



BOREHOLE LOG

BORING/WELL: CHLL-SB-01

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

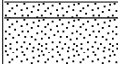

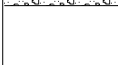
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0" - 6" and 6" - 36" | |
| |  | SAND Medium, gray | | | | | |
| |  | SAND Medium, brown | | | | | |
| |  | SAND Medium with gravel, dark gray, saturated | 5 | | | No water sample collected | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19724009
 LONGITUDE: -88.40500145
 DATUM: MichGeoRef
 NORTHING: 741159.0551
 EASTING: 317682.0958

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-02




SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: NA
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 6-13-14
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0" - 6" and 6" - 24" | |
| |  | SAND Fine to medium, gray | | | | | |
| |  | FILL Sand and gravel | | | | | |
| |  | SAND Medium, brown, saturated | 5 | | | No water sample collected | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA
 COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.197153273
 LONGITUDE: -88.404736871
 DATUM: MichGeoRef
 NORTHING: 741148.734
 EASTING: 317701.415



BORING/WELL: CHLL-SB-03

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

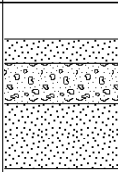
DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-------|-----------|-------------|--|-------------------|
| |  | <p>Grd. 0</p> <p>SAND Medium, gray</p> <p>FILL Sand and gravel</p> <p>SAND Medium, dark gray, saturated</p> <p>E.O.B. 5</p> | 0 | | | <p>Soil samples collected from 0" - 6" and 6" - 24"</p> <p>No water sample collected</p> | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19713512
 LONGITUDE: -88.40452586
 DATUM: MichGeoRef
 NORTHING: 741146.2918
 EASTING: 317717.7483

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-04 / GW-1

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 12 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------------------------------------|-----------|-------------|--|-------------------|
| | | Grd. TOPSOIL Sand, fine, gray SAND Medium, brown, saturated at 2 feet NO CUTTINGS BELOW 3 FEET | 0 5 10 15 20 25 30 | | | Soil samples collected from 0" - 6" and 6" - 24" Water sample collected from 7'-12' | |
| | | E.O.B. | | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.19664463

LONGITUDE: -88.40452301

DATUM: MichGeoRef

NORTHING: 741091.7969

EASTING: 317716.2964



BORING/WELL: CHLL-SB-05 / GW-02

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

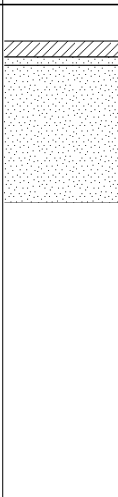

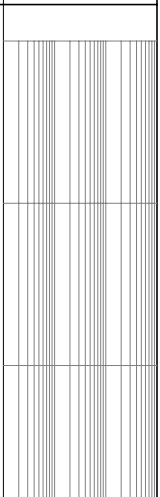
DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|--------------------------------------|-----------|---|---|--|
| |  | <p>Grd. 0</p> <p>CLAY Reddish brown</p> <p>SAND Fine to medium, light gray</p> <p>SAND Fine to medium, reddish brown, saturated at 4 feet</p> <p>NO CUTTINGS BELOW 5 FEET</p> <p>E.O.B. 15</p> | 0 5 10 15 20 25 30 | |  | <p>Soil samples collected from 0" - 6" and 6" - 48"</p> <p>Water sample collected from 9' - 14'</p> |  |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19327193
 LONGITUDE: -88.40373588
 DATUM: MichGeoRef
 NORTHING: 740715.3062
 EASTING: 317764.4299

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-06 / GW-03

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


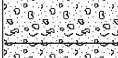
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0" - 6" and 6" - 48" | |
| |  | SAND Fine, brown | | | | | |
| |  | SAND Medium with gravel, reddish brown | | | | | |
| | | SAND Medium with gravel, brown, saturated at 4 feet | 5 | | | Water sample collected from 9'-14' | |
| | | NO CUTTINGS BELOW 4 FEET | | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.191853864

LONGITUDE: -88.405905596

DATUM: MichGeoRef

NORTHING: 740562.743

EASTING: 317594.890



BORING/WELL: CHLL-SB-07 / GW-04

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 33 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. | | | | |
| | | SAND Fine to medium, reddish brown | 0 | | | Soil samples collected from 0" - 6", 6" - 12' and 12' - 23' | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | SILTY SAND Fine, reddish brown | 20 | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 24 feet | 25 | | | | |
| | | NO CUTTINGS BELOW 25 FEET | 30 | | | Water sample collected from 28' - 33' | |
| | | | 35 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19037126
 LONGITUDE: -88.40495223
 DATUM: MichGeoRef
 NORTHING: 740395.8953
 EASTING: 317662.4585

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-08 / GW-05

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W



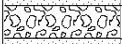
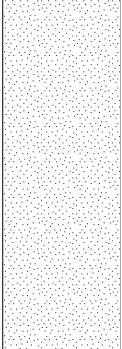
DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 25 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0" - 6", 6" - 96" and 8' - 15' | |
| |  | SILTY CLAY Reddish brown | | | | | |
| |  | SAND Fine to medium, reddish brown | | | | | |
| |  | CONCRETE RUBBLE | 5 | | | | |
| |  | SAND Fine to medium, reddish brown, saturated at 15 feet | | | | | |
| | | NO CUTTINGS BELOW 16 FEET | | | | | |
| | | | 20 | | | Water sample collected from 20' - 25' | |
| | | | 25 | | | | |
| | | | E.O.B. | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18950973
 LONGITUDE: -88.40122719
 DATUM: MichGeoRef
 NORTHING: 740291.5587
 EASTING: 317941.6173

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-09 / GW-06

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 21 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. | | | | |
| | [Pattern] | SILTY SAND Fine, reddish brown | 0 | | | Soil samples collected from 0" - 6", 6" - 6' and 6' - 12' | |
| | [Pattern] | SAND Fine to medium, reddish brown, saturated at 12 feet | 5 | | | | |
| | | NO CUTTINGS BELOW 13 FEET | 10 | | | | |
| | | | 15 | | | Water sample collected from 16' - 21' | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | E.O.B. | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19120328
 LONGITUDE: -88.40291972
 DATUM: MichGeoRef
 NORTHING: 740483.6116
 EASTING: 317819.2014

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-10 / GW-07

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 19 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 48" and 48" - 96" | |
| | | SILTY CLAY Reddish brown | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 9 feet | 5 10 | | | | |
| | | NO CUTTINGS BELOW 12 FEET | 15 | | | Water sample collected from 14' - 19' | |
| | | | E.O.B. 20 | | | | |
| | | | 25 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.19244751

LONGITUDE: -88.40120998

DATUM: MichGeoRef

NORTHING: 740617.8721

EASTING: 317952.8795



BORING/WELL: CHLL-SB-11

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 20 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>CLAY Reddish brown</p> <p>CONCRETE RUBBLE</p> <p>SAND Fine to medium, reddish brown, saturated at 16 feet</p> <p>5</p> <p>10</p> <p>15</p> <p>20</p> <p>E.O.B.</p> | 0 | | | <p>Soil samples collected from 0" - 6", 6" - 8' and 8' - 16'</p> <p>No water sample collected</p> | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19025126
 LONGITUDE: -88.40154714
 DATUM: MichGeoRef
 NORTHING: 740374.6752
 EASTING: 317919.9072

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-12

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 25 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 | |
|-------------------|----------------|--|--------|-----------|-------------|---|---------------------------|--|
| | | | Grd. 0 | | | Soil samples collected from 0" - 6", 6" - 12' and 12' - 24' | | |
| | | SAND Fine to medium, reddish brown | 5 | | | | No water sample collected | |
| | | | 10 | | | | | |
| | | | 15 | | | | | |
| | | | 20 | | | | | |
| | | SILTY SAND Fine, reddish brown | 25 | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 24 feet | 25 | | | | | |
| | | E.O.B. | 30 | | | | | |
| | | | | | | | | |
| | | | | | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19045756
 LONGITUDE: -88.40395101
 DATUM: MichGeoRef
 NORTHING: 740403.1613
 EASTING: 317738.5712

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-13

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 8 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. | | | | |
| | | CLAY Reddish brown | 0 | | | Soil samples collected from 3" -9" and 9" - 96" No water sample collected | |
| | | SAND Fine to medium, reddish brown, saturated at 8 feet | 5 | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19163801
 LONGITUDE: -88.40441981
 DATUM: MichGeoRef
 NORTHING: 740535.3817
 EASTING: 317707.0846

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-14

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Lale Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|--------------------------------------|-----------|-------------|---|-------------------|
| |  | <p>Grd. 0</p> <p>SAND Fine to medium, gray</p> <p>FILL Sand, gravel and concrete</p> <p>SAND Fine to medium, brown, saturated at 4 feet</p> <p>E.O.B. 5</p> | 0 5 10 15 20 25 30 | | | <p>Soil samples collected from 0" -6" and 6" - 36"</p> <p>No water sample collected</p> | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.191387659
 LONGITUDE: -88.406364639
 DATUM: MichGeoRef
 NORTHING: 740512.017
 EASTING: 317558.543

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-15

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 8 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|--|---------------------------|
| | | Grd. CLAY Reddish brown | 0 | | | Soil samples collected from 3" - 9" and 9" - 60" | |
| | | SAND Fine to medium, reddish brown, saturated at 5 feet | 5 | | | | No water sample collected |
| | | E.O.B. | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19272549
 LONGITUDE: -88.40414357
 DATUM: MichGeoRef
 NORTHING: 740655.5475
 EASTING: 317731.7005

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-16

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-16-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 16 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|---|-------------------|
| | | <p style="text-align: right;">Grd.</p> <p>SILTY SAND Fine, reddish brown</p> <p>SAND Fine to medium, reddish brown, saturated at 13 feet</p> <p style="text-align: right;">E.O.B.</p> | 0 5 10 15 20 25 30 | | | <p>Soil samples collected from 0" - 6", 6" - 6' and 6' - 12'</p> <p>No water sample collected</p> | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.1918104
 LONGITUDE: -88.40204832
 DATUM: MichGeoRef
 NORTHING: 740549.0376
 EASTING: 317887.251

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-17

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 6 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|--|
| | | | Grd. 0 | | | | |
| | | SAND Fine to medium, brown | | | | 0 ppm | Soil samples collected from 0'-6" and 3' - 5' No water sample collected |
| | | CONCRETE SLAB | | | | 0 ppm | |
| | | SAND Medium to coarse, reddish brown, saturated at 6 feet | 5 | | | 0 ppm | |
| | | | E.O.B. | | | 0 ppm | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18831652
 LONGITUDE: -88.40878611
 DATUM: MichGeoRef
 NORTHING: 740176.5347
 EASTING: 317365.1324

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-18

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 8 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 | |
|-------------------|----------------|---|-------|-----------|-------------|---|---------------------------|--|
| | | | Grd. | | | | | |
| | ••••• | CONCRETE SLAB | 0 | | | Soil samples collected from 4" -12" and 1' - 4' | | |
| | ••••• | SAND Medium to coarse, reddish brown | 5 | | | | No water sample collected | |
| | ••••• | SAND Medium to coarse, brown, saturated | 10 | | | | | |
| | | E.O.B. | 10 | | | | | |
| | | | 15 | | | | | |
| | | | 20 | | | | | |
| | | | 25 | | | | | |
| | | | 30 | | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18113871
 LONGITUDE: -88.409055484
 DATUM: MichGeoRef
 NORTHING: 740154.585
 EASTING: 317343.624

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-19 / GW-8

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

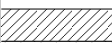
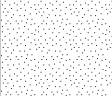


DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0' - 6" and 1' - 5' | |
| |  | CLAY Brown | | | | | |
| |  | SAND Fine to medium, brown | | | | | |
| |  | GRAVEL Gray | 5 | | | | |
| |  | SAND Medium to coarse, reddish brown, saturated at 7 feet | | | | | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | Water sample collected from 12' - 17' | |
| | | | | | | | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18790384

LONGITUDE: -88.40861776

DATUM: MichGeoRef

NORTHING: 740130.2995

EASTING: 317376.4757



BORING/WELL: CHLL-SB-20 / GW-9

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------------------------------------|-----------|-------------|--|-------------------|
| | | <p>Grd. 0</p> <p>CLAY Reddish brown</p> <p>SAND Medium, dark brown</p> <p>CONCRETE SLAB</p> <p>SAND Medium to coarse, reddish brown, saturated at 7 feet</p> <p>NO CUTTINGS BELOW 7 FEET</p> <p>E.O.B. 17</p> | 0 5 10 15 20 25 30 | | | <p>Soil samples collected from 6"-12" and 3' - 6'</p> <p>Water sample collected from 12'-17'</p> | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18812285

LONGITUDE: -88.40832418

DATUM: MichGeoRef

NORTHING: 740153.9477

EASTING: 317399.4548



BORING/WELL: CHLL-SB-21 / GW-10

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|---|--|
| | | Grd. | 0 | | | | |
| | | SAND Fine to medium, gray | | | | 0 ppm | Soil samples collected from 3" -9" and 9" - 4' |
| | | SAND Fine to medium, reddish brown | | | | 0 ppm | |
| | | SAND Medium, brown | 5 | | | 0 ppm | |
| | | SAND Coarse, reddish brown | | | | 0 ppm | |
| | | GRAVEL | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 10 | | | | |
| | | | 15 | | | | Water sample collected from 12'-17' |
| | | E.O.B. | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.187480478

LONGITUDE: -88.409672369

DATUM: MichGeoRef

NORTHING: 740085.656

EASTING: 317294.749



BORING/WELL: CHLL-SB-22 / GW-11

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | 0 ppm | |
| | | GRAVEL | | | | 0 ppm | |
| | | SAND Fine to medium, reddish brown | | | | 0 ppm | |
| | | SAND Medium, brown, saturated at 5 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | | |
| | | | 15 | | | Water sample collected from 10'-15' | |
| | | E.O.B. | | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.186725373

LONGITUDE: -88.410355028

DATUM: MichGeoRef

NORTHING: 740003.359

EASTING: 317240.477



BORING/WELL: CHLL-SB-23/GW12

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 23 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 4' - 4.5' and 4.5' - 13' | |
| | | CLAY CAP | | | | | |
| | | SAND Fill - fine, light brown | | | | | |
| | | CLAY Reddish brown | 5 | | | | |
| | | SAND Fine to medium, reddish brown | | | | | |
| | | SAND Medium to coarse, dark gray | 10 | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 13 feet | 15 | | | | |
| | | NO CUTTING | 20 | | | Groundwater sample collected from 18' - 23' | |
| | | | | | | | |
| | | | E.O.B. 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.185204699
 LONGITUDE: -88.412724980
 DATUM: MichGeoRef
 NORTHING: 739839.941
 EASTING: 317055.807



BORING/WELL: CHLL-SB-24 / GW-13

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 22 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 3.5' -4' and 4' - 15' | |
| | | CAP Sand and clay | | | | | |
| | | SAND Medium, dark gray | 5 | | | | |
| | | SAND Fine, light brown | | | | | |
| | | SAND Medium to coarse, reddish brown | | | | | |
| | | SAND medium to coarse, dark gray | 10 | | | | |
| | | SAND medium to coarse, dark gray | | | | | |
| | | SILTY SAND Fine, gray | 15 | | | | |
| | | SAND Medium, dark gray, saturated | | | | | |
| | | NO CUTTING | 20 | | | Groundwater sample collected from 17' - 22' | |
| | | | E.O.B. | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.184504630
 LONGITUDE: -88.413075126
 DATUM: MichGeoRef
 NORTHING: 739762.986
 EASTING: 317026.900

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-25 / GW-14

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 22 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 5' - 5.5' and 5.5' - 11'. Duplicate soil sample | |
| | | CAP Sand and clay | | | | | |
| | | SAND Medium to coarse, dark gray | 5 | | | | |
| | | SAND Fine to medium, reddish brown | 10 | | | | |
| | | NO CUTTING | 15 | | | Groundwater sample collected from 17' - 22' | |
| | | | 20 | | | | |
| | | | E.O.B. 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.184423536
 LONGITUDE: -88.413660141
 DATUM: MichGeoRef
 NORTHING: 739755.339
 EASTING: 316982.317

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-26 / GW-15

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-----------|-----------|-------------|---|--|
| | | | Grd. 0 | | | 0 ppm | Soil samples collected from 0" - 6" and 6" - 30" |
| | | TOPSOIL Sand, fine, gray | | | | 0 ppm | |
| | | SAND Fine, brown | | | | 0 ppm | |
| | | COAL | 5 | | | | |
| | | SAND Medium, brown, saturated | | | | 0 ppm | Water sample collected from 10'-15' |
| | | NO CUTTINGS BELOW 7 FEET | 10 | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18108261

LONGITUDE: -88.4155226

DATUM: MichGeoRef

NORTHING: 739388.602

EASTING: 316830.2692



BORING/WELL: CHLL-SB-27 / GW-16

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|---|-------|-----------|-------------|--|----------------------|
| |  | <p>Grd. 0</p> <p>SAND Fine to medium, gray</p> <p>GRAVEL Gray</p> <p>SAND Medium, brown, saturated</p> <p>NO CUTTINGS BELOW 3 FEET</p> <p>E.O.B. 15</p> | 0 | | | 0 ppm 0 ppm 0 ppm Soil samples collected from 0" - 6" and 24" - 30" | |
| | | | 5 | | | | |
| | | | 10 | | | Water sample collected from 8'-13' | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18072306
 LONGITUDE: -88.41588189
 DATUM: MichGeoRef
 NORTHING: 739349.4975
 EASTING: 316801.8282

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-28

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm Soil samples collected from 0" - 6" and 6" - 48 | |
| | | SAND Medium, gray | | | | | |
| | | SAND Medium, reddish brown, saturated at 4 feet | | | | | |
| | | | 5 E.O.B. | | | No water sample collected | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18128438

LONGITUDE: -88.41615761

DATUM: MichGeoRef

NORTHING: 739412.4952

EASTING: 316782.8633



BORING/WELL: CHLL-SB-29

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|----------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm Soil samples collected from 0" - 6" and 6" - 48 | |
| | | SAND Fine, gray | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 4 feet | E.O.B. 5 | | | No water sample collected | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18093188

LONGITUDE: -88.41639531

DATUM: MichGeoRef

NORTHING: 739373.8903

EASTING: 316763.6558



BORING/WELL: CHLL-SB-30 / GW-17

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-13-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbel Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-------|-----------|-------------|--|-------------------|
| | | Grd. | 0 | | | Soil samples collected from 0" - 6" and 6" - 12" | |
| |  | FILL Sand and gravel. No recovery after 2 feet. NO CUTTINGS BELOW 2 FEET | 5 | | | | |
| | | | 10 | | | Water sample collected from 10' - 15' | |
| | | | 15 | | | | |
| | | E.O.B. | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17965364
 LONGITUDE: -88.41687162
 DATUM: MichGeoRef
 NORTHING: 739233.0039
 EASTING: 316723.2104

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-31 / GW-18

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


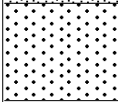
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbel Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|----------------------|
| | | | Grd. 0 | | | Soil samples collected from 0"-6" and 6"- 4' | |
| |  | SAND Medium to coarse, gray | | | | | |
| |  | SAND Medium to coarse, reddish brown, saturated at 4 feet | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | | |
| | | | 10 | | | Water sample collected from 10'-15' | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17850391

LONGITUDE: -88.41810489

DATUM: MichGeoRef

NORTHING: 739108.1578

EASTING: 316625.8693



BORING/WELL: CHLL-SB-32 / GW-19

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

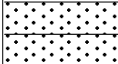
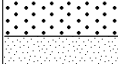

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0"-6" and 6"- 4' | |
| |  | SAND Medium to coarse, gray | | | | | |
| |  | SAND Medium to coarse, reddish brown | | | | | |
| |  | SAND Fine to medium, reddish brown, saturated at 4 feet | 5 | | | Water sample collected from 10'-15' | |
| | | NO CUTTINGS BELOW 4 FEET | 10 | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17722715
 LONGITUDE: -88.41929338
 DATUM: MichGeoRef
 NORTHING: 738969.0973
 EASTING: 316531.4806

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-33 / GW-20

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| | | SAND Fine, reddish brown | | | | 0 ppm | |
| | | SAND Fine to coarse, gray | | | | 0 ppm | |
| | | SAND Medium, reddish brown, saturated at 5 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | | |
| | | | 15 | | | Water sample collected from 10'-15' | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17684282

LONGITUDE: -88.42207981

DATUM: MichGeoRef

NORTHING: 738932.9072

EASTING: 316319.1056



BORING/WELL: CHLL-SB-34 / GW-21

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


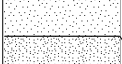

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|---|---|
| | | | Grd. | | | | |
| |  | FILL Road gravel | 0 | | | 0 ppm | Soil samples collected from 6"-12" and 1'- 4' |
| |  | SAND Fine to medium, gray | 5 | | | 0 ppm | |
| |  | SAND Fine, reddish brown, saturated at 5 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 5 FEET | 10 | | | 0 ppm | |
| | | | 10 | | | | Water sample collected from 10'-15' |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17641438

LONGITUDE: -88.42206669

DATUM: MichGeoRef

NORTHING: 738885.2824

EASTING: 316318.632



BORING/WELL: CHLL-SB-35 / GW-22

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | | |
| | | FILL Road gravel | | | | 0 ppm | |
| | | SAND Fine to medium, gray, saturated at 4 feet | | | | 0 ppm | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | 0 ppm | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 17 | | | | |
| | | E.O.B. | 20 | | | Water sample collected from 12'-17' | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.1760793

LONGITUDE: -88.42254228

DATUM: MichGeoRef

NORTHING: 738849.171

EASTING: 316281.4594



BORING/WELL: CHLL-SB-36 / GW-23

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W




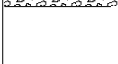
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 6"-12" and 1'-4' | |
| |  | FILL Road gravel | | | | | |
| |  | COAL Fine to coarse, black | | | | | |
| |  | SAND Fine to medium, dark gray, saturated at 4 feet | 5 | | | | |
| |  | GRAVEL Saturated | | | | | |
| | | NO CUTTINGS BELOW 6 FEET | 10 | | | Water sample collected from 10'-15' | |
| | | | | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17529244
 LONGITUDE: -88.42268657
 DATUM: MichGeoRef
 NORTHING: 738762.0967
 EASTING: 316267.8344

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-37 / GW-24

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

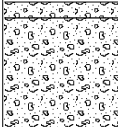
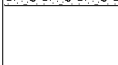
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--------------------------------------|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | 0 ppm | |
| |  | FILL Road gravel | | | | 0 ppm | |
| |  | COAL Fine to coarse, black | | | | 0 ppm | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | Water sample collected from 10'-15' | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17494067

LONGITUDE: -88.42319975

DATUM: MichGeoRef

NORTHING: 738724.2189

EASTING: 316227.7564



BORING/WELL: CHLL-SB-38 / GW-25

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm Soil samples collected from 6"-12" and 1'- 4' | |
| | | SAND Fine to medium, brown | | | | | |
| | | SILTY SAND Fine, brown | | | | | |
| | | SAND Medium, brown, saturated at 4 feet | 5 | | | | |
| | | NO CUTTINGS BELOW 4 FEET | | | | | |
| | | | 10 | | | Water sample collected from 9'-14' | |
| | | | | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17191926

LONGITUDE: -88.42744113

DATUM: MichGeoRef

NORTHING: 738398.4988

EASTING: 315896.1068



BORING/WELL: CHLL-SB-39 / GW-26

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W


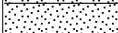

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-------|-----------|-------------|---|---|
| | | Grd. | 0 | | | 0 ppm | Soil samples collected from 6"-12" and 1'- 4' |
| |  | SAND Fine, brown | | | | 0 ppm | |
| |  | SAND Fine to medium, dark brown | | | | 0 ppm | |
| |  | SAND Medium, brown, saturated at 4 feet | 5 | | | 0 ppm | Water sample collected from 9'-14' |
| | | NO CUTTINGS BELOW 4 FEET | | | | | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17172162

LONGITUDE: -88.42772128

DATUM: MichGeoRef

NORTHING: 738377.1993

EASTING: 315874.206



BORING/WELL: CHLL-SB-40

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

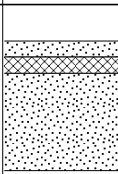
DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------------------------------------|-----------|-------------|--|-------------------|
| |  | <p>Grd. 0</p> <p>SAND Medium, brown</p> <p>DEBRIS Landfill waste and sand</p> <p>SAND Medium, brown, saturated at 4 feet</p> <p>E.O.B. 4</p> | 0 5 10 15 20 25 30 | | | <p>Soil samples collected from 6"-12" and 1'-4"</p> <p>No water sample collected</p> | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17197501

LONGITUDE: -88.42791258

DATUM: MichGeoRef

NORTHING: 738405.7952

EASTING: 315860.5845

**BOREHOLE LOG**

BORING/WELL: CHLL-SB-41

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|------------------------------------|----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm Soil samples collected from 6"-12" and 1'-4" | |
| | SAND | Fine to medium, brown | | | | | |
| | SAND | Medium, brown, saturated at 4 foot | E.O.B. 5 | | | No water sample collected | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17180474

LONGITUDE: -88.42820234

DATUM: MichGeoRef

NORTHING: 738387.5595

EASTING: 315838.0497



BORING/WELL: CHLL-SB-42 / GW-27

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbel Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|--|-------------------|
| | | Grd. SAND Fine, brown SAND Coarse, gray SAND Medium, brown SILTY SAND Fine, brown SAND Medium, brown, saturated at 3 feet NO CUTTINGS BELOW 4 FEET | 0 5 10 15 20 25 30 | | | 0 ppm 0 ppm 0 ppm 0 ppm Water sample collected from 8'-13' | |
| | | E.O.B. | | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17153702

LONGITUDE: -88.42803684

DATUM: MichGeoRef

NORTHING: 738357.4316

EASTING: 315849.6676



BORING/WELL: CHLL-SB-43 / GW-28

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W


DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|---|-------|-----------|------------------------------------|---|-------------------|
| |  | <p>Grd. 0</p> <p>GRAVEL</p> <p>SAND Fine-medium, brown</p> <p>SAND Medium, brown, saturated at 1 feet</p> <p>NO CUTTINGS BELOW 3 FEET</p> <p>E.O.B.</p> | 0 | | Soil sample collected from 6"-12" | | |
| | | | 5 | | Water sample collected from 6'-11' | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17132782
 LONGITUDE: -88.42832328
 DATUM: MichGeoRef
 NORTHING: 738334.862
 EASTING: 315827.2506

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-44 / GW-29

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|--|-------------------|
| | | Grd. GRAVEL SAND Fine, yellow GRAVEL Saturated at 1 feet NO CUTTINGS BELOW 2 FEET | 0 5 10 15 20 25 30 | | | 0 ppm 0 ppm 0 ppm Soil sample collected from 2"-12" Water sample collected from 6'-11' | |
| | | E.O.B. | | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17125394

LONGITUDE: -88.4287112

DATUM: MichGeoRef

NORTHING: 738327.5639

EASTING: 315797.6103



BORING/WELL: CHLL-SB-45 / GW-30

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

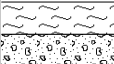

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 9 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-----------|-----------|-------------|---|-----------------------------------|
| |  | TOP SOIL Sandy loam | Grd. 0 | | | Soil sample collected from 0"-8" | |
| |  | SAND Medium to coarse with gravel, gray, saturated at 1 foot | 5 | | | | Water sample collected from 4'-9' |
| | | NO CUTTINGS BELOW 2 FEET | | | | | |
| | | | E.O.B. 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17123633

LONGITUDE: -88.42910194

DATUM: MichGeoRef

NORTHING: 738326.5224

EASTING: 315767.9501



BORING/WELL: CHLL-SB-46 / GW-31

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W


DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|---|-------|-----------|-------------|---|------------------------------------|
| |  | <p>Grd.</p> <p>TOP SOIL Sandy loam</p> <p>GRAVEL With gray silt</p> <p>SAND Medium, brown</p> <p>GRAVEL Gray</p> <p>SAND Fine to medium, brown, saturated</p> <p>NO CUTTINGS BELOW 4 FEET</p> | 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm | Soil sample collected from 6"-12" |
| | | | 5 | | | | |
| | | | 10 | | | | Water sample collected from 8'-13' |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | E.O.B. | | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17138208
 LONGITUDE: -88.42968156
 DATUM: MichGeoRef
 NORTHING: 738344.072
 EASTING: 315724.5425

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-47 / GW-32

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>TOP SOIL Sandy loam</p> <p>SILTY SAND Fine, gray</p> <p>SAND Fine to medium, brown, saturated</p> <p>NO CUTTINGS BELOW 4 FEET</p> <p>E.O.B. 15</p> | 0 | | | <p>0 ppm</p> <p>0 ppm</p> <p>0 ppm</p> <p>0 ppm</p> <p>Soil sample collected from 0-6" and 6" - 30"</p> <p>Water sample collected from 8'-13'</p> | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.1712622

LONGITUDE: -88.43027812

DATUM: MichGeoRef

NORTHING: 738332.1531

EASTING: 315678.9391



BORING/WELL: CHLL-SB-48 / GW-33

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

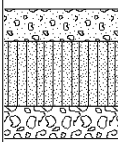
DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|---|--|
| |  | <p>Grd. 0</p> <p>FILL Sand and gravel</p> <p>SILTY SAND Fine, brown</p> <p>GRAVEL Saturated at 4 feet</p> <p>NO CUTTINGS BELOW 4 FEET</p> | 0 | | | 0 ppm 0 ppm 0 ppm 0 ppm | Soil samples collected from 0" - 6" and 6" - 48" |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | Water sample collected from 12' - 17' |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17095298
 LONGITUDE: -88.43065318
 DATUM: MichGeoRef
 NORTHING: 738298.6819
 EASTING: 315649.4643

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-49 / GW-34

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-----------|-----------|-------------|---|---|
| | | | Grd. 0 | | | 0 ppm | Soil samples collected from 0" - 6" and 1' - 6' |
| | | FILL Sand and gravel | | | | 0 ppm | |
| | | SAND Medium to coarse, reddish brown | | | | 0 ppm | Water sample collected from 10' - 15' |
| | | SAND Coarse with gravel, gray, saturated at 7 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | 0 ppm | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17058552

LONGITUDE: -88.43091905

DATUM: MichGeoRef

NORTHING: 738258.4842

EASTING: 315628.0603



BORING/WELL: CHLL-SB-50 / GW-35

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W




DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|---|---|-------------------|
| |  | SAND Medium to coarse with gravel, reddish brown, saturated at 1 foot | Grd. 0 | |  | Soil sample collected from 0"-12" | |
| | | NO CUTTINGS BELOW 1 FOOT | 5 | | | | |
| | | | 10 | |  | Water sample collected from 6'-11' | |
| | | | E.O.B. | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.189094562
 LONGITUDE: -88.407348446
 DATUM: MichGeoRef
 NORTHING: 740259.565
 EASTING: 317476.236

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-51 / GW-36

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area - Assay Office

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|--|
| | | Grd. | 0 | | | | |
| | | TOP SOIL Sand, fine, gray | | | | 0 ppm | Soil samples collected from 0" - 6" and 6" - 60" |
| | | SAND Fine, dark gray | | | | 0 ppm | |
| | | SAND Fine to medium, brown, saturated at 6 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | 0 ppm | |
| | | | 15 | | | 0 ppm | |
| | | | 17 | | | 0 ppm | |
| | | E.O.B. | 20 | | | | Water sample collected from 12'-17' |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.186334403

LONGITUDE: -88.414387755

DATUM: MichGeoRef

NORTHING: 739969.307

EASTING: 316933.737



BORING/WELL: CHLL-SB-52 / GW-37

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-11-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

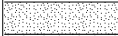
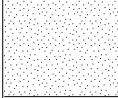
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | | |
| |  | SAND Fine, gray | | | | 0 ppm | |
| |  | SAND Fine to medium, reddish brown, saturated at 4 feet | | | | 0 ppm | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | 0 ppm | |
| | | | 10 | | | 0 ppm | |
| | | | 15 | | | Water sample collected from 9'-14' | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17698723

LONGITUDE: -88.42080215

DATUM: MichGeoRef

NORTHING: 738945.9662

EASTING: 316416.3775



BORING/WELL: CHLL-SB-53

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

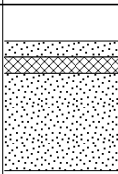
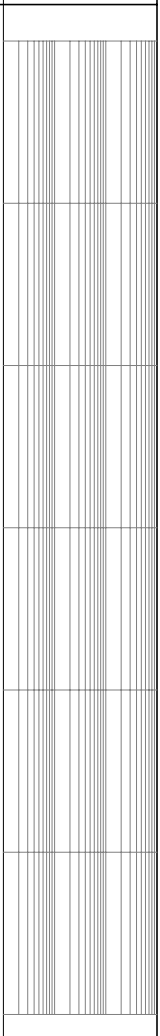
DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-------|-----------|-------------|---|--|
| |  | <p>Grd. 0</p> <p>SAND Medium, brown</p> <p>DEBRIS Landfill waste</p> <p>SAND Medium, brown, saturated at 1 foot</p> <p>E.O.B. 5</p> | 0 | | | 0 ppm 0 ppm Soil sample collected from 6"-12" |  |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.171758847
 LONGITUDE: -88.427440712
 DATUM: MichGeoRef
 NORTHING: 738380.614
 EASTING: 315895.169

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-54

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-12-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

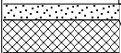
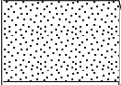
DRILL METHOD: Geoprobe

SECTION: 12

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 6"-18" | |
| |  | SAND Medium, brown | | | | | |
| |  | DEBRIS Landfill waste and sand | | | | | |
| | | SAND Medium, brown, saturated at 1 foot | 5 | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.171809034
 LONGITUDE: -88.427572837
 DATUM: MichGeoRef
 NORTHING: 738386.499
 EASTING: 315885.333

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-55 / GW-38

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | 0 ppm | |
| | | SAND Fine to medium, dark gray | | | | 0 ppm | |
| | | SAND Fine to medium, reddish brown | | | | 0 ppm | |
| | | SAND Medium to coarse, brown, saturated at 5 feet | 5 | | | 0 ppm | |
| | | NO CUTTINGS BELOW 5 FEET | | | | | |
| | | E.O.B. | 15 | | | Water sample collected from 10'-15' | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.187160142

LONGITUDE: -88.410016830

DATUM: MichGeoRef

NORTHING: 740050.870

EASTING: 317267.571



BORING/WELL: CHLL-SB-56

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-14-14

TOWNSHIP: NA

DRILLER: NA

TOWN: 55N

GEOLOGIST: NA

RANGE: 32W

DRILL METHOD: Grab Sample

SECTION: 6

TOTAL DEPTH: Surface

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|---|-----------|-------------|---|-------------------|
| | | <p style="text-align: right;">Grd.</p> <p>NO CUTTINGS</p> | <p>0</p> <p>5</p> <p>10</p> <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | <p>Collected a surface sample only for asbestos</p> | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA
 COMPLETION NOTES: NA

LATITUDE: 47.186230411
 LONGITUDE: -88.410763057
 DATUM: MichGeoRef
 NORTHING: 739949.323
 EASTING: 317207.888



BORING/WELL: CHLL-SB-57

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

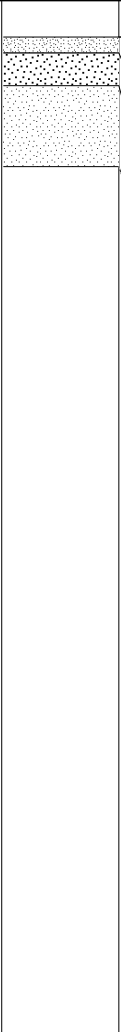
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 4 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|--------------------------------------|-----------|-------------|---|-------------------|
| |  | <p>Grd. 0</p> <p>SAND Fine, gray</p> <p>SAND Medium, reddish brown</p> <p>SAND Fine to medium, brown, saturated at 3 feet</p> <p>E.O.B. 5</p> | 0 5 10 15 20 25 30 | | | <p>Soil samples collected from 0" -6" and 6" - 36"</p> <p>No water sample collected</p> | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.197111996

LONGITUDE: -88.404313050

DATUM: MichGeoRef

NORTHING: 7401143.166

EASTING: 317733.365



BORING/WELL: CHLL-GW-39

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 6-15-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Torch Lake Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|---|-------------------|
| | | Grd. NO SOIL SAMPLES COLLECTED | 0 | | | | |
| | | E.O.B. | 15 | | | Water sample collected from 8' - 13' | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.196744648
 LONGITUDE: -88.404323744
 DATUM: MichGeoRef
 NORTHING: 741102.383
 EASTING: 317731.306

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-82 / GW-40

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

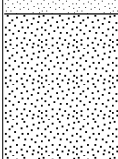
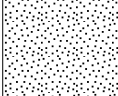
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0"-6" and 6"- 5' | |
| |  | SAND Fine to medium, gray | | | | | |
| |  | SAND Fine to medium, reddish brown, saturated at 5 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | Water sample collected from 10'-15' | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17685556
 LONGITUDE: -88.41960000
 DATUM: MichGeoRef
 NORTHING: 738928.470
 EASTING: 316506.566

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-94 / GW-41

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

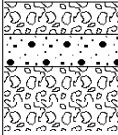
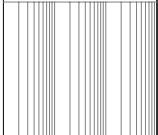
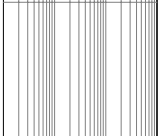
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-------|-----------|-------------|--|--|
| |  | Grd. | 0 | | | Soil samples collected from 0"-6" and 6"- 4' |  |
| | | GRAVEL SAND Coarse, greenish gray GRAVEL Gray, saturated | 5 | | | | |
| | | NO CUTTINGS BELOW 4 FEET | | | | Water sample collected from 8'-13' |  |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17800555
 LONGITUDE: -88.418302778
 DATUM: MichGeoRef
 NORTHING: 739053.195
 EASTING: 316608.757

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-107

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|--|-------------------|
| | | | Grd. | | | | |
| | SAND | SAND Medium, brown | 0 | | | Soil samples collected from 0"-6" and 6"- 3' | |
| | SAND | SAND Medium, reddish brown, saturated at 3 feet. | 5 | | | | |
| | | E.O.B. | | | | No water sample collected | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.177502336
 LONGITUDE: -88.422363994
 DATUM: MichGeoRef
 NORTHING: 739006.772
 EASTING: 316299.421

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-108

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|--|-------------------|
| | | | Grd. | | | | |
| | ●●●●●● | SAND Medium, brown | 0 | | | Soil samples collected from 0"-6" and 6"- 3' | |
| | ●●●●●● | SAND Medium, reddish brown, saturated at 3 feet. | 5 | | | | |
| | | E.O.B. | | | | No water sample collected | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.177561172
 LONGITUDE: -88.422336578
 DATUM: MichGeoRef
 NORTHING: 739013.244
 EASTING: 316301.699

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-111/ GW-42

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


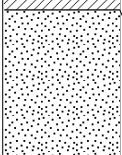
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 12 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-------|-----------|-------------|---|-------------------|
| |  | Grd. CLAY Gray | 0 | | | Soil samples collected from 6"-12" and 12"-3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet. | 5 | | | | |
| | | NO CUTTINGS BELOW 5 FEET | | | | Water sample collected from 7'-12' | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.188013889
 LONGITUDE: -88.407591667
 DATUM: MichGeoRef
 NORTHING: 740140.079
 EASTING: 317454.138

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-112/ GW-43

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


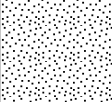
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| |  | CLAY Gray | 0 | | | Soil samples collected from 6"-12" and 12"-3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet. | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | Water sample collected from 8'-13' | |
| | | | | | | | |
| | | | E.O.B. | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.188216667

LONGITUDE: -88.407138888

DATUM: MichGeoRef

NORTHING: 740161.555

EASTING: 317489.117



BORING/WELL: CHLL-SB-113/ GW-44

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

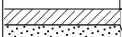
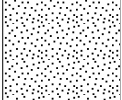
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 12 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| |  | CLAY Gray | 0 | | | Soil samples collected from 6"-12" and 12"-3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet. | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | Water sample collected from 7'-12' | |
| | | | | | | | |
| | | | E.O.B. | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.188416666

LONGITUDE: -88.407711111

DATUM: MichGeoRef

NORTHING: 740185.100

EASTING: 317446.464



BORING/WELL: CHLL-SB-114/ GW-45

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

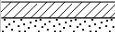
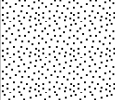
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|-------|-----------|-------------|---|-------------------|
| |  | CLAY Gray | 0 | | | Soil samples collected from 6"-12" and 12"-3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet. | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | Water sample collected from 9'-14' | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.188941666
 LONGITUDE: -88.408508333
 DATUM: MichGeoRef
 NORTHING: 740245.272
 EASTING: 317387.879

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-115/ GW-46

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

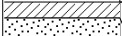
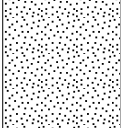
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 6"-12" and 12"-5' | |
| |  | CLAY Gray | | | | | |
| |  | SAND Medium, reddish brown, saturated at 5 feet. | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | Water sample collected from 10'-15' | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18900000
 LONGITUDE: -88.408875000
 DATUM: MichGeoRef
 NORTHING: 740252.604
 EASTING: 317360.311

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-116/ GW-47

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

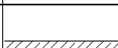

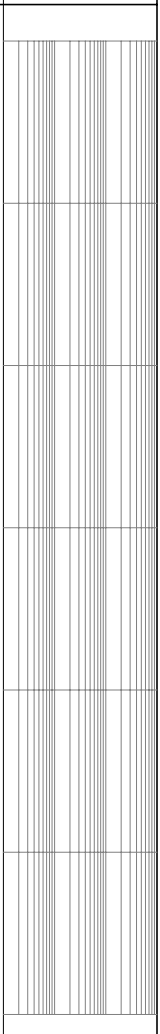
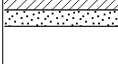

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|---|---|--|
| |  | CLAY Gray | Grd. 0 | |  | Soil sample collected from 6"-12" |  |
| |  | SAND Medium, reddish brown, saturated at 1 feet. | | | | | |
| | | NO CUTTINGS BELOW 1 FEET | 5 | | | Water sample collected from 6'-11' | |
| | | | | |  | | |
| | | | E.O.B. | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.188844832
 LONGITUDE: -88.407338383
 DATUM: MichGeoRef
 NORTHING: 740231.799
 EASTING: 317476.148

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-117/ GW-48

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W



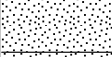
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| |  | CLAY Gray | 0 | | | Soil sample collected from 6"-12" and 12" to 3' | |
| |  | SAND Medium, reddish brown | | | | | |
| |  | SAND Medium, gray, saturated | 5 | | | Water sample collected from 8'-13' | |
| | | NO CUTTINGS BELOW 5 FEET | | | | | |
| | | | E.O.B. | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.189202778

LONGITUDE: -88.407250000

DATUM: MichGeoRef

NORTHING: 740271.358

EASTING: 317484.060



BORING/WELL: CHLL-SB-118/ GW-49

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-21-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

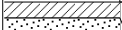
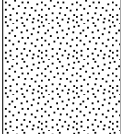
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| |  | CLAY Gray | | | | Soil sample collected from 6"-12" and 12" to 3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | Water sample collected from 8'-13' | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.189494444
 LONGITUDE: -88.406094445
 DATUM: MichGeoRef
 NORTHING: 740301.077
 EASTING: 317572.561

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-119/ GW-50

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-21-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

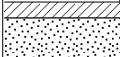
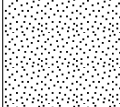
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 6"-12" and 12" to 3' | |
| |  | CLAY Gray | | | | | |
| |  | SAND Medium, reddish brown, saturated at 3 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | Water sample collected from 8'-13' | |
| | | | | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18955555

LONGITUDE: -88.40645000

DATUM: MichGeoRef

NORTHING: 740308.691

EASTING: 317545.843



BORING/WELL: CHLL-SB-120/ GW-51

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


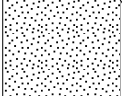
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|-------------------|
| |  | SILTY SAND Fine, brown | 0 | | | Soil sample collected from 0" - 6" and 6" - 3' | |
| |  | SAND Medium, reddish brown, saturated at 3 feet | | | | | |
| | | NO CUTTINGS BELOW 4 FEET | 5 | | | Water sample collected from 8'-13' | |
| | | | | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.189872222
 LONGITUDE: -88.40685833
 DATUM: MichGeoRef
 NORTHING: 740344.816
 EASTING: 317515.999

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-121/ GW-52

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

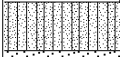
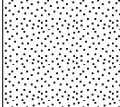
DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 0"- 6" and 6" to 4' | |
| |  | SILTY SAND Fine, brown | | | | | |
| |  | SAND Medium, reddish brown, saturated at 4 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | Water sample collected from 9'-14' | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.190275000

LONGITUDE: -88.406713888

DATUM: MichGeoRef

NORTHING: 740389.225

EASTING: 317528.308



BORING/WELL: CHLL-SB-122/ GW-53

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|--|-------------------|
| | | Grd. | 0 | | | Soil sample collected from 0"- 6" and 6" to 3' | |
| | | FILL Sand and gravel, reddish brown, saturated at 5 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | Water sample collected from 8'-13' | |
| | | | | | | | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.190625000

LONGITUDE: -88.406547222

DATUM: MichGeoRef

NORTHING: 740427.719

EASTING: 317542.121



BORING/WELL: CHLL-SB-123/ GW-54

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. | | | | |
| | FILL | Sand and gravel, reddish brown, saturated at 5 feet | 0 | | | Soil sample collected from 0"- 6" and 6" to 4' | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | Water sample collected from 10'- 15' | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.19139766

LONGITUDE: -88.40657099

DATUM: MichGeoRef

NORTHING: 740513.561

EASTING: 317542.856



BORING/WELL: CHLL-SB-124/ GW-55

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

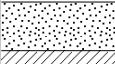


DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 0"- 6" and 6" to 4' | |
| |  | SAND Medium, brown | | | | | |
| |  | CLAY Reddish brown | | | | | |
| |  | SAND Medium, reddish brown, saturated at 4 feet | 5 | | | Water sample collected from 9'-14' | |
| | | NO CUTTINGS BELOW 5 FEET | | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.191175000

LONGITUDE: -88.406150000

DATUM: MichGeoRef

NORTHING: 740487.896

EASTING: 317574.073



BORING/WELL: CHLL-SB-125/ GW-56

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-20-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 6

TOTAL DEPTH: 14 feet

LOCATION DESCRIPTION: Lake Linden Sands Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 0"- 6" and 6" to 4' | |
| | | SAND Medium, gray | | | | | |
| | | SAND Medium, reddish brown, saturated at 4 feet | | | | | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | Water sample collected from 9'-14' | |
| | | | | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.1909083
 LONGITUDE: -88.40631667
 DATUM: MichGeoRef
 NORTHING: 740458.659
 EASTING: 317560.544

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-126/ GW-57

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W


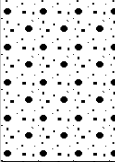
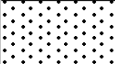
DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 16 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 0"- 6" and 6" to 5' | |
| |  | ROAD GRAVEL Sand and gravel, gray | | | | | |
| |  | SAND Coarse with gravel, gray | 5 | | | | |
| |  | SAND Medium to coarse, brown, saturated | | | | | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | Water sample collected from 11'-16' | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.176166514
 LONGITUDE: -88.423081640
 DATUM: MichGeoRef
 NORTHING: 738860.056
 EASTING: 316240.485

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-127/ GW-58

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 16 feet

LOCATION DESCRIPTION: Hubbell Smelter Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|--|-------------------|
| | | Grd. | 0 | | | Soil sample collected from 0"- 6" and 6" to 5' | |
| | | FILL Sand and gravel, gray | | | | | |
| | | SAND Coarse with gravel, gray | | | | | |
| | | SAND Medium to coarse, brown, saturated | 5 | | | | |
| | | NO CUTTINGS BELOW 8 FEET | 10 | | | Water sample collected from 11'-16' | |
| | | | | | | | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.1762188

LONGITUDE: -88.4230211

DATUM: MichGeoRef

NORTHING: 738865.724

EASTING: 316245.251



BORING/WELL: CHLL-SB-130/ GW-59

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 13

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| | [Pattern] | SAND Medium, brown | | | | Soil sample collected from 6"-12" | |
| | [Pattern] | DEBRIS Landfill waste | | | | | |
| | [Pattern] | SAND Medium, gray, saturated | | | | Water sample collected from 6'-11' | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.171791667

LONGITUDE: -88.427486111

DATUM: MichGeoRef

NORTHING: 738384.367

EASTING: 315891.843



BORING/WELL: CHLL-SB-131/ GW-60

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W

DRILL METHOD: Geoprobe

SECTION: 13

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| | [Pattern] | SAND Medium, brown | | | | Soil sample collected from 6"-12" | |
| | [Pattern] | DEBRIS Landfill waste | | | | | |
| | [Pattern] | SAND Medium, gray, saturated | 5 | | | Water sample collected from 6'-11" | |
| | | NO CUTTINGS BELOW 5 FEET | | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.171838889

LONGITUDE: -88.427405555

DATUM: MichGeoRef

NORTHING: 738389.424

EASTING: 315898.107



BORING/WELL: CHLL-SB-132/ GW-61

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W




DRILL METHOD: Geoprobe

SECTION: 13

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil sample collected from 12"-18" | |
| |  | SAND Medium, brown | | | | | |
| |  | DEBRIS Landfill waste | | | | | |
| |  | SAND Medium, gray, saturated | 5 | | | Water sample collected from 6'-11' | |
| | | NO CUTTINGS BELOW 5 FEET | | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.171991666

LONGITUDE: -88.427211111

DATUM: MichGeoRef

NORTHING: 738405.940

EASTING: 315913.361



BORING/WELL: CHLL-SB-133/ GW-62

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W




DRILL METHOD: Geoprobe

SECTION: 13

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| |  | SAND Medium, brown | | | | Soil sample collected from 6"-12" | |
| |  | DEBRIS Landfill waste | | | | | |
| |  | SAND Medium, gray, saturated | | | | Water sample collected from 6'-11' | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.171900000

LONGITUDE: -88.427422222

DATUM: MichGeoRef

NORTHING: 738396.251

EASTING: 315897.055



BORING/WELL: CHLL-SB-134/ GW-63

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-14

TOWNSHIP: NA

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 33W




DRILL METHOD: Geoprobe

SECTION: 13

TOTAL DEPTH: 11 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | | |
| |  | SAND Medium, brown | | | | Soil sample collected from 18"-24" | |
| |  | DEBRIS Landfill waste | | | | | |
| |  | SAND Medium, gray, saturated | | | | Water sample collected from 6'-11' | |
| | | NO CUTTINGS BELOW 5 FEET | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |
| | | | E.O.B. | | | | |

VERTICAL DATUM: NA

GRD. ELEVATION: NA

T.O.C.: NA

S.W.L.: NA

CASING: NA

SCREEN: NA

WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.171780555

LONGITUDE: -88.427619444

DATUM: MichGeoRef

NORTHING: 738383.444

EASTING: 315881.704



BORING/WELL: CHLL-SB-142/GW-64

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 5-13-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 18 ft

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | | |
| | | TOPSOIL | | | | Soil samples collected from 0 - 6" and 6" - 8' | |
| | | SAND Fine, gray | | | | | |
| | | FILL Gravel and wood | | | | | |
| | | SAND Fine to medium, brown, saturated at 8 feet | 5 | | | | |
| | | NO CUTTINGS | 10 | | | | |
| | | | 15 | | | Groundwater sample collected from 13 to 18 feet | |
| | | | | | | | |
| | | E.O.B. | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.18776805
 LONGITUDE: -88.41078705
 DATUM: MichGeoRef
 NORTHING: 740120.192
 EASTING: 317211.314



BORING/WELL: CHLL-SB-143/GW-65

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 5-13-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 15 ft

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6" and 6" - 5' | |
| | | TOPSOIL SAND Fine, gray SAND Fine to medium, brown, saturated at 5 feet | 5 | | | | |
| | | NO CUTTINGS | 10 | | | Groundwater sample collected from 10 to 15 feet | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.187401241
 LONGITUDE: -88.410637805
 DATUM: MichGeoRef
 NORTHING: 740079.097
 EASTING: 317221.366



BORING/WELL: CHLL-SB-144/GW-66

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 5-13-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 15 ft

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6" and 6" - 5' | |
| | | SAND Fine, gray | | | | | |
| | | SAND Fine to medium, brown | | | | | |
| | | SAND Medium, reddish brown, saturated | 5 | | | | |
| | | NO CUTTINGS | 10 | | | Groundwater sample collected from 10 to 15 feet | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.18720106
 LONGITUDE: -88.4107631
 DATUM: MichGeoRef
 NORTHING: 740057.150
 EASTING: 317211.195

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-145/GW-67

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 5-13-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 1 ft

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|---|-------------------|
| | | Grd. No soil or groundwater samples collected with the Geoprobe. Made 3 attempts to get past 1 foot. E.O.B. | 0 5 10 15 20 25 30 | | | Collected a surface soil sample from 0 - 6" using a hand trowel | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.186630420
 LONGITUDE: -88.411609191
 DATUM: MichGeoRef
 NORTHING: 739995.726
 EASTING: 317145.173

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-146

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 8 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Fine to medium, gray | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 4 feet | 5 | | | | |
| | | E.O.B. | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17842005
 LONGITUDE: -88.41955668
 DATUM: MichGeoRef
 NORTHING: 739102.165
 EASTING: 316515.200

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-147

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|-------------|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 100px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="text-align: center;"> <p>SAND Medium to coarse, gray</p> </div> </div> | | | | | | |
| | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 100px; height: 10px; background: radial-gradient(circle, black 1px, transparent 1px); background-size: 4px 4px;"></div> <div style="text-align: center;"> <p>SAND Fine to medium, brown, saturated at 3 feet</p> </div> </div> | | 5 | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.1780916
 LONGITUDE: -88.41914844
 DATUM: MichGeoRef
 NORTHING: 739064.726
 EASTING: 316544.998

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-148

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Medium to coarse, gray | | | | | |
| | | SAND Fine to medium, brown, saturated at 4 feet | 5 | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17803217
 LONGITUDE: -88.42001326
 DATUM: MichGeoRef
 NORTHING: 739060.142
 EASTING: 316479.290

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-149

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Medium to coarse, gray | | | | | |
| | | SAND Fine to medium, brown, saturated at 4 feet | 5 | | | Duplicate sample collected | |
| | | E.O.B. | | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.1777139
 LONGITUDE: -88.41965851
 DATUM: MichGeoRef
 NORTHING: 739030.345
 EASTING: 316505.268

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-150

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Fine, gray | | | | | |
| | | SAND Fine to medium, gray | | | | | |
| | | SAND Fine to medium, brown, saturated at 4 feet | 5 | | | | |
| | | E.O.B. | | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17762803
 LONGITUDE: -88.41993448
 DATUM: MichGeoRef
 NORTHING: 739015.063
 EASTING: 316483.874

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-151



SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|-------|-----------|-------------|--|-------------------|
| | | | Grd. | | | | |
| |  | SAND and GRAVEL Medium to coarse, gray | 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| |  | SAND Fine to medium, brown, saturated at 4.5 feet | 5 | | | | |
| | | E.O.B. | | | | | |
| | | | -10 | | | | |
| | | | -15 | | | | |
| | | | -20 | | | | |
| | | | -25 | | | | |
| | | | -30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17757741
 LONGITUDE: -88.41939757
 DATUM: MichGeoRef
 NORTHING: 739008.187
 EASTING: 316524.369

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-152


SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 3 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|--------------------------------------|-----------|-------------|--|-------------------|
| |  | <p>Grd. 0</p> <p>SAND and GRAVEL Medium to coarse, gray</p> <p>FILL</p> <p>SAND and GRAVEL Medium to coarse, gray, saturated</p> <p>5</p> <p>E.O.B.</p> | 0 5 10 15 20 25 30 | | | Soil samples collected from 0 - 6" and 6" - 2.5' | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17761272
 LONGITUDE: -88.41902594
 DATUM: MichGeoRef
 NORTHING: 739011.243
 EASTING: 316552.638

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-153

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 4 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|--|-------------------|
| | | <p>Grd. 0</p> <p>SAND and GRAVEL Medium to coarse, gray</p> <p>GRAVEL Reddish brown</p> <p>GRAVEL Gray</p> <p>FILL Wood debris</p> <p>E.O.B. 10</p> | 0 5 10 15 20 25 30 | | | Soil samples collected from 0 - 6" and 6" - 2.5' | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17761961
 LONGITUDE: -88.41837058
 DATUM: MichGeoRef
 NORTHING: 739010.479
 EASTING: 316602.302

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-154


SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 4 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|--|--|-------|-----------|-------------|---|-------------------|
| |  | <p>Grd. 0</p> <p>GRAVEL and WOOD Gray</p> <p>SAND Medium to coarse, reddish brown</p> <p>GRAVEL Gray</p> <p>5</p> <p>E.O.B.</p> <p>10</p> <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | | <p>Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4'</p> <p>Duplicate sample collected from 6" - 2.5'</p> | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.1773365
 LONGITUDE: -88.4187512
 DATUM: MichGeoRef
 NORTHING: 738979.917
 EASTING: 316572.504

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-155

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 4 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|----------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Fine to medium, gray | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 4 feet | E.O.B. 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.17724819
 LONGITUDE: -88.41933092
 DATUM: MichGeoRef
 NORTHING: 738971.459
 EASTING: 316528.291

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-156/GW-68


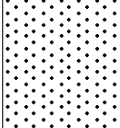
SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 12 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|---|---|--------------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| |  | SAND Coarse, gray | | | | | |
| |  | SAND Medium to coarse, reddish brown, saturated at 2 feet | | | | | |
| | | NO CUTTINGS | 5 | | | | |
| | | | 10 | | | Groundwater sample collected from 7 to 12 feet | |
| | | | 15 | | | | |
| | | | E.O.B. 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17795417
 LONGITUDE: -88.41938808
 DATUM: MichGeoRef
 NORTHING: 739050.018
 EASTING: 316526.377



BORING/WELL: CHLL-SB-157/GW-69

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 5-12-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 14 ft

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-----------|-----------|-------------|---|---|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6", 6" - 2.5' and 2.5' - 4' | |
| | | SAND Fine to medium, gray | | | | | Duplicate sample collected from 6" - 2.5' |
| | | SAND Fine to medium, brown, saturated at 4.5 feet | | | | | |
| | | NO CUTTINGS | 5 | | | | |
| | | | 10 | | | Groundwater sample collected from 9 to 14 feet | |
| | | | 15 | | | | |
| | | | E.O.B. 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.17855145
 LONGITUDE: -88.41879946
 DATUM: MichGeoRef
 NORTHING: 739114.996
 EASTING: 316573.004



BORING/WELL: CHLL-SB-158/GW-70

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 5-13-15

TOWNSHIP: Schoolcraft

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 5

TOTAL DEPTH: 71 ft

LOCATION DESCRIPTION: Backwater Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS PID Readings | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|--|-------------------|
| | | Grd. | 0 | | | No soil samples collected for laboratory analyses' | |
| | | SAND Fine to medium, brown, saturated at 4 ft | 5 | | | | |
| | | NO CUTTINGS Refusal at 71 feet | 10 | | | Attempted to collect a water sample from 8-13 ft, 12-17 ft and 16-21 ft. Each of these intervals would not produce enough groundwater to sample. | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | Groundwater sample collected from 40' - 45' | |
| | | | 30 | | | | |
| | | | 35 | | | | |
| | | | 40 | | | | |
| | | | 45 | | | Not enough groundwater to collected a sample from 66' - 71' | |
| | | | 50 | | | | |
| | | | 55 | | | | |
| | | | 60 | | | E.O.B. | |
| | | | 65 | | | | |
| | | | 70 | | | | |
| | | | 75 | | | | |
| | | | 80 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.19702691
 LONGITUDE: -88.40317069
 DATUM: MichGeoRef
 NORTHING: 741131.067
 EASTING: 317819.572

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-159/GW-71

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 22 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|-----------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 3" - 9" and 9" - 12' | |
| | | CLAY CAP SAND Fill - medium, dark gray | | | | | |
| | | SAND Fine to medium, reddish brown | 5 | | | | |
| | | | 10 | | | | |
| | | CLAY Reddish brown | | | | | |
| | | SAND Fine to medium, reddish brown, saturated at 12 feet | 15 | | | | |
| | | NO CUTTINGS | 20 | | | Groundwater sample collected from 17' - 22' | |
| | | | | | | | |
| | | | E.O.B. 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.186113523
 LONGITUDE: -88.410292084
 DATUM: MichGeoRef
 NORTHING: 739939.428
 EASTING: 317106.839

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-160/GW-72

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 26 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|--------|-----------|-------------|---|-------------------|
| | | Grd. | 0 | | | | |
| | | CLAY CAP | | | | Soil samples collected from 9" -15" and 15" - 12' | |
| | | SAND Fill - medium, dark gray | | | | | |
| | | | 5 | | | | |
| | | CLAY Reddish brown | | | | Groundwater sample collected from 21' - 26' | |
| | | SAND Fine to medium, reddish brown, saturated at 12 feet | | | | | |
| | | | 10 | | | | |
| | | NO CUTTINGS | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | E.O.B. | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.185778895
 LONGITUDE: -88.412359556
 DATUM: MichGeoRef
 NORTHING: 739902.877
 EASTING: 317085.441

COMPLETION NOTES: Backfilled with bentonite



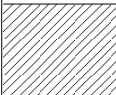
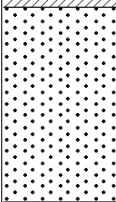
BORING/WELL: CHLL-SB-161/GW-73

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7
 LOCATION DESCRIPTION: Lake Linden Processing Area

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 18 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|--|--|-----------|-----------|-------------|---|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 3' - 3.5' and 3.5' - 9' | |
| |  | CAP Sand and clay | | | | | |
| |  | SAND Medium to coarse, dark gray | 5 | | | | |
| | | NO CUTTING | 10 | | | | |
| | | | 15 | | | Groundwater sample collected from 13' - 18' | |
| | | | E.O.B. 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.184097920
 LONGITUDE: -88.413494267
 DATUM: MichGeoRef
 NORTHING: 739718.781
 EASTING: 316993.768

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-GW-74

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|----------------|-----------|-------------|-------------------------|-------------------|
| | | Grd. | 0 | | | | |
| | | NO CUTTINGS Had refusal at 17 feet. Floor of former building at this location. Saturation was not encountered, therefore a groundwater sample was not collected. | 5 10 15 | | | | |
| | | E.O.B. | 20 25 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.185285851
 LONGITUDE: -88.413491448
 DATUM: MichGeoRef
 NORTHING: 739850.739
 EASTING: 316998.037

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-GW-75

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-18-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 17 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|-------------------------|-------------------|
| | | | Grd. | | | | |
| | | <p>NO CUTTINGS Had refusal at 17 feet. Floor of former building at this location. Saturation was not encountered, therefore a groundwater sample was not collected.</p> | 0 | | | | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | E.O.B. | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.185343315
 LONGITUDE: -88.413799448
 DATUM: MichGeoRef
 NORTHING: 739857.839
 EASTING: 316974.907

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-GW-76

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|----------------------------|-------|-----------|-------------|---|-------------------|
| | | Grd. NO CUTTINGS | 0 | | | | |
| | | | 5 | | | | |
| | | | 10 | | | Groundwater sample collected from 10' to 15'. | |
| | | | 15 | | | Duplicate groundwater sample collected from 10' to 15'. | |
| | | E.O.B. | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.187257419
 LONGITUDE: -88.410109100
 DATUM: MichGeoRef
 NORTHING: 740061.891
 EASTING: 317260.915

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-GW-77

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--------------------------------|-------|-----------|-------------|--|-------------------|
| | | Grd. NO CUTTINGS | 0 | | | | |
| | | E.O.B. | 15 | | | Groundwater sample collected from 10' to 15' | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.187345536
 LONGITUDE: -88.41007215
 DATUM: MichGeoRef
 NORTHING: 740071.443
 EASTING: 317268.931

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-GW-78

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 6

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 15 feet

LOCATION DESCRIPTION: Lake Linden Processing Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|----------------------------|-------|-----------|-------------|--|-------------------|
| | | Grd. NO CUTTINGS | 0 | | | | |
| | | E.O.B. | 15 | | | Groundwater sample collected from 10' to 15' | |
| | | | 5 | | | | |
| | | | 10 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.187109065
 LONGITUDE: -88.410168409
 DATUM: MichGeoRef
 NORTHING: 740045.549
 EASTING: 317255.917

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-162

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-20-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>CLAY CAP</p> <p>FILL Concrete</p> <p>SAND Medium to coarse, dark gray.</p> <p>5</p> <p>10</p> <p>SAND Medium to coarse, reddish brown, saturated.</p> <p>E.O.B. 15</p> <p>20</p> <p>25</p> <p>30</p> | | | | Soil samples collected from 6" - 12" and 1' - 12' | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.174043471
 LONGITUDE: -88.424297919
 DATUM: MichGeoRef
 NORTHING: 738627.055
 EASTING: 316141.078

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-163

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-20-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|---|-----------|-------------|--|-------------------|
| | | <p>Grd. 0</p> <p>CLAY CAP</p> <p>SAND Medium to coarse, reddish brown, saturated at 12 feet</p> | <p>0</p> <p>5</p> <p>10</p> | | | <p>Soil samples collected from 6" - 12" and 1' - 12'</p> | |
| | | <p>E.O.B.</p> | <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.173829904
 LONGITUDE: -88.424189800
 DATUM: MichGeoRef
 NORTHING: 738603.078
 EASTING: 316148.535

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-164

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-20-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 13 feet

LOCATION DESCRIPTION: Hubbell Slag Dump and Beach

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|---|-----------|-------------|---|-------------------|
| | | <p style="text-align: right;">Grd.</p> <p>CLAY CAP</p> <p>SAND Medium to coarse, reddish brown, saturated at 9 feet</p> | <p>0</p> <p>5</p> <p>10</p> | | | <p>Soil samples collected from 6" - 12" and 1' - 9'</p> | |
| | | <p style="text-align: right;">E.O.B.</p> | <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.173752015
 LONGITUDE: -88.423955563
 DATUM: MichGeoRef
 NORTHING: 738593.878
 EASTING: 316166.012

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-165

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7
 LOCATION DESCRIPTION: Hubbell Coal Dock Area

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|--------------------------------------|-----------|-------------|--|-------------------|
| | | <p>Grd. 0</p> <p>TOP SOIL</p> <p>SAND Fine, brown</p> <p>SAND Fine to medium, reddish brown. Saturated at 5 feet.</p> <p>E.O.B. 5</p> | 0 5 10 15 20 25 30 | | | Soil samples collected from 0 - 6" and 6" - 5' | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

COMPLETION NOTES: Backfilled with bentonite

LATITUDE: 47.177013991
 LONGITUDE: -88.419475837
 DATUM: MichGeoRef
 NORTHING: 738945.781
 EASTING: 316516.512



BORING/WELL: CHLL-SB-166

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7
 LOCATION DESCRIPTION: Hubbell Coal Dock Area

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|-------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>TOP SOIL</p> <p>SAND Fine, light brown</p> <p>SAND Fine to medium, dark gray</p> <p>SAND Fine to medium, reddish brown. Saturated at 5 feet.</p> <p>E.O.B. 5</p> <p>10</p> <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | | <p>Soil samples collected from 0 - 6" and 6" - 5'.</p> <p>Duplicate soil sample collected from 6' - 5'.</p> | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.176892667
 LONGITUDE: -88.419194695
 DATUM: MichGeoRef
 NORTHING: 738931.647
 EASTING: 316537.393

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-167

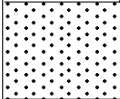

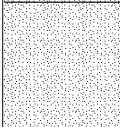
SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 9 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|--|--|-------|-----------|-------------|--|-------------------|
| | | Grd. | 0 | | | Soil samples collected from 0 - 6" and 6" - 5' | |
| |  | SAND Medium to coarse, dark gray | | | | | |
| |  | SAND Fine, light brown | 5 | | | | |
| |  | SAND Fine, reddish brown. Saturated at 9 feet. | | | | | |
| | | E.O.B. | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.178374911
 LONGITUDE: -88.420165064
 DATUM: MichGeoRef
 NORTHING: 739098.570
 EASTING: 316468.965

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-168

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|--|-------------------|
| | | Grd. 0 TOP SOIL SAND Fine, dark gray SAND Fine, light brown SAND Fine, reddish brown. Saturated at 2 feet. E.O.B. | 0 5 10 15 20 25 30 | | | Soil samples collected from 0 - 6" and 6" - 2' | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.178557022
 LONGITUDE: -88.419954862
 DATUM: MichGeoRef
 NORTHING: 739118.310
 EASTING: 316485.510

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-169

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|--------|-----------|-------------|--|-------------------|
| | | | Grd. 0 | | | Soil samples collected from 0 - 6" and 6" - 3' | |
| | | <p>TOP SOIL</p> <p>SAND Fine to medium, dark brown</p> <p>SAND Fine to medium, reddish brown. Saturated at 3 feet.</p> | 5 | | | | |
| | | | E.O.B. | | | | |
| | | | 10 | | | | |
| | | | 15 | | | | |
| | | | 20 | | | | |
| | | | 25 | | | | |
| | | | 30 | | | | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.180924188
 LONGITUDE: -88.416997306
 DATUM: MichGeoRef
 NORTHING: 739374.376
 EASTING: 316717.616

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-170

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton
 TOWNSHIP: Torch Lake
 TOWN: 55N
 RANGE: 32W
 SECTION: 7
 LOCATION DESCRIPTION: Hubbell Coal Dock Area

DATE: 8-19-15
 DRILLER: Jeremy Brown
 GEOLOGIST: Jeff Pincumbe
 DRILL METHOD: Geoprobe
 TOTAL DEPTH: 2 feet

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|---|--------------------------------------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>COAL</p> <p>SAND Medium to coarse, dark brown</p> <p>SAND Medium, brown. Saturated at 1 foot.</p> <p>E.O.B. 5</p> | 0 5 10 15 20 25 30 | | | Soil samples collected from 0 - 6" and 6" - 12" | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.180299820
 LONGITUDE: -88.417327847
 DATUM: MichGeoRef
 NORTHING: 739305.787
 EASTING: 316690.446

COMPLETION NOTES: Backfilled with bentonite



BORING/WELL: CHLL-SB-171

SITE: Abandoned Mining Wastes - Torch Lake

COUNTY: Houghton

DATE: 8-19-15

TOWNSHIP: Torch Lake

DRILLER: Jeremy Brown

TOWN: 55N

GEOLOGIST: Jeff Pincumbe

RANGE: 32W

DRILL METHOD: Geoprobe

SECTION: 7

TOTAL DEPTH: 5 feet

LOCATION DESCRIPTION: Hubbell Coal Dock Area

ERNIE#: 31000098

| WELL CONSTRUCTION | LITHOLOGIC LOG | DESCRIPTION | DEPTH | SAMPLE ID | SAMPLE TYPE | FIELD SCREENING RESULTS | PID ppm 1 1000 |
|-------------------|----------------|--|-------|-----------|-------------|---|-------------------|
| | | <p>Grd. 0</p> <p>TOP SOIL</p> <p>SAND Medium to coarse, dark brown</p> <p>SAND Fine, dark gray.</p> <p>SAND Fine to medium, reddish brown, saturated, saturated at 1 foot.</p> <p>E.O.B. 5</p> <p>10</p> <p>15</p> <p>20</p> <p>25</p> <p>30</p> | | | | Soil samples collected from 0 - 6" and 6" - 12" | |

VERTICAL DATUM: NA
 GRD. ELEVATION: NA
 T.O.C.: NA
 S.W.L.: NA
 CASING: NA
 SCREEN: NA
 WELL DEPTH: NA

LATITUDE: 47.179967898
 LONGITUDE: -88.417633709
 DATUM: MichGeoRef
 NORTHING: 739269.627
 EASTING: 316666.145

COMPLETION NOTES: Backfilled with bentonite