSICAL LOG DATA</u>						
	Speechley	-	3120	-	3148	
	Speechley Stray	-	3040	-	3044	
	Fifth	-	2270	-	2312	
	Fourth	-	2206	-	2280	

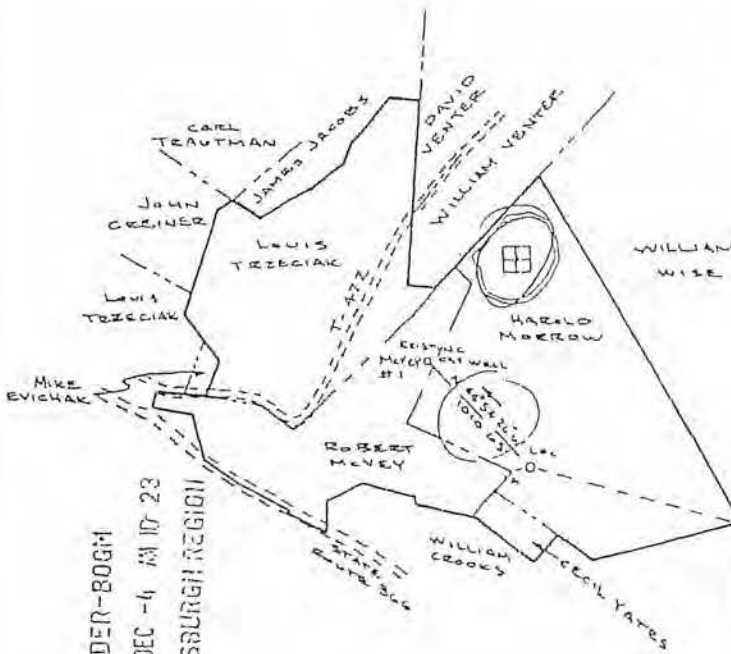
DATE March 17, 1987  
*J. Van-Product*



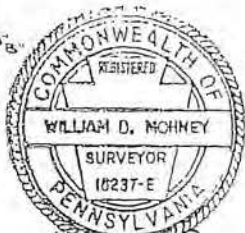
42383

129-23073

Well is located on topo map 5700 feet south of LATITUDE 40° 32' 30"



Well is located on topo map 8060 feet west of LONGITUDE 79° 0' 40" 00"



*William D. Mohney*

NOTE: Well location is located at a minimum of 330 feet from the lease line and a minimum of 1000 feet from any existing gas wells.

DER-BOGH  
1987 DEC -4 AM 10-23  
PITTSBURGH REGION

— Limit of Lease  
- - - Property Line  
Scale = 1" = 1000'

Loc. to "A" S 75° 02' 45" W 123.19'  
Loc. to "B" S 75° 04' 40" E 1523.62'  
"A" and "B" are iron pins on property corners.

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging.

☐ Denotes location of well on 7 1/2" topo map Permit # 37-129-23073-00 Project #

Well Operator Penneco Oil Company, Inc.	Revision Re-issuance <input type="checkbox"/> Alteration <input type="checkbox"/> Storage Recondition <input type="checkbox"/> New Location <input type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input type="checkbox"/> Registration <input type="checkbox"/> Plugging <input type="checkbox"/>	Surveyor/Engineer W.D. Mohney & Associates Drawing Number <b>RECEIVED</b> Date 10/23/87 DEO 81907 Date 12/2/87
Address U.S. Route 22 Dalmont, PA 15626	Surface landowner and water purveyor with water supply within 1,000'	Approximate distance to nearest public well 1000.0'
Surface Owner Harold Morrow	Cecil H. Yates S 0° 32' 00" W 575'	
Surface Lessor (if any) None	William F. Crooks S 8° 30' 00" W 701.5'	
Farm Name Morrow	William F. Crooks S 25° 34' 30" E 945.0'	
Well No J	Harold Morrow S 65° 08' 00" E 415.0'	
Serial No PM 40	Fred C. Vanderheuel S 69° 00' 30" W 948.5'	
Acres 71.83	George Wilson S 57° 30' 00" W 1000.0'	
Ground Elevation 1020	Owner/Operator Harold Morrow Villa Coal Co.	Workable Coal Seams Name of Seam All Other Seams Upper Freeport
Quadrangle Kensington East	Political Subdivision Upper Burrell Twp.	Anticipated TD 4,000
City Stomestland	Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management	
Angle of Deviation None		
		12-4-87

5700' S 40° 32' 30"  
8060' W 79° 40' 00"

(8)

NEW KENSINGTON EAST

129-23073

129-23073

ER-OG-4: Rev. 6/24  
H. 38215  
38216  
38217

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15206-2988

Office Use Only

WELL RECORD

PERMIT NO. 07-129-23073-00 PROJECT NO. PINE RUN-DEV TYPE OF WELL Gas and Oil

WELL OPERATOR Penneco Energy Corporation TELEPHONE NO. 412-468-8232

ADDRESS U. S. Route #22 Delmont, PA ZIP 15626

FARM NAME Harrow #3 FARM NO. 3 SERIAL NO. PH-40 ACRES 72

TOWNSHIP Upper Burrell COUNTY Westmoreland

DRILLING COMMENCED 2-19-88 DRILLING COMPLETED 2-23-88

ELEVATION 1020' QUADRANGLE New Kensington East  7 1/2'  15'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
16"	22	Cuttings	None	N/A	N/A	22	2-19-88
11-3/4"	110	Cuttings	None	N/A	N/A	110	2-19-88
8-5/8"	1,835	350	12	Float Shoe	8-5/8"	1,845	2-19-88
4-1/2"	3,205	325	5	Float Shoe	4-1/2"	3,215	2-23-88
1-1/2"	3,078	N/A	N/A	N/A	N/A	3,078	3-8-88

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED FROM	INTERVAL PERFORATED TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
3-8-88	3072	3107	3-8-88	3072-3107	30,000	47,500	32.4BPM
3-8-88	2998	3003					
3-8-88	3006	3008	3-8-88	2998-3008	8,000	13,000	29.5BPM
3-8-88	2234	2236					
3-8-88	2246	2258	3-8-88	2234-2268	16,000	27,000	32.5BPM
	2266	2268					

T.D.	D.D.	D.P.I.	Check	O/G	Lease
3255		3107	0	2	1

NATURAL OPEN FLOW	Not Taken	NATURAL ROCK PRESSURE	Not Taken	HRS. DAYS
AFTER TREATMENT OPEN FLOW	375 MCF	AFTER TREATMENT ROCK PRESSURE	620#	72 HRS. DAYS

REMARKS:

Good cement returned to surface after setting 8-5/8" casing.

VENANGO  
BRADFORD

CSE  
11-13-88


129-23073

FORMATIONS

NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Sub Fill	0	10				Driller's Log
Shale	10	32				
Red rock	32	60				
Sand	60	105				
	105	125				
Shale	125	260				
Sand	260	340				
Shale	340	390				
Sand	390	465				
Coal	465	468				
Shale	468	515				
Sandy Shale	515	565				
Shale	565	655				
Sandy shale	655	745				
Shale	745	840				
Sandy shale	840	885				
Shale	885	970				
Sand	970	1030				
Sand and Shale	1030	1190				
Sand	1190	1280				
Sand and Shale	1280	1375				
Sand	1375	1455				
Shale	1455	1480				
Sandy Shale	1480	1505				
Shale	1505	1575				
Sandy Shale	1575	1645				
Shale	1645	1755			1755	
Sand	1755	1785			1 1/2 - 2" Fresh	
rock	1785	1790				
Sand and Shale	1790	1980				
Red Rock	1980	2005				
Sand and Shale	2005	2035				
Red Rock	2035	2060				
Sand and Shale	2060	2290				
Shale	2290	2410				
Sand and Shale	2410	2860				
Sand	2860	2910				
Shale	2910	3060				
Sand	3060	3095	3000			
Sandy Shale	3095	3180				
Sand	3180	3255				
BRADFORD						
GEOPHYSICAL LOG DATA						
	Fifth				2228 - 2280	
	Speechley Stray				2996 - 3010	
	Speechley				3070 - 3108	

192

DATE July 26 1988

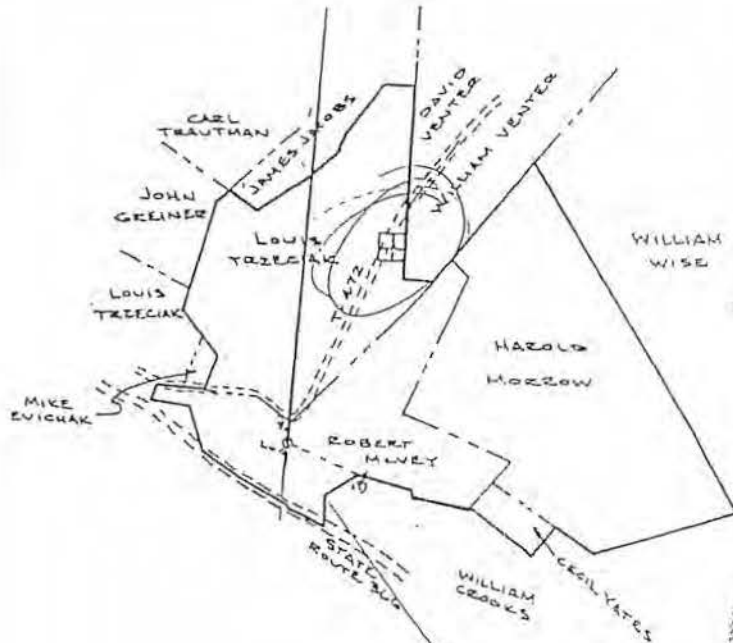
APPROVED BY   
Vice-President  
TITLE

WELL LOCATION PLAT

42505

129-23085

Well is located on topo map 5.590 feet south of LATITUDE 40° 32' 30"



OIL & GAS MANAGEMENT RECEIVED

DEC 11 1987

OIL & GAS MANAGEMENT RECEIVED

DEC 29 1987

Well is located on topo map 9.710 feet west of LONGITUDE 79° 40' 00"

NOTE: Well location is located at a minimum of 330 feet from the lease line and a minimum of 1000 feet from any existing gas wells.



--- LIMIT OF LEASE  
 - - - PROPERTY LINE  
 SCALE = 1" = 100'

Loc. To A N 7° 30' 34" W 156.14'  
 Loc. To B S 69° 35' 16" E 535.38'  
 A and B are Koch iron pins

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water and wetlands is not required for well plugging.

☐ Denotes location of well on 7 1/2" topo map Permit # 57-129-23085-00 Project #

Well Operator Penneco Oil Company, Inc.	Revision <input type="checkbox"/> Re-Issue <input type="checkbox"/> Alteration <input checked="" type="checkbox"/> Storage Recondition <input checked="" type="checkbox"/> New Location <input checked="" type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input type="checkbox"/> Registration <input type="checkbox"/> Plugging	Surveyor/Engineer W.D. Mohny & Associates Drawing Number Date 10/22/87 Date
Address U.S. Route 22 Delmont, PA 15625	Surface landowner and water purveyor with water supply within 1,000'	Approximate course and distance to water supply
Surface Owner Robert D. & Joyce S. McVey		
Surface Lessor (if any) None		
Farm Name McVey		
Well No. #2	Serial No. PM-41	See Attached Sheet.
Acres 49.2	Ground Elevation 858	
Quadrangle 1908 Kensington East	Section (8)	
County Westmoreland	Political Subdivision Upper Burrell Twp.	Owner/Operator Robert D. McVey
Angle of Deviation None	Anticipated TD 4,000'	Workable Coal Seams Name of Seam All seams except U.F. Upper Freeport
Commonwealth of Pennsylvania Department of Environmental Resources		Villa Coal Co. Routon Mine 1-4-88



5590' S 40° 33' 30"  
9710' W 79° 40' 00"

(8)

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CR-DG-4, Rev. 6/84

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
BUREAU OF OIL AND GAS REGULATION  
PITTSBURGH, PENNSYLVANIA 15206-2988

NEW KENSINGTON EAST

129-23085

Office Use Only

25-23085

D#39314-316

WELL RECORD

PERMIT NO. 37-129-23085-00  
PROJECT NO. [ ]  
TYPE OF WELL Gas  
WELL OPERATOR Penneco Energy Corporation  
ADDRESS 200 Route 22, Delmont, PA  
FARM NAME Robert D. McVey #2  
TOWNSHIP Upper Burrell  
COUNTY Westmoreland  
DRILLING COMMENCED 11-5-88  
DRILLING COMPLETED 11-10-88  
ELEVATION 858'

CASING AND TUBING RECORD

PIPE SIZE	AMOUNT IN WELL	MATERIAL BEHIND PIPE		PACKER			DATE RUN
		CEMENT (SKS.)	GEL (SKS.)	TYPE	SIZE	DEPTH	
9-5/8"	32	Cuttings	None	N/A	N/A	N/A	11-5-88
7"	1,755	240	12	Float Shoe	7"	1,765	11-8-88
4-1/2"	3,652	165	12	Float Shoe	4-1/2"	3,662	11-10-88
1-1/2"	3,531	N/A	N/A	N/A	N/A	3,531	11-19-88

T.D.	D.D.	D.P.I.	Class	⊙	G	Lenco
3805		3546	D	-	1	1

PERFORATION RECORD

STIMULATION RECORD

DATE	INTERVAL PERFORATED FROM	TO	DATE	INTERVAL TREATED	AMOUNT FLUID	AMOUNT SAND	INJECTION RATE
11-17-88	2826	2836	11-17-88	2826-2836	13,000	12,000#	30BPM
11-17-88	2902	2932	11-17-88	2902-2932	33,500	38,000#	34BPM
11-17-88	3214	3220	11-17-88	3214-3220	9,000	7,200#	25BPM
11-17-88	3522 3534 3546	3526 3536 3546	11-17-88	3522-3546	10,500	12,000#	30BPM

NATURAL OPEN FLOW	66 MCF	NATURAL ROCK PRESSURE	Not Taken	HRS. DAYS
AFTER TREATMENT OPEN FLOW	350 MCF	AFTER TREATMENT ROCK PRESSURE	640#	72 HRS. DAYS

REMARKS:

Good cement returned to surface after setting 7" casing.

BRADFORD

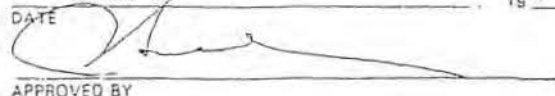
(FORMATION ON REVERSE SIDE)

CCE  
5-23-89  
led

129-23085

193-578		FORMATIONS				
NAME	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (FRESH OR SALT WATER)	SOURCE OF DATA
Sand	0	5				Driller's Log
Shale	5	15				
Sand and Shale	15	32				
Sand and Shale	32	120			1/2" @ 100'	
Sand and Shale	120	285				
Coal	285	290				
Shale	290	505			1/2" @ 505'	
Coal	505	509				
Shale	509	560				
Sand and Shale	560	1060				
Sand and Shale	1060	1430				
Sand and Shale	1430	1793			1/2" @ 1630'	
Red Rock, Sand & Shale	1793	2090				
Sand and Shale	2090	2550				
Sand and Shale	2550	3130	2800'			
Sand and Shale	3130	3680				
Shale	3680	3805				
<i>BRADFORD</i>						
GEOPHYSICAL LOG DATA						
Fifth					2053-2090	
Bayard					2146-2150	
Speechley Stray					2826-2836	
Speechley					2900-2934	
2nd Balltown					3214-3222	
2nd Bradford					3527-3546	

DATE March 31 1989

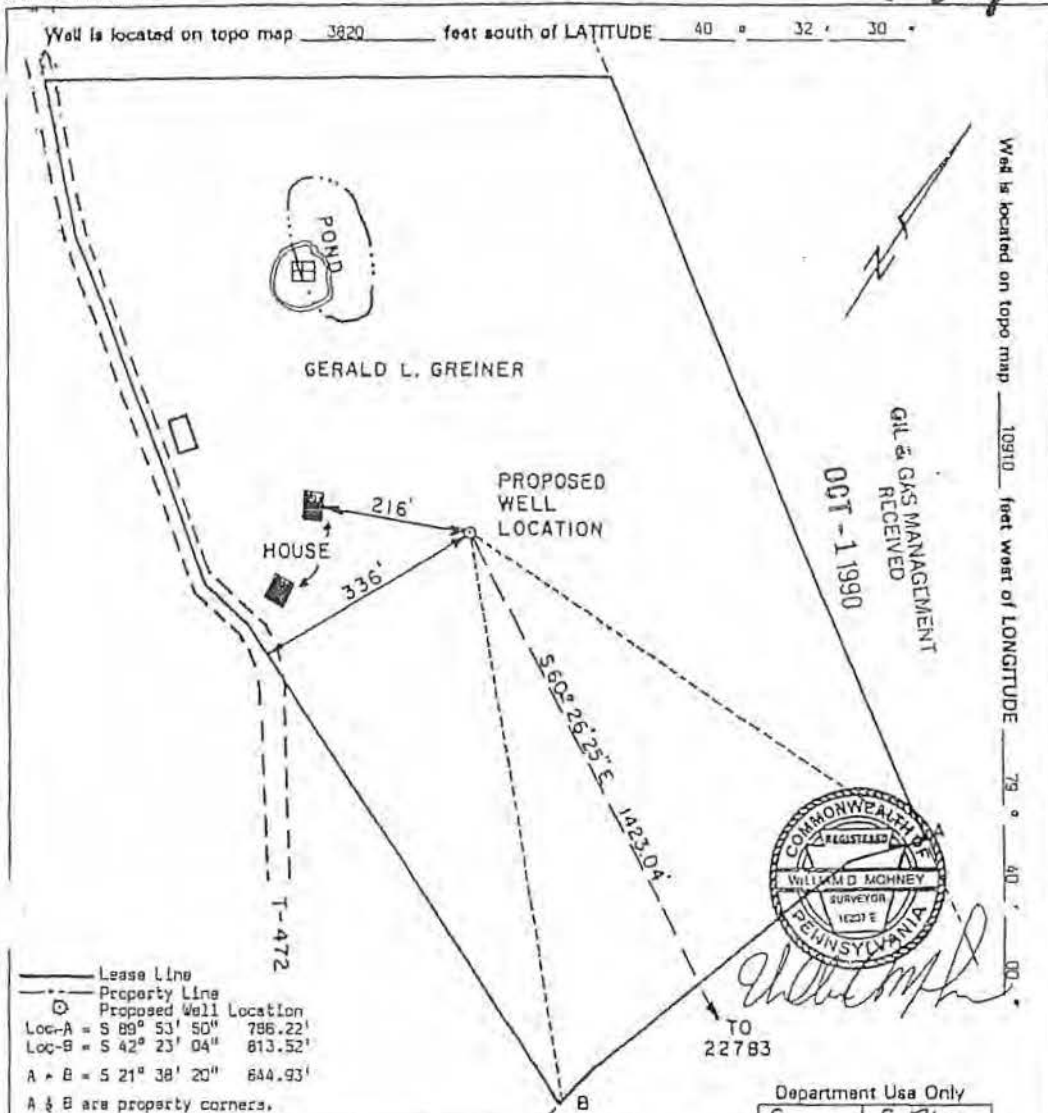
APPROVED BY 

TITLE Vice-President

129-2934 E

ER-CG-2: Rev. 6/85

WELL LOCATION PLAT



- Lease Line
- Property Line
- ⊙ Proposed Well Location
- Loc-A = S 89° 53' 50" 786.22'
- Loc-B = S 42° 23' 04" 813.52'
- A - B = S 21° 38' 20" 644.93'
- A & B are property corners.

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'. Reference to buildings, springs, bodies of water wetlands and water supplies within 1,000 is not required for well plugging.

⊙ Denotes location of well on 7 1/2" topo map Permit # 37-129-27748-a Project #



Department Use Only  
G C DLT

Perseco Oil Company, Inc.		Ravision	<input type="checkbox"/>	W.D. Mohney
Well Permittee/Registrant		Alteration	<input type="checkbox"/>	Surveyor/Engineer
200 U.S. Route 22		Storage Recondition	<input type="checkbox"/>	G-1
Address		New Location	<input checked="" type="checkbox"/>	Drawing Number
Delpont, PA 15526		Drill Deeper	<input type="checkbox"/>	9-4-90
Surface Owner		Abandonment	<input type="checkbox"/>	Date
Gerald L. Greiner		Registration	<input type="checkbox"/>	1"=200'
Surface Lessee (if any)		Plugging	<input type="checkbox"/>	Scale
Greiner		Surface landowner and water purveyor with water supply within 1,000'		Approximate course and distance to water supply
Farm Name				
1		Gerald Greiner		N 70° 44' W 215'
Well No.	Tract	Lena Greiner		N 70° 44' W 215'
24/23	920	Louis Trzaciak		S 9° E 425'
Acres	Ground Elevation			
Noria	4000'			
Angle of Dip (to center)	Anticipated TO			
state land	Upper Burrell Twp.			
1468	Municipality			
New Kensington East	Section			
Topo Quadrangle				
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management				
		Owner/Operator/Lessee		Workable Coal Seams
		Consolidation Coal Co.		Upper Freeport, Pottsville, etc.
		Gerald Greiner		all other
				10/10/90

*NEW KENSINGTON EAST*  
*129-23348*

*RE*  
*DEF 42136*  
*42137*  
*42138*  
*35' 10" 40° 52' 35" W*  
*10' 11" 79° 40' 00"*  
*(11) (8)*

**WELL RECORD AND COMPLETION REPORT**

- In accordance with 25 Pa Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

*PINE RUN FIELD*

*DEV.*

Well Operator <b>Penneco Energy Corporation</b>		Telephone Number <b>412-468-8272</b>	
Address <b>200 U.S. Route 22, P. O. Box 300, Delmont, PA 15626</b>			
Permit Number <b>37-129-23348</b>		Project Number	
Farm Name <b>Greiner</b>	Farm Number <b>1</b>	Serial Number <b>PG-33</b>	Acres <b>24.23</b>
Township <b>Upper Burrell</b>		County <b>Westmoreland County</b>	
Type of Well <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

**WELL RECORD**  
(Include Driller's Log on Reverse Side)

Drilling Method Rotary (Air) <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> (Specify)	Date Drilling Started <b>7/26/91</b>	Date Drilling Completed <b>8/6/91</b>
Elevation <b>920</b>	Total Depth <b>4214</b> <i>B</i>	7 <sup>1</sup> / <sub>2</sub> Quadrangle <b>New Kensington East</b>

**CASING AND TUBING RECORD**

Hole Size	Pipe Size	Amount in Well	Material Behind Pipe Type and Amount	Packer/Hardware			Date Run
				Type	Size	Depth	
15"	13-3/8"	23'	Sanded In	N/A	N/A	N/A	7-29-91
2-1/4"	9-5/8"	393'	Cement - 114 sacks	Float Shoe	9-5/8"	393'	7-30-91
8-3/4"	7"	1827	Cement - 290 sacks	Float Shoe	7"	1840	8-1-91
6-1/4"	4-1/2"	3830	Cement - 165 sacks	Float Shoe	4-1/2"	3838	8-6-91
Cement return on surface casing? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no							

**COMPLETION REPORT**

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Average Perforation Rate
	From	To			Type	Amount	Type	Amount	
8-12	3595	3600	8-12	3595 - 3600	Water	12,000 gal	Sand	21,000 gal	25 BPM
8-12	3281	3286	8-12	3281 - 3286	Water	12,000 gal	Sand	20,000 gal	23.8 BPM
8-12	2966	3000	8-12	2966 - 3000	Water	34,000 gal	Sand	68,000 gal	25 BPM
8-12	2889	2908	8-12	2889 - 2908	Water	12,000 gal	Sand	20,000 gal	25.8 BPM
	<i>7.11</i>	<i>1.11</i>	<i>1.11</i>	<i>1.11</i>	<i>Clus</i>	<i>1</i>	<i>1</i>	<i>1</i>	
	<i>4214</i>			<i>3600</i>	<i>D</i>				

Natural Open Flow <b>125 MCFPD</b>	Natural Rock Pressure	Hours <b>N/A</b>	Days <b>1</b>
After Treatment Open Flow <b>411 MCFPD</b>	After Treatment Rock Pressure <b>940 psig</b>	Hours <b>72</b>	Days <b>1</b>


*BRADFORD*

*1.0.1992*


Name, Address, and Telephone Number of Well Service Companies			
<b>D. Hill Drilling Company</b>	<b>- Rt 321 South - Kane, PA 15735</b>	<b>814-837-6612</b>	
<b>Nowco Well Service</b>	<b>- 3000 Old Airport Road - Wooster, OH 44691</b>	<b>216-264-8885</b>	
<b>Allegheny Nuclear Surveys, Inc.</b>	<b>- Elderton, PA 15736</b>	<b>412-354-3090</b>	

129-23748

DRILLER'S LOG OF FORMATIONS						
Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Clay	0	5				Drillers Log
Red Bed	5	15				
Shale	15	30				
Sand	30	34				
Sand & Shale	34	345			1/2" @ 65'	
Mine	345	355				
Sand & Shale	355	890			1" @ 890'	
Sand & Shale	890	1,290				
Shale & Sand	1,290	1,670			1" @ 1,665'	
Sand & Shale	1,670	1,860			1" @ 1,790'	
Sand, Red Rock & Shale	1,860	2,475				
Shale & Sand	2,475	3,100	2,875'			
Sand & Shale	3,100	3,650				
Sand & Shale	3,650	4,214				


Vice-President
10/31/91  
 Operator's Signature Title Date

FOR OFFICIAL USE ONLY


3/12/92
Comments  
 Reviewed By Date



WELL LOCATION PLAN

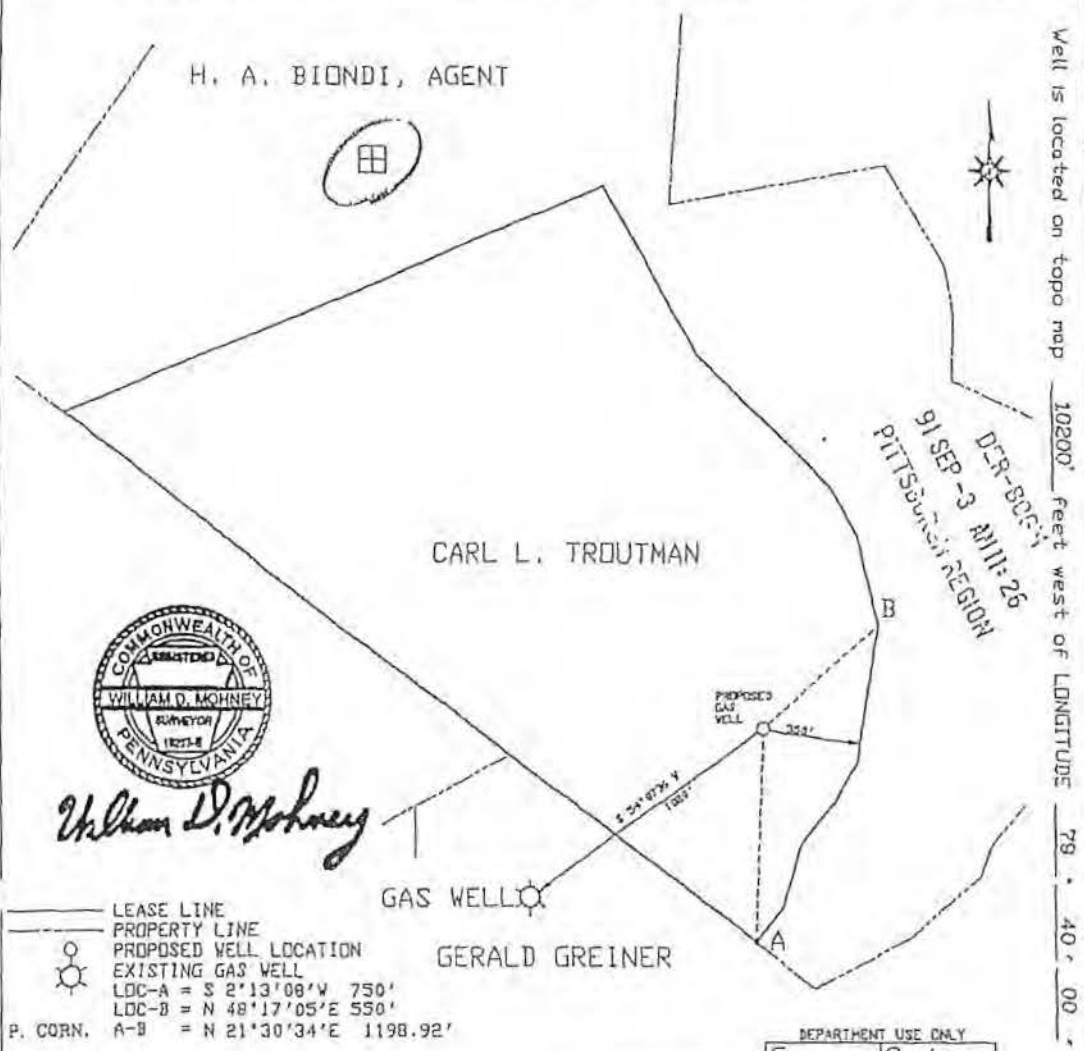
C-126642

29-23480

GEO COPY

Well is located on topo map 3085' feet south of LATITUDE 40° 32' 30"

Well is located on topo map 10200' feet west of LONGITUDE 79° 40' 00"



*William D. Mohney*

LEASE LINE  
PROPERTY LINE  
PROPOSED WELL LOCATION  
EXISTING GAS WELL  
LDC-A = S 2°13'08"W 750'  
LDC-B = N 48°17'05"E 550'  
P. CORN. A-B = N 21°30'34"E 1198.92'

DEPARTMENT USE ONLY  
G C

INCLUDE DESCRIPTION OF THE PROPERTY AND COURSES AND DISTANCES OF THE WELL(S) LOCATION TO TWO OR MORE PERMANENT IDENTIFIABLE POINTS OR LAND MARKS, ALL BUILDINGS AND WATER SUPPLIES WITHIN 200', ALL SPRINGS, BODIES OF WATER AND STREAMS WITHIN 100' IDENTIFIED ON THE MOST CURRENT 7 1/2' TOPOGRAPHIC MAP AND WETLANDS WITHIN 100'. REFERENCE TO BUILDINGS, SPRINGS, BODIES OF WATER, WETLANDS AND WATER SUPPLIES WITHIN 1000' IS NOT REQUIRED FOR WELL PLUGGING

☒ DENOTES LOCATION OF WELL ON 7 1/2' TOPO MAP PERMIT NO. 37-129-23480 PROJECT NO. \_\_\_\_\_

PENNCO OIL COMPANY, INC		REVISION ALTERATION STORAGE RECONDITION NEW LOCATION DRILL DEEPER ABANDONMENT REGISTRATION PLUGGING	NO O O O O O O O	W.D. MOHNEY & ASSOC	
Well Permittee/Registrant 200 U.S. ROUTE 22				Surveyor/Engineer W-1	
Address DELMONT PA. 15626				Draving Number 0-30-91	
CARL L. TROUTMAN				Date 1 = 500'	
Surface Owner N/A		SURFACE LANDOWNER AND WATER PURVEYOR WITHIN 1000'		APPROXIMATE COURSE AND DISTANCE TO WATER SUPPLY	
Surface Lessor (if any) TROUTMAN		NONE			
Farm Name 2					
Well No. 82	Tract Serial No 1080.00			Scale 1" = 100'	
Acres NONE	Ground Elevation 4000				
Angle of Deviation (Drilling) WESTMORELAND CO	Anticipated TD UPPER BUREL TWP			Workable Coal (Specify Mine Location Within)	
County NEW KENSINGTON, EAST	Municipality 8	Owner/Operator/Lessee TESOME-LAND CO. INC CARL TROUTMAN		UPPER FREEPORT ALL OTHERS	
Topo Quadrangle	Section	cum 9/4/91		Within Renton Mine (Sealed)	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF OIL AND GAS MANAGEMENT					

NEW KENSINGTON 2007

29-23430

#2

II-OG-4 Rev. 3/89

3095' 540° 32' 30"  
10700' 479° 40' 00"

Commonwealth of Pennsylvania  
Department of Environmental Resources  
Bureau of Oil and Gas Management

#42384 (H) (8)  
42385  
42386

WELL RECORD AND COMPLETION REPORT

- In accordance with 25 Pa Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well
- In accordance with 25 Pa Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of tephole water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

PINE RUN - DEV

Well Operator	Penneco Energy Corporation		Telephone Number	412-468-8232			
Address	200 Rt 22 P.O. Box 300 Delmont, PA				Zip	15626	
Permit Number	37-129-23430-00		Project Number				
Farm Name	Troutman	Farm Number	2	Serial Number	PT - 122	Acres	82
Township	Upper Burrell Twp		County	Westmoreland Co			
Type of Well	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)						

WELL RECORD  
(Include Driller's Log on Reverse Side)

Drilling Method	Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/>	Date Drilling Started	09-06-91	Date Drilling Completed	09-13-91
Elevation	1060	Total Depth	4028	7 1/2' Quadrangle	New Kensington East

BALLIEX

CASING AND TUBING RECORD

Hole	Pipe Size	Amount in Well	Material Behind Pipe		Packets/Hardware			Date
			Type and Amount	Type	Size	Depth		
	13 3/8"	34'	Sanded in	N/A	N/A	N/A		9-9-91
2	1 1/4"	9 5/8"	532'	Cement - 75 sacks	Float Shoe	9 5/8"	539	9-9-91
8	3/4"	7"	1991'	Cement - 320 sacks	Float Shoe	7"	2009	9-11-91
6	1/4"	4 1/2"	3986'	Cement - 165 sacks	Float Shoe	4 1/2"	3993	9-13-91

Cement return on surface casing?  yes  no

COMPLETION REPORT

BRAP

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Averag Injection Rate
	From	To			Type	Amount	Type	Amount	
9-23	3772	3789	9-23	3772-3789	Water	10,000gal	Sand	20,000#	21.2 BPM
9-23	3457	3463	9-23	3457-3463	Water	11,000gal	Sand	15,000#	23.8 BPM
9-23	3146	3178	9-23	3146-3178	Water	33,940gal	Sand	67,700#	23.7 BPM

T.D.	D.D.	D.P.I.	Class	O	G	Lease
4028		3789	D			

Natural Open Flow	44,344 mcf	Natural Rock Pressure	Hours	Days
After Treatment Open Flow	300 mcfpd	After Treatment Rock Pressure	880 psig	Hours 72 Days

RECEIVED


Address, and Telephone Number of Well Service Companies

MAY 15 1992

- F.D. Hill Drilling Company - Rt 321 South - Kane - PA 16735 814-837-6612
- Nowaco Well Service - 3000 Old Airport Road - Wooster, OH 44691 216-264-8885
- Allegheny Nuclear Surveys, Inc. - Elderton, PA 15736 412-354-3090

125-23430

477 - 782- DRILLER'S LOG OF FORMATIONS						
Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Fill	0	10				Drillers Log
Red Clay	10	15				
Shale & Clay	15	30				
Sand	30	34				
Sand & Shale	34	188				
Pitt Red Bed	188	198				
Shale & Sand	198	220				
Sand & Shale	220	510				
Mine	510	515				
Shale	515	540				
Sand & Shale	540	950				
Shale	950	1000				
Sand & Shale	1000	1080				
Sand	1080	1125				
Sand & Shale	1125	1325				
Shale & Sand	1325	1700				
Sand & Shale	1700	2600			1" @ 1830	
Shale	2600	2800			1/2" @ 1950	
Sand & Shale	2800	3060				
Sand	3060	3070	Show of gas @ 3065			
Sand & Shale	3070	3700				
Shale	3700	4028				


Vice President
12-23-91  
 Operator's Signature Title Date

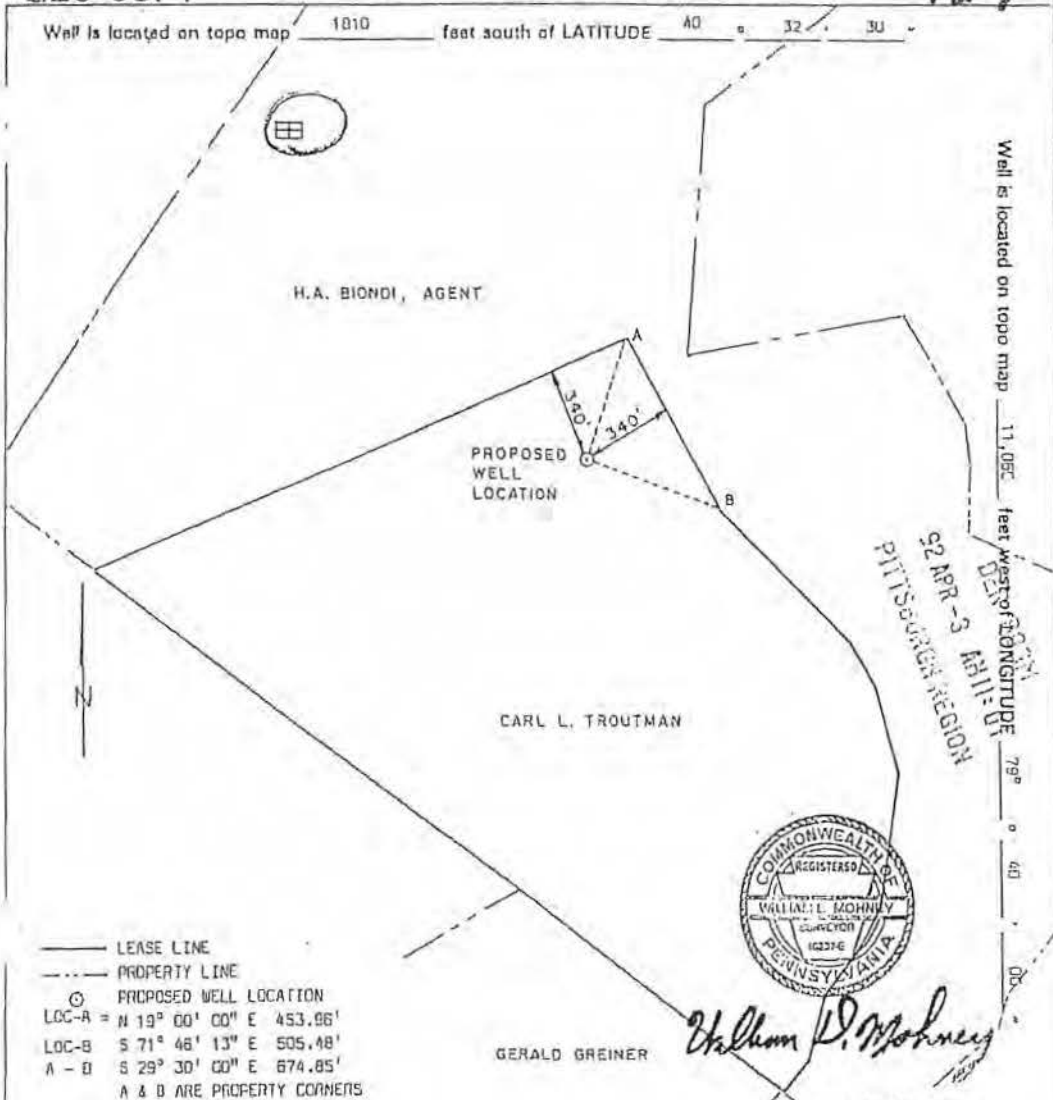
FOR OFFICIAL USE ONLY

Reviewed By: CHE Date: 4/27/92
Comments: \_\_\_\_\_

GEOCOPY

WELL LOCATION PLAT

129-23501



— LEASE LINE  
 - - - PROPERTY LINE  
 ⊙ PROPOSED WELL LOCATION  
 LOC-A = N 19° 00' 00" E 453.86'  
 LOC-B = S 71° 46' 13" E 505.48'  
 A - B = S 29° 30' 00" E 674.85'  
 A & B ARE PROPERTY CORNERS



*William D. Mohney*  
 Surveyor

Department Use Only  
 G C Trout

Include description of the property and courses and distances of the well(s) location to two or more permanent identifiable points or land marks, all buildings and water supplies within 200', all springs, bodies of water and streams within 100' identified on the most current 7 1/2" topographic map and wetlands within 100'.  
 Reference to buildings, springs, bodies of water wetlands and water supplies within 1,000 is not required for well plugging.

⊠ Denotes location of well on 7 1/2" topo map Permit # 37-129-23501-02 Project #

Pennoco Oil Company, Inc. 13825		Revision	<input type="checkbox"/>	W.D. Mohney
Well Permitter/Registrant		Alteration	<input type="checkbox"/>	Surveyor/Engineer
200 U.S. Route 22		Storage Recondition	<input type="checkbox"/>	T-1
Address		New Location	<input checked="" type="checkbox"/>	Drawing Number
Delmont, PA 15626		Drill Deeper	<input type="checkbox"/>	12-4-90
Carl L. Troutman		Abandonment	<input type="checkbox"/>	Date
Surface Owner		Registration	<input type="checkbox"/>	1" = 500'
N/A		Plugging	<input type="checkbox"/>	Scale
Surface Lessor (if any)		Surface landowner and water purveyor with water supply within 1,000'		Approximate course and distance to water supply
Troutman		Carl Troutman		S 25° 30' N 850'
Firm Name				
I PT-121				
Well No.	Tract	Serial No.		
82		1265		
Acres		Ground Elevation		
None		4350		
Age of Division (Years)		Anticipated FD		
Westmoreland Co. 1408		Workable Coal Seams		
Upper Burrell Twp. Municipality		Owner/Operator/Lessor	Name of Seam	
New Kensington East 8		Pesone Land Co., Inc.	Upper Freeport	
Topo Quadrangle Section		Carl Troutman	All Others	
			TF 4-8-92	
Commonwealth of Pennsylvania Department of Environmental Resources Bureau of Oil and Gas Management				

NEW KENSINGTON EAST  
129-23501

AG 43173

43176

43174

43175

WELL RECORD AND COMPLETION REPORT

1810' 3 40° 32' 30"  
11060' 3 79° 40' 00" (8) ✓

- In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-76).

PINE RUN FIELD

Well Operator Perraco Oil Company, Inc.		Telephone Number 412-468-8232	
Address 200 Rt. 22, P.O. Box 300 Delmont, PA			
Permit Number 37-129-23501		Project Number 15626	
Farm Name Troutman #1	Farm Number	Serial Number PT-121	Acres 82
Township Upper Burrell Township		County Westmoreland County	
Type of Well <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

WELL RECORD  
(Include Driller's Log on Reverse Side)

Drilling Method Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> (Specify)	Date Drilling Started 5-14-92	Date Drilling Completed 5-21-92
Elevation 1265	Total Depth 4307	7 1/2' Quadrangle New Kensington East

93 MAY 21 PM 12:56  
 DEF-3324  
 PITTSBURGH REGION

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Wall	Material Behind Pipe		Packers/Hardware			Date Run	
			Type	Amount	Type	Size	Depth		
15"	13 3/8"	35'	Sanded in		N/A	N/A	N/A	5-14-92	
12 1/4"			Reduced to 8 3/4" at 750						
8 3/4"	7"	1212	Cement - 460 sacks		Float shoe	7"	1219	5-19-92	
			T.D.	D.D.	D.P.I.	Class	O	G	Lease
			4307	-	3310	D	G	-	I

Cement return on surface casing?  yes  no **B** **B**

BR

COMPLETION REPORT

Perforation Record			Stimulation Record					
Date	Interval Perforated		Date Treated	Fluid		Propping Agent		Average Injection Rate
	From	To		Type	Amount	Type	Amount	
			Well was not treated					

93 MAY 25 PM 5:20  
 DEF-3324  
 PITTSBURGH REGION

Natural Open Flow 1,107 MCF	Natural Rock Pressure 940 psig	Hours 72	Days
After Treatment Open Flow	After Treatment Rock Pressure	Hours	Days

RECEIVED

name, Address, and Telephone Number of Well Service Companies


JUN 11 1993

F. D. Hall Drilling Company - Rt. 321 South - Koro, PA 16735	814-837-6612	PA GEOLOGICAL SURVEY
Halliburton Services, Inc. - P.O. Box 427 - Indiana, PA 15701	412-479-9046	Oil & Gas Services Division
Allegheny Nuclear Surveys, Inc. - Elderton, PA 15736	412-354-3090	



129-23501

DRILLER'S LOG OF FORMATIONS						
Name	Top	Bottom	Gas At	Dil At	Water At (Fresh or Brine)	Source of Data
Bony	0	35				Drillers Log
Sand	35	90				
Red Bed	90	100				
Sand & Shale	100	300			1/2'@100'	
Sand & Shale	300	870				
Shale	870	970				
Sand & Shale	970	1020				
Shale & Sand	1020	1400				
Sand & Shale	1400	1775				
Sand & Shale	1775	1920				
Murrysville	1920	2030			5"@1980	
Sand & Shale	2030	2065				
100' Sand	2065	2205		2160		
Sand & Shale	2205	2216				
Shale & Sand	2216	2235				
Red Rock	2235	2275				
Sand & Shale	2275	2675				
Shale & Sand	2675	3130				
Sand & Shale	3130	3630	3310			
Sand & Shale	3630	3735				
Sand	3735	3745				
Sand & Shale	3745	4100				
Shale & Shells	4100	4307				


Vice President
11/20/92  
 Operator's Signature Title Date

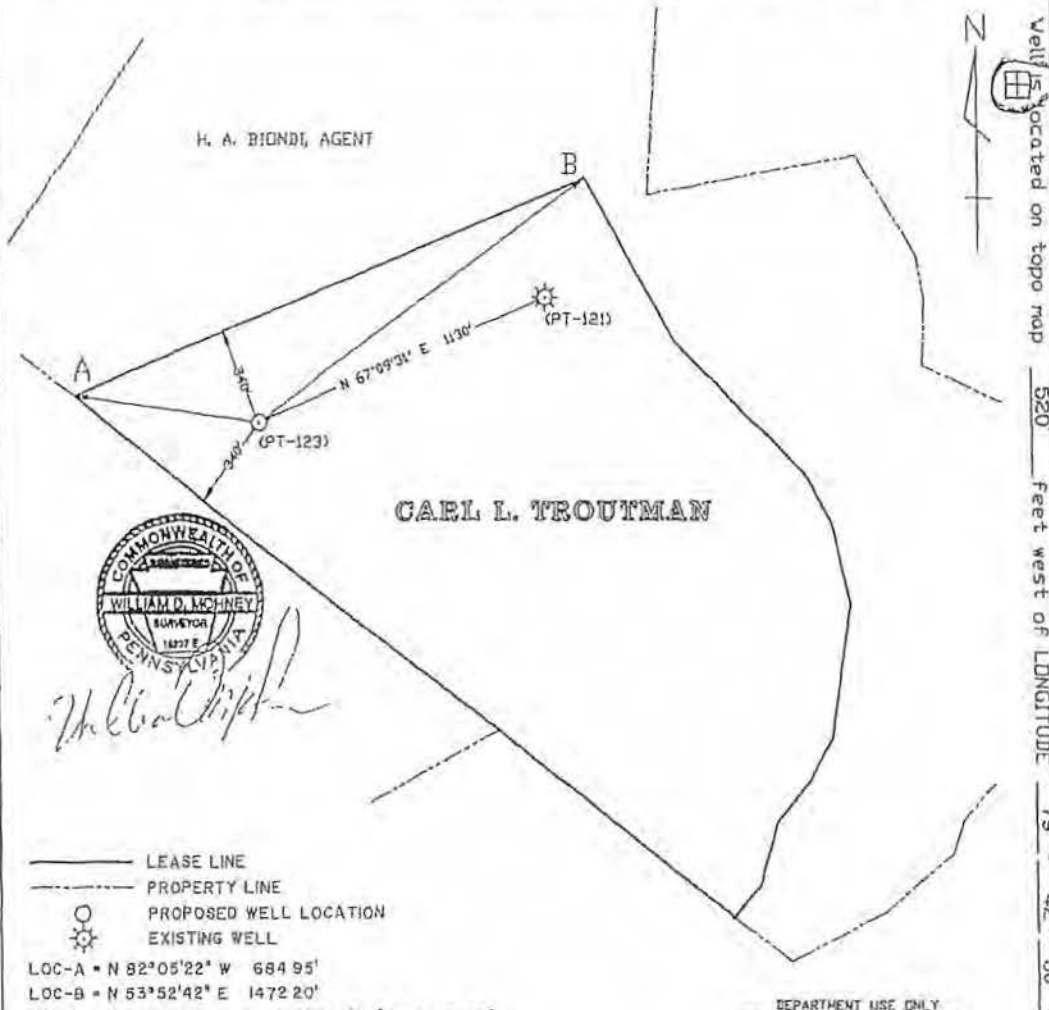
FOR OFFICIAL USE ONLY

WA 5-25-93 Comments  
 Reviewed By Date

129-23506

Well is located on topo map 2150' feet south of LATITUDE 40° 32' 30"

Well is located on topo map 520' feet west of LONGITUDE 79° 42' 30"



- LEASE LINE
- - - PROPERTY LINE
- PROPOSED WELL LOCATION
- ⊙ EXISTING WELL

LOC-A = N 82°05'22" W 684.95'  
 LOC-B = N 53°52'42" E 1472.20'  
 PROPERTY CORNERS A-B = N 67°30'00" E 202150'

DEPARTMENT USE ONLY

G	C
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INCLUDE DESCRIPTION OF THE PROPERTY AND COURSES AND DISTANCES OF THE WELL(S) LOCATION TO TWO OR MORE PERMANENT IDENTIFIABLE POINTS OR LAND MARKS, ALL BUILDINGS AND WATER SUPPLIES WITHIN 200', ALL SPRINGS, BODIES OF WATER AND STREAMS WITHIN 100' IDENTIFIED ON THE MOST CURRENT 7 1/2' TOPOGRAPHIC MAP AND WETLANDS WITHIN 100'. REFERENCE TO BUILDINGS, SPRINGS, BODIES OF WATER, WETLANDS AND WATER SUPPLIES WITHIN 1000' IS NOT REQUIRED FOR WELL PLUGGING.

DENOTES LOCATION OF WELL ON 7 1/2' TOPO MAP PERMIT NO. 27-129-23506-4 PROJECT NO. \_\_\_\_\_

PENNECO OIL COMPANY, INC. <i>13825</i> Well Permittee/Registrant P.O. BOX 300, 200 U.S. ROUTE 22 Address DELMONT PA. 15626 CARL L. TROUTMAN Surface Owner N/A Surface Lessor (if any) TROUTMAN Farm Name 3 Well No. <u>82</u> Tract <u>PT-123</u> Serial No. <u>1136'</u> Acres <u>NONE</u> Ground Elevation <u>4200'</u> Angle of Deviation (drilling) WESTMORELAND CO. UPPER BURREL TWP County <u>NEW KENSINGTON, EAST</u> Municipality <u>7</u> Topo Quadrangle _____ Section _____		REVISION ALTERATION STORAGE RECONDITION NEW LOCATION DRILL DEEPER ABANDONMENT REGISTRATION PLUGGING	W.D MOHNEY & ASSOC. Surveyor/Engineer T-1 Drawing Number 4-8-92 Date = 500' Scale APPROXIMATE COURSE AND DISTANCE TO WATER SUPPLY RECEIVED S 34°48' E 343' JUN 2 1992 WORKABLE COAL SEAMS TFSONE-LAND CO. INC. UPPER FREEPORT CARL TROUTMAN ALL OTHERS GUS RENTON MINE cum 5/1/92
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

NEW KENSINGTON EAST  
129-23506

RE 43564  
43565  
43566

WELL RECORD AND COMPLETION REPORT

2152' 3 40° 32' 30"  
520' 3 79° 42' 30" ✓  
(G) (7)

- In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

**PINE RUN FIELD**

Well Operator Penneco Oil Company, Inc.		Telephone Number 412-468-8232	
Address 200 Rt 22 P.O. Box 300 Delmont, PA			Zip 15626
Permit Number 37-129-23506-00		Project Number	
Farm Name Troutman #3	Farm Number	Serial Number PT-123	Acres 82
Township Upper Merrell Township		County Westmoreland County	
Type of Well <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

WELL RECORD  
(Include Driller's Log on Reverse Side)

Drilling Method Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> (Specify)	Date Drilling Started 8-3-92	Date Drilling Completed 8-7-92
Elevation 1135	Total Depth 4092	7 1/2' Quadrangle New Kensington East

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Well	Material Behind Pipe		Packer/Hardware			Date Run
			Type and Amount	Type	Size	Depth		
5"	13 3/8"	34'	Sanded in	N/A	N/A	N/A	8-3-92	
2 1/4"	9 5/8"	620	Cement - 250 sacks	Float Shoe	9 5/8"	628	8-4-92	
8 3/4"	7"	2038	Cement - 325 sacks	Float Shoe	7"	2046	8-6-92	
6 1/4"	4 1/2"	3981	Cement - 160 sacks	Float Shoe	4 1/2"	3989	8-10-92	
Cement return on surface casing? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no								

COMPLETION REPORT

Perforation Record			Stimulation Record					
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent	
	From	To			Type	Amount	Type	Amount
8-24	3521	3527	8-24	3521-3527				
8-24	3847	3849	8-24	3847-3849	Water	10,700 gal	Sand	13,000 gal
8-24	3211	3224	8-24	3211-3224	Water	36,200 gal	Sand	73,000 gal
T.D.			D.D.	D.P.I.	Class	O	G	Lease
4092				3527	D G	-	1	1
Natural Open Flow 60 MCF		Natural Rock Pressure		Hours		Days		
After Treatment Open Flow 411 MCF		After Treatment Rock Pressure 650 psig		Hours		Days		

PITTSBURGH REGION  
 93 MAY 24 PM 12: 37  
 DER-8061

RECEIVED


JUN 1 1993

Name, Address, and Telephone Number of Well Service Companies		
F.D. Hill Drilling Company - Rt 321 South - Kane, PA 16735	814-837-6812	PA GEOLOGICAL SURVEY (Oil & Gas Geology Section)
Nowco Well Service - 3000 Old Airport Road - Wooster, OH 44691	216-264-8885	
Allegheny Nuclear Surveys, Inc. - Elderton, PA 15736	412-354-3090	

129-23506

PS 2

DRILLER'S LOG OF FORMATIONS						
Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Shale	0	5				Drillers Log
Red Clay	5	10				
Shale	10	20				
Red Bed	20	25				
Sand & Shale	25	45			Damp @45'	
Red Bed & Shale	45	140				
Shale	140	200				
Sand & Shale	200	319			1"@210'	
Shale	319	359				
Sand & Shale	359	554				
Mine	554	562				
Sand & Shale	562	1030				
Shale	1030	1175				
Sand & Shale	1175	1450				
Shale & Sand	1450	1820				
Sand	1820	1910			1"@1840	
Shale & Sand	1910	2058			3"@1870	
Sand & Shale	2058	2200				
Red Rock, Shale & Sand	2200	2385				
Sand & Shale	2385	3545				
Sand & Shale	3545	4092				


Vice-President
12/15/92  
 Operator's Signature Title Date

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MA 5.25.93 Comments  
 Reviewed By Date

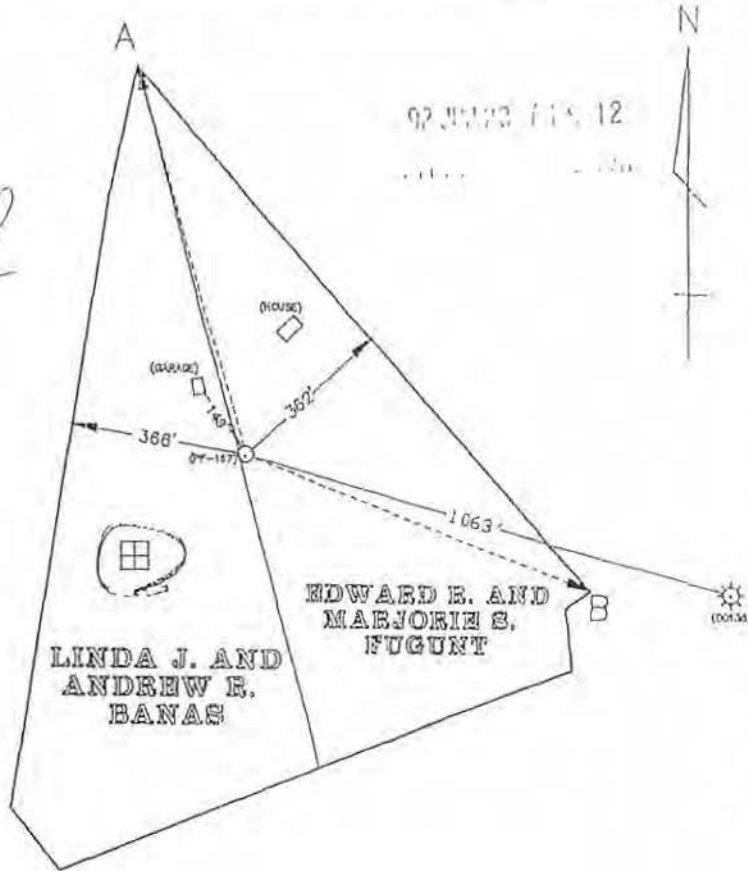
WELL LOCATION PLAN

129-23574

Well is located on topo map 8500' feet south of LATITUDE 40° 32' 30"



*William D. Mohney*  
6/19/92



Well is located on topo map 9500' feet west of LONGITUDE 79° 40' 00"

- LEASE LINE
  - - - PROPERTY LINE
  - PROPOSED WELL LOCATION
  - ☼ EXISTING WELL
- LOC-A = N 16°00'05" W 825.73'  
 LOC-B = S 69°47'07" E 783.14'  
 PROPERTY CORNERS A-B = S 42°07'27" E 1435.02'

DEPARTMENT USE ONLY

G	C
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INCLUDE DESCRIPTION OF THE PROPERTY AND COURSES AND DISTANCES OF THE WELL(S) LOCATION TO TWO OR MORE PERMANENT IDENTIFIABLE POINTS OR LAND MARKS, ALL BUILDINGS AND WATER SUPPLIES WITHIN 200', ALL SPRINGS, BODIES OF WATER AND STREAMS WITHIN 100' IDENTIFIED ON THE MOST CURRENT 7 1/2" TOPOGRAPHIC MAP AND WETLANDS WITHIN 100'. REFERENCE TO BUILDINGS, SPRINGS, BODIES OF WATER, WETLANDS AND WATER SUPPLIES WITHIN 1000' IS NOT REQUIRED FOR WELL PLUGGING

☼ DENOTES LOCATION OF WELL ON 7 1/2" TOPO MAP PERMIT NO. 37-69-23574-00 PROJECT NO. \_\_\_\_\_

17820		REVISION ALTERATION STORAGE RECONDITION NEW LOCATION DRILL DEEPER ABANDONMENT REGISTRATION PLUGGING	WD MOHNEY & ASSOC Surveyor/Engineer PF-1 Drawing Number 6-04-92 Date 1 INCH = 300 FEET Scale
PENNECO OIL COMPANY, INC.		JUL 15 1992	APPROXIMATE COURSE AND DISTANCE TO WATER SUPPLY
Well Permittee/Registrant P.O. BOX 300, 200 U.S. ROUTE 22			
Address DELMONT, PA 15628		LINDA AND ANDREW BANAS	N 24°00' W 225'
EDWARD R. AND MARJORIE S. FUGUNT LINDA J. AND ANDREW R. BANAS		EDWARD AND MARJORIE FUGUNT	N 08°30' E 262'
Surface Owner N/A		STEVE AND CATHERINE VENUS	S 62°00' E 950'
Surface Lessor (if any) FUGUNT		ALBERT AND BETTY SCHALLER	S 53°00' E 800'
Farm Name 1 PF-167		FRED AND MARY SNYDER	S 70°00' E 1000'
Well No. 22.00	Tract Serial No 1040'	WORKABLE COAL SEAMS	
Acres NONE	Ground Elevation 4000'	Owner/Operator/Lessor	Name of Seam
Angle of Deviation (Drilling) WESTMORELAND	Anticipated TD MURRYSVILLE	L & A. BANAS	PROPERTY
County NEW KENSINGTON, EAST	Municipality B	TESONE LAND COMPANY, INC.	FREEPORT SEAMS
Topo Quadrangle	Section	LINDA J. AND ANDREW R. BANAS	ALL OTHERS
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF OIL AND GAS MANAGEMENT		EDWARD R. AND MARJORIE S. FUGUNT	PROPERTY
		TESONE LAND COMPANY, INC.	FREEPORT SEAMS
		EDWARD R. AND MARJORIE S. FUGUNT	ALL OTHERS

608 6-24-92 481



RE 43675 New sh.  
43676 Bad  
43677

WELL RECORD AND COMPLETION REPORT

1. In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
2. In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

**PINE RUN FIELD**

Well Operator Penneco Oil Company, Inc.		Telephone Number 412-468-8232	
Address 200 Rt 22 P.O. Box 300 Delmont, PA 15626-0300			Zip 15626
Permit Number 37-129-23514-00		Project Number	
Farm Name Fugant #1	Farm Number	Serial Number PF - 167	Acres 22.00
Township Municipality of Murrysville		County Westmoreland County	
Type of Well <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

WELL RECORD  
(Include Driller's Log on Reverse Side)

Drilling Method Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> (Specify)	Date Drilling Started 7-7-92	Date Drilling Completed 7-16-92
Elevation 1040	Total Depth 3925	7 1/2' Quadrangle New Kensington East

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Well	Material Behind Pipe	Packer/Hardware			Date Run	
			Type and Amount	Type	Size	Depth		
	13 3/8"	34'	Sanded in	N/A	N/A	N/A	7-9-92	
1/4"	9 5/8"	488	Cement - 133 sacks	Float Shoe	9 5/8"	495	7-10-92	
3/4"	7"	1940	Cement - 305 sacks	Float Shoe	7"	1948	7-14-92	
6 1/4"	4 1/2"	3866	Cement - 150 sacks	Float Shoe	4 1/2"	3874	7-16-92	
		T.D.	D.D.	D.P.I.	Class	O	G	Lease
		3925	-	3720	D	G	-	1

Cement return on surface casing  yes  no

B

B

B

COMPLETION REPORT

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Prepping Agent		Injection Rate
	From	To			Type	Amount	Type	Amount	
8-3-92	3717	3720	8-3	3717-3720					
8-3-92	3730	3732	8-3	3730-3732	Water	11,000	Sand	33,300	23 BPM
8-3-92	3408	3412	8-3	3408-3412					
8-3-92	3108	3126	8-3	3108-3126	Water	27,000 gal	Sand	67,000	58.7 BPM
8-3-92	3026	3030	8-3	3026 - 3030	Water	10,000 gal	Sand	12,800	20.6 BPM

Natural Open Flow	Natural Rock Pressure
Alter Treatment Open Flow 250 HCF	Alter Treatment Rock Pressure 800 psi

1. Name, Address, and Telephone Number of Well Service Companies

MAY 24 1993

P.D. Hill Drilling Company - Rt 321 South - Kane, PA 16735	814-837-6612	PA GEOLOGICAL SURVEY
NOVSCO Well Service - 3000 Old Airport Road - Wooster, OH 44691	216-264-8005	Oil & Gas Geology Division
Milgheny Nuclear Surveys, Inc. - Elderton, PA 15736	412-354-1000	

129-23514

DRILLER'S LOG OF FORMATIONS

Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
ile	0	5				Drillers Log
Sand	5	50			Damp @ 50'	
Shale	50	90				
Sand	90	100				
Red Rock	100	110				
Sand & Shale	110	175				
Sand	175	275			1/2" @ 45'	
Sand & Shale	275	440				
Mine	440	450				
Shale & Sand	450	497				
Sand and Shale	497	700				
Shale	700	870				
Sand & Shale	870	1170				
Shale & Sand	1170	1585			1/2" @ 1210	
Sand & Shale	1585	1966			3" @ 1760	
Red Rock, Sand & Shale	1966	2450				
Sand & Shale	2450	3000				
Sand & Shale	3000	3570				
Shale & Sand	3570	3925				



Director's Signature

Vice-President  
Title

5-3-93  
Date

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MA 5-20-93  
Reviewed By

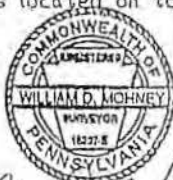
Date

Comments

NEO COPY

# WELL LOCATION PLAT

Well is located on topo map 1160 feet south of LATITUDE 40 ° 32 ' 30 "



*William D. Mohney*

H.A. BIONDI, ETUX., ETAL

CARL L. TROUTMAN

Well is located on topo map 320 feet west of LONGITUDE 79 ° 42 ' 30 "

129-23525



- LEASE LINE
- PROPERTY LINE
- ⊙ PROPOSED WELL LOCATION
- ⊙ EXISTING WELL

LOC-A = S 44°16'28" W 1252.20'  
 LOC-B = S 82°56'34" E 1001.05'  
 PROPERTY CORNERS A-B = N 67°30'00" E 2021.50'

DEPARTMENT USE ONLY  
 G C E

INCLUDE DESCRIPTION OF THE PROPERTY AND COURSES AND DISTANCES OF THE WELLS LOCATION TO TWO OR MORE PERMANENT IDENTIFIABLE POINTS OR LAND MARKS, ALL BUILDINGS AND WATER SUPPLIES WITHIN 200', ALL SPRINGS, BODIES OF WATER AND STREAMS WITHIN 100' IDENTIFIED ON THE MOST CURRENT 7 1/2" TOPOGRAPHIC MAP AND WETLANDS WITHIN 100'. REFERENCE TO BUILDINGS, SPRINGS, BODIES OF WATER, WETLANDS AND WATER SUPPLIES WITHIN 1000' IS NOT REQUIRED FOR WELL PLUGGING.

DENOTES LOCATION OF WELL ON 7 1/2" TOPO MAP PERMIT NO. 17-29-23525-0 PROJECT NO. \_\_\_\_\_

PENNECO OIL COMPANY, INC. <u>13825</u>		<input type="checkbox"/> REVISION <input type="checkbox"/> ALTERATION <input type="checkbox"/> STORAGE RECONDITION <input type="checkbox"/> NEW LOCATION <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> ABANDONMENT <input type="checkbox"/> REGISTRATION <input type="checkbox"/> PLUGGING	W.D. MOHNEY & ASSOC.
Well Permittoe/Registrant P.O. BOX 300, 200 U.S. ROUTE 22			Surveyor/Engineer PB-1
Address DELMONT, PA 15626			Drawing Number 4-10-82
H.A. BIONDI, ETUX., ETAL		Date 1 INCH = 800 FEET	Scale
Surface Owner N/A	Surface Lessor (if any) BIONDI	APPROXIMATE COURSE AND DISTANCE TO WATER SUPPLY	
Farm Name 3	Tract PB-40	NO WATER SUPPLIES WITHIN 1000'	
Well No. 102	Serial No. 1030'	RECEIVED	
Acres NONE	Ground Elevation 4100'	SEP 11 1988	
Angle of Deviation (Decline) WESTMORELAND	Anticipated TD UPPER BURRELL TWP.	DA GOTTSCHEW SURVEYING	
County NEW KENSINGTON, EAST	Municipality 7	TERRACE LEASING CO., INC.	
Topo Quadrangle	Section	ALL SEAMS	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF OIL AND GAS MANAGEMENT		GAB <u>22842</u> OS	

NEW KENSINGTON EAST  
129-23525

RE 43567  
43568  
43569

WELL RECORD AND COMPLETION REPORT

1160' S 40° 32' 30"  
320' W 79° 42' 30" (7) ✓

- In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

PINE RUN FIELD

Well Operator	Penneco Oil Company, Inc.			Telephone Number	412-468-8232
Address	200 Rt 22 P.O. Box 300 Delmont, PA 15626			Zip	
Permit Number	37-129-23525-00		Project Number		
Farm Name	Biondi #3	Farm Number	Serial Number	PU-49	Acres 162
Township	Upper Burrell Township		County	Westmoreland	
Type of Well	<input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)				

WELL RECORD  
(include Driller's Log on Reverse Side)

Drilling Method	Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/>	Date Drilling Started	8-11-92	Date Drilling Completed	8-15-92
Other <input type="checkbox"/> (Specify)		Elevation	1030	Total Depth	3960
		7K' Quadrangle	New Kensington East		

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Well	Material Behind Pipe		Packer/Hardware			Date Run
			Type and Amount	Type	Size	Depth	Run	
15"	13 3/8"	34'	Sanded in	N/A	N/A	N/A	8-11-92	
8 3/4"	7"	1966'	Cement - 565 sacks	Float Shoe	7"	1974'	8-13-92	
6 1/4"	4 1/2"	3598'	Cement - 125 sacks	Float Shoe	4 1/2"	3605'	8-17-92	
		T.D.	D.D.	D.P.I.	Class	O	G	Lease
		3960		3433	D	G	-	/

Cement return  surface casing?  yes  no **B**

COMPLETION REPORT

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Average Injection Rate
	From	To			Type	Amount	Type	Amount	
8-27	3427	3433	8-27	3427-3433	Water	9,000gal	Sand	20,000#	26.4 BPM
8-27	3116	3141	8-27	3116-3141	Water	23,000gal	Sand	68,000#	29.4 BPM
Natural Open Flow			Natural Rock Pressure			Hours Days			
After Treatment Open Flow			After Treatment Rock Pressure			Hours Days			
411 MCFPD			960 PSIG			72 HOURS			

Name, Address, and Telephone Number of Well Service Companies

JUN 11 1993

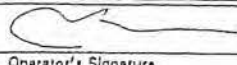
F. D. Hill Drilling Company	- Rt 321 South - Kane, PA 16735	814-837-6612	LOGICAL SURVEY
Halliburton Services, Inc.	- P.O. Box 427 Indiana, PA 15701	412-479-0745	Gas Well Log
Allegheny Nuclear Surveys, Inc.	Elderton, PA 15736	412-354-3090	

DRILLER'S LOG OF FORMATIONS

129-23525

P12

Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Clay	0	10				Drillers Log
Red Bed & Shale	10	30				
Sand	30	48				
Shale & Sand	48	475			Damp@60'	
Coal	475	480				
Shale	480	499				
Sand & Shale	499	605				
Shale	605	655				
Coal	655	658				
Shale	658	670				
Sand & Shale	670	690				
Shale & Sand	690	1170				
Sand & Shale	1170	1710				
Shale	1710	1740				
Sand & Shale	1740	2100			7" @ 1760	
Red Rock, Sand, Shale	2100	2690				
Shale & Sand	2690	3230				
Sand & Shale	3230	3960				



Operator's Signature

Vice-President

Title

12/15/92

Date

FOR OFFICIAL USE ONLY

MA 5-25-93

Reviewed By

Date

Comments



GEO COPY

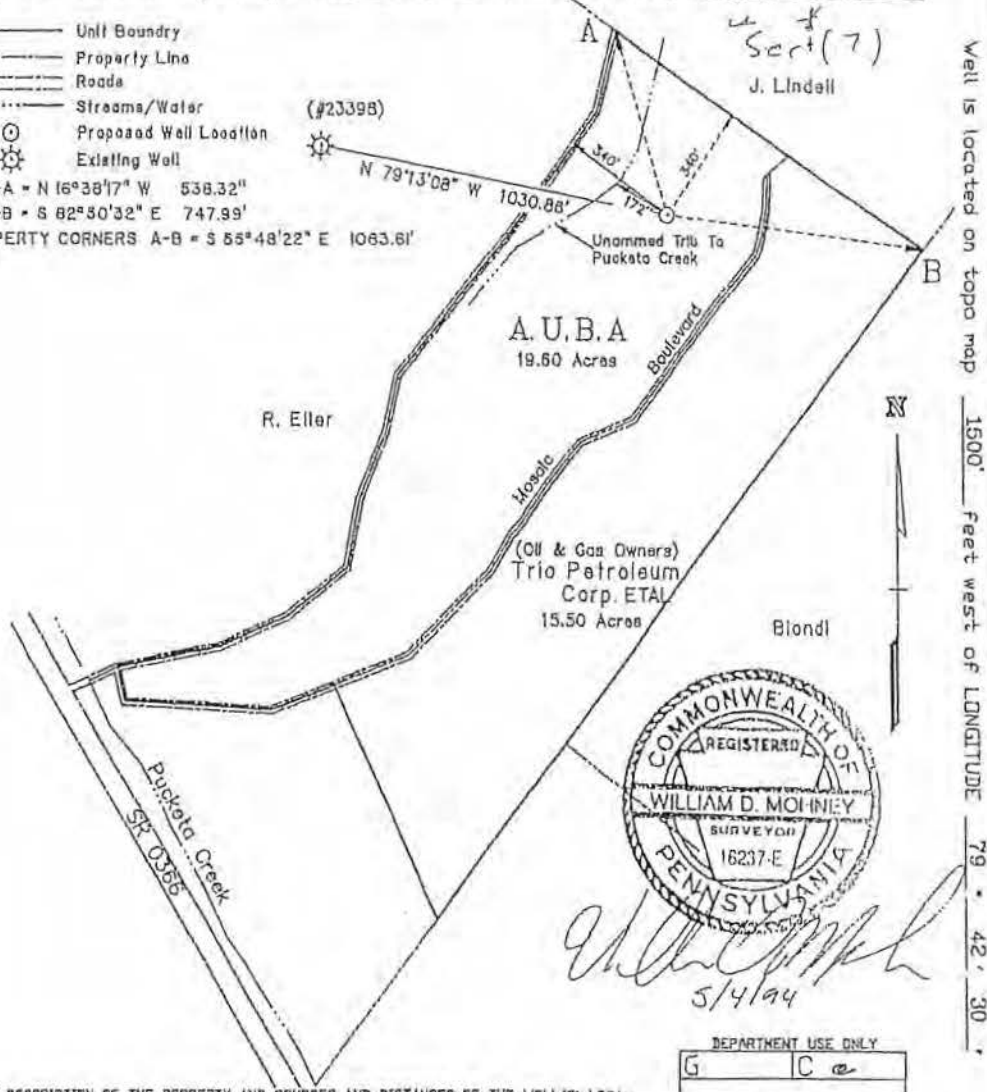
WELL LOCATION PLAN

129-23728

Well is located on topo map 935' Feet south of LATITUDE 40° 32' 30" N

- Unit Boundary
- Property Line
- Roads
- Streams/Water
- ⊙ Proposed Well Location
- ⊙ Existing Well

LOC-A = N 16°38'17" W 538.32"  
 LOC-B = S 82°50'32" E 747.99'  
 PROPERTY CORNERS A-B = S 55°48'22" E 1063.81'



Well is located on topo map 1500' Feet west of LONGITUDE 79° 42' 30" W



*William D. Mohney*  
 5/4/94

DEPARTMENT USE ONLY

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INCLUDE DESCRIPTION OF THE PROPERTY AND COURSES AND DISTANCES OF THE WELL(S) LOCATION TO TWO OR MORE PERMANENT IDENTIFIABLE POINTS OR LAND MARKS, ALL BUILDINGS AND WATER SUPPLIES WITHIN 200', ALL SPRINGS, BODIES OF WATER AND STREAMS WITHIN 100' IDENTIFIED ON THE MOST CURRENT 7 1/2' TOPOGRAPHIC MAP AND WETLANDS WITHIN 100'. REFERENCE TO BUILDINGS, SPRINGS, BODIES OF WATER, WETLANDS AND WATER SUPPLIES WITHIN 1000' IS NOT REQUIRED FOR WELL PLUGGING.

⊠ DENOTES LOCATION OF WELL ON 7 1/2' TOPO MAP PERMIT NO. 37-129-23728-01 PROJECT NO. \_\_\_\_\_

PENNECO OIL COMPANY, INC. 13825 Well Permittee/Registrant P.O. BOX 900, 200 U.S. ROUTE 22 Address DELMONT, PA 15828		REVISION ALTERATION STORAGE RECONSTRUCTION NEW LOCATION DRILL DEEPER ABANDONMENT REGISTRATION PLUGGING	W.D. MOHNEY & ASSOC. Surveyor/Engineer PA-1 Drawing Number 05-03-94 Date 1 INCH = 400 FEET Scale
ALLEGHENY UNION BAPTIST ASSOCIATION Surface Owner N/A Surface Lessor (if any) A.U.B.A. UNIT		SURFACE LANDOWNER AND WATER SURVEYOR WITH WATER SUPPLY WITHIN 1000' Juanita Hutchinson	APPROXIMATE COURSE AND DISTANCE TO WATER SUPPLY S 01°00' W 900'
Farm Name 1	PA 200 Well No. 35.10 Tract Acres NONE Angle of Deviation (Drilling) WESTMORELAND County NEW KENSINGTON, EAST 140 Topo Quadrangle	Serial No. 930' Ground Elevation 3800' Anticipated TD UPPER BURRELL Municipality Section	Owner/Operator/Leasee Lesons Land Co., Inc. All Seams
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES BUREAU OF OIL AND GAS MANAGEMENT		BUREAU OF OIL AND GAS MANAGEMENT 12/15/97	

(7)

*Pine Run Field* WELL RECORD AND COMPLETION REPORT

129-23728

- In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-00-75).

Well Operator Pennaco Oil Company, Inc.		Telephone Number 412-468-8232	
Address 200 Rt 22, P.O. Box 300, Delmont, PA 15626-0300			Zip
Permit Number 37-129-23728-00		Project Number	
Firm Name A. U. B. A. Unit	Firm Number #1	Serial Number PA-209	Acres 35.10
Township Upper Burrell Township		County Westmoreland County	
Type of Well <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

WELL RECORD  
(Include Driller's Log on Reverse Side)

Drilling Method Rotary (Air <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Cable Tool <input type="checkbox"/> Other <input type="checkbox"/> (Specify)	Date Drilling Started 08-11-94	Date Drilling Completed 08-17-94
Elevation 930	Total Depth 3509	7 1/2' Quadrangle New Kensington East

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Well	Material Behind Pipe		Packer/Hardware			Date Run
			Type and Amount	Type	Size	Depth		
18"	16"	8'	Sanded in	N/A	N/A	N/A	08-11-94	
15"	13 3/8"	34'	Sanded in	N/A	N/A	N/A	08-11-94	
12 1/4"	9 5/8"	112'	Cement - 145 sacks Class A Reg 3% CaCl2 + 1/2# seal/sack	Float Shoe	9 5/8"	420'	08-12-94	
8 3/4"	7"	1810'	Cement - 300 sacks, Class A Reg. 3% CaCl2 + 1/2# seal/sack	Float Shoe	7"	1818'	08-16-94	
6 1/4"	4 1/2"	3411'	Cement - 120 sacks, Class A Reg 4% CaCl2 0.5% FLA-1 3/8#D-Air	Float Shoe	4 1/2"	3419'	08-18-94	

Cement return on surface casing?  yes  no

COMPLETION REPORT

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Average Injection Rate
	From	To			Type	Amount	Type	Amount	
9-7-94	3291	3294	9-7	3291-3294	water	7523 gal	sand	13,500#	21.06 BPM
9-7-94	2988	3008	9-7	2988-3008	water	20,730 gal	Sand	69,000#	27.55 BPM

Natural Open Flow Not equipped to measure	Natural Rock Pressure Not Taken	Hours	Days
After Treatment Open Flow 211 MCFPD	After Treatment Rock Pressure 850 PSI	Hours	Days

RECEIVED

JUL 20 1995

Name, Address, and Telephone Number of Well Service Companies		
F. D. Hill Drilling Company - Route 321 South - Kane, PA 16735	PA GEOLOGICAL SURVEY Oil & Gas Geology Division	814-837-6612
Halliburton Energy Services, Inc. P.O. Box 427 Indiana, PA 15701		412-479-9046
Allegheny Nuclear Surveys, Inc. - Elderton, PA 15736		412-354-3090

DRILLER'S LOG OF FORMATIONS

Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Fill	0'	8'				Driller's Log
Sand & Shale	8'	32'				
Sand	32'	34'				
Sand, Shale, Red Bed	34'	290'			Damp @ 60'	
Shale & Sand	290'	358'			2" fresh @ 260'	
Coal	358'	359'				
Gob	359'	365'			3" fresh @ 360'	
Sand & Shale	365'	840'				
Shale & Sand	840'	1250'			1" fresh @ 460'	
Sand & Shale	1250'	1695'			2" brine @ 1610'	
Shale & Sand	1695'	1725'				
100' Sand	1725'	1785'				
Sand & Shale	1785'	1830'				
Shale & Sand	1830'	2030'				
Sand, Shale, Red Rock	2030'	2150'				
Sand & Shale	2150'	2530'				
Shale & Sand	2530'	3040'				
& Shale	3040'	3509'				

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23728°  
09 2

\_\_\_\_\_  
Operator's Signature

\_\_\_\_\_  
President  
Title

5/16/95  
\_\_\_\_\_  
Date

FOR OFFICIAL USE ONLY

\_\_\_\_\_  
Reviewed By

6-28-95  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Comments

PIN_Long	COUNTY	MUNICIPALITY
1233-P-00036	Allegheny	Plum
1234-G-00148	Allegheny	Plum
1234-G-00155	Allegheny	Plum
1234-G-00219	Allegheny	Plum
1234-G-00230	Allegheny	Plum
1234-L-00142	Allegheny	Plum
1234-L-00184	Allegheny	Plum
1234-M-00208	Allegheny	Plum
1234-M-00208	Allegheny	Plum
1234-M-00211	Allegheny	Plum
1234-M-00237	Allegheny	Plum
1234-M-00263	Allegheny	Plum
62-80-00-0-001	Westmoreland	Upper Burrell
1233-P-00003	Allegheny	Plum
1234-A-00160	Allegheny	Plum
1234-F-00085	Allegheny	Plum
1096-M-00010	Allegheny	Plum
1097-M-00126	Allegheny	Plum
1098-D-00277	Allegheny	Plum
1233-N-00269	Allegheny	Plum
1233-N-00285	Allegheny	Plum
1233-N-00303	Allegheny	Plum
1233-N-00326	Allegheny	Plum
1233-N-00362	Allegheny	Plum
1233-N-00375	Allegheny	Plum
1233-N-00384	Allegheny	Plum
1233-P-00069	Allegheny	Plum
1233-P-00109	Allegheny	Plum
1233-P-00129	Allegheny	Plum
1234-B-00160	Allegheny	Plum
1234-B-00198	Allegheny	Plum
1234-B-00217	Allegheny	Plum

1234-B-00227	Allegheny	Plum
1234-B-00293	Allegheny	Plum
1234-B-00322	Allegheny	Plum
1234-F-00242	Allegheny	Plum
1234-G-00071	Allegheny	Plum
1234-G-00098	Allegheny	Plum
1234-H-00270	Allegheny	Plum
1234-J-00010	Allegheny	Plum
1234-L-00073	Allegheny	Plum
1234-L-00165	Allegheny	Plum
1234-M-00133	Allegheny	Plum
1234-M-00192	Allegheny	Plum
1234-M-00221	Allegheny	Plum
1234-M-00251	Allegheny	Plum
1234-M-00274	Allegheny	Plum
62-07-00-0-014	Westmoreland	Upper Burrell
62-08-00-0-010	Westmoreland	Upper Burrell
1097-M-00142	Allegheny	Plum
62-08-00-0-006	Westmoreland	Upper Burrell
62-08-00-0-008	Westmoreland	Upper Burrell
1096-H-00355	Allegheny	Plum
1096-M-00016	Allegheny	Plum
1097-S-00348	Allegheny	Plum
1098-D-00128	Allegheny	Plum
1233-J-00342	Allegheny	Plum
1233-N-00346	Allegheny	Plum
1233-P-00044	Allegheny	Plum
1234-C-00347	Allegheny	Plum
1234-C-00377	Allegheny	Plum
1234-F-00206	Allegheny	Plum
1234-G-00077	Allegheny	Plum
1234-G-00126	Allegheny	Plum
1234-K-00134	Allegheny	Plum
1234-K-00154	Allegheny	Plum
1234-L-00106	Allegheny	Plum
1234-M-00379	Allegheny	Plum
62-07-00-0-015	Westmoreland	Upper Burrell



62-08-00-0-007	Westmoreland	Upper Burrell
62-08-00-0-009	Westmoreland	Upper Burrell
62-08-00-0-086	Westmoreland	Upper Burrell
1234-G-00086	Allegheny	Plum
1234-M-00154	Allegheny	Plum
1234-G-00026	Allegheny	Plum
1233-N-00241	Allegheny	Plum
1233-P-00086	Allegheny	Plum
1233-P-00198	Allegheny	Plum
1233-P-00215	Allegheny	Plum
1233-P-00227	Allegheny	Plum
1233-P-00245	Allegheny	Plum
1233-P-00258	Allegheny	Plum
1233-P-00262	Allegheny	Plum
1234-B-00254	Allegheny	Plum
1234-B-00258	Allegheny	Plum
1234-F-00159	Allegheny	Plum
1234-G-00164	Allegheny	Plum
1234-G-00204	Allegheny	Plum
1234-J-00087	Allegheny	Plum
1234-K-00185	Allegheny	Plum
1234-K-00222	Allegheny	Plum
62-07-00-0-015	Westmoreland	Upper Burrell
62-07-00-0-030	Westmoreland	Upper Burrell
62-08-00-0-086	Westmoreland	Upper Burrell
1233-N-00354	Allegheny	Plum

## SEDAT #4A WATER SUPPLY SURVEY

OWNER	Well_Detail	DateVerify
ROSENBERG NANCY	Certified Mail Delivered, no reply assum	2/7/2019
SPROUSE SHIRLEY ANN & EDDIE LION (H)	Certified Mail Delivered, no reply assum	2/7/2019
SMITH JAMES & SHIRLEY (W)	Certified Mail Delivered, no reply assum	2/7/2019
KOZUCH ROMAINE E	Certified Mail Delivered, no reply assum	2/7/2019
KOZUCH ROMAINE E	Certified Mail Delivered, no reply assum	2/7/2019
DZIUBAN ROBERT J & MARY LEE	Certified Mail Delivered, no reply assum	2/7/2019
OSWALT LARA BETH ROBINSON	Certified Mail Delivered, no reply assum	2/7/2019
BOBICK RANDALL D & TERRI LYNN (W)	Certified Mail Delivered, no reply assum	2/7/2019
BOBICK STEPHEN C	Certified Mail Delivered, no reply assum	2/7/2019
BOBICK STEPHEN C	Certified Mail Delivered, no reply assum	2/7/2019
TWIDWELL ROBERT L	Certified Mail Delivered, no reply assum	2/7/2019
BABINSACK VICTOR K & KATHLEEN E (W)	Certified Mail Delivered, no reply assum	2/7/2019
CALLENDER JESSALIN M	Public	2/7/2019
PATTOCK JAMES D & SUZANNE (W)	Public	2/7/2019
PATTOCK KIRT E & LISA M (W)	Public	2/7/2019
BUCHHOLZ BENJAMIN F	Public	2/7/2019
VISNANSKY A WILLIAM  BALAZIK SUSAN M MILKO JEAN A	Public	2/7/2019
PALOMBO BENEDICT  PALOMBO FERDINAND PALOMBO ANDREW	Public	2/7/2019
JOYCE PETER R	Public	2/7/2019
ROSALYN CHRISTOPHERSON	Public	2/7/2019
MATT ROBERT W & BARBARA L (W)	Public	2/7/2019
NATHAN KOSOWSKI	Public	2/7/2019
OTLANO PHILLIP JR & ALLENE C (W)	Public	2/7/2019
WILLIAMS MARVIN H	Public	2/7/2019
STRANO ANDREW R & LINDA E (W)	Public	2/7/2019
DAUGHERTY JENNIE E & LOUIS R DAUGHERTY	Public	2/7/2019
PARK LOTTIE E  PHILLIPS ARTHUR D PHILLIPS ANNA	Public	2/7/2019
SWEENEY MARK M & JUDITH ANN BLACK SWEENEY (W)	Public	2/7/2019
JOHN L PATER	Public	2/7/2019
PODOBNIK MATTHEW W	Public	2/7/2019
SCHWARTZ MARY C	Public	2/7/2019
LARIS GEORGE	Public	2/7/2019

LARIS GEORGE	Public	2/7/2019
LABELLA JOHN R & MARGARET J (W)	Public	2/7/2019
HUSKA PAUL JR	Public	2/7/2019
GIACCO LEWIS R	Public	2/7/2019
ANKROM RALPH & ETHELYN (W)	Public	2/7/2019
PODOBNIK MATTHEW W	Public	2/7/2019
HIPPLE JOSHUA	Public	2/7/2019
SCHEETZ THOMAS W	Public	2/7/2019
FAVERO SHAWN L & MELISSA A (W)	Public	2/7/2019
HOEY JAMES J & DONNA J (W)	Public	2/7/2019
DEMAO RAYMOND LEONARD  BARTLETT KELLY MARIE	Public	2/7/2019
FAVERO DAVID L & KATHLEEN L (W)	Public	2/7/2019
THE RICHARD F OSKIN FAMILY TRUST (RICHARD F OSKIN (TRUSTEE)	Public	2/7/2019
PASTUCHA JOANN G	Public	3/29/2019
LUCIANA JONATHAN R	Public	2/7/2019
HOUSEHOLDER DWIGHT E II+KENNA	Public	2/7/2019
MCVEY JEFFREY	Public	3/21/2019
ASPDEN ANNA	Spring	2/7/2019
CRAFT CLINT W.	Spring	2/27/2019
RESNIK MATTHEW R	Spring	2/7/2019
CHAMBERS CLARENCE	Vacant Land - None	2/7/2019
HARRIS MABLE	Vacant Land - None	2/7/2019
PALOMBO BENEDICT & KATHY ANN (W)	Vacant Land - None	2/7/2019
MILLER ALVIN R III & DIANE ELIZABETH (W)	Vacant Land - None	2/7/2019
MILLER ANNA LOUISE  COSTA KATHLEEN	Vacant Land - None	2/7/2019
MILLER ANNA LOUISE & KATHLEEN COSTA	Vacant Land - None	2/7/2019
MACRO KLINT L & JENNIFER S (W)	Vacant Land - None	2/7/2019
FRERE LUCILLE CHRISTINA  FRERE RAYMOND ARMOUL LOGAN FRERE	Vacant Land - None	2/7/2019
HALL LUKE	Vacant Land - None	2/7/2019
SEDAT INC	Vacant Land - None	2/7/2019
TTMAR INC	Vacant Land - None	2/7/2019
VAGLIA JOSEPH & MICHELLE (W)	Vacant Land - None	2/7/2019
SMOLENSKI THEODORE & VIRGINIA	Vacant Land - None	2/7/2019
SMOLENSKI THEODORE & VIRGINIA	Vacant Land - None	2/7/2019
ZEBRAK JOSHUA F	Vacant Land - None	2/7/2019
HAMILTON JOHN	Vacant Land - None	2/7/2019
LOMBARDO LOUIS ANTHONY & SANDY	Vacant Land - None	2/7/2019

TRZECIAK LOUIS JR CYNTHIA LOU	Vacant Land - None	2/7/2019
SANTUCCI JOSEPH & PAMELA	Vacant Land - None	2/7/2019
TRZECIAK LOUIS CYNTHIA LOUISE	Vacant Land - None	2/7/2019
VANHORN HERMAN E & IRENE B	Vacant per USPS	2/7/2019
DZIUBAN BENEDICT J	Vacant per USPS	2/7/2019
MITCHELL JANET ANN & RUSSELL WILLIAM MITCHELL	Well	2/7/2019
TEORSKY ROBERT M	Well	2/7/2019
MACRO KLINT L & JENNIFER S (W)	Well	2/7/2019
HASSON LEONARD J & NINA E (W)	Well	2/7/2019
MARTIN RICHARD A & MARY JANE (W)	Well	2/7/2019
DAUGHERTY LOUIS R & PAMELA E (W)	Well	2/7/2019
DAUGHERTY LOUIS R	Well	2/7/2019
DAUGHERTY DAVID R	Well	2/7/2019
DAUGHERTY DAVID R	Well	2/7/2019
PLANCE DAVID A & STEPHANIE (W)	Well	2/7/2019
PLANCE DAVID A & STEPHANIE (W)	Well	2/7/2019
COOPER DANIEL S	Well	2/7/2019
CARUSO DEBORAH	Well	2/7/2019
ANUSKIEWICZ DONALD J & FLORENCE M (W)	Well	2/7/2019
CHOLTKO FRANK III	Well	2/7/2019
SMOLENSKI FRANK T & MARCIA MARIE (W)	Well	2/7/2019
SMOLENSKI THEODORE & VIRGINIA	Well	2/7/2019
LOMBARDO LOUIS ANTHONY & SANDY	Well	2/7/2019
MILLER SHANE	Well	3/5/2019
TRZECIAK LOUIS CYNTHIA LOUISE	Well	2/7/2019
Combined with other parcel.		2/7/2019



Change Y/N

N

N

N

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N

Y

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Y
Y
N
N



## SEDAT 4A WATER SUPPLY INVENTORY

OWNER	Phone
BUCHHOLZ BENJAMIN F	412-779-9610
DZIUBAN ROBERT J & MARY LEE	
KOZUCH ROMAINE E	
KOZUCH ROMAINE E	
MITCHELL JANET ANN & RUSSELL WILLIAM MITCHELL	
OSWALT LARA BETH ROBINSON	
PATTOCK JAMES D & SUZANNE (W)	724-212-3890
PATTOCK KIRT E & LISA M (W)	724-335-0231
ROSENBERG NANCY	724-339-6926
SMITH JAMES & SHIRLEY (W)	
SPROUSE SHIRLEY ANN & EDDIE LION (H)	
BABINSACK VICTOR K & KATHLEEN E (W)	724-335-7490
BOBICK RANDALL D & TERRI LYNN (W)	724-335-4512 won't give information over the phone
BOBICK STEPHEN C	724-337-6945
BOBICK STEPHEN C	724-337-6945
CALLENDER JESSALIN M	724-472-3421 - message 2-14-19, 2-18-19
PASTUCHA JOANN G	412-828-2183 - bad
TWIDWELL ROBERT L	no good number
CHAMBERS CLARENCE	
FRERE LUCILLE CHRISTINA  FRERE RAYMOND ARMOUL LOGAN FRERE	
HALL LUKE	
HAMILTON JOHN	Vacant Land Per Tax Assessment
HARRIS MABLE	
LOMBARDO LOUIS ANTHONY & SANDY	
MACRO KLINT L & JENNIFER S (W)	
MILLER ALVIN R III & DIANE ELIZABETH (W)	
MILLER ANNA LOUISE & KATHLEEN COSTA	
MILLER ANNA LOUISE  COSTA KATHLEEN	
PALOMBO BENEDICT & KATHY ANN (W)	
SANTUCCI JOSEPH & PAMELA	
SEDAT INC	
SMOLENSKI THEODORE & VIRGINIA	
SMOLENSKI THEODORE & VIRGINIA	
TRZECIAK LOUIS CYNTHIA LOUISE	
TRZECIAK LOUIS JR CYNTHIA LOU	724-422-9484 - message 2-14-19 Verified by M. Resnik that it is only a car port
TTMAR INC	
VAGLIA JOSEPH & MICHELLE (W)	
ZEBRAK JOSHUA F	

ANKROM RALPH & ETHELYN (W)	
DAUGHERTY JENNIE E & LOUIS R DAUGHERTY	
DEMAO RAYMOND LEONARD  BARTLETT KELLY MARIE	724-351-2232 2-7-19 confirmed Public Water
FAVERO DAVID L & KATHLEEN L (W)	412-418-1443 verified Public by Kathleen 2-18-19
FAVERO SHAWN L & MELISSA A (W)	412-418-1443 verified Public by Kathleen 2-18-19
GIACCO LEWIS R	
HIPPLE JOSHUA	Verified by Shawn Favero that the water line from the city is hooked in.
HOEY JAMES J & DONNA J (W)	
HOUSEHOLDER DWIGHT E II+KENNA	
HUSKA PAUL JR	
JOHN L PATER	
JOYCE PETER R	
LABELLA JOHN R & MARGARET J (W)	
LARIS GEORGE	
LARIS GEORGE	
LUCIANA JONATHAN R	724-831-7061 verified Public 2-18-19
MATT ROBERT W & BARBARA L (W)	
MCVEY JEFFREY	724-339-0699
NATHAN KOSOWSKI	
OTLANO PHILLIP JR & ALLENE C (W)	
PALOMBO BENEDICT  PALOMBO FERDINAND PALOMBO ANDREW	
PARK LOTTIE E  PHILLIPS ARTHUR D PHILLIPS ANNA	
PODOBNIK MATTHEW W	
PODOBNIK MATTHEW W	
ROSALYN CHRISTOPHERSON	
SCHEETZ THOMAS W	
SCHWARTZ MARY C	
STRANO ANDREW R & LINDA E (W)	
SWEENEY MARK M & JUDITH ANN BLACK SWEENEY (W)	724-337-8776 Judith Sweeny verified Public Water, well is unhooked.
THE RICHARD F OSKIN FAMILY TRUST (RICHARD F OSKIN (TRUSTEE)	724-337-4087 Public water per Richard
VISNANSKY A WILLIAM  BALAZIK SUSAN M MILKO JEAN A	
WILLIAMS MARVIN H	
ASPDEN ANNA	
CRAFT CLINT W.	
RESNIK MATTHEW R	412-266-4176 - Verified by phone 2-14-19
DZIUBAN BENEDICT J	no good number
VANHORN HERMAN E & IRENE B	
ANUSKIEWICZ DONALD J & FLORENCE M (W)	
CARUSO DEBORAH	
CHOLTKO FRANK III	
COOPER DANIEL S	

DAUGHERTY DAVID R  
DAUGHERTY DAVID R  
DAUGHERTY LOUIS R  
DAUGHERTY LOUIS R & PAMELA E (W)  
HASSON LEONARD J & NINA E (W)  
LOMBARDO LOUIS ANTHONY & SANDY  
MACRO KLINT L & JENNIFER S (W)  
MARTIN RICHARD A & MARY JANE (W)  
MILLER SHANE  
PLANCE DAVID A & STEPHANIE (W)  
PLANCE DAVID A & STEPHANIE (W)  
SMOLENSKI FRANK T & MARCIA MARIE (W)  
SMOLENSKI THEODORE & VIRGINIA  
TEORSKY ROBERT M  
TRZECIAK LOUIS CYNTHIA LOUISE

412-848-6309 via mailout

Combined with other parcel.





Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	Y
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	Y
Public	2/7/2019	N
Public	2/7/2019	Y
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	Y
Public	2/7/2019	Y
Public	2/7/2019	N
Public	2/7/2019	N
Public	3/21/2019	Y
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	Y
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Public	2/7/2019	N
Spring	2/7/2019	N
Spring	2/27/2019	Y
Spring	2/7/2019	Y
Vacant per USPS	2/7/2019	N
Vacant per USPS	2/7/2019	N
Well	2/7/2019	N
Well	2/7/2019	Y
Well	2/7/2019	N
Well	2/7/2019	N



# SEDAT 4A WATER SUPPLY PROOF OF NOTIFICATION

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9830 56](#) (Sequence Number 1 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** VICTOR K BABINSACK  
1985 DRENNEN RD  
NEW KENSINGTON PA 15068-1804

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9830 94](#) (Sequence Number 4 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** RUSSELL W MITCHELL  
504 CLARENDON ST  
PITTSBURGH PA 15238-3612

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 17](#) (Sequence Number 5 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** LARA BETH OSWALT  
1942 DRENNEN RD  
NEW KENSINGTON PA 15068-1805

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 24](#) (Sequence Number 6 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** JAMES D PATTOCK  
2029 OLD LEECHBURG RD  
NEW KENSINGTON PA 15068-8325

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 31](#) (Sequence Number 7 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** KIRT E PATTOCK  
2029 OLD LEECHBURG RD  
NEW KENSINGTON PA 15068-8325

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 48](#) (Sequence Number 8 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** RANDALL D BOBICK  
1965 DRENNEN RD  
NEW KENSINGTON PA 15068-1804

# SEDAT 4A WATER SUPPLY PROOF OF NOTIFICATION

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 55](#) (Sequence Number 9 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** STEPHEN C BOBICK  
1965 1/2 DRENNEN RD  
NEW KENSINGTON PA 15068-1850

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 62](#) (Sequence Number 10 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** STEPHEN C BOBICK  
1965 1/2 DRENNEN RD  
NEW KENSINGTON PA 15068-1850

**Priority Mail® 1-Day**

**Flat Rate Envelope**

[9405 5036 9930 0431 9831 79](#) (Sequence Number 11 of 18)

**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** BENJAMIN F BUCHHOLZ  
1924 OLD LEECHBURG RD  
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# SEDAT 4A WATER SUPPLY PROOF OF NOTIFICATION

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**Shipped to:** ROBERT L TWIDWELL  
1977 DRENNEN RD  
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**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** JAMES SMITH  
1933 DRENNEN RD  
NEW KENSINGTON PA 15068-1804

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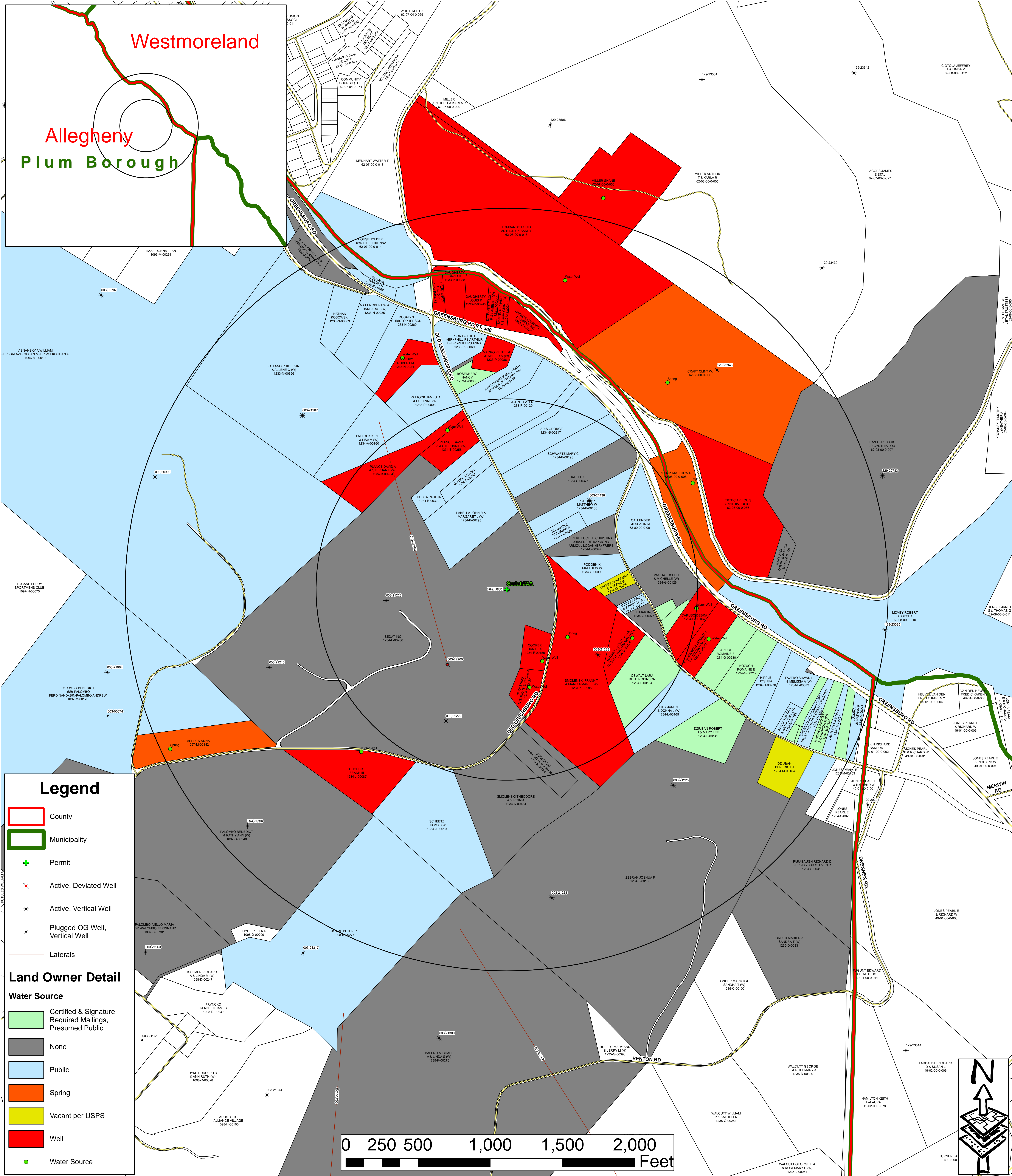
**Flat Rate Envelope**

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**Scheduled Delivery Date:** 02/28/2019

**Shipped to:** EDDIE L SPROUSE  
1927 DRENNEN RD  
NEW KENSINGTON PA 15068-1804





BY: MEC  
 DATE: 4/29/2019  
 Scale: 1" = 200'  
 FILE: Sedat #4A Water Purveyor Map 2-7-19  
 JOB NO: 677415  
 SHEET: 1 of 2

## WATER SUPPLY SURVEY FOR PENNECO ENVIRONMENTAL SOLUTIONS, LLC Plum Borough, Allegheny County Commonwealth of Pennsylvania

FOX & FOX, INC.  
 58 Timber Bridge Rd.  
 Clarion, PA 16214  
 Phone: 814-745-2861  
 Fax: 814-745-2248  
 email: ronaldfox@foxandfoxinc.us  
 web: www.foxandfoxinc.us

REVISIONS:
4/10/2019 - Updated Water Purveyor Data
4/12/2019 - Updated Water Purveyor Data
4/29/2019 - Updated Water Purveyor Data



**ATTACHMENT "C"**  
Corrective Action Plan and Well Data

**Attachment C**  
**Corrective Action Plan and Well Data**  
**Sedat #4A Injection Well**

If any upward fluid migration should occur through the well bore of any known or unknown well or any improperly plugged well due to the injection of permitted fluids, injection will be stopped until the situation can be remedied. Should any problem develop with the casing of the injection well, injection will be stopped until repairs can be completed to the casing. Injection will be stopped in the event of any mechanical integrity failure or some other major failure and the Pennsylvania DEP and the EPA will be notified of the problem.

In addition to the proposed injection well there are five (5) wells in the ¼ mile AOR that penetrate the injection and are shown in the table below. Well records for the wells and a map showing their location are in Attachment B. Well permit # 003-21222 will be converted into an observation well.

Tabulation of Wells Penetrating the Injection Zone

Well Permit #	Well Type	Construction	Date Drilled	Location *	Total Depth	Completion
003-21238	Gas	Rotary/Air	11/13/89	South West	4,264'	Cased
003-22200**	Gas /Oil	Rotary/Air & Mud	1/12/12	South West	3,343' True VD	Cased
003-21222	Gas	Rotary/Air	1/12/89	South	4,323'	Cased
003-21223	Class IID	Rotary/Air	1/25/89	South West	1,940'	Cased
003-21438	Gas	Rotary/Air	1/4/99	North West	3,773'	Plugged

Well records and completion reports are included in Attachment B of the application.

\*Location given in reference to proposed injection well Permit #003-21644

\*\*Horizontal Well, lateral drilled to NW, for more information see well record in Attachment B and AOR map.

**ATTACHMENT "E"**  
Name and Depth of USWD's





**PENNECO**

PENNECO ENVIRONMENTAL SOLUTIONS, LLC

**UIC Permit Application**

**SEDAT #4A**

**Plum Borough**

**Allegheny County**

**Pennsylvania**

**Binder 2**

## Attachment E

### USDWs for Sedat #4A Injection Well

The Sedat #4A AOR is located in the Pittsburgh Low Plateau Section of the Appalachian Plateau physiographic province (refer to map at the end of this attachment). Underlying rock types are shale, siltstone, sandstone, limestone and coal. Aquifers in the AOR are mainly sandstones of the Conemaugh Group and the Allegheny Group. The Pottsville Group and the Mauch Chunk Formation, identified as USDWs in some areas of Pennsylvania lie at too great a depth to serve as aquifers in the AOR or are absent due to non deposition or erosion as is the case for the Mauch Chunk. See the table on the following pages listing USDWs in Pennsylvania. The thickness of the section from the Conemaugh Group through the Allegheny Group runs in the range of 800 feet depending on surface elevation. A review of the well records shows water production as deep as 1,700 feet. However reports of water production by the driller on their driller's logs are highly unreliable, the quantity and quality of the water is not measured by instrument. The quantity is estimated by site and the water quality which is often measured by taste, is a commingled sample from all formations open to the bore hole at the time of sampling. Additionally, Pennsylvania Geological Survey Water Resource Reports #35 and #37 state water quality is extremely poor beyond 500 feet in depth because of moderate to high mineralization of the waters (high dissolved solids and brine).

### Description of USDWs in AOR

Rock members of the Conemaugh Group predominate at the surface in the AOR: see the section of the geologic map of Pennsylvania at the end of the attachment. The Casselman and Glenshaw Formations make up the Conemaugh Group, and consist of shale, red shale, sandstone and coals.

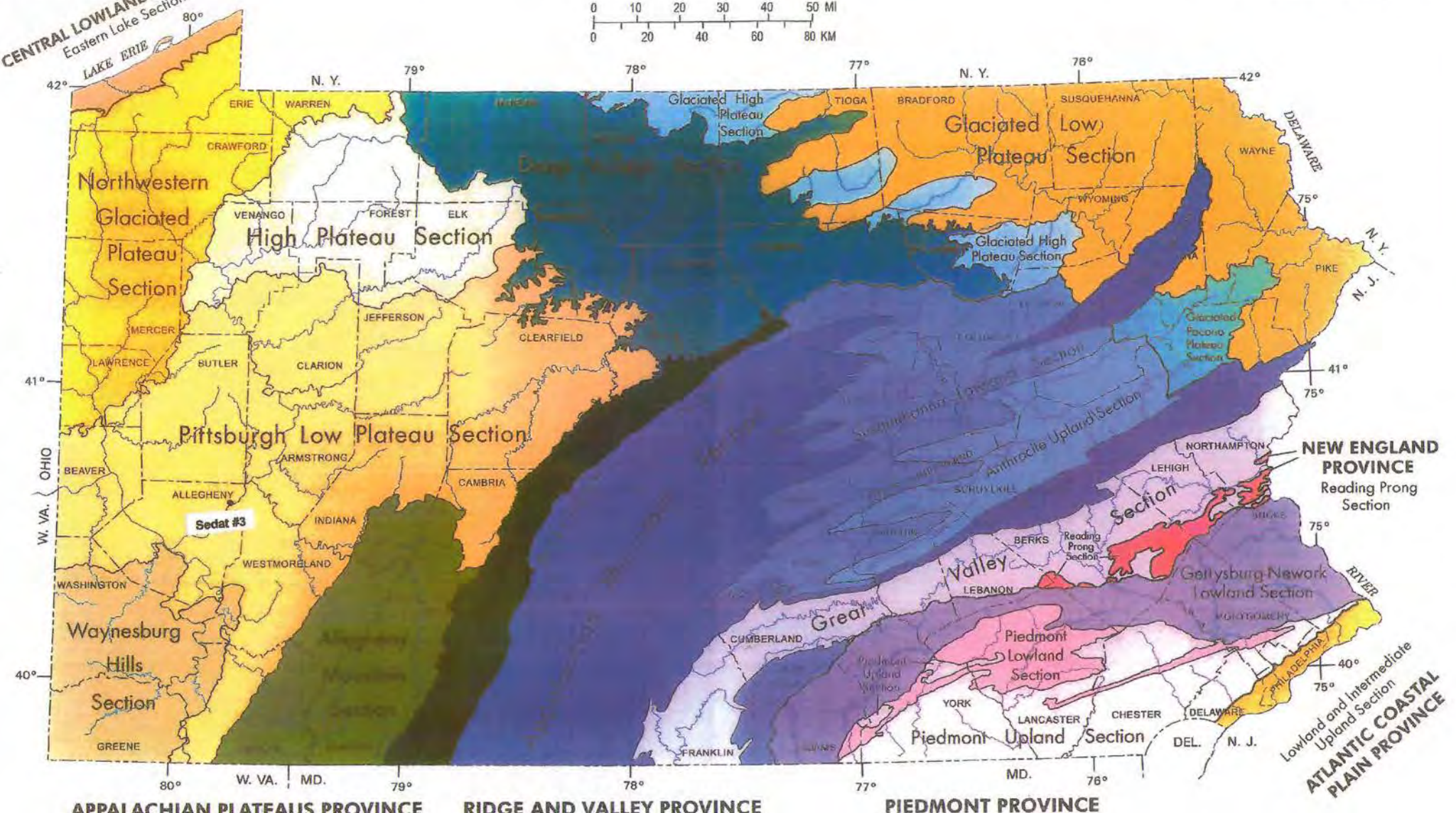
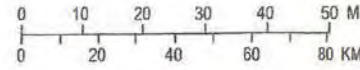
The Allegheny Group consists of shale, sandstone, thin beds of limestone and coals. The Freeport Formation, Kittanning Formation, Vanport Limestone, and Clarion Formation make up the Allegheny Group.

The established lowermost USDW for the Sedat 3A well (PAS2D701BALL), as detailed in its EPA Statement of Basis, is approximately 450'. Taking the elevation difference between Sedat 3A and Sedat 4A into account (-38'), the lowermost USDW at Sedat 4A is calculated at approximately 412'.

# PHYSIOGRAPHIC PROVINCES OF PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF  
CONSERVATION AND NATURAL RESOURCES  
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY  
www.dcnr.state.pa.us/topogeo

SCALE



**APPALACHIAN PLATEAUS PROVINCE      RIDGE AND VALLEY PROVINCE      PIEDMONT PROVINCE**

**CENTRAL LOWLANDS PROVINCE**

- Eastern Lake Section
- Northwestern Glaciated Plateau Section
- High Plateau Section
- Pittsburgh Low Plateau Section
- Waynesburg Hills Section

**APPALACHIAN PLATEAUS PROVINCE**

- Allegheny Mountain Section
- Allegheny Front Section
- Deep Valleys Section
- Glaciated High Plateau Section
- Glaciated Low Plateau Section
- Glaciated Pocono Plateau Section

**EXPLANATION**

**RIDGE AND VALLEY PROVINCE**

- Appalachian Mountain Section
- Susquehanna Lowland Section
- Anthracite Valley Section
- Anthracite Upland Section
- Blue Mountain Section
- Great Valley Section
- South Mountain Section

**NEW ENGLAND PROVINCE**

- Reading Prong Section

**PIEDMONT PROVINCE**

- Gettysburg-Newark Lowland Section
- Piedmont Lowland Section
- Piedmont Upland Section

**ATLANTIC COASTAL PLAIN PROVINCE**

- Lowland and Intermediate Upland Section

**SYMBOLS**

- Approximate boundary between physiographic provinces
- Approximate boundary between physiographic sections



**Figure 89.** The principal aquifers in the Appalachian Plateaus Province in Segment 11 are sandstones in the geologic units shown in yellow and limestone shown in blue. Where fractured, rocks of the Greenbrier, the Catskill, and the Brallier Formations locally yield water. The gray areas represent missing rocks.

System	Pennsylvania	Maryland	West Virginia	Virginia
Permian	Dunkard Group		Dunkard Group	
Pennsylvanian	Monongahela Group	Monongahela Formation	Monongahela Group	
	Conemaugh Group	Conemaugh Formation	Conemaugh Group	
	Allegheny Group	Allegheny Formation	Allegheny Formation	
	Pottsville Group	Pottsville Formation	Pottsville Group	Horton Formation
				Wise Formation
Mississippian				Norton Formation
				Lee Formation
	Nbuch Chunk Formation	Nbuch Chunk Formation	Nbuch Chunk Group	Bluestone Formation
				Hinton Formation
		Greenbrier Formation <sup>1</sup>	Greenbrier Limestone	Bluestield Formation
				Greenbrier Limestone
	Pocono Formation	Pocono Formation	Pocono Group	Moxcady Shale
Huntley Mountain Formation			Priest Formation	
Devonian	Catskill Formation <sup>1</sup>	Hampshire Formation	Hampshire Formation	Chattanooga Shale
		Chemung Formation	Chemung Formation	
	Timmings Peak Formation	Brallier Formation <sup>1</sup>	Brallier Formation <sup>1</sup>	
	Harel Formation	Harel Shale	Harel Shale	

<sup>1</sup>Locally water-yielding

Modified from:  
 Patchen, D.G., and others, 1985a, Correlation of stratigraphic units of North America (COSUNA) Project, southern Appalachian region: American Association of Petroleum Geologists, 1 sheet.  
 \_\_\_\_\_, 1985b, Correlation of stratigraphic units of North America (COSUNA) Project, northern Appalachian region: American Association of Petroleum Geologists, 1 sheet.



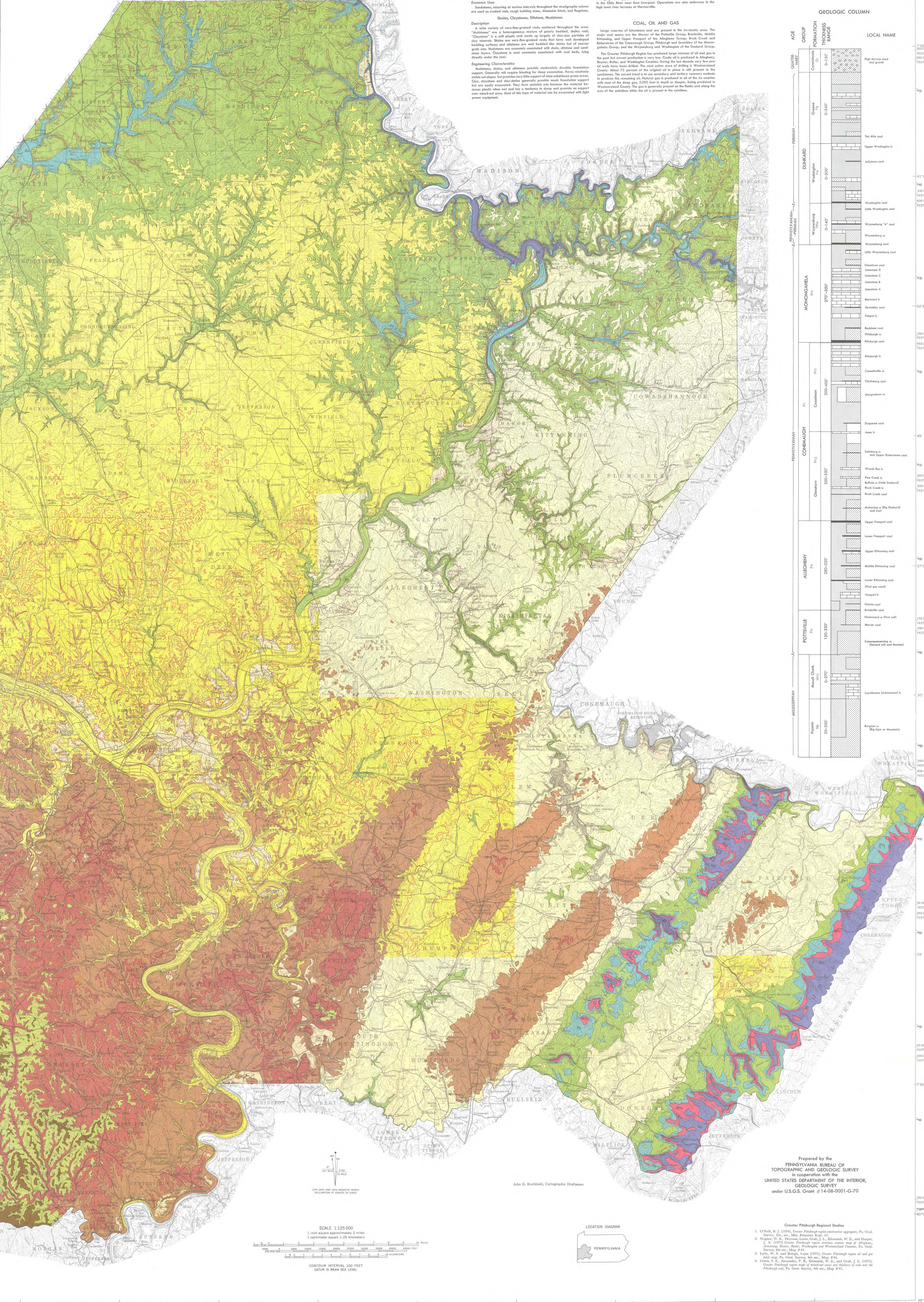
GREATER PITTSBURGH REGION GEOLOGIC MAP COMPILED BY W. R. Wagner, J. L. Craft, L. Heyman and J. A. Harper

1975

Table with 4 columns: GROUP FORMATION, DESCRIPTION, GROUND WATER CHARACTERISTICS, and ENVIRONMENTAL ASPECTS. Rows include Allegheny, Dunkard, Monongahela, Conemaugh, Allegheny, Pottsville, Mouth Creek, and Pocono.

Table with 2 columns: SPECIFIC REFERENCES and REFERENCES TO PUBLISHED SOURCE MATERIAL. Lists geological survey reports and publications.

Geologic Notes section containing: STRATIGRAPHIC COLUMN, Economic Uses, Engineering Characteristics, and Representative Rock Types. Includes a small inset map of Pennsylvania.



This map is a compilation and updating of previous maps... prepared by the Pennsylvania Bureau of Topographic and Geologic Survey...

Maplet edited and published by the U.S. Geological Survey... Copyright 1975 by the Commonwealth of Pennsylvania.

Geologic Column table showing formation names, thickness ranges, and local names. Includes formations like Allegheny, Pottsville, Conemaugh, Monongahela, Dunkard, and Allegheny.

Prepared by the PENNSYLVANIA BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY in cooperation with the UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY under U.S.G.S. Grant # 14-08-0001-G-70.



**ATTACHMENT "G"**  
**Geological Data on the Injection and Confining Zones**



**Attachment G**  
**Geological Data on Injection and Confining Zones**  
**SEDAT #4A Injection Well**

Geological Data for Sedat #4A Injection Well

The Sedat #4A injection well will be a repurposed depleted natural gas well located in the Renton Gas Field in Plum Borough, Allegheny County, Pennsylvania. The injection well will target the Murrysville Sand as the injection zone which is water saturated and located very near the axis of the Duquesne-Fairmount syncline, see the copy of a section of Pittsburgh Region Structure Contour Map (Map 1) included with this attachment. Also included is a Geologic Map of the western part of Allegheny County, PA (Map 2). The immediate area around the well has been striped mined for coal (Pittsburgh Seam) and mined by underground methods for coal (Upper Freeport Seam); see the Area of Review map in Attachment B.

There are 14 wells within the 1/2 mile Area of Review (ARO) that penetrate the Murrysville sand, the state permit numbers for the wells are:

Permit #	Permit #	Permit #	Permit #
003-21287	003-21210	003-22200	003-21223
003-21222	003-21644	003-21238	003-21438
003-21228	129-23348	129-23085	
003-21225	003-20903	003-21868	

All the wells were cased and cemented through the Murrysville. Well 003-00674 was plugged. The well records can be found in Attachment B. The Sedat #3A well (003-21223) has been issued an EPA UIC permit (PAS2D701BALL) and has been repurposed for injection. The Sedat #1A (003-21210) will be converted to an observation well for the Sedat #3A injection well. The Sedat #2A well (003-21222) will be converted to an observation well for the Sedat #4A injection well.

The Murrysville Sand is approximately 94' thick, and lies at a depth of 1,706' to 1,800' in the Sedat #4A AOR. The well had an original TD of 3,886' and will be plugged back to 1,850' to just below the injection zone. See Attachment M Construction Details for well schematic and cement data. Fluid will be injected into a 60' section of the Murrysville Sand through a 2 $\frac{7}{8}$ " injection string set on a packer at approximately 1,650' in 4 $\frac{1}{2}$ " casing cemented to surface and into perforations in the 7" casing from 1,740' to 1,800'. The confining zones are the Riddlesburg Shale (Sunbury Equivalent) which overlays the Murrysville with the Riceville-Oswayo Shale lying underneath as the lower confining zone.

The upper confining zone lying directly on top of the Murrysville is the Riddlesburg Shale. The Riddlesburg is a dark gray to greenish and grayish black laminated shale and siltstone with occasional sandstone and limestone beds. The Riddlesburg is

between 80 to 90 feet thick in the Sedat #4A AOR; see the Riddlesburg Isopach map, Map 3 at the end of Attachment G.

The Murrysville is a greenish-yellow to gray sandstone with occasional conglomeratic lenses, with high porosity and permeability. Because of the Murrysville's thickness, high porosity and permeability the formation serves as a gas storage reservoir to the south of the Sedat lease. All most all the wells in the AOR including the Sedat #4A were drilled and cased through the Murrysville without running a porosity logs, see the well records in Attachment B. There are two wells for which porosity logs are available that show the average density porosity through the Murrysville Sand to average around 24%, which agrees with published reports of porosity values in the Murrysville. Refer to the log sections and location map at the end of this attachment for wells permit # 129-24721, and well permit #129-25581. Both wells where saturated with brine and did not produce gas.

Penneco conducted several tests to determine the reservoir characteristics of the Murrysville on this lease with the results included at the end of Attachment H. The test provided a breakdown pressure, the pressure needed to initiate a fracture, as 3,115 psi, ISP is estimated as 1,114 psi, with a fracture gradient of 1.23 psi. The reservoir pressure is 232 psi, with an estimated closure pressure of 553 psi. See the supplement to the HFrac report labeled Item 5 for more detail on the methodology used to determine the fracture gradient.

Formation permeability for the Murrysville was reported by Melissa Sager (Petrologic Study of the Murrysville sandstone in SW PA, 2007) as generally high throughout the formation, with a range of 0.005 to 1,000 millidarcies and an average of around 100 millidarcies. The permeability of the Murrysville in the Sedat #4A is estimated to be 1.8 mD and was determined from a series of tests performed on the Sedat #3A well to determine the reservoir characteristics of the Murrysville sand on Penneco leases. The tests were conducted by HFrac Consulting Services, LLC (see the supplement to the HFrac report labeled Item 7 at the end of this attachment for additional detail). This value falls within the lower range of Sager's study.

The Riceville-Oswayo Shale lying directly beneath the Murrysville serves as the lower confining zone. The Riceville-Oswayo is about 30 feet thick in the AOR; see Map 4, Isopach map of the Oswayo Shale. The Riceville-Oswayo formation consists of dark gray to medium gray shale and siltstones.

Structurally the AOR has a series of northeast-southwest trending anticlines and synclines with the Sedat #4A well lying along the axis of the Duquesne-Fairmount syncline refer to Map 1. While there are some deep seated basement faults associated with the Rome Trough, review of Map 1, Map 2 and an additional structure map contoured on the top of the Murrysville Sand and additional cross sections across the AOR supports the idea that there are no apparent faults at shallower depths in the AOR. The Murrysville structure map along with additional cross sections across the AOR are

from McDaniel's Subsurface Stratigraphy and Depositional Controls on Late Devonian-Early Mississippian Sediments in SW PA.

Review of Pennsylvania Geologic Publication, Atlas No. 36, Geology of the Freeport Quad (the Sedat #4A is in the SW corner of the quad) states on page 23 "displacement faults where not seen in any outcrop. Inquiry among mine operators indicate practically the same thing". Penneco Environmental Solutions, LLC had a related company that at one time mined in the AOR and a search of its records supports the statement found in Atlas No. 36.

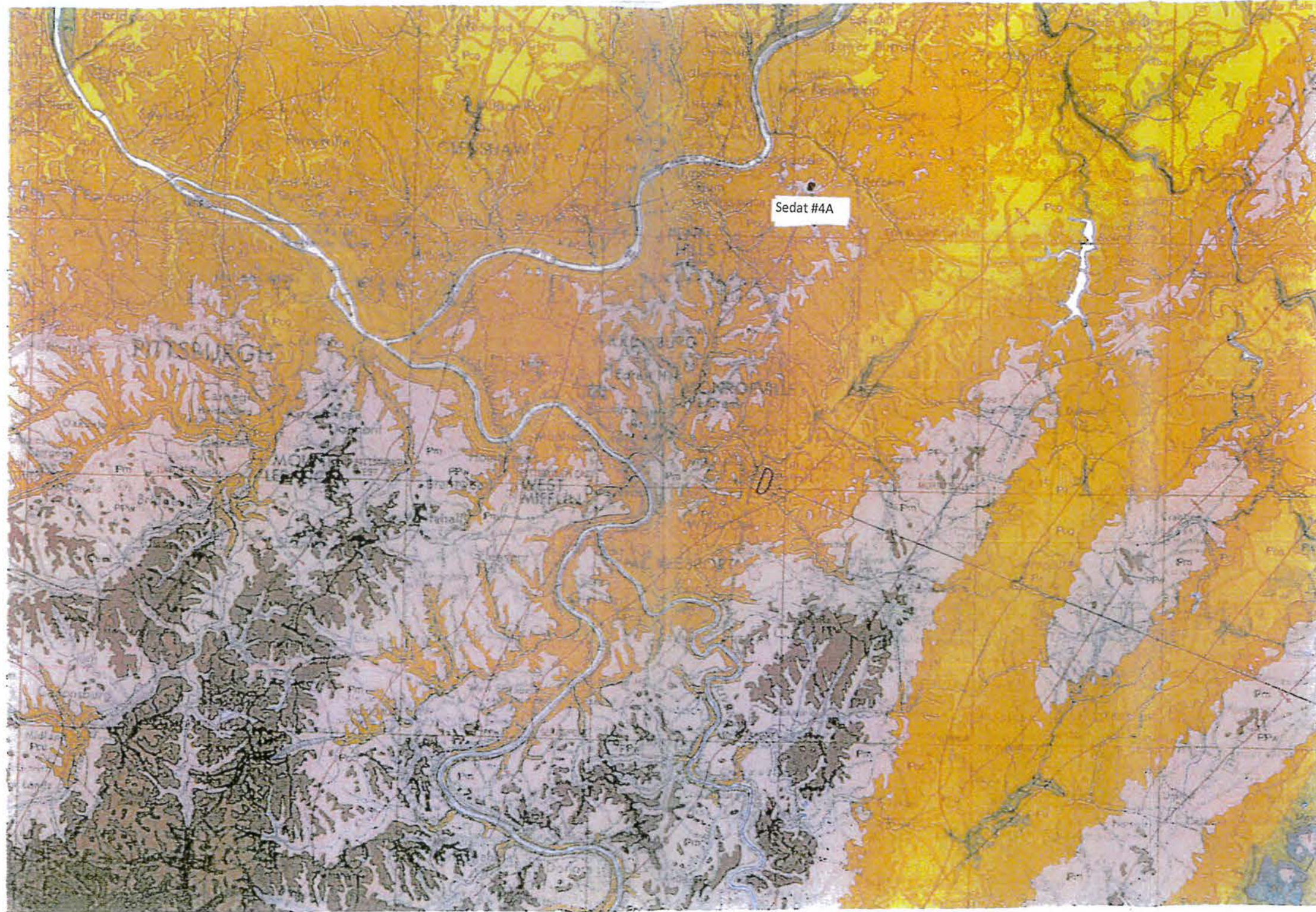
The U.S.G.S rates the probability of seismic activity in SW Pennsylvania with sufficient intensity to cause damage as low. A series of four earthquake maps from the U.S.G.S earthquake hazards program website are found at the end of this attachment.

Earthquake Map 1 shows the historical locations of earthquakes in Pennsylvania and nearby areas. Earthquake Map 2 shows the entire US color code to show the chance of a seismic event occurring from lowest to highest. Map 1 shows no seismic events are shown to have occurred in SW PA, and Map 2 shows the AOR lies in an area with the second lowest hazard level.

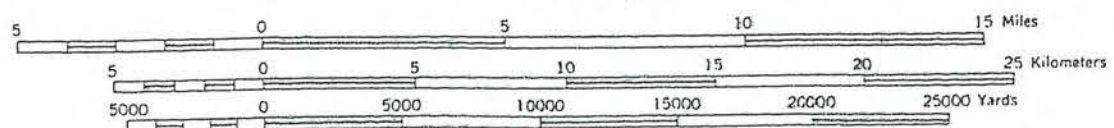
Earthquake Maps 3 and 4 are from U.S.G.S. open file report 2016 One Year Seismic Hazard Forecast for the Central and Eastern United States from Induced and Natural Earthquakes OFR-2016-1035. Map 3 shows there is a small chance (one percent) that ground shaking greater than IV on the Modified Mercalli Scale will occur. Map 4 indicates the change of damage in the NE from natural or induced seismic activity to be 1% to 2%.

Penneco also contends that the maximum injection pressure is sufficiently below the pressure needed to initiate a fracture or reactive any unknown faults. The injection rate is also not of a sufficient volume to open or extend any fractures or reactive any unknown faults in the area, see the HFRAC report in Attachment I.





SCALE 1:250,000



ONE INCH EQUALS APPROXIMATELY FOUR MILES