Mary Kozak
Berks County Recorder of Deeds

Berks County Services Center 3rd Floor
633 Court Street
Reading, PA 19601
Office: (610) 478-3380 ~ Fax: (610) 478-3359
Website: www.countyofberks.com/recorder

INSTRUMENT # 2021050869

RECORDED DATE: 10/12/2021 02:52:04 PM

5039226-0030N

Document Type: ENVIRONMENTAL COVENANT	**Transaction #:** 5772426 **Document Page Count:** 78 **Operator Id:** mmartello

PARCEL ID(s): (See doc for additional parcel #'s)		**SUBMITTED BY:**
75545101386305	60545200215475	SPOTTS STEVENS & MCCOY
72545200105376	60545200324198	1047 N PARK RD
72545101088643	63545200414384	
72545101397013	72000000000041	
72000000000003	72545200016943	READING, PA 19610
72000000000024	72545200125477	

*** PROPERTY DATA:**

** PLEASE SEE DOCUMENT OR INDEX FOR PROPERTY DATA

*** ASSOCIATED DOCUMENT(S):**

FEES / TAXES:

RECORDING FEES: ENVIRONMENTAL COVENANT	$26.25
RECORDS IMPROVEMENT FUND	$5.00
JUDICIAL FEE	$40.25
WRIT TAX	$0.50
ADDITIONAL PAGE FEE	$296.00
PARCEL ID FEE	$250.00
Total:	$618.00

INSTRUMENT #: 2021050869
Recorded Date: 10/12/2021 02:52:04 PM

I hereby CERTIFY that this document is recorded in the Recorder of Deeds Office in Berks County, Pennsylvania.

Mary Kozak
Recorder of Deeds

OFFICIAL RECORDING COVER PAGE

PLEASE DO NOT DETACH

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

NOTE: If document data differs from cover sheet, document data always supersedes.
***COVER PAGE DOES NOT INCLUDE ALL DATA, PLEASE SEE INDEX AND DOCUMENT FOR ANY ADDITIONAL INFORMATION.**

When recorded, return to:

The County Parcel Identification No. of the Property is: 75545101386305, 72545200105376, 72545101198191, 72545101088643, 72545101397013, 72000000000003, 72000000000024, 60545200215475, 60545200324198, 63545200414384, 72000000000041, 72545200016943, 72545200125477, 60545214237396, 60545214330856, 60545214339334, 60545214330087, 60545214342249, 72545200210640, 63545200401732, 63545204518662, 63545204506764, 63545204528219, 75545101281273, and 63545204618906.

GRANTOR: East Penn Manufacturing Co.
PROPERTY ADDRESS: 102 Deka Road, Lyon Station, PA 19536

ENVIRONMENTAL COVENANT

This Environmental Covenant is executed pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 Pa. C.S. §§ 6501 – 6517 (UECA). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As provided in Section 5 of UECA 27 Pa. C.S. § 6505, this Environmental covenant runs with the land. As indicated later in this document, this Environmental Covenant has been approved by the U.S. Environmental Protection Agency (EPA or Agency).

1. Property affected. The property affected (Property) by this Environmental Covenant is located in Richmond Township, Maxatawny Township, Lyons Borough and Rockland Township, in Berks County.

The latitude and longitude of the center of the Property is: Latitude 40.472902, Longitude -75.760966.
The Property has been known by the following name(s): East Penn Manufacturing Co.

The EPA Facility ID# is PAD 00 233 0165

A complete description of the Property is attached to this Environmental Covenant as Exhibit A. A map of the Property is attached to this Environmental Covenant as Exhibit B. The Post Remedial Care Plan is attached to this Environmental Covenant as Exhibit C. The Groundwater Engineering Control and Monitoring Area (GECM Area) on the Property is depicted in Exhibit D. The Engineering Control Area (Cap Area) is situated within the GECM Area and covers the Eastern Ore Pit Solid Waste Management (EOP SMWU) as depicted in Exhibit E.

2. **Property Owner / GRANTOR / Holder/ GRANTEE**. East Penn Manufacturing Co. is the owner of the Property and the GRANTOR and Holder/GRANTEE of this Environmental Covenant.

3. The mailing address of the owner is: 102 Deka Road, Lyon Station, PA 19536.

4. **Description of Contamination & Remedy**. A Solid Waste Management Unit (SWMU), designated as the Eastern Ore Pit (EOP), was included in a Corrective Action Permit (Permit # PAD 00 233 0165) issued by the United States Environmental Protection Agency (EPA), Region III to East Penn Manufacturing Co. The EOP was a former iron ore pit that ceased operations in the late 1800's to early 1900's. The EOP was roughly an oval depression that was originally about 2.8 acres in size and an average of about 40 feet deep. Local residents disposed of rocks, soil, and debris in the EOP until the Property was purchased in about 1950 by East Penn Manufacturing Co. East Penn Manufacturing Co. manufactures lead-acid batteries and utilizes an on-site secondary lead smelter to recycle lead. Subsequently, the EOP was partially filled with materials such as battery cases and related debris sometime between 1969 and 1977 that reduced the size to about 1.6 acres. From about 1977 to 1996, treated wastewater was discharged to the EOP according to a Pennsylvania Department of Environmental Resources (PADER) Water Quality Management permit. Following cessation of the discharge, the EOP was allowed to naturally dewater.

The EOP SWMU contained lead, antimony and mercury above the upper limit of the typical ranges found in background soil and sulfate was also detected at elevated levels in surface soil samples. Semi-volatile and volatile organics were detected in soils but at levels below EPA Screening Levels. Trichloroethene (TCE), tetrachloroethene (PCE), and 1,1,1-trichloroethane (1,1,1-TCA) were detected in groundwater under the Property in concentrations above the Safe Drinking Water Act's respective Maximum Contaminant Levels (MCLs) in 4 on-site groundwater monitoring wells, there are 2 additional groundwater monitoring wells on site. There are a total of 6 groundwater monitoring wells at the Property related to the EOP SWMU as identified in the 2018 document entitled, "RCRA Post Closure Plan, Eastern Ore Pit SWMU". No contaminants were found in off-site wells above their respective MCLs.

On March 7, 2017, EPA selected a Final Remedy for the Property in a Final Decision and Response to Comments. The Final Remedy consists of a combination of on-site groundwater hydraulic containment/treatment; selective in-situ soil/waste treatment via stabilization; soil/waste excavation and treatment via stabilization; placement of treated soil/waste within the EOP; and covering the unit with a building/asphalt cap. Soil/waste treatment was performed to immobilize lead and prevent leaching into the groundwater. The cap is intended to inhibit exposure and inhibit infiltration. Post-closure groundwater monitoring is used to monitor the groundwater quality following the implementation of the remedial measures.

The EOP bottom sediment was treated and select debris removed prior to filling with treated soil/waste from the clean closure of the on-site former Battery Case Landfill SWMU as the EOP SWMU was designated as a Corrective Action Management Unit (CAMU). To complete filling of the EOP SWMU to the required grade, treated lead impacted soil from Property-related PADEP Act 2 cleanup projects was used. Subsequently, the EOP SWMU was covered with a building/asphalt cap. Groundwater withdrawal from on-site water supply wells (primarily Well #5 and Well #6) provides hydraulic containment of the associated contaminated groundwater. Contaminated groundwater is treated on-site and used at the Property.

The Administrative Record pertaining to the Final Remedy is located or available through EPA, Region III, 1650 Arch Street, Philadelphia, PA 19103.

5. **Activity and Use Limitations**. The Property is subject to the following activity and use limitations, which the then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall abide by:

There are two activity and use limitation areas.

The 153.571-acre Groundwater Engineering Control and Monitoring Area (GECM Area) on the Property, as depicted in Exhibit D (description and location map), may be used only for nonresidential purposes as defined in the Land Recycling and Environmental Remediation Standards Act (Act 2) and regulations thereof. This GECM Area represents the area of the Property that is subject to quarterly groundwater sampling of designated wells, analysis of designated analytes, and every 3 years reporting as detailed in the 2018 document entitled, "RCRA Post Closure Plan, Eastern Ore Pit SWMU". Groundwater use in this GECM Area is prohibited for residential purposes without prior written approval from EPA.

The 2.802-acre Engineering Control Area (Cap Area) is situated within the GECM Area and covers the EOP SMWU as depicted in Exhibit E (description and location map). The Cap Area may be used only for non-residential purposes as defined in the Land Recycling and Environmental Remediation Standards Act (Act 2) and regulations thereof.

6. **Notice of Limitations in Future Conveyances**. Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

7. **Compliance Reporting**. The Cap Area is subject to inspection and reporting requirements in accordance with the RCRA Post Closure Plan, Eastern Ore Pit SWMU. Within the Cap area, maintenance and management of any excavated soil/waste material are to be conducted as detailed in the RCRA Post Closure Plan, Eastern Ore Pit SWMU. Further, by the end of every third January following the agency's approval of

this Environmental Covenant, the then current owner of the Property shall submit to the EPA and any Holder listed in Paragraph 3, written documentation stating whether or not the activity and use limitations in this Environmental Covenant are being abided by. In addition, within 21 days after a) written request by EPA, b) transfer of title of the Property or of any part of the Property affected by this Environmental Covenant, c) noncompliance with paragraph 5 (Activity and Use Limitations), d) an application for a permit or other approval for any building or site work that could affect contamination on any part of the Property, the then current owner will send a report to the EPA and any Holder. The report will state whether or not there is compliance with paragraph 5. If there is noncompliance, the report will state the actions that will be taken to assure compliance.

8. **Access by the EPA**. In addition to any rights already possessed by the EPA, this Environmental Covenant grants to the EPA a right of reasonable access of the Property in connection with implementation or enforcement of this Environmental Covenant.

9. **Recording and Notification of Recording**. Within 30 days after the date of the Agency's approval of this Environmental Covenant, East Penn Manufacturing Co. shall file this Environmental Covenant with the Recorder of Deeds for Berks County in which the Property is located, and send a file-stamped copy of this Environmental Covenant to the Agency within 90 days of the Agency's approval of this Environmental Covenant. Within that time period, East Penn Manufacturing Co. also shall send a file stamped copy to each of the following: Richmond, Maxatawny, and Rockland Townships, Lyons Borough and Berks County; and the PADEP.

10. **Termination or Modification**.

(a) This Environmental Covenant runs with the land unless terminated or modified in accordance with 27 Pa. C.S. § 6509 or 6510, or in accordance with this paragraph. The then current owner of the Properly shall provide EPA written notice of the pendency of any proceeding that could lead to a foreclosure, as referred to in 27 Pa. C.S. § 6509(a)(4), within seven calendar days of the owner's receiving notice of the pendency of such proceeding.

(b) This Environmental Covenant may be amended or terminated as to any portion of the Property that is acquired for use as state highway right-of-way by the Commonwealth of Pennsylvania provided that: (1) the Agency waives the requirements for an environmental covenant and for conversion pursuant to 27 Pa. C.S. § 6517 to the same extent that this Environmental Covenant is amended or terminated; (2) the Agency determines that termination or modification of this Environmental Covenant will not adversely affect human health or the environment; and (3) the Agency provides 30-days advance written notice to the current property owner, each holder, and, as practicable,

each person that originally signed the Environmental Covenant or successors in interest to such persons.

11. **Notification and Enforcement.**

(a) Notification. The then current owner shall provide the EPA and the Department written notice of:

(1) the pendency of any proceeding that could lead to a foreclosure as referred to in 27 Pa. C.S. § 6509(a)(4), within seven calendar days of the owner's receiving notice of the pendency of such proceeding;

(2) any judicial action referred to in 27 Pa. C.S. § 6509(a)(5), within seven calendar days of the owner's receiving notice of such judicial action;

(3) any judicial action referred to in 27 Pa. C.S. § 6509(b), within seven calendar days of the owner's receiving notice of such judicial action; and

(4) termination or amendment of this Environmental Covenant pursuant to 27 Pa. C.S. § 6510, within seven calendar days of the owner's becoming aware of such termination or amendment.

(b) Enforcement.

A civil action for injunctive or other equitable relief for violating this Environmental Covenant may be maintained by the Department or by the Attorney General of the United States, on behalf of EPA. In addition, the Department and EPA reserve their regulatory authorities under any law to enforce the activity and use limitations described in Paragraph 5, above.

12. **Agency and Department's addresses**. Communications with the EPA regarding this Environmental Covenant shall be sent to:

R3_RCRAPOSTREM@epa.gov

Communications with the Department regarding this Environmental Covenant shall be sent to:

Environmental Cleanup Manager
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101

13. **Severability**. The paragraphs of this Environmental Covenant shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

ACKNOWLEDGMENTS , by East Penn Manufacturing Co., Owner, Grantor

Date: 9/7/21 By: Troy A. Greiss
Name: Troy A. Greiss
Title: VP EHS & Regulatory Affairs

COMMONWEALTH OF PENNSYLVANIA)
)
COUNTY OF Berks) SS:

On this 7 day of September, 2021, before me, the undersigned officer, personally appeared T. Greiss who acknowledged himself/~~herself~~ to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Lucille Lindenmuth
Notary Public

Commonwealth of Pennsylvania - Notary Seal
LUCILLE LINDENMUTH - Notary Public
Berks County
My Commission Expires Sep 25, 2024
Commission Number 1244999

Date: 9/7/21 East Penn Manufacturing Co. Holder, Grantee

By: Troy A. Greiss
Name: Troy A. Greiss
Title: VP EHS & Regulatory Affairs

COMMONWEALTH OF PENNSYLVANIA)
)
COUNTY OF Berks) SS:

On this 7 day of September, 2021, before me, the undersigned officer, personally appeared T. Greiss who acknowledged himself/~~herself~~ to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Lucille Lindenmuth
Notary Public

Commonwealth of Pennsylvania - Notary Seal
LUCILLE LINDENMUTH - Notary Public
Berks County
My Commission Expires Sep 25, 2024
Commission Number 1244999

APPROVED, by the United States Environmental Protection Agency

Date: Sep 15, 2021 By: _____

Dana Aunkst
Director, Land, Chemicals and Redevelopment Division
Region III
1650 Arch Street, Philadelphia PA 19103

COMMONWEALTH OF PENNSYLVANIA)
)
COUNTY OF Cumberland) SS:

On this 15 day of September, 2021, before me, the undersigned officer, personally appeared Dana Aunkst, who acknowledged himself/herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Commonwealth of Pennsylvania - Notary Seal
EMELI R FERRERO - Notary Public
Cumberland County
My Commission Expires Aug 6, 2023
Commission Number 1355546

_____
Notary Public

seconds West (N. 4°53'30" W.), a distance of one hundred fifty and four hundredths feet (150.04') to a corner in State Avenue; thence in State Avenue, North eighty-five degrees one minute fifty-two seconds East (N. 85°01'52" E.), a distance of three hundred ninety-two and sixty-two hundredths feet (392.62') to a corner marked by a P.K. Spike; thence along property belonging to 301 S. Kemp St. Lyons, LLC, property belonging to Debra L. Schlegel, property belonging to Kenneth E. Keck, property belonging to Dennis J. Manwiller and Ida E. Manwiller, and property belonging to Richard L. Angstadt and Randy S. Angstadt, passing through a concrete monument at a distance of twenty and eighty-eight hundredths feet (20.88') from the last described corner, South twenty-one degrees forty-seven minutes five seconds East (S. 21°47'05" E.), a distance of seven hundred sixty and twenty-eight hundredths feet (760.28') to a corner marked by a steel pin; thence along property belonging to Stephan M. Haring, crossing the municipal boundary line between Lyons Borough and Maxatawny Township, South forty-seven degrees thirty-one minutes three seconds West (S. 47°31'03" W.), a distance of two hundred one and eighteen hundredths feet (201.18') to a corner marked by a concrete monument; thence along property belonging to Stephan M. Haring, and property belonging to William C. Delong and Carol A. Delong, passing through a steel pin at a distance of five and zero hundredths feet (5.00') from the next described corner, South sixty-six degrees eleven minutes thirty-nine seconds East (S. 66°11'39" E.), a distance of four hundred forty-five and sixty-three hundredths feet (445.63') to a corner; thence along property belonging to Lyons Borough Municipal Authority, the following six (6) courses and distances, viz: (1) passing through a steel pin at a distance of five and zero hundredths feet (5.00') from the last described corner, South six degrees two minutes thirty-six seconds East (S. 06°02'36" E.), a distance of five hundred sixty-three and ninety-seven hundredths feet (563.97') to a corner marked by a concrete monument; (2) North eighty-eight degrees forty-five minutes twenty seconds East (N. 88°45'20" E.), a distance of three hundred fifty-eight and six hundredths feet (358.06') to a corner marked by a concrete monument; (3) North twenty-two degrees forty-four minutes forty-two seconds West (N. 22°44'42" W.), a distance of one hundred sixty-three and forty-six hundredths feet (163.46') to a corner; (4) North twenty-nine degrees fifteen minutes eighteen seconds East (N. 29°15'18" E.), a distance of one hundred seventy-six and fifty hundredths feet (176.50') to a corner marked by a steel pipe; (5) North seventy-six degrees twenty-three minutes forty-two seconds West (N. 76°23'42" W.), a distance of two hundred eighteen and forty-two hundredths feet (218.42') to a corner marked by a steel pin; and (6) North forty-nine degrees eleven minutes forty-two seconds West (N. 49°11'42" W.), a distance of three hundred one and thirty-seven hundredths feet (301.37') to a corner marked by a steel pin; thence along property belonging to William C. Delong and Carol A. Delong, North twenty-three degrees fifty minutes sixteen seconds East (N. 23°50'16" E.), a distance of two hundred three and zero hundredths feet (203.00') to a corner marked by a steel pin; thence along the same, North thirty-seven degrees ten minutes twenty-six seconds East (N. 37°10'26"E), a distance of twenty-eight and twenty-six hundredths feet (28.26') to a corner in Lyons Road; thence in Lyons Road, South fifty-eight degrees fifty-two minutes nineteen seconds East (N. 58°52'19" E.), a distance of six hundred thirty-seven and ninety-two hundredths feet (637.92') to a corner; thence leaving Lyons Road and along property belonging to Arlan Schwoyer and Donna M. Schwoyer, North fifteen degrees nine minutes twelve seconds West (N. 15°09'12" W.), a distance of five hundred seventy-four and sixty-eight hundredths feet (574.68') to a corner marked by a steel pin; thence along property belonging to Lyons Borough Municipal Authority and property belonging to Lyons Fire Company No. 1, North seventy-five degrees twenty-four minutes fifty-six seconds East (N. 75°24'56" E.), a distance of one thousand one hundred thirteen and eighty-four hundredths feet (1113.84') to a corner marked by a steel pipe; thence along property belonging to Lyons Fire Company No. 1, South sixteen degrees two minutes fifty-four seconds East (S. 16°02'54" E.), a distance of one thousand forty-five and sixty-three hundredths feet (1045.63') to a corner marked by a steel pipe; thence along the same, North sixty-nine degrees twenty-four minutes forty-six seconds East (N. 69°24'46" E.), a distance of eight hundred eighty-two and sixty-one hundredths feet (882.61') to a corner marked by a steel pipe; thence along property belonging to Peggy L. Clare and Robert S. Weaver, property belonging to Todd P. Robinson, and property belonging to William Messersmith and Linda Baker, passing through a steel pin at

viz: (1) passing through a concrete monument twenty-two and zero hundredths feet (22.00') from the last described corner, North thirty-six degrees thirty minutes forty-nine seconds East (N. 36°30'49" E.), a distance of forty-seven and thirty-one hundredths feet (47.31') to a corner marked by a concrete monument; (2) North fifteen degrees thirty-four minutes forty-four seconds West (N. 15°34'44" W.), a distance of one hundred ninety-one and four hundredths feet (191.04') to a corner marked by a concrete monument; (3) North twenty degrees forty minutes nineteen seconds West (N. 20°40'19" W.), a distance of sixty-four and zero hundredths feet (64.00') to a corner marked by a concrete monument; (4) North twenty-six degrees twenty-three minutes twenty-four seconds West (N. 26°23'24" W.), a distance of fifty-seven and twenty-nine hundredths feet (57.29') to a corner marked by a concrete monument; (5) North thirty-four degrees forty-nine minutes fifty-six seconds West (N. 34°49'56" W.), a distance of one hundred seven and thirty-eight hundredths feet (107.38') to a corner marked by a concrete monument; and (6) South seventy-one degrees thirty-seven minutes eight seconds West (S. 71°37'08" W.), a distance of twenty-four and twenty-six hundredths feet (24.26') to a corner in Deka Road; thence in Deka Road, along property belonging to David W. Bitler, Phoebe R. Bitler and Jesse R. Bitler, the following three (3) courses and distances, viz: (1) North eighteen degrees twenty-two minutes fifty-two seconds West (N. 18°22'52" W.), a distance of one hundred twenty-four and sixty-four hundredths feet (124.64') to a corner; (2) by a curve deflecting to the right, having a radius of seventy and zero hundredths feet (70.00'), an arc length of eighty-seven and twenty-one hundredths feet (87.21'), a delta angle of seventy-one degrees twenty-two minutes forty-eight seconds (71°22'48"), and a chord bearing and distance of North seventeen degrees eighteen minutes thirty-two seconds East (N. 17°18'32" E.) eighty-one and sixty-eight hundredths feet (81.68') to a corner; and (3) North fifty-two degrees fifty-nine minutes fifty-six seconds East (N. 52°59'56" E.), a distance of eighty-eight and sixty-four hundredths feet (88.64') to a corner marked by a P.K. spike; thence leaving Deka Road along property belonging to David W. Bitler, Phoebe R. Bitler and Jesse R. Bitler, the following (3) courses and distances, viz: (1) passing through a steel pin twenty and zero hundredths feet (20.00') from the last described corner, North eighteen degrees eleven minutes fifty-five seconds West (N. 18°11'55" W.), a distance of one thousand thirty-six and fifty-two hundredths feet (1,036.52') to a corner marked by a steel pin; (2) South sixty-one degrees thirty-five minutes five seconds West (S. 61°35'05" W.), a distance of nine hundred twenty-two and one hundredth feet (922.01') to a corner marked by a steel pin; and (3) crossing property belonging to Pennsylvania Lines LLC, passing through a steel pin one hundred thirty-eight and fifty-four hundredths feet (138.54') from the next described corner, North twenty-six degrees fifty-two minutes fifty-five seconds West (N. 26°52'55" W.), a distance of nine hundred eighty-three and eighty-nine hundredths feet (983.89') to a corner; thence along property belonging to Michael N. Burkholder and Melissa B. Burkholder and re-crossing property belonging to Pennsylvania Lines LLC, North sixty-three degrees fifty-seven minutes nine seconds East (N. 63°57'09" E.), a distance of two thousand one hundred eight and thirty-eight hundredths feet (2108.38') to a corner marked by a steel pin; thence along property belonging to Michael N. Burkholder and Melissa B. Burkholder and property belonging to Melvin J. and Mildred L. Burkholder, North fifteen degrees fifty-two minutes forty-two seconds West (N. 15°52'42" W.), a distance of eight hundred three and sixty-one hundredths feet (803.61') to THE PLACE OF BEGINNING.

CONTAINING IN AREA five hundred nineteen and forty-nine hundredths acres (526.20 Acres) of land.

BEING THE SAME PROPERTY WHICH Walter H. Heffner and Mary H. Heffner, his wife, by Deed dated December 15, 1975, and recorded in Deed Book Volume 1682, Page 0972, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

SSM

ALSO BEING THE SAME PROPERTY WHICH Clarence Heffner, by Deed dated June 11, 2001, and recorded in Instrument Number 201032536, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH the Greater Berks Development Fund, by Deed dated March 13, 2002, and recorded in Instrument Number 2002076125, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH Russell Angstadt, Donald M. Angstadt and Elda Ritz, Co-Executors under the Last Will and Testament of Beulah H. Angstadt, by Deed dated June 7, 1976, and recorded in Deed Book Volume 1692 Page 115, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH Harvene E. Heffner, by Deed dated December, 21, 2006, and recorded in Record Book Volume 5041 Page 2364, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Inc.

ALSO BEING THE SAME PROPERTY WHICH Harvey H. Silfies and Virginia M. Silfies, his wife, by Deed dated December 15, 1970, and recorded in Deed Book Volume 1578 Page 0476, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Company, Inc.

ALSO BEING THE SAME PROPERTY WHICH the Greater Berks Development Fund, by Deed dated April 29, 2016, and recorded in Instrument Number 2016014180, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH the Greater Berks Development Fund, by Deed dated March 31, 2005, and recorded in Record Book Volume 4560 Page 1211, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH Roy D. Adams, by Deed dated August27, 1997, and recorded in Record Book Volume 2861, Page 2009, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co., Inc.

ALSO BEING THE SAME PROPERTY WHICH Stephen J. Nichols and Betty E. Nichols, husband and wife, by Deed dated October 20, 2011, and recorded in Instrument Number 2011039363, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto SM&TD Real Estate, LLC.

ALSO BEING THE SAME PROPERTY WHICH Saucony Creek, LLC., a Pa. Limited Partnership, by Deed Dated September 18, 2015, and recorded in Instrument Number 2015032947, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto SM&TD Real Estate, LLC.

ALSO BEING THE SAME PROPERTY WHICH Stephen J. Nichols and Betty E. Nichols, husband and wife, by Deed dated October 12, 2012, and recorded in Instrument Number 2012043082, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto SM&TD Real Estate, LLC.

ALSO BEING THE SAME PROPERTY WHICH Helen S. Breidegam, by Deed dated June 20, 2016, and recorded in Instrument Number 2016020929, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto SM&TD Real Estate, LLC.

SSM

ALSO BEING THE SAME PROPERTY WHICH Metropolitan Edison Company, by Deed dated November 20, 1979, and recorded in Deed Book Volume 1772 Page 1079, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH East Penn Manufacturing Co., by Deed dated May 28, 1987, and recorded in Record Book Volume 1944 Page 0893, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto the Greater Berks Development Fund.

ALSO BEING THE SAME PROPERTY WHICH the Metropolitan Edison Company, by Deed dated December 22, 1975, and recorded in Record Book Volume 1683 Page 0264, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH the Greater Berks Development Fund, by Deed dated November 7, 2001, and recorded in deed Book Volume 3426, Page 1884, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co., Inc.

ALSO BEING THE SAME PROPERTY WHICH David J. Miller and Martha M. Miller, his wife, by Deed dated May 28, 1966, and recorded in Deed Book Volume 1487, Page 0889, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Company, Inc.

ALSO BEING THE SAME PROPERTY WHICH James F. Heffer, widower, by Deed dated March 31, 1976, and recorded in Deed Book Volume 1687 Page 1168, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH the Greater Berks Development Fund, by Deed dated January 30, 2007, and recorded in Record Book Volume 5067 Page 2206, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co.

ALSO BEING THE SAME PROPERTY WHICH Gerhard Spory and Patricia L. Spory, by Deed dated February 13, 2019, and recorded in Instrument Number 2019004502, Berks County Records, at Reading, Pennsylvania, granted and conveyed unto East Penn Manufacturing Co., Inc.

EXCEPTING from the above-described property all that certain parcel or strip of land situate in Richmond Township and Lyons Borough, County of Berks, Pennsylvania, conveyed unto Pennsylvania Lines LLC, as recorded in Berks County Records as Deed Book Volume 3129, Page 1889.

ALSO EXCEPTING from the above-described property all that certain parcel or strip of land known as Public Right of Way S.R. 1010 (State Avenue).

TRACT NO. 2

BEGINNING at a corner marked by a steel pin on the West side of North Kemp Street, thence along North Kemp Street, South twenty-five degrees fifty-six minutes forty-seven seconds East (S. 25°56'47" E.), a distance of forty and zero hundredths feet (40.00') to a corner; thence along the same, South twenty-three degrees thirty-eight minutes twenty seconds East (S. 23°38'20" E.), a distance of forty-three and sixty-nine hundredths feet (43.69') to a corner; thence along property belonging to Pennsylvania Lines, LLC. The following three (3) courses and distances, viz: (1) South sixty-four degrees three minutes thirteen seconds West (S. 64°03'13" W.), a distance of seven hundred twelve and eighty-eight hundredths feet (712.88') to a

Line Table		
Line	Bearing	Length
L1	N 25°56'47" W	69.56'
L2	N 64°03'13" E	959.64'
L3	S 25°56'47" E	40.00'
L4	S 23°38'20" E	43.69'
L5	S 64°03'13" W	712.88'
L6	N 25°56'47" W	18.95'
L7	S 13°43'48" E	33.76'
L8	S 25°54'35" E	170.00'
L9	N 64°05'25" E	60.00'
L10	S 25°54'35" E	150.45'
L11	S 25°47'35" E	50.00'
L12	N 64°12'25" E	13.15'
L13	S 14°54'00" E	51.24'
L14	N 76°15'53" E	203.00'
L15	S 13°44'07" E	154.28'
L16	S 85°15'53" W	374.64'
L17	N 13°48'55" W	13.44'
L18	N 41°57'15" W	6.40'
L19	S 86°42'20" W	46.00'
L20	N 87°59'12" W	115.86'

Line Table		
Line	Bearing	Length
L21	S 13°14'58" E	97.90'
L22	N 86°46'23" E	452.88'
L23	N 86°46'14" E	62.15'
L24	N 45°27'13" W	20.96'
L25	N 85°02'47" E	100.00'
L26	S 45°27'13" E	150.00'
L27	N 45°33'30" W	150.04'
L28	N 85°01'52" E	392.62'
L29	S 47°31'03" W	201.18'
L30	S 66°11'39" E	445.63'
L31	S 6°02'36" E	563.97'
L32	N 88°45'20" E	358.06'
L33	N 22°44'42" W	163.46'
L34	N 29°15'18" E	178.50'
L35	N 76°23'42" W	218.42'
L36	N 49°11'42" W	301.37'
L37	N 23°06'16" E	203.00'
L38	N 37°10'26" E	28.26'
L39	N 60°10'34" W	309.31'
L40	N 51°11'04" W	53.69'

Line Table		
Line	Bearing	Length
L41	S 62°28'11" W	22.57'
L42	N 55°08'24" W	51.99'
L43	N 57°07'04" W	50.64'
L44	N 58°49'04" W	150.00'
L45	N 66°32'56" E	200.00'
L46	S 33°35'04" E	233.76'
L47	N 62°28'56" E	282.71'
L48	S 51°25'51" E	65.86'
L49	S 62°14'14" W	336.20'
L50	S 33°49'46" E	406.67'
L51	N 70°41'14" E	114.35'
L52	S 17°58'16" E	300.08'
L53	N 70°41'14" E	275.08'
L54	S 15°55'11" E	106.19'
L55	S 70°41'14" W	275.19'
L56	S 17°58'16" E	300.08'
L57	S 70°15'34" W	461.42'
L58	S 15°39'11" E	204.47'
L59	S 55°58'58" W	208.30'
L60	N 15°41'11" W	527.10'

Line Table		
Line	Bearing	Length
L61	S 74°10'36" W	82.52'
L62	S 14°07'02" E	559.76'
L63	S 55°58'58" W	90.82'
L64	N 14°03'02" W	588.13'
L65	S 74°33'10" W	156.79'
L66	S 14°03'02" E	641.25'
L67	N 54°35'00" E	57.75'
L68	S 57°22'50" W	404.55'
L69	S 27°40'35" E	100.34'
L70	S 55°01'10" W	387.30'
L71	N 33°15'40" W	26.84'
L72	N 55°01'08" E	329.12'
L73	N 29°06'10" W	134.37'
L74	S 58°30'50" W	323.43'
L75	N 30°16'50" W	50.01'
L76	N 58°30'50" E	324.46'
L77	N 29°06'10" W	134.20'
L78	S 54°35'00" W	268.58'
L79	S 63°46'50" E	196.45'
L80	S 69°20'06" E	302.62'

Line Table		
Line	Bearing	Length
L81	S 27°26" E	88.38'
L82	S 87°32'52" W	138.72'
L83	S 53°01'12" W	174.93'
L84	S 69°24'38" E	486.76'
L85	N 51°32'28" W	6.26'
L86	N 50°03'54" E	148.50'
L87	N 27°27'42" E	99.00'
L88	N 48°24'22" W	115.36'
L89	N 41°38'39" W	128.20'
L90	N 47°30'36" W	267.41'
L91	N 53°29'11" W	11.28'
L92	N 53°29'11" W	100.00'
L93	N 36°30'49" E	47.31'
L94	N 15°34'44" W	191.04'
L95	N 20°40'19" W	64.00'
L96	N 26°23'24" W	57.29'
L97	N 34°49'56" W	107.38'
L98	S 71°37'08" W	24.26'
L99	N 18°22'52" W	124.64'
L100	N 52°59'56" E	88.64'

Curve Table				
Curve	Radius	Length	Delta Angle	Ch. Dist.	Ch. Bearing
C1	11434.19'	111.51'	0°33'32"	111.51'	N 86°25'34" E
C2	11484.19'	308.49'	1°32'21"	308.48'	N 86°00'04" E
C3	1405.00'	84.60'	3°27'00"	84.59'	N 50°18'10" W
C4	23.00'	34.76'	86°36'10"	31.55'	N 27°23'09" E
C5	23.00'	37.49'	93°23'50"	33.48'	N 62°36'51" W
C6	588.37'	88.91'	8°39'29"	88.83'	N 75°21'42" W
C7	506.00'	57.83'	6°32'54"	57.80'	N 74°18'24" W
C8	200.00'	23.60'	6°45'43"	23.59'	N 45°01'31" W
C9	200.00'	20.48'	5°51'57"	20.47'	N 44°34'38" W
C10	1086.00'	113.28'	5°58'35"	113.23'	N 50°29'54" W
C11	70.00'	87.21'	71°22'48"	81.68'	N 17°18'32" E

TRACT NO. 1 — 526.20 ACRES
TRACT NO. 2 — 1.75 ACRES
TOTAL AREA — 527.95 ACRES

GRAPHIC SCALE
200' 100' 0' 200' 400'

Exhibit B

EAST PENN MANUFACTURING CO.	
P.O. BOX 147, DEKA ROAD, LYON STATION, PA 19563-0147	
PROPERTY PARCEL MAP	
LYONS BOROUGH, RICHMOND TWP. AND MAXATAWNY TWP.	
BERKS COUTY, PENNSYLVANIA	
COPYRIGHT 2018 SPOTTS, STEVENS & MCCOY	
DATE	3/23/2018
DRAWING FILENAME	101083.0033 V-1-01
WORK ORDER NUMBER	101083.0033
DRAWING NUMBER	V.1-01

SSM — SPOTTS, STEVENS & MCCOY — Engineers and Consultants — ssmgroup.com

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F: 610.621.2001

RELEASED FOR:						
FINAL						
NOT FOR CONSTRUCTION						
PROJECT MANAGER:	DATE: 3/23/2018					
BASE BY: SSM	N.B.:					
DRAWN BY: KH	DESIGNED BY:	CHKD: DAF				
NO.	DATE	DESCRIPTION	KH MADE	SZ CHKD	SZ APVD	
1	4/29/19	ADD AQUIRED PARCEL				

Exhibit C

RCRA Post Closure Plan
Eastern Ore Pit SWMU

EAST PENN
MANUFACTURING CO.
Deka Road Facility

Prepared for:

East Penn Manufacturing Co.
Deka Road
Lyon Station, PA 19536

Prepared by:

AECOM Technical Services, Inc.
100 Sterling Parkway
Suite 205
Mechanicsburg, PA 17050

October 2018

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POST CLOSURE PLAN

East Penn Manufacturing Co. (East Penn) of Lyon Station, Pennsylvania, manufactures lead-acid storage batteries and operates a secondary lead smelter as part of its Deka Road operations. The East Penn facility consists of about 526 acres located partially within and southwest of the Borough of Lyons, and in Richmond, Maxatawny, and Rockland Townships, Berks County, Pennsylvania (see Figure 1). The plant is situated in a predominantly rural setting marked by isolated farms, homes, and a few small population centers, and is bordered primarily by agricultural land.

To date, completed corrective action work includes the excavation and treatment of the former Battery Case Landfill Solid Waste Management Unit (BCL SWMU), limited excavation of like soil/waste materials from around the former Central Ore Pit (COP), removal and processing of selected debris in the Eastern Ore Pit Solid Waste Management Unit (EOP SWMU), stabilization of the EOP SWMU bottom sediments, and placement of treated soil/waste from these areas into the EOP SWMU. Consistent with approved corrective action work, additional contaminated soil has been excavated and treated as part of the PADEP Act 2 voluntary cleanup program and has been placed in the EOP SWMU to the appropriate final fill grade. Treatment of the soil/waste materials involved excavation, material sizing where appropriate, and ex-situ and in-situ chemical fixation using EnviroBlend, a commercially available phosphate treatment reagent. Construction of the EOP SWMU building/cap began late 2010 and was completed in early 2012.

This Plan has been prepared by AECOM Technical Services, Inc. (AECOM) as part of the closure requirements related to the Corrective Action Permit Modification (Permit # PAD 00 233 0165) for Corrective Measures Implementation (CMI) issued by the United States Environmental Protection Agency (EPA), Region III to East Penn. The original Permit Modification became effective December 14, 2001 and was renewed in December 2011. The Plan provides details regarding Post-Closure activities at East Penn's Deka Road facility located in Lyon Station, Pennsylvania.

The Plan specifically details groundwater monitoring, inspections and maintenance of the building/cap that constitutes the cover over the EOP SWMU as well as a soil/waste management should intrusive activities be needed within the limit of the EOP SWMU. Also included is an annual cost estimate (in 2017 dollars) to perform the groundwater monitoring, inspections and maintenance of the building/cap. A proposed post closure groundwater monitoring, inspections and maintenance period of 15 years is proposed. The required associated environmental covenant that provides details regarding use limitations related to the EOP SWMU is also included.

Implementation of this Plan will be the responsibility of East Penn. The environmental group contact will be Mr. Eric Peffel, Ms. Linda Koch or a designated alternate.

Mr. Eric Peffel
Manager of Air Quality and Solid Waste Programs
East Penn Manufacturing Co.
Deka Road
Lyon Station, PA 19536
Phone: 610-682-6361 x2498
Fax. 610-682-1650

Ms. Linda Koch
Senior Environmental Specialist
East Penn Manufacturing Co.
Deka Road
Lyon Station, PA 19536
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measurements taken in the designated monitoring wells will be recorded prior to well purging activities.

1.3.2.2 Area Measurements

Independent of the groundwater sampling effort, synoptic groundwater levels, in the area of the facility property, will be collected using an electric drop-line or pressure transducer device (on-site water supply wells have been equipped with pressure transducer water level measurement devices) in all appropriate on-site monitoring wells, pumping wells, and selected public and private wells in close proximity to the site. Up to a total of 31 wells may be accessible for groundwater level measurements. Water level measurements will be collected quarterly and will provide information for completion of groundwater potentiometric contours maps in the area of the facility property and an understanding of groundwater flow.

1.3.3 Well Purging and Sampling

1.3.3.1 Purging and Sampling Equipment

On-site water supply Well No. 5, No. 9, and No. 10 will not be purged because these wells are in use and purging is not needed. An untreated groundwater sample will be obtained from each well at a sample port located in each pump house building. This port is purged prior to sampling to minimize collection of any stagnant rusty water that may have accumulated in the sample port.

To accomplish well purging and sample collection in the monitoring wells, a dedicated variable speed purging and sampling pump was installed into each monitoring well. This type of system is well documented and accepted by the EPA because it maximizes the chance of collecting a sample representative of actual groundwater quality by avoiding possible cross contamination and water column disturbance that can be associated with portable non-dedicated purging and sampling equipment. The selected dedicated equipment is also capable of low flow rates that are required for low-flow groundwater sampling, again minimizing sample turbulence.

Redi-flo2 (Grundfos® brand), two-inch (2") diameter, stainless steel, pumps have been installed into each of the five (5) monitoring wells to be sampled. The Redi-flo2 pumps are electric powered, positive displacement pumps that are capable of operating at varying flow rates. The flow rate of the Redi-flo2 pump is manually controlled by a Redi-flo, Variable Frequency Drive, 115 Volt, converter that is connected to the pump during operation. The voltage converter adjusts the voltage frequency to control the speed of the pump. The voltage frequency ranges from a minimum of 46 Hertz to a maximum of 400 Hertz. Specifications for the Grundfos® Redi-flo2 pump are included in Appendix A.

The Redi-flo2 pumps are each attached to ¾-inch diameter, cross-linked, polyethylene tubing to convey water from the pump to the surface. A Teflon coated power lead is used to convey electrical power to the pump. Both the wire and tubing are attached to a stainless-steel well cap that fits to the top of the inner well casing. Watertight tubing and wire connector, and a port for water level probe access, are located on the top of each cap. The well cap is specifically made by Grundfos for this equipment. Specifications for the Grundfos® Redi-flo2 well seals are included in Appendix A.

Each pump depth is either set at the center of the screened well section, saturated column (if static water level is below well screen), or at a depth corresponding to a preferential flow zone (i.e. water producing fracture). Table 1 shows well construction information for each well included in the monitoring well network, indicates depth to fractures (if any) that have been identified in the well, and indicates the depth of pump placement. Monitoring well construction

logs for each monitoring well are included in Appendix B. A construction log is not available for water supply Well No. 5.

1.3.3.2 Purging Techniques

Trained technicians will perform the field purging procedures. Using the dedicated Redi-flo2 pumps, groundwater purging will be performed in accordance with PADEP Groundwater Monitoring Guidance Manual (Document Number 383-3000-001 December 1, 2001) as well as the EPA Groundwater Issue entitled, *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (Document Number EPA/540/S-95/504 April 1996). The purging process is designed to remove possible stagnant water from the well bore, assuring that the sample is as representative of groundwater within the formation. Stagnant water in a well bore can be differentiated from formation water by evaluating the following parameters: temperature, pH, specific conductance, and dissolved oxygen (DO).

After recording the static groundwater level on the appropriate field form and/or in a field book, purging will be started at a low flow rate (approximately 1 gal/min) while concurrently monitoring the water level in the well. The pumping rate will gradually be increased as long as there is no appreciable water level drawdown. The purging process has been designed to maintain a steady groundwater flow rate and induce little, if any drawdown in the well. If the static water level is above the top of the slotted well screen, purging will be completed without lowering the water level below the top of the slotted well screen. Additionally, if the static water level lies within the slotted well screen, the water level during purging will never be allowed to drop below a water bearing fracture. This practice avoids or minimizes cascading and turbulence of the groundwater within the well. Water removed from monitoring well EP-8 will be treated with a portable granular activated carbon unit prior to discharge to the ground. This well exhibits elevated levels of volatile organic compounds (VOCs). Groundwater removed from the remaining wells will be discharged directly to the ground in the vicinity of each respective monitoring well.

Once the pump is started, the flow rate, water level, and field parameters will be monitored and recorded on a data sheet every five (5) minutes during the purging process. Flow measurements will be calculated utilizing a stopwatch and a graduated cylinder or a container of known volume. Field measurements will be obtained using a calibrated multi-function water quality meter that uses a flow-through cell. Polyethylene tubing, dedicated to each well, will be used to connect the well cap to an inlet fitting on the flow-through cell of the meter. The meter continuously monitors and displays pH, specific conductivity, temperature and DO values. The purging process will continue until the groundwater parameters have stabilized and at least three (3) well volumes have been removed. Each well volume will be calculated using the diameter of the inner well casing. Stabilization is achieved when three (3) consecutive readings are within +/- 0.1 for pH, +/- 3% for conductivity and +/- 10% for DO. Temperature (+/- 3%) will also be recorded but will not be considered a key indicator parameter for stabilization purposes. PADEP encourages purging methods that have scientific basis, such as the stabilization of indicator parameters.

1.3.3.3 Sampling Procedures

As previously stated, on-site water supply Wells No. 5, No. 9, and No. 10 will not be purged because these well are in use and purging is not needed. An untreated groundwater sample will be obtained from each well from a groundwater sampling port located in each pump house building.

2.0 QUALITY ASSURANCE PROJECT PLAN

This section describes the Quality Assurance/Quality Control procedures that will be implemented during this work to ensure that data generated will be of sufficient quality to determine specific constituents of interest in groundwater at East Penn. This section also includes types and number field quality control samples that will be used to ensure data quality.

2.1 General Project Objectives

The proposed Post Closure Groundwater Monitoring will be used to meet the objective described in Section 1.1. The proposed Technical Program requires performing on-site groundwater sampling. The objective of the groundwater sampling is to collect and analyze groundwater samples to determine groundwater quality in the area of the EOP SWMU. The following analytical parameters will be analyzed at the EOP SWMU, using the EPA methods noted below.

Parameters	***EPA Method***
Purgeable Halocarbons (VOCs)	8260B
Sulfate	300.0
Total Dissolved Solids	SM20 2540 C
Total Suspended Solids	SM20 2540 D
Cadmium	6020
Iron	6020
Lead	6020
Manganese	6020
Nickel	6020
Zinc	6020

2.2 Project Organization

The project organization for quality assurance during the investigation is discussed below. Responsibilities of each key project person are as follows:

Project Manager: (Mr. Tracy Seibert, AECOM, 717-790-3432) The Project Manager's responsibilities include selection and control of subcontractors, review of all project data, scheduling of activities, authorization of revisions to the Work Plan and the QA Plan, and correspondence with East Penn.

Quality Assurance: Quality Assurance is a responsibility of all AECOM managers having project responsibilities during this investigation. These persons conduct routine audits of procedures and documentation. Project Managers are responsible for control and archiving of all documentation (logbooks, notebooks, data sheets, etc.) generated during the field investigation.

Laboratory QC Officer: (Eurofins Lancaster Laboratories Environmental, LLC QC Officer: 717-656-2300) The Laboratory QC Officer is responsible for maintaining the laboratory Quality

Control program. The Laboratory QC Officer maintains laboratory standards and trace ability documentation and performs analytical data package validation. The Laboratory QC Officer reports to the Project Chemist and Project Manager but also has direct reporting responsibility internally to his Quality Assurance Manager.

Sample Custodian: The Sample Custodian is the specific individual employed by the corresponding laboratory to be responsible for issuance of sampling kits to the Field Coordinator and for inspection and login of incoming samples and control of sample storage.

Field Coordinator: The Field Coordinator (AECOM) is responsible for the coordination and effective use of all personnel on site and will maintain a general log of activities. This person will also be responsible for the issuance and tracking of measurement and test equipment and will be responsible for the proper labeling, handling, storage, shipping, and chain-of-custody procedures used at the time of sampling.

Sampling Technicians: The sampling technician's responsibilities include collecting water samples; conducting various field measurements; and maintaining equipment cleanliness; all according to documented procedures stated in the Work Plan. Sampling personnel will also be responsible for maintaining proper decontamination procedures.

2.3 Quality Assurance Objectives

This Quality Assurance program addresses both field and laboratory activities. The measurement of quality for this application includes precision, accuracy, representativeness, completeness, and comparability (PARCC parameters), that are established to ensure that the data collected are sufficient and of adequate quality for their intended uses. Data collected and analyzed in conformance with the QA process described in this plan will be used in assessing decisions related to this site.

2.3.1 Precision

Precision and accuracy are two (2) parameters used in determining the reliability and usefulness of data. Precision is defined as the level of agreement among replicate measurements of the same characteristic. Sampling precision will be evaluated through analysis of duplicate samples (field duplicate). Analytical precision will be evaluated using results from laboratory duplicate samples. Precision will be expressed as the relative percent difference (% RPD)

$$\%RPD = 100 \text{ X } 2 \, (X_1 - X_2 / X_1 + X_2)$$

Where X_1 and X_2 are reported concentrations for each duplicate sample and subtracted differences represent absolute values.

2.3.2 Accuracy

Accuracy refers to the difference between the measured and the true value of the parameter being measured. Accuracy will be evaluated by analyzing laboratory spikes and laboratory quality control samples. Accuracy is assessed through the use of known QC samples and matrix spikes and will be expressed as percent recovery. Percent recovery is defined as:

$$\%R = \frac{(SSR - SR)}{SA}$$

Where %R = Percent Recovery SSR = Spiked Sample Result
SR = Sample Result SA = Spike Added

2.3.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter that is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by logical selection of sampling locations and collection of a sufficient number of samples.

2.3.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Sample data should be comparable with other measurement data for similar samples and sample conditions. This goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units. Comparability is related to the other QC parameters because only when precision and accuracy are known can data sets be compared with confidence. To ensure comparability of data, all analyses will be performed using current US EPA SW-846 Procedures.

2.3.5 Completeness

The goal of completeness will be to generate the maximum possible amount of valid data. Completeness will be determined using the following relationship:

$$\frac{\text{Number of valid measurements}}{\text{Total number of measurements}} \times 100\%$$

2.4 Data Quality Objectives and Levels

To generate data that will meet the project objectives, it is necessary to define the types of decisions that will be made, identify the intended use of the data, and design a data collection program. Data Quality Objectives (DQO) are defined as an integrated set of thought processes that define data quality requirements based on the intended use of the data. Definitive data will be used for this project in the interpretation of the data. Definitive data are generated using rigorous analytical methods, and include the following elements:

- Sample Documentation
- Chain of Custody
- Sample location approach
- Calibration of instruments
- Determination and documentation of detection limits
- Analyte identification and quantitation
- QC blanks (method, equipment)
- Matrix spike recoveries
- Analytical error determination

The data quality levels for the specific project objectives are presented in Table 2. As summarized in Table 3, the DQO's for the precision and accuracy will be per the referenced analytical method. The DQO for completeness will be 95%.

2.5 Sampling Procedures

Samples will be collected following the procedures presented in Section 1.0.

2.6 Sample Custody Protocol

A Chain-of-Custody record will be made at the time of sample collection and will accompany the sample to the laboratory. The Chain-of-Custody will be signed and dated by all people who retained custody of the sample. The matrix, number and type of sample containers, analysis required, preservative, and names of samplers will be recorded on the Chain-of-Custody form. Other components of sample custody include field logbooks and/or appropriate field sheets, sample seals, and sample analysis request sheets.

All information pertinent to sample collection and field measurements will be recorded in a bound field logbook and/or field sampling sheets. At a minimum, entries will include the following:

- Name and address of project,
- Name of sampler,
- Sampling location,
- Sample type (e.g., soil, sediment, water),
- Date and time of sampling event, and
- Number and volume of samples taken.

Each sample container will be labeled (with indelible ink) with the sample identification, date and time of sampling, preservatives (if any), analysis requested, and sampler initials. Labels will be affixed to sample containers prior to or at the time of sampling.

2.7 Sample Containers, Preservation and Storage

The laboratory will supply the sample containers. The appropriate preservatives will be added to the containers by the laboratory prior to shipment or laboratory courier pickup. Table 4 summarizes the required sample containers, preservation and storage requirements for groundwater samples collected at the site.

2.8 Sample Packing and Shipping

A laboratory courier or commercial shipping company may be used to transport samples to the laboratory. Samples will be packed for shipping in waterproof ice chests and coolers. The sample containers may be individually sealed in Ziploc or other similar plastic bags, prior to packing them in the cooler with bubble wrap or Styrofoam packing. Wet ice sealed in plastic bags (to inhibit cross contamination of sample by meltwater) is placed with the samples in the cooler to maintain the samples at a temperature of 4 degrees Celsius (± 2 degrees Celsius) during shipping.

The Chain-of-Custody form that identifies the samples will be signed as "relinquished" by the principal sampler or responsible party. Requested analyses for each identified sample are also indicated on the Chain-of-Custody form. This form is sealed in a waterproof plastic bag and is placed inside the cooler, typically by taping the bag to the inside lid of the cooler.

Following packing, the cooler lid is sealed with strapping tape and a custody seal is attached (only if shipped) across the tape, lid and side of the container. The label for shipping is also sealed with clear tape. Sample seals are used to detect unauthorized tampering of samples following sample collection. Seals are placed on the shipping container and will contain the initials of the samplers and sampling date. The seal is attached in such a way that it is necessary to break it in order to open the sample shipping container. These seals are affixed to

(MDLs), which represent the lowest level routinely achieved by the laboratory in aqueous samples. For this effort, the laboratory will report all positive results that are less than the PQL but greater than the MDL, in addition to those positive results that are greater than or equal to the PQL.

2.12 Analytical Data Validation

Proper data reduction, reporting, and validation procedures will be employed. A Level III validation (Data Quality Review) will be performed on analytical results associated with the groundwater sampling efforts at the EOP SWMU. This Data Quality Review will include evaluation of associated blank samples, surrogate recoveries, laboratory control sample results, matrix spike/matrix spike duplicate results and sample holding times.

2.13 Internal Quality Control

This section addresses QC procedures associated with analytical efforts.

2.13.1 Laboratory Quality Control Sample

The Laboratory Quality Control samples to be analyzed for this effort are as follows:

- Method Blank: One (1) per analytical batch
- Matrix Spike/Matrix Spike Duplicate: One set per 20 environmental samples
- Laboratory QC sample, control and/or reference sample: One (1) per analytical batch
- Surrogate spikes will be added to all samples undergoing VOC analyses.

The analytical batch is defined as samples that are analyzed together using the same method reagent lots. These samples are analyzed within the same time period or in continuous sequential time periods.

2.13.2 Field Quality Control Samples

The Field Quality Control samples to be analyzed for this effort are as follows:

- Field Duplicates: One (1) per sampling event
- Equipment Blanks: Not needed unless non-dedicated sampling equipment is used
- Trip Blanks: One (1) per sample shipment containing VOC samples

2.14 Performance and System Audits

The AECOM Project Manager's review of field notes and discussions with field team members will verify that field activities are being performed according to this document.

2.15 Corrective Action for Measurements Systems

When a problem situation arises regarding any significant impediment to the progress of the activities detailed in this Work Plan, corrective action will be implemented to identify the problem and its source. Appropriate documentation of this action will be recorded in the project file.

Personnel responsible for the initiation and approval of corrective action will be the laboratory QA Officer (for corrective action at the laboratory) and the Project Manager for corrective actions identified during field activities.

2.15.1 Laboratory Corrective Action and Response

When the analysis of any sample indicates the system/process may be out of control, a QC check sample is analyzed. If the analysis of the check sample indicates a problem, the Group

TABLE 7
PRACTICAL QUANTITATION LIMITS (PQLs)
WET CHEMISTRY PARAMETERS

Constituent	PQL (mg/l)	MDL (mg/l)	EPA Method
Sulfate	5	1.5	300.0
Total Dissolved Solids	30	9.7	SM20 2540 C
Total Suspended Solids	3	1	SM20 2540 D

PQL = Practical Quantitation Limit represents the normally obtainable measurement level achieved by the laboratory under practical and routine laboratory conditions for a variety of sample matrices. Sample-specific reporting limits may vary from the standard PQL as a result of sample matrix and compound concentration.

B. POST CLOSURE CAP INSPECTION AND MAINTENANCE

1.0 INSPECTION

1.1 Objective

The engineering control (building/cap) primarily consists of an enclosed concrete and steel building structure (Smelter Annex) surrounded by concrete and asphalt surface pavement. Along the edges of the building/cap area there are some pre-existing structures that extend into the footprint of the EOP SWMU and are mostly part of the adjacent smelter complex to the north and west. A tiny portion of the EOP SWMU lies beneath a grass embankment that was constructed of clean fill over the underlying plane of soil/waste. Post closure inspections will consist of an annual inspection that occurs in the fall. This frequency is appropriate because of the durable nature of the building/cap. Inspections are intended to identify potential problems before any potential harm to human health or the environment can occur.

1.2 Description

Annual inspections will be performed by either East Penn, AECOM personnel or other appropriate designated entity. Inspections will primarily focus on conditions where material decay or mechanical failure of engineered structures may expose underlying soil/waste material and/or where the structure/location is no longer is shedding storm water and inhibiting infiltration of the water into the subsurface. Inspections related to the building(s) will be limited to the ground level floors and above grade concrete foundation walls that encapsulate soil/waste. In the unlikely event that a leak in a roof is observed, it will be noted but is not considered a problem related to the performance of the cap.

The areas to be inspected during the post closure care period include:

- Storm water inlets within and near the building/cap area
- Ground level building floors and the exterior concrete and asphalt pavement
- Groundwater monitoring and supply wells (note that wells will also be inspected according to the quarterly schedule as detailed in the groundwater monitoring plan. These details will be summarized on the annual inspection log sheet, if appropriate)

Conditions observed during each inspection will be recorded on an inspection a log sheet. If a problem area(s) is identified, the location(s) of the problem area(s) will be also marked on the figure that is included with the log sheet. If possible, a photo of the area will also be taken and included with the log. The inspection and maintenance log sheet and associated Figure are provided as Appendix C. Original logs will be maintained in a file at the Lyon Station facility.

2.0 MAINTENANCE

2.1 Objective

The building/cap is primarily designed to cover the materials contained within the EOP SWMU and eliminate the direct contact exposure pathway. The building/cap also serves to inhibit storm water infiltration into the underlying soil/waste. As a result, necessary maintenance will be performed to ensure continued functionality of the cap.

2.2 Description

Maintenance, repairs and any needed building modifications or upgrades will be performed by either East Penn or an appropriate contractor when work is located within the limit of the EOP SWMU. It should be noted that the components of the building/cap lie within an active part of the East Penn manufacturing facility. Because of this, modifications and upgrades of buildings, support structures, underground utilities, and etc. may be warranted to ensure that the facility remains operational. This is particularly true for the pre-existing structures. Depending on the size, type and complexity of the area, structure or underground utility in need of maintenance, modification or upgrade, the work will be performed so that the outcome is in keeping with the design intention of the engineering control (building/cap).

Maintenance of the monitoring well casings, caps and locks as well as the dedicated sampling equipment will be performed by East Penn and/or AECOM to maintain the integrity of the wells and functionality of the sample equipment. Documentation of maintenance, modification or upgrade activities will be included in the inspection log file and will include a description of the work and date completed.

2.3 Management of Soil/Waste Material

In the event that maintenance would intercept the underlying soil/waste material, all work will be completed by a HAZWOPER trained contractor according to an appropriate Health and Safety Plan. The excavated soil/waste will be managed as a waste. The soil/waste material will be taken to and stockpiled within East Penn's waste materials management building. The material will be subsequently disposed of at an appropriate off-property facility according to applicable federal, state and local laws and regulations and in accordance with the requirements of the disposal facility.

2.4 Management of Water

In the event that surface water enters an excavation, the water would preferentially be allowed to freely drain into the subsurface or will be pumped into a tank and taken to East Penn's on-property wastewater treatment plant for treatment.

C. REPORT PREPARATION

After completion of three years of annual Post Closure Groundwater Monitoring, Inspections, and maintenance, AECOM (or designee) will compile, analyze, and interpret all data collected during that monitoring period. At a minimum, laboratory data and water level data will be shown in tables, graphs, and on maps, when appropriate. Data trends, variability, and patterns will be discussed. Groundwater quality data will be compared to regulated groundwater numeric PADEP Act 2, Chapter 250, medium- specific concentrations (MSCs). Information related to the inspections and any maintenance will also be provided in the report. Data will be compared to previous data and interpretations assessing the need for further action will be made, if appropriate. The report will be completed and submitted for review within 90 days of the last sampling event.

D. POST CLOSURE COST ESTIMATE

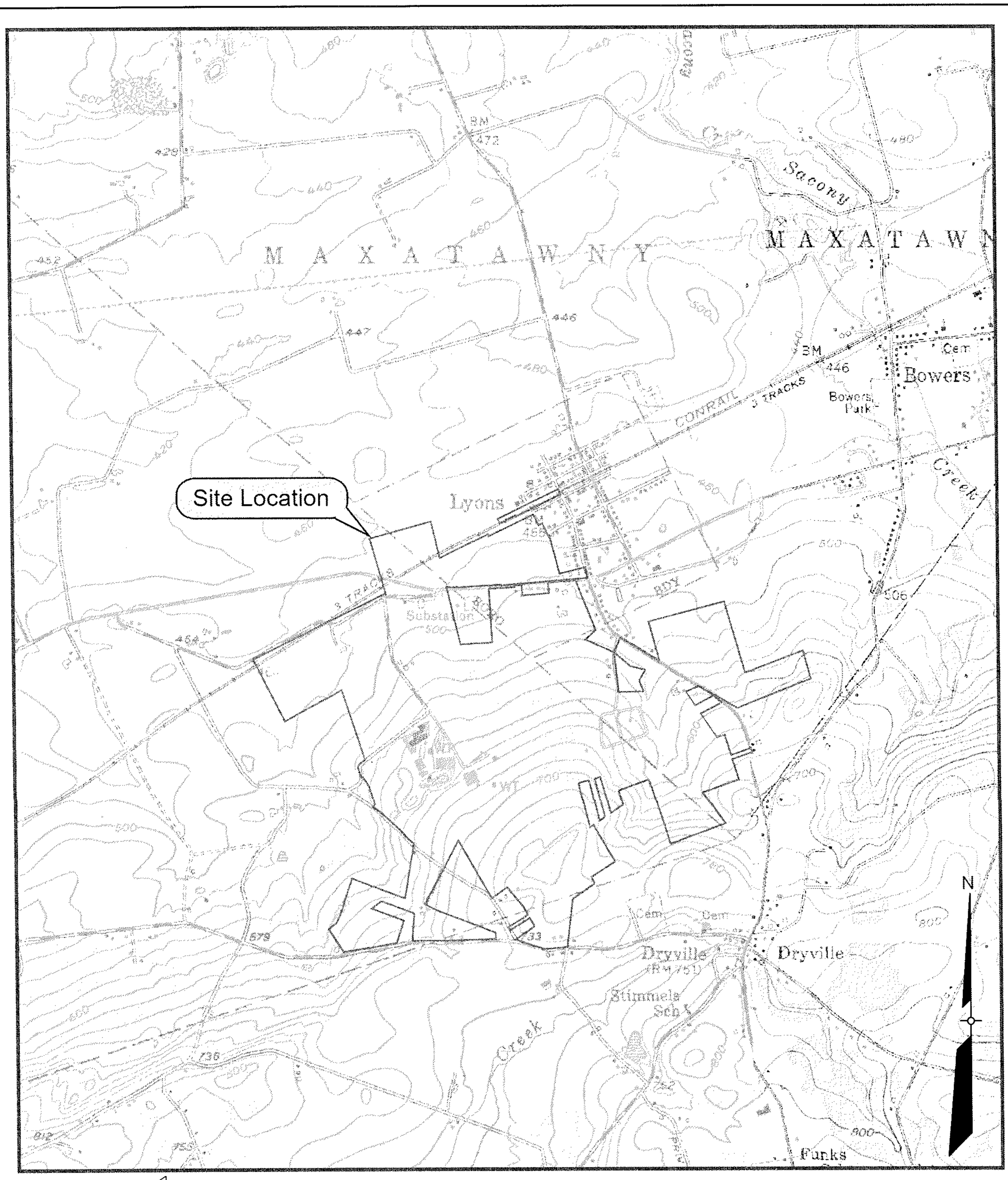
Annual estimated cost to perform groundwater monitoring, inspections and maintenance of the building/cap are provided in the following table. These values are calculated for the purpose of demonstrating financial assurance for post-closure activities and are provided as cost in 2018 U.S. dollars. Subsequent years may cost more or less depending on actual needs and inflation adjustments.

Post Remediation Care Description	*Unit*	*Unit Rate*
Inspections	Year	$2,000
Groundwater Sampling and maintenance	Year	$18,000
Concrete, Asphalt and Storm System Maintenance	Year	$17,000
Reports (one per three-year period – Unit = 1/3 cost)	Year	$3,000
Soil/Waste Disposal	Year	$10,000
	Total	**$50,000**

E. REQUIRED DEED ACKNOWLEDMENT

An environmental covenant is recorded that places an acknowledgement on portions of the property deed. The acknowledgement will inform any potential purchasers that the EOP SWMU has been used to manage soil/waste and that engineering controls are in place. The acknowledgement will also inform any potential purchasers that the EOP SWMU is associated with an area of groundwater monitoring. As required, the environmental covenant format provides applicable narrative and location information regarding the controls.

Figures



PENNSYLVANIA

QUADRANGLE LOCATION

NOTE: Map Derived From U.S.G.S. 7.5 Minute
Topo. Quad. Fleetwood, & Manatawny, PA.

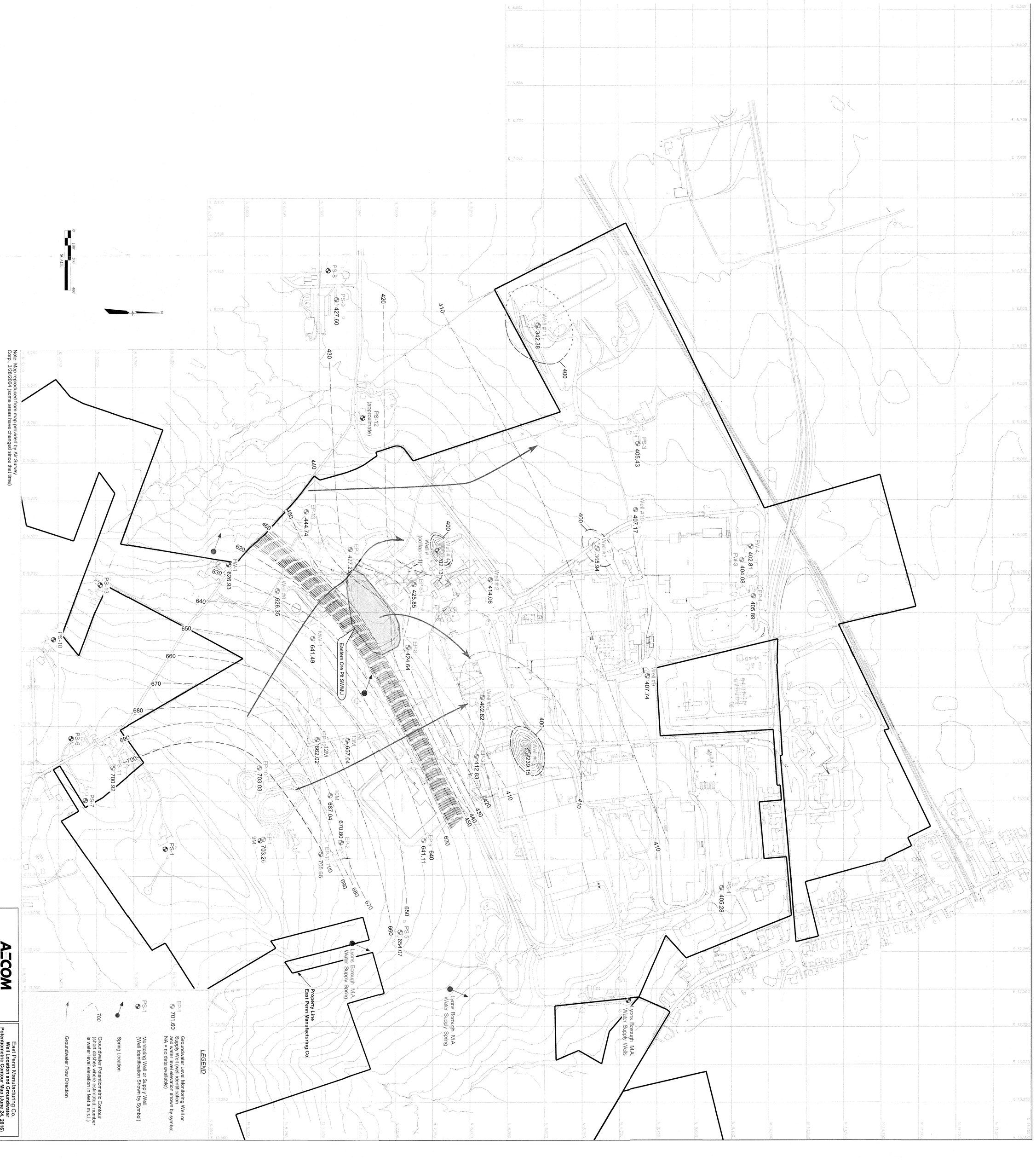
AECOM

East Penn Manufacturing Co.

Site Location Map

Berks County Lyon Station, PA

PROJECT NO.: 60135854	DATE: 2018	SCALE: 1" = 2000'	FIGURE: 1



Note: Map reproduced from map provided by Air Survey Corp., 3/20/2004 (some areas have changed since that time)

AECOM

East Penn Manufacturing Co.
Well Location and Groundwater Potentiometric Contour Map (June 24, 2016)
Berks County Lyon Station, PA

PROJECT NO: 60159654	DATE: 2017	SCALE: 1" = 200'	FIGURE: 2

Appendix A

DUNN CORPORATION
2 Market Plaza Way, Mechanicsburg,
Pennsylvania 17055

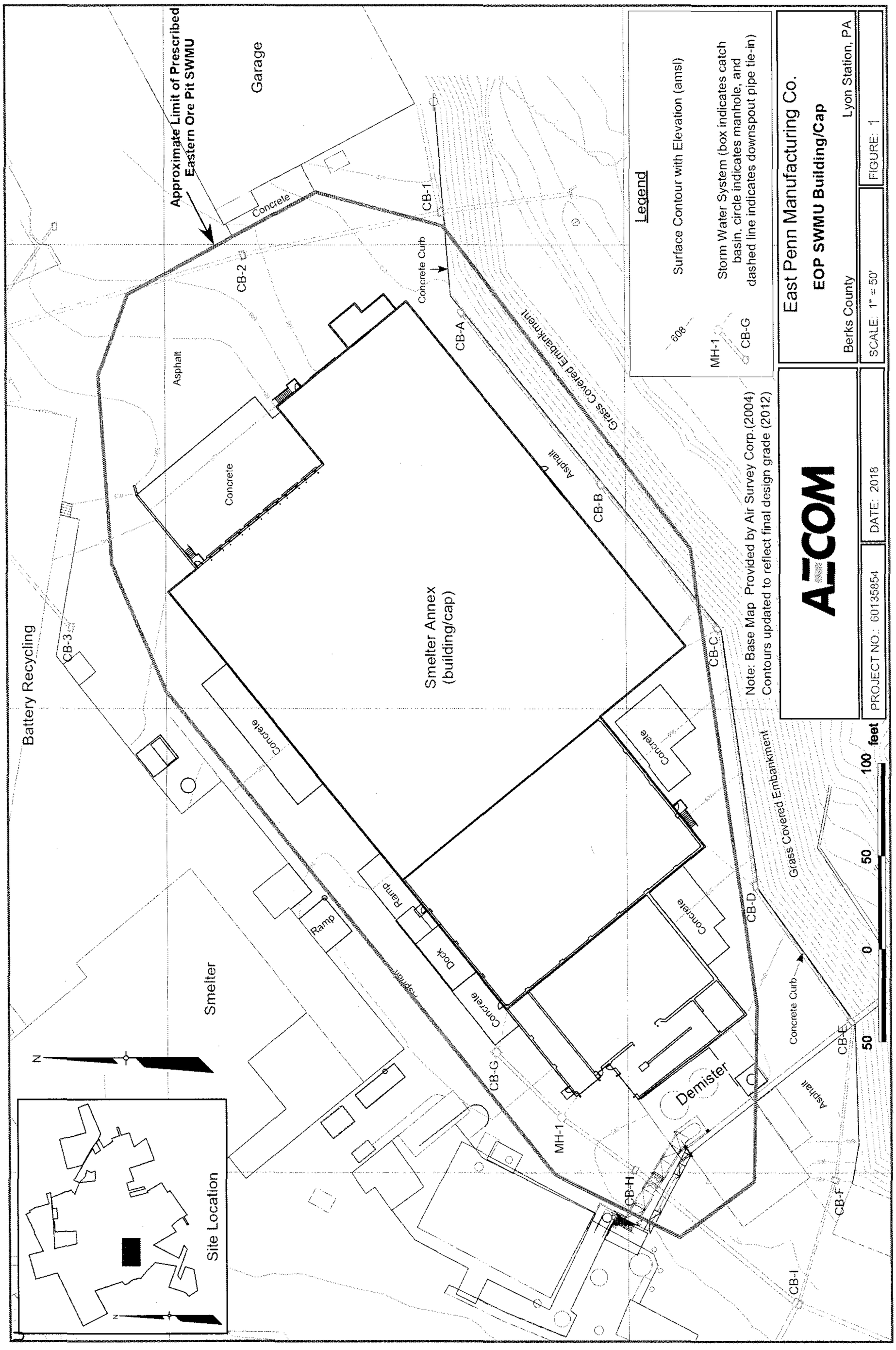
Test Boring/Well Construction

Project : Deka Road RI/FS | Boring No. EP-6

Client: East Penn Manufacturing | Sheet 2 of 2

Depth (Feet)	Sample Numbers	Blow Counts	Visual Log Description	Lithologic Description		Notes
175				175'-182.5'	Gray sandy shale	
				182.5'-185'	Gray limestone, hard	
				185'-189'	Void	
				189'-190'	Hole collapse	
				190'	Bottom of hole	Final flow is >30 gpm
200						
225						
250						
275						
300						
325						

Appendix C


Approximate Limit of Prescribed Eastern Ore Pit SWMU
Garage
Concrete
CB-1
CB-2
Concrete Curb
Asphalt
Concrete
CB-A
Asphalt
CB-B
Grass Covered Embankment
Smelter Annex (building/cap)
CB-C
Concrete
Concrete
CB-D
Grass Covered Embankment
Concrete Curb
CB-E
Asphalt
CB-F
CB-I
Battery Recycling
CB-3
Concrete
Ramp
Dock
Concrete
Asphalt
CB-G
Demister
MH-1
CB-H
Smelter
Ramp
N
Site Location
N
Legend
Surface Contour with Elevation (amsl)
608
Storm Water System (box indicates catch basin, circle indicates manhole, and dashed line indicates downspout pipe tie-in)
MH-1
CB-G
Note: Base Map Provided by Air Survey Corp.(2004)
Contours updated to reflect final design grade (2012)
AECOM
East Penn Manufacturing Co.
EOP SWMU Building/Cap
Berks County Lyon Station, PA
PROJECT NO.: 60135854
DATE: 2018
SCALE: 1" = 50'
FIGURE: 1
50 0 50 100 feet