ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-0435-
SCALE: 1"= 10 LOG TYPE: D
COORDINATE TYPE: R & P
N/S= -68885.86
E/W= -83868.50 SUR.
7 1/2' QUAD:
TWP: CONEMAUGH
SURF OWNER: WM PARKE HRS
LOGGED BY: DR
SURF ELEV: 1284.40 SUR. TD: 292.83
STRAT INT: 18 WOODS RUN
TD: 33 SHELDCTA D

CASING OR SURFACE MATERIAL 001 14.00 14.00
DARK GRAY SHALE 124 3.00 17.00
DARK GRAY SHALE 124 4.00 21.00

INDD0435

TOTAL DEPTH = 292.10

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-0153-
SCALE: 1"= 10 LOG TYPE: D
COORDINATE TYPE: R & P
N/S= -68883.00
E/W= -82079.00 EST.
7 1/2' QUAD:
TWP: CONEMAUGH
SURF OWNER: DIVEN HEIRS
LOGGED BY: DR
SURF ELEV: 1273.90 SUR. TD: 247.00
STRAT INT: 18 BRUSH CREEK
TD: 33 SHELDCTA D

CASING OR SURFACE MA 001 3.00 3.00
CASING OR SURFACE MA 001 17.33 20.33
GY MASSIVE SANDSTON 544 27.00 47.33
DARK GY MASSIVE SA 324 4.34 51.67
DARK GRAY FIRECLAY 127 5.66 57.33

INDD0153

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-2626-
SCALE: 1"= 10 LOG TYPE: G
COORDINATE TYPE:
N/S= -69278.1
E/W= -58843.8
7 1/2' QUAD: MC
TWP: CONEMAUGH
SURF OWNER: M BE
LOGGED BY: RGG
SURF ELEV: 137
STRAT INT: 17
TD: 33

INDD2626

TOTAL DEPTH

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-1823-
SCALE: 1"= 10 LOG TYPE: G
COORDINATE TYPE: PENNA.
N/S= 433115.82
E/W= 1558374.7
7 1/2' QUAD: MC
TWP: CONEMAUGH
SURF OWNER:
LOGGED BY: GCS
SURF ELEV: 136
STRAT INT: 18
TD: 25

INDD1823

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-1903-
SCALE: 1"= 10 LOG TYPE: G
COORDINATE TYPE: PENNA.
N/S= 433370.68
E/W= 1561063.12 EST.
7 1/2' QUAD: MCINTYRE
TWP: CONEMAUGH
SURF OWNER:
LOGGED BY: EH
SURF ELEV: 1380.00 EST. TD: 382.00
STRAT INT: 17 PINE CREEK
TD: 25 VANPORT LIMESTONE

GY SANDSTONE W/SHALE STREAKS 543 4.80 164.30
DARK GRAY SHALE 124 1.20 165.50
DARK GRAY FIRECLAY 127 4.70 180.20
DARK GRAY SANDY FIRECLAY 327 6.80 200.00
SANDY SHALE MUDFLOW 018 1.60 201.60
DARK GRAY SANDY FIRECLAY 327 2.40 203.00
SLUMPED SANDY SHALE 014 3.20 206.20
DARK GY SHALE & INTERBEDDED SANDSTONE 322 2.00 208.20
BLACK SHALE W/SANDSTONE STREAKS 313 3.10 211.30
SLUMPED SHALE 013 2.00 213.30
DARK GY MASSIVE SANDY SHALE 324 3.87 217.17 033
COAL W/BONE STREAKS 021 2.50 219.67 033
BLACK SHALE 114 0.33 220.00 033
COMMON BANDED COAL 021 0.33 220.33 033
DARK GRAY FIRECLAY 127 0.37 220.70 033
DARK GRAY FIRECLAY 127 6.80 220.70
DARK GRAY SANDY FIRECLAY 327 8.80 238.50
DARK GY MASSIVE SANDY SHALE 324 0.80 239.10
DARK GRAY SANDY FIRECLAY 327 2.80 242.00
DARK GY MASSIVE SANDY SHALE 324 2.50 244.50
DARK GRAY SANDY FIRECLAY 327 3.40 247.90
COMMON BANDED COAL 021 0.50 248.40
BLACK FIRECLAY 117 1.60 250.00
DARK GY SHALE W/SANDSTONE STRE 323 1.00 251.00
DARK GY MASSIVE SANDY SHALE 324 10.00 261.00
MASSIVE IRONSTONE 024 0.70 262.80
COMMON BANDED COAL 021 0.10 262.70
DARK GY MASSIVE SANDY SHA 324 7.20 269.90
DARK GY SHALE W/SANDSTON 323 2.00 271.90
DARK GY MASSIVE SANDY S 324 1.40 273.30
GY SANDSTONE W/SHALE S 543 0.80 274.10
DARK GY SHALE W/SANDS 323 1.60 276.30
GY SANDSTONE STREAKS 543 2.80 284.60
GY MASSIVE SANDSTONE 544 2.20 286.80
GY SANDSTONE W/SHALE STREAKS 543 3.60 300.40
GRAY CARBONATE CEMENTED SANDSTONE 024 3.80 304.20
GY SANDSTONE W/SHALE STREAKS 543 0.80 304.20
GY SANDSTONE W/SHALE STREAKS 543 7.00 311.20
DARK GRAY SHALE 124 3.10 314.30
GY SANDSTONE W/SHALE STREAKS 543 0.50 314.80
DARK GRAY SHALE 124 3.20 318.00
BLACK SHALE 114 0.80 318.80
COAL W/BONE LAYERS 021 0.70 319.50
DARK GRAY FIRECLAY 127 4.50 324.00
GY SANDSTONE W/SHALE STREAKS 543 4.00 328.00
DARK GY SHALE & INTERBEDDED SANDSTONE 322 1.30 329.30
BLACK SHALE 114 2.70 332.00
DARK GY SHALE W/SANDSTONE STREAKS 323 4.70 336.70
DARK GRAY SHALE 124 4.90 374.90
MASSIVE FN GRND SHLY LS W/FOSSI 884 1.60 376.60
LAYERED FN GRND LS W/FOSSIL SHEL 882 2.20 378.80
DARK GRAY SHALE 124 2.00 381.00
DARK GY SHALE W/SANDSTONE STREAKS 323 1.00 382.00

INDD1903

TOTAL DEPTH = 382.00

TOTAL DEPTH = 407.00

ROCHESTER & PITTSBURGH COAL CO
DRILL HOLE #IND-D-1053-
SCALE: 1"= 10 LOG TYPE: D
COORDINATE TYPE: R & P
N/S= -70845.82
E/W= -48939.32 SUR.
7 1/2' QUAD:
TWP: YOUNG
SURF OWNER: J M BARCLAY
LOGGED BY: DR
SURF ELEV: 1284.30 SUR. TD: 282.58
STRAT INT: 18 BRUSH CREEK
TD: 20 UPPER FREEPORT

CASING OR SURFACE MATERIAL 001 10.67 10.67
DARK GY MASSIVE SANDY SHALE 324 23.66 34.33
BONE W/SHALE LAYERS 037 0.50 34.83
DARK GRAY SHALE 124 2.00 36.83
DARK GRAY SHALE 124 7.67 44.50
DARK GRAY FIRECLAY 127 2.00 46.50
DARK GRAY SHALE 124 30.00 76.50
GY MASSIVE SANDSTONE 544 10.25 86.75
DARK GRAY SHALE 124 1.25 88.00
GY MASSIVE SANDSTONE 544 0.50 88.50
COAL W/SHALE LAYERS 021 0.50 89.00
BLACK SHALE W/COAL STREAKS 113 1.75 90.83
DARK GY MASSIVE SANDY SHALE 324 9.25 100.08
GY SANDSTONE W/COAL SPARS 749 6.92 107.00
DARK GY MASSIVE SANDY SHALE 324 1.83 108.83
GY MASSIVE SANDSTONE 544 6.25 115.08
DARK GY MASSIVE SANDY SHALE 324 0.67 115.75
GY SANDSTONE W/COAL SPARS 749 4.17 119.92
GY MASSIVE SANDSTONE 544 10.58 130.50
DARK GY MASSIVE SANDY SHALE 324 4.50 144.00
GY MASSIVE SANDSTONE 544 1.00 145.00
DARK GY MASSIVE SANDY SHALE 324 27.33 172.33
COMMON BANDED COAL 021 0.25 172.58
BONE W/COAL LAYERS 028 0.17 172.75
COMMON BANDED COAL 021 1.42 174.17
BLACK SHALE 114 0.25 174.42
COMMON BANDED COAL 021 0.29 174.71
DARK GRAY SHALE 124 2.54 177.25
DARK GY MASSIVE SANDY SHALE 324 6.08 183.33
DARK GRAY SHALE 124 30.67 214.00
DARK GY MASSIVE SANDY SHALE 324 26.58 240.58
DARK GY MASSIVE SANDY SHALE 324 16.00 256.58
COMMON BANDED COAL 021 3.71 260.29 020
BLACK SHALE 114 0.04 260.33 020
COMMON BANDED COAL 021 0.67 260.00 020
DARK GRAY FIRECLAY 127 0.33 260.33
COMMON BANDED COAL 021 0.09 260.42
DARK GRAY FIRECLAY 127 2.16 262.58

INDD1053

TOTAL DEPTH = 262.58

IMAPS#09625