



Drill Hole	Surface Elevation	Overburden	Strata Thickness	Strata Name	Bottom Elevation	Static Water Level
DH-1-OB	1145.1'	60'	12"	Wbg	1085.1'	---
DH-2-OB	1120.8'	41'	48"	Wbg	1079.8'	---
DH-3-OB	1137.7'	50'	72"	Wbg	1087.7'	1089.7'
DH-4-OB	1152.66'	69'	36"	Wbg	1083.66'	1084.66'
DH-5-OB	1138.14'	55'	48"	Wbg	1083.14'	1088.14'

Drill Hole	Surface Elevation	Overburden	Strata Thickness	Strata Name	Bottom Elevation	Static Water Level
Y-1	1145.9'	26'	24"	Wbg	1119.9'	---
Y-2	1181.6'	69'	24"	Wbg	1112.6'	---
Y-3	1167.9'	62'	36"	Wbg	1105.9'	---
Y-4	1182.3'	47'	24"	Wbg	1133.3'	---
Y-5	1134'	8'	6"	Wbg	1126.3'	---
Y-6	1170'	38'	24"	Wbg	1132'	---
Y-7	1221.5'	29'	36"	Wbg	1192.5'	---
Y-8	1180.7'	59'	24"	Wbg	1121.7'	---
Y-9	1167.1'	62'	36"	Wbg	1105.1'	---
Y-10	1167.1'	61'	12"	Wbg	1106.1'	---

- Legend**
- Permit Boundary - 359.1 acres
 - Surface Site Boundary - 110.1 acres
 - Underground Mining Boundary - 256.6 acres
 - 100' Perimeter
 - Property Ownership (keyed to table and module 5)
 - Municipal Boundary
 - Structure Contour Line - Base of the Benwood Limestone
 - Inferred Structure Contour Line - Base of the Benwood Limestone
 - Utility (overhead)
 - Utility (underground)
 - Buildings (occupied/unoccupied)
 - Existing Public Roads
 - Existing Private Roads
 - Existing Gas Well
 - Test Hole
 - Overburden Analysis Test Hole
 - Variance Area - Surface Mining Allowed
 - Restricted - No Surface Mining Without a Variance
 - Wetlands - Delineated, Flagged and Surveyed
 - Wetlands - Field Identified and Mapped
 - Woods
 - Bottom of Benwood Limestone Cropline
 - Formation Contact Line - Top of Benwood Limestone
 - Waynesburg A Coal Cropline
 - Waynesburg B Coal Cropline
 - Deep Mined Areas and Portal
 - Previously Surface Mined Areas
 - Existing Culverts - size and type or Key to Module 12 page 12-1
 - RCP-Reinforced Concrete Pipe
 - CMP-Corrugated Metal Pipe
 - SP-Steel Pipe
 - Cemetery
 - Ground Slope
 - Geologic Cross Section
 - Strike and Dip
 - Geologic Faults - N/A
 - Joint Measurement
 - Ground Water Flow (Local)
 - Ground Water Flow (Regional)
 - Spring
 - Private Water Supply
 - Water Sampling Point (Background)
 - Water Sampling Point (Monitoring)
 - Flow Measuring Station - Flow Measuring Unit
 - S-Spring P-Pond T-Tributary S-Stream SE-Seep W-Well DM-Deep Mine Discharge WL-Wetland I-Impoundment C-Clean DW-Dug Well
 - Perennial Stream
 - Intermittent Stream
 - Epifaunal Stream
 - Relocated / Reconstructed Lint "E"
 - Existing Pond / Impoundment
 - Monitoring Well (Background Sample)
 - 100' Cover Line Above Top of Benwood Limestone
 - Geologic Cross Section Location From SMP No. 6310041
 - NPDES Point
 - Indicates dwelling is served by public water
 - Haul Road
 - No underground mining until PennDOT approval is secured
 - Overhead Utility Pole
 - Earthen Berm
 - Collection Ditch
 - Division Ditch
 - Sedimentation Pond
 - Roadside Sediment Trap

Dip 1.6%
Dip 1.2%
Dip 1.2%
Dip 1.2%

N40° 00' 42.0"
W80° 01' 48.0"

- Property Ownership**
- John Kosky Contracting Inc.
 - Clyde Holding, Inc.
 - John Kosky Contracting Inc.
 - John Kosky Contracting Inc.
 - John Alan & Stacy A. Kosky
 - Kathleen Marinich & Dan B. Derber
 - Cathy H. & John P. Lozowy
 - Dolores Thompson & Leslie A. Hutchins, Jr.
 - Edgar C. Sweeney, Jr. & Carol Hagg
 - Raymond R. & Tammy M. Schmitt
 - Frank & Mary Jane Elwy
 - Travis D. & Shannon R. Rhodes
 - William & Dana Mikolay
 - Wilford A. & Phyllis Buel
 - John L. Jr. & Kim Ondrick
 - Paul A. & Deanne Hein
 - Robert E. & Patricia L. Klefer
 - David K. & Robert G. Sloan
 - Brian L. Lancaster
 - Virginia A. Crawford Rev. Trust
 - Christopher J. & Brittany N. Coffield
 - Christopher J. & Brittany N. Coffield
 - East Bethlehem Church
 - Kenneth & Kathleen Harasty
 - Michael J. & Sylvia A. Burke
 - Alyssa M. Ford
 - David A. Webeck & James C. Webeck
 - Joshua A. Zachowski
 - James C. & Marilu Webeck
 - Robert J. Sweeney
 - Robert J. & Martha L. Sweeney
 - Southwestern PA Water Authority
 - James E. Simpson
 - William L. Beck
 - Buckingham Cemetery Assn
 - Mark A. Yoke
 - John Alan & Stacy A. Kosky
 - John Alan & Stacy A. Kosky
 - Frank G. & Margaret J. Startare & Joseph J. Startare
 - Joseph J. & Nema M. Startare
 - Jason White
 - Freddie D. Ervin
 - Deborah J. & Joseph C. Shriner
 - Deborah J. & Joseph C. Shriner
 - Robbin L. Doman & Susan G. Gunduck
 - Joseph A. & Shirley S. Yabonski and Joseph M. Yabonski
 - Harold & Kathleen Rice
 - Harold & Kathleen Rice
 - Margaret A. Furnan & Katherine M. Kasula
 - Margaret A. Furnan & Katherine M. Kasula
 - Bethanne L. Morgan
 - Carbon Farms LTD Partnership
 - David A. Smereczniak
 - Joanna L. Dragan

Flow Monitoring Chart

Sample Point	Surface Elevation	Spring - Monthly Flow Only	Description
A	901.4'	15	Unnamed Tributary "E" downstream above wetland - Monthly Flow Only
B	908'	16	Unnamed Tributary "E" downstream of confluence with Eastern Branch - Monthly Flow Only
D	914.3'	17	Unnamed Tributary "E" Eastern Branch downstream - Monthly Flow Only
E	962'	18	Unnamed Tributary "E" Western Branch downstream of sample point 17 at confluence with stream from pond 17 - Monthly Flow Only
F	968'	19	Unnamed Tributary "E" Western Branch downstream from pond 17 at confluence with flow measuring point 17 - Monthly Flow Only
G	937.9'	20	Unnamed Tributary "E" Eastern Branch downstream of sample point 5 and upstream of flow measuring point D - Monthly Flow Only
H	995.8'	21	Unnamed Tributary "E" Eastern Branch downstream of sample point 5 and upstream of flow measuring point G - Monthly Flow Only
17	1037.84'	22	Iron slimes seep zone - Monthly Flow Only
21	1062.13'	23	Iron slimes seep zone - Monthly Flow Only

Mine Summary Chart

Key	Operator	Permit No.	Mine Name	Status	Coal Seams
I	Neiswonger Construction, Inc.	6310041	Maggie Lynn Quarry	Active	Benwood Limestone
II	Neiswonger Construction, Inc.	6311011	Bugger #1	Completed	Wbg
III	PA Coal Reclamation, Inc.	63813210	Hawkins	Active	Coal Refuse Reprocessing
IV	Tygart Industries, Division of U.S. Natural Resources, Inc.	324775483	LOS	Completed	Wbg
V	Boyle Land & Fuel Co.	6380106	Fitzwater	Completed	Wbg
VI	Boyle Land & Fuel Co.	63823036	Huffman	Completed	Wbg
VII	Narber Contracting Co., Inc.	32755830	Fitzwater	Completed	Wbg
VIII	BCNR Mining Corp.	63743703	Clyde Mine-Black Dog Hollow	Abandoned	Coal Refuse Disposal
IX	Westmont Coal Company, Inc.	6376144	Deemston	Completed	Wbg
X	TRAM Resources, Inc.	32475368	Fargo	Abandoned	Wbg
XI	B.L.F. Corp.	32676386	Busha	Completed	Wbg
XII	Dragan & Son	328765M2	Belle No. 11	Completed	Wbg
XIII	MonValley Steel Company, Inc.	63891301	Clyde	Completed	Pittsburgh
XIV	Unknown	Unknown	County Jail	Abandoned	Wbg

Location shown on Exhibit 6.1
The Clyde underground mine underlies the entire permit boundary and the 100' perimeter around it.

Water Monitoring Chart

Sample Point	Surface Elevation	Description
1	815'	Ten Mile Creek - intermediate point
5	1064'	Small underground mine discharge and headwaters of eastern branch Unnamed Tributary "E" to Ten Mile Creek & Morley Fork
9	1085'	Headwaters of Unnamed Tributary "D" eastern branch
11	1102'	Unnamed Tributary "D" - upstream
13	1009'	Unnamed Tributary "D" to Ten Mile Creek - intermediate point
14	884'	Unnamed Tributary "E" to Ten Mile Creek - downstream & Morley Fork
25	817.1'	Wetland discharge
26	820.6'	Spring which occurs from the local flow system near the base of the Benwood Limestone
27	817.4'	Spring which occurs from the local flow system within the Benwood Limestone
28	808.6'	Unnamed Tributary "D" to Ten Mile Creek - downstream
29	804'	Ten Mile Creek - downstream
30	820'	Unnamed Tributary "G" to Ten Mile Creek - downstream
31	820'	Ten Mile Creek - upstream
32	1169.9'	Unnamed Tributary "A" to Black Dog Hollow - upstream
33	1131.4'	Headwaters of Unnamed Tributary "B" to Black Dog Hollow
41	948.8'	Unnamed Tributary "G" to Ten Mile Creek - intermediate location
42	812'	Reconstructed stream - downstream
54	907.1'	Unnamed Tributary to Unnamed Tributary "G" - downstream
61	1044'	Unnamed Tributary "G" - upstream
66	1142'	Headwaters of Unnamed Tributary "A" to Black Dog Hollow
67	1069'	Unnamed Tributary "A" to Black Dog Hollow - downstream
68	1055.5'	Unnamed Tributary "B" to Black Dog Hollow - downstream
73	819.4'	Spring which occurs from the local flow system within the Benwood Limestone
MP-4	855'	Ten Mile Creek - downstream
MD-F	830'	Hawkins Permit subchapter F point
68	989'	Unnamed Tributary "B" Western Branch to Ten Mile Creek - upstream & Morley Fork
MW-TH-2	1024.9'	Upgraded Monitoring Well - SWL only
MW-TH-4	1135.9'	Intermediate Monitoring Well - SWL only
MW-TH-6	1004.9'	Downgraded Monitoring Well - Static Water Level only
MW-WP-W	870'	Pittsburgh Mine Gas Monitoring Well - Static Water Level only
001	001	Sedimentation Pond 1
002	002	Sedimentation Pond 2

Drill Hole	Surface Elevation	Overburden	Strata Thickness	Strata Name	Bottom Elevation	Static Water Level
TH-1	1127.7'	216.7'	53.6"	Benwood Limestone	857.4'	1078.7'
TH-2	1108.6'	190.7'	53.3"	Benwood Limestone	864.6'	1038.3'
TH-3	1161.1'	245.6'	0"	Sewickley horizon	862.9'	1099.3'
TH-4	1135.9'	87'	3"	Wbg (TS)	1053.9'	1066.8'
TH-5	1095.6'	55'	5"	Wbg	1038.6'	Plugged
TH-6	1202.6'	156'	54"	Benwood Limestone	1045.6'	1049.9'
TH-7	1165.3'	67'	7"	Wbg (TS)	1101.3'	---
		235.54'	54"	Benwood Limestone	875.3'	1118.9'
		291'	---	Sewickley (Top of Coal)	874.3'	---

TS - Top Split; BS - Bottom Split; Wbg A - Waynesburg "A" Seam; Wbg - Waynesburg Rider; LWbg - Lower Waynesburg; BOV - Bottom of Void

Injection Wells to be permanently sealed by PA Coal Reclamation, Inc.

Scale 1" = 200'

NEISWONGER CONSTRUCTION, INC.

PROJECT NUMBER: 20172663550

IN THE DESIGN OF THIS PROJECT, GEOTECH ENGINEERING, INC. PERFORMED A PA ONE CALL REVIEW FOR THE PROPOSED PERMIT AREA. ALL UNDERGROUND UTILITIES OWNED AND MAINTAINED BY THE PA ONE CALL UTILITY OWNERS WERE LOCATED AND IDENTIFIED. GEOTECH ENGINEERING, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED BY THE UTILITY OWNERS. IN THE EVENT OF A COLLISION WITH AN UNDERGROUND UTILITY, THE USER OF THIS MAP ASSUMES ALL LIABILITY. GEOTECH ENGINEERING, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED BY THE UTILITY OWNERS. IN THE EVENT OF A COLLISION WITH AN UNDERGROUND UTILITY, THE USER OF THIS MAP ASSUMES ALL LIABILITY.

Drill Hole	Surface Elevation	Overburden	Strata Thickness	Strata Name	Bottom Elevation	Static Water Level
BH-1	915.67'	32.9'	43.5"	Benwood Limestone	832.77'	862.87'
BH-2	931.75'	51.5'	46.5"	Benwood Limestone	834.75'	845.90'
BH-3	939.75'	101.1'	1.1'	Sewickley coal	829.65'	845.75'
DH-1	922.66'	109.3'	0.8'	Sewickley coal	830.65'	907'
DH-2	920.76'	85'	3"	Sewickley coal	836.66'	901'
DH-3	911.56'	15'	1.5"	Sewickley coal	833.06'	901'
DH-4	925.08'	27'	31"	Benwood Limestone	844.08'	904'
DH-5	934.06'	82'	1'	Sewickley coal	842.06'	923'
DH-6	871.5'	9'	29"	Benwood Limestone	844.5'	845'
DH-7	871.5'	33'	1.5"	Sewickley coal	837'	845'
JL-50	820'	111'	3'	Pittsburgh Rider (3)	708.1'	---
		112.5'	5'	Pittsburgh Rider (2)	707.2'	---
		114'	12"	Pittsburgh Rider (1)	705'	---
		118.1'	73"	Pittsburgh	691.8'	---
Thompson Shaft Location Exhibit 6.1	979'	38'	10"	Waynesburg Rider	940.2'	---
		399'	34"	Waynesburg	936.5'	---
		200'	51"	Benwood Limestone	723'	---
		559'	15'	Pittsburgh	707.2'	---
		377.4'	77"	Pittsburgh	565.25'	---
3223 Location shown on Exhibit 6.1	1223'	52'	60"	Waynesburg	1166'	---
		235'	55'	Benwood Limestone	933'	---
		119'	36"	Sewickley	934'	---
		385'	48"	Pittsburgh	834'	---
H-BH-1'	902'	180'	MV	Pittsburgh B O V	717'	745'
H-BH-2'	846.2'	130'	MV	Pittsburgh B O V	716.2'	757.7' (31/2) 18'
H-BH-3'	814.1'	98.1'	MV	Pittsburgh B O V	716'	743'
H-BH-4'	818.2'	104.2'	MV	Pittsburgh B O V	714'	745.2'
Hole #1	875.4'	29'	25"	Benwood Limestone	825.4'	Dry
Hole #2	872.6'	29'	2'	Top of Sewickley	816.4'	854'
B-1	1023.8'	158.2'	41.2'	Benwood Limestone	864.6'	887.5'
B-2	1018.1'	161.4'	45.4'	Benwood Limestone	860.3'	873.3' (10/25) 10'
		232.2'	3"	Sewickley	881.2'	887.2' (10/25) 10'

Notes:

- The base map is a composite of topography (PCL) developed from LIDAR 2 contour data obtained from the PADESA website. The locations of roads, buildings, surface water features and other cultural data were obtained from the Elsworth & Maher, P.A.'s USGS Quadrangle maps and supplemented/checked by field survey and available aerial photography.
- The property lines and property ownership shown on this map were obtained from Washington County and from Greene County tax assessment maps and other records. This map does not represent an actual field survey of the properties shown and should not be used as such. All surface and mineral ownership information should be verified by the permittee.
- All overburden and test hole elevations and locations were determined by field survey. Water sample points were located by hand-dug wells with surface elevations determined from LIDAR surface elevation models.
- The location and extent of abandoned surface and deep mine workings depicted on this map are based upon available data without the benefit of a final certified mine map. Accordingly, neither Geotech Engineering, Inc. nor the professional engineer's professional geological mapping the map location, warranty or guarantees the precise location or extent of abandoned, unexcavated or active workings depicted hereon. Unknown or untrapped mines may be located between the depicted boundaries and may contain abandoned mine pools as well as other safety hazards.
- The gas well locations are from Farm Line Maps and other historic mapping, and therefore approximately located.
- This map is georeferenced to the Pennsylvania State Plane South, North American Datum 1983 (NAD 83) coordinate system.
- All units are in feet.

Neiswonger Construction, Inc.
17592 Route 322, Strattonville, PA 16258
Phone: (814) 764-3455

Maggie Lynn Underground Mine
Permit No. 63192001
Exhibit 6.2: Environmental Resources Map

Deemston Borough Washington County

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Date: December, 2021
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