01091 #52AWI

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE # IND-D-1815- -
SCALE: 1"= 10 LOG TYPE:
COORDINATE TYPE: R & P
N/S= -5453.00
E/W= -41830.00 EST.
7 1/2' QUAD: ELDERTON
TWP: ARMSTRONG
SURF OWNER: CURTIS MITCHELL
LOGGED BY: RFJ
SURF ELEV: 1427.00 TD: 764.00
STRAT INT: 13 WELLERSBURG
TO: 25 VANPORT LIMESTONE

Depth	Elev	Seam	Thickness	Top	Comment
280.	882.	GY SANDSTONE W/SHALE STREAKS	543	13.00	288.60
290.	872.	LIGHT GY GN SH W/SANDSTONE STREAKS	333	4.10	292.70
		GY SANDSTONE W/SHALE STREAKS	543	1.70	294.40
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	0.50	294.90
		DARK GRAY SHALE	124	1.60	296.50
300.	862.				
310.	852.	DARK GY MASSIVE SANDY SHALE	324	26.00	322.50
320.	842.				
		COMMON BANDED COAL	021	2.54	325.04 020
		BLACK SHALE W/COAL STREAKS	113	0.16	325.20 020
		COMMON BANDED COAL	021	0.51	325.71 020
330.	832.	DARK GRAY FIRECLAY	127	1.89	327.60
		DARK GRAY FIRECLAY	127	1.60	329.20
		BLACK FIRECLAY	117	0.50	329.70
		DK GY FIRECLAY W/LS NODS	227	0.80	330.50
		LIGHT GRAY GN FIRECLAY	137	3.40	333.90
340.	822.	LIGHT GY GN SH W/SANDSTONE STREAKS	333	4.00	337.90
		LIGHT GY GN SH & INTERBEDDED SANDSTONE	332	5.90	343.80
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	5.20	349.00
350.	812.	DARK GRAY SHALE W/COAL STREAKS	123	0.50	349.60
		DARK GRAY FIRECLAY	127	0.80	350.40
		DARK GRAY FIRECLAY	127	0.50	350.90
		DARK GRAY FIRECLAY	127	2.50	353.40
		LIGHT GY GN SANDY FIRECLAY	337	4.80	358.20
360.	802.	DARK GRAY SHALE W/COAL STREAKS	123	0.50	358.70
		COAL HORIZON	002	0.01	358.71 021
		LIGHT GRAY GN FIRECLAY	137	2.09	360.80
		LIGHT GY GN MASSIVE SANDY SHALE	334	13.70	374.50
370.	792.				
		LIGHT GY GN MASSIVE SANDY SHALE	334	3.40	377.90
380.	782.	LIGHT GY GN MASSIVE SANDY SHALE	334	5.00	382.90
		DARK GY SHALE W/SANDSTONE STREAKS	323	2.10	385.00
390.	772.	DARK GY SHALE W/SANDSTONE STREAKS	323	13.40	398.40
400.	762.	GY SH PEB CONGLOMERATE	742	2.60	401.00
		DARK GY SHALE W/SANDSTONE STREAKS	323	3.20	404.20
		GY SH PEB CONGLOMERATE	742	2.10	406.30
		DARK GY SHALE W/SANDSTONE STREAKS	323	1.10	407.40
410.	752.	GY SH PEB CONGLOMERATE	742	11.70	419.10
420.	742.	COMMON BANDED COAL	021	0.20	419.30
		GY SANDSTONE W/COAL BANDS	748	0.70	420.00
		COMMON BANDED COAL	021	3.71	423.71 022
		DARK GY SHALE W/SANDSTONE STREAKS	323	1.29	425.00

TOTAL DEPTH = 425.00
WED, NOV 27, 1996, 1:32 PM

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Depth	Elev	Seam	Thickness	Top	Comment
10.	1417.	CASING OR SURFACE MATERIAL	001	40.90	40.90
20.	1407.				
30.	1397.				
40.	1387.	DARK GY MASSIVE SANDY SHALE	324	4.00	44.90
		GY MASSIVE SANDSTONE	544	4.10	49.00
50.	1377.	GRAY CARBONATE CEMENTED SANDSTONE	644	8.20	57.20
60.	1367.	DARK GY MASSIVE SANDY SHALE	324	6.50	63.70
		DARK GRAY SHALE	124	1.60	65.30
		DARK GRAY SHALE	124	0.50	65.80
70.	1357.	DARK GRAY SHALE	124	13.20	79.00
80.	1347.	DARK GY MASSIVE SANDY SHALE	324	2.80	81.80
		DARK GRAY SHALE W/FOSSIL SHELLS	129	2.00	83.80
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	2.20	86.00
		GY SANDSTONE W/SHALE STREAKS	543	0.90	86.90
90.	1337.	DARK GRAY FIRECLAY	127	5.30	92.20
		LIGHT GY/GN SANDY FIRECLAY W/LS NODS	437	7.80	100.00
100.	1327.				
110.	1317.	DARK GY SANDY SHALE W/LS NODS	424	23.00	123.00
120.	1307.				
130.	1297.	GY MASSIVE SANDSTONE	544	21.00	144.00
140.	1287.				
		LIGHT GY GN MASSIVE SANDY SHALE	334	6.30	150.30
150.	1277.	LIGHT GRAY GN SHALE	134	4.00	154.30
		LIGHT GY GN MASSIVE SANDY SHALE	334	3.40	157.70
		BONE	034	0.50	158.20 015
160.	1267.	COMMON BANDED COAL	021	1.30	159.50 015
		DARK GRAY FIRECLAY	127	0.50	160.00
170.	1257.	DARK GRAY SHALE	124	17.00	177.00
180.	1247.	DK GY FIRECLAY W/LS NODS	227	3.60	180.60
		MASSIVE FLINT CLAY	094	0.80	181.40
		DARK GRAY FIRECLAY	127	0.50	181.90
		DARK GRAY FIRECLAY	127	1.10	183.00
		RED & GREEN CLAYSTONE	157	0.50	183.50
		LIGHT GY GN SANDY FIRECLAY	337	4.00	187.50
190.	1237.	LIGHT GY GN SANDY FIRECLAY	337	3.10	190.60
		RED SANDY CLAYSTONE W/LS NODS	457	1.60	192.20
		LIGHT GY GN FIRECLAY W/LS NODS	237	0.50	192.70
		RED CLAYSTONE W/LS NODS	257	5.50	198.20
		DARK GRAY FIRECLAY	127	0.50	198.70
200.	1227.	RED CLAYSTONE	157	2.50	201.20
		LIGHT GY GN SANDY FIRECLAY	337	1.40	202.60
		LIGHT GRAY GN SHALE	134	5.20	207.80
210.	1217.				
220.	1207.	DARK GY SHALE W/SANDSTONE STREAKS	323	32.90	240.70
230.	1197.				
240.	1187.	DARK GY MASSIVE SANDY SHALE	324	1.70	242.40
		LIGHT GRAY GN FIRECLAY	137	3.80	246.20
		LIGHT GY GN SANDY FIRECLAY	337	0.50	246.70
250.	1177.	LIGHT GY GN MASSIVE SANDY SHALE	334	4.30	251.00
		LIGHT GRAY GN SHALE	134	6.50	257.50
260.	1167.	RED SHALE	164	5.20	262.70
		RED & GREEN CLAYSTONE	157	6.70	269.40

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Depth	Elev	Seam	Thickness	Top	Comment
270.	1157.	DARK GY SANDY SHALE W/LS NODS	424	13.80	283.20
280.	1147.	DARK GY MASSIVE SANDY SHALE	324	8.50	291.70
290.	1137.	LIGHT GY GN SH W/SANDSTONE STREAKS	333	9.80	301.50
300.	1127.				
310.	1117.	DARK GY SHALE W/SANDSTONE STREAKS	323	18.00	319.50
320.	1107.	DARK GRAY SHALE W/FOSSIL SHELLS	129	4.70	324.20 017-F
		MASSIVE FN GRND LS W/FOSSIL SHELLS	994	5.70	329.90 017-F
330.	1097.	LIGHT GY GN FIRECLAY W/LS NODS	237	7.10	337.00
340.	1087.	DARK GY SANDY FIRECLAY W/LS NODS	427	7.00	344.00
		DK GY FIRECLAY W/LS NODS	227	0.50	344.50
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	1.90	346.40
350.	1077.	DARK GY MASSIVE SANDY SHALE	324	14.60	361.00
360.	1067.	BLACK SHALE W/FOSSIL SHELLS	119	8.50	369.50 018-F
370.	1057.	BLACK SHALE W/FOSSIL SHELLS	119	11.50	381.00 018-F
380.	1047.	MASSIVE FN GRND LS W/FOSSIL SHELLS	994	0.50	381.50 018-F
		COAL W/BONE STREAKS	023	0.30	381.80 018
		DARK GY SHALE W/SANDSTONE STREAKS	323	6.00	387.80
390.	1037.	DARK GY SHALE & INTERBEDDED SANDSTONE	322	3.50	391.30
		COMMON BANDED COAL	021	0.20	391.50 018-D
		DARK GRAY SANDY FIRECLAY	327	1.00	392.50
		DARK GY MASSIVE SANDY SHALE	324	2.50	395.00
		DARK GRAY SANDY FIRECLAY	327	5.00	400.00
400.	1027.	DARK GRAY SANDY FIRECLAY	327	6.90	406.90
		LIGHT GRAY GN FIRECLAY	137	0.50	407.40
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	1.20	408.60
410.	1017.	LIGHT GRAY GN SHALE	134	0.50	409.10
		LIGHT GRAY GN SHALE	134	2.90	412.00
		DARK GRAY FIRECLAY	127	4.90	416.90
		DARK GRAY SHALE	124	1.80	418.70
420.	1007.	DARK GRAY SHALE	124	0.50	419.20
		DARK GRAY SHALE	124	0.80	420.00
		MASSIVE IRONSTONE	074	0.50	420.50
		BLACK SHALE	114	2.30	422.80
		GY SANDSTONE W/SHALE STREAKS	543	7.30	430.10
430.	997.	LIGHT GRAY GN SHALE	134	11.50	441.60
440.	987.	BLACK SHALE	114	0.50	442.10
		DARK GRAY FIRECLAY	127	2.30	444.40
		DK GY FIRECLAY W/LS NODS	227	2.60	447.00
		LIGHT GY/GN SANDY FIRECLAY W/LS NODS	437	2.50	449.50
450.	977.	LIGHT GY GN FIRECLAY W/LS NODS	237	1.30	450.80
		DARK GRAY FIRECLAY	127	1.40	452.20
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	6.20	458.40
460.	967.	DARK GRAY FIRECLAY	127	1.60	460.00
		DARK GY SHALE W/SANDSTONE STREAKS	323	4.30	464.30
470.	957.	DARK GY SHALE & INTERBEDDED SANDSTONE	322	22.00	486.30
480.	947.				
490.	937.	DARK GY MASSIVE SANDY SHALE	324	6.40	492.70
		BLACK SHALE	114	6.70	499.40
500.	927.	BLACK SHALE	114	1.52	500.92 020
		COMMON BANDED COAL	021	2.92	503.84 020
		DARK GRAY FIRECLAY	127	5.16	509.00 020
510.	917.	DARK GRAY SANDY FIRECLAY	327	2.60	511.60
		DARK GY SHALE W/SANDSTONE STREAKS	323	7.60	519.20
520.	907.	DARK GY MASSIVE SANDY SHALE	324	2.80	522.00
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	5.80	527.80
530.	897.	DARK GY MASSIVE SANDY SHALE	324	2.80	530.60
		BONE	034	0.21	530.81 021
		COMMON BANDED COAL	021	1.79	532.60 021
		BONE	034	0.29	532.89 021
		DK GY FIRECLAY W/LS NODS	227	4.71	537.60
		MASSIVE FLINT CLAY	094	0.60	538.20
540.	887.	LIGHT GY GN SANDY FIRECLAY	337	4.70	542.90
		GY MASSIVE SANDSTONE	544	0.50	543.40
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	3.20	546.60
		LIGHT GY GN SANDY FIRECLAY	337	0.70	547.30
		LIGHT GRAY GN FIRECLAY	137	0.80	548.10
550.	877.	LIGHT GY GN MASSIVE CHURNED SANDY SHALE	335	5.60	553.70
		DARK GRAY MASSIVE CHURNED SANDY SHALE	325	1.50	555.20
		DARK GY MASSIVE SANDY SHALE	324	3.50	558.70

IND01815

Depth	Elev	Seam	Thickness	Top	Comment
560.	867.	DARK GRAY SHALE	124	12.80	571.50
570.	857.	BLACK SHALE	114	1.50	573.00
		COAL W/BONE STREAKS	023	1.25	574.25 022
		DARK GRAY SHALE W/COAL STREAKS	123	2.15	576.40
		COAL W/BONE LAYERS	022	0.20	576.60
580.	847.	LIGHT GY GN SANDY FIRECLAY	337	4.40	581.00
		LIGHT GY GN SH W/SANDSTONE STREAKS	333	5.40	586.40
590.	837.	DARK GY SHALE & INTERBEDDED SANDSTONE	322	9.50	595.90
		GY SANDSTONE W/COAL BANDS	748	3.00	598.90
600.	827.	GY SANDSTONE W/COAL BANDS	748	0.90	599.80
		GY SANDSTONE W/SHALE STREAKS	543	5.40	605.20
		GY MASSIVE SANDSTONE	544	2.80	608.00
610.	817.	GRAY CARBONATE CEMENTED SANDSTONE	644	3.20	611.20
		GY MASSIVE SANDSTONE	544	3.70	614.90
620.	807.	GY SH PEB CONGLOMERATE	742	8.30	623.20
		CREVICE			
		OPEN SPACE OR CREVICE	006	2.00	625.20
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	1.50	626.70
		GY MASSIVE SANDSTONE	544	1.40	628.10
630.	797.	GY SH PEB CONGLOMERATE	742	0.60	628.70
		GY MASSIVE SANDSTONE	544	6.30	635.00
640.	787.	BLACK SHALE	114	4.50	639.50
		DARK GRAY SHALE	124	4.90	644.40
		COAL W/BONE STREAKS	023	1.83	646.23 023
		DARK GRAY FIRECLAY	127	2.07	648.30
650.	777.	DARK GRAY SANDY FIRECLAY	327	2.90	651.20
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	3.20	654.40
		DARK GRAY FIRECLAY	127	5.60	660.00
660.	767.	DARK GRAY SANDY FIRECLAY	327	2.40	662.40
		DARK GRAY SHALE	124	3.80	666.20
		BONE	034	1.10	667.30
		COAL W/BONE STREAKS	023	0.50	667.80
670.	757.	DARK GRAY SANDY FIRECLAY	327	0.60	668.40
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	0.50	668.90
		DARK GY SHALE & INTERBEDDED SANDSTONE	322	4.40	673.30
		BLACK SHALE	114	5.00	678.30
680.	747.	BLACK SHALE	114	3.10	681.40
		DARK GY MASSIVE SANDY SHALE	324	6.60	688.00
690.	737.	COAL W/BONE STREAKS	023	1.92	689.92 024
		DARK GRAY FIRECLAY	127	5.88	695.80
		DARK GY SHALE W/SANDSTONE STREAKS	323	4.40	700.20
700.	727.	DARK GRAY FIRECLAY	127	1.50	701.70
		SLUMPED SANDY SHALE	014	1.90	703.60
		DARK GY SHALE W/SANDSTONE STREAKS	323	7.60	711.20
710.	717.				
720.	707.	DARK GY SHALE & INTERBEDDED SANDSTONE	322	13.80	725.00
		DARK GY SHALE W/SANDSTONE STREAKS	323	2.80	727.80
730.	697.	GY SANDSTONE W/SHALE STREAKS	543	13.20	741.00
740.	687.	GY MASSIVE SANDSTONE	544	1.00	742.00
		GY MASSIVE SANDSTONE	544	3.70	745.70
		GY MASSIVE SANDSTONE	544	2.30	748.00
		CRYSTALLIZED QUARTZ PEB CONGLOMERATE	754	1.40	749.40
750.	677.	DARK GRAY SHALE W/COAL STREAKS	123	2.10	751.50
		GY SANDSTONE W/SHALE STREAKS	543	2.30	753.80
		GY MASSIVE SANDSTONE	544	5.50	759.30
760.	667.	CRYSTALLIZED QUARTZ PEB CONGLOMERATE	754	3.20	762.50
		DARK GRAY SANDY FIRECLAY	327	1.50	764.00

TOTAL DEPTH = 764.00
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