UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

FINAL DECISION AND RESPONSE TO COMMENTS

JOHNSON MATTHEY INC.

WEST WHITELAND TOWNSHIP, PA

EPA ID NO. PAD067362327

I. FINAL DECISION - Corrective Action Complete without Controls

The United States Environmental Protection Agency (EPA) has determined that no further action is required to make this property suitable for any type of land use. This is based on our findings as detailed in a 09/13/2021 Statement of Basis (SB). This determination is consistent with EPA's February 2003 *Final Guidance on Completion of Corrective Action Activities at RCRA Facilities* (reference 68 FR 8757).

The SB is hereby incorporated into this Final Decision and Response to Comments by reference and made a part hereof as Attachment A.

II. PUBLIC COMMENT PERIOD

On 10/04/2021, EPA proposed a determination of "Corrective Action Complete without Controls." Consistent with public participation provisions under the Resource Conservation and Recovery Act (RCRA), EPA requested comments from the public on the proposed decision as described in the SB. The commencement of a thirty (30)-day public comment period was announced in The Daily Local News newspaper on 10/04/2021 and on the EPA Region III website. The public comment period ended on 11/03/2021.

III. RESPONSE TO COMMENTS

EPA received no comments on the proposal. Consequently, our final determination is unchanged from the proposal.

IV. AUTHORITY

EPA is issuing this Final Decision under the authority of the Solid Waste Disposal Act, as amended by RCRA, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k.

V. DECLARATION

Based on the Administrative Record compiled for the Corrective Action at the Johnson Matthey Inc. facility, EPA has determined that the Final Remedy selected in this Final Decision and Response to Comments is protective of human health and the environment.

DANA AUNKST

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Date: 2021.11.18 15:00:19 -05'00'

Dana Aunkst, Director
Land, Chemicals and Redevelopment Division
U.S EPA Region III

Date

Attachment: Attachment A

Attachment A

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

JOHNSON MATTHEY INC.

WEST WHITELAND TOWNSHIP, PENNSYLVANIA 19380

EPA ID No. PAD067362327

Prepared by
Office of Pennsylvania Remediation
Land, Chemicals and Redevelopment Division
September 2021

Table of Contents

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed decision for the property owned and operated by Johnson Matthey Inc. (Johnson Matthey) facility located at 1401 King Road, West Chester, Pennsylvania 19380 (Facility). EPA's review of available information indicates that there are no unaddressed releases of hazardous waste or hazardous constituents from the Facility. Based on that assessment, EPA's proposed decision is that no further investigation or cleanup is required. EPA has determined that its proposed decision is protective of human health and the environment and that no further corrective action or land use controls are necessary at this time. This SB highlights key information relied upon by EPA in making its proposed decision.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. The Commonwealth of Pennsylvania (Commonwealth) is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

EPA is providing a thirty (30) day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

Information on the Corrective Action program as well as a fact sheet for the Facility can be found by navigating https://www.epa.gov/hwcorrectiveactionsites/corrective-action-programs-around-nation. The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section 5, Public Participation, below, for information on how you may review the AR.

Section 2: Facility Background

The Site is comprised of approximately 20 acres of land and consists of buildings for operations and office space, parking areas, and open land. Johnson Matthey began operations at the site on September 22, 1971. Prior to 1971, the

property had been used for farming. The Site is bordered to north, west, and south by commercial property, to the southeast by vacant property, and to the east by residential property. A Site location map is included as Figure 1 (Attachment #1). A Site Plan is included as Figure 2 (Attachment #2).

Johnson Matthey performs metal finishing and fabrication at the Site. The facility uses various forms of precious metals, largely involving platinum group metals (PGM) and their alloys, to produce specialty PGM products such as platinum gauge, wire or other made-to-order parts. The manufacturing processes are primarily melt and cast PGM operations along with wire and tube drawing. Products may be cleaned and washed prior to packaging and shipment. Limited research and development are also performed at the facility to support the manufacturing processes. Several decades ago, Johnson Matthey discharged sanitary wastewater to four septic systems that included a septic tank. Waste produced at the facility included TCE from the degreasing of metal products, acid wastes from the pickling of metal products, waste caustic from scrubbing of acid vapors from the pickling operations, spent plating baths, and various laboratory wastes.

On August 15, 1980, Johnson Matthey submitted a Notification of Hazardous Waste Activity for its generation and treatment/storage/disposal of hazardous wastes F001 (spent halogenated solvents), F002 (spent halogenated solvents), F003 and F005 (spent non-halogenated solvents), F007 (spent cyanide plating bath solutions from electroplating operations), and D001 (ignitable) to the USEPA.

On November 18, 1980, Johnson Matthey submitted a Part A Hazardous Waste Permit Application to the USEPA. Johnson Matthey was granted interim status for treatment/storage/disposal on July 23, 1981. On August 29, 1983, Johnson Matthey submitted a RCRA Part B Hazardous Waste Permit Application to USEPA and PADEP. On February 6, 1986, PADEP issued the facility a permit to store hazardous wastes in containers at the facility.

In 1987, Johnson Matthey informed PADEP that it intended to withdraw its RCRA Part B application. On July 3, 1989, Johnson Matthey submitted a closure plan for the hazardous waste storage areas and formally withdrew its RCRA Part B Permit application. In a November 2, 1990 to the facility, PADEP indicated that the closure of the facility was properly implemented. On December 18, 2018, the facility participated in the One Cleanup Program.

Section 3: Summary of Environmental History

For all environmental investigations conducted at the Facility, groundwater concentrations were screened against federal Maximum Contaminant Levels (MCLs)

promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 CFR Part 141, or if there was no MCL, EPA Region III Screening Levels (RSL) for tap water for chemicals. Soil concentrations were screened against EPA RSLs for residential soil and industrial soil. EPA also has RSLs to protect groundwater and soil concentrations were also screened against these RSLs.

The Solid Waste Management Units at the facility included Liquid Gold Drain Field, Western Drain Field (Leach Field "A"), and Eastern Drain Field (Leach Field "B"), Groundwater remediation System, Pretreatment House, Air Emission Sources, Hazardous Waste Storage Area, Waste alkaline storage tank, Chemical Storage Area, Research and Development Chemical storage building, Pharmaceutical Research and Development, Laboratory Waste Collection Area, Trichloroethene distillation system, Trash incinerator, Precious metal recovery incinerator, Acid Fume scrubber, Reclaimable platinum bath sludge storage area, Platinum reclamation furnace, Oil Storage facilities, Cyanide room, Acid Room, Acid neutralization tank, Manufacturing Building Sump, Cyanide Room spill containment tank, Precious metal recovery tank, Tube area, maintenance area, Wire stripping area, Loading Docks, Fuel oil tank, CDS/Melt room, ICP lab, and Boiler.

During the 1970s and 1980s, the facility discharged wastewater to on-site tile fields. Wastewater from lab and process sinks, acid rinse water, and supernatant from the waste acid neutralization tank discharged into two septic tanks and an onsite tile field. There was a west septic system that received sewage and an east septic system that received drainage from process sinks in manufacturing areas. In December 1981, PADEP determined this discharge of industrial wastewater from process sinks without a permit to be a violation of the Clean Stream Law. As a result of the violation, groundwater investigations /remediation have been performed at the facility. Groundwater at the facility found to be contaminated with VOCs and leach field "B" was the source of GW contamination. TCE, TCA and PCE were detected in groundwater at concentrations as high as 395 micrograms per liter (ug/l), 590 ug/l, and 8 ug/l, respectively, above the MCLs of 5 ug/l, 200 ug/l, and 5 ug/l, respectively.

In 1989 Johnson Matthey began construction of the groundwater remediation system to remediate the contaminated groundwater plume containing TCE, TCA, and PCE. The system was activated in 1990 and has operated continuously to May 5, 2020.

Groundwater monitoring sampling has been performed routinely. GW monitoring results showed that extent of groundwater contamination plume is within the facility property boundary and concentrations of TCE, TCA, and PCE have decreased to levels below the respective MCLs since 2007.

Section 3: Summary of Environmental History (continued)

On December 18, 2018, the facility participated in the One Cleanup Program. On August 14, 2019, EPA approved the facility's Act 2 Closure Field Investigation Workplan dated August 13, 2019. Pursuant to the approved Workplan, supplemental investigation including soil, sediment, groundwater and surface water investigations were performed at the facility. The supplemental investigation including soil, sediment, groundwater, and surface water investigations were performed at the facility and were documented in the facility's Final Report dated August 17, 2021.

A. Soil:

Soil investigation was performed at the facility. Since the historical release of chlorinated solvents to the environment was to Leach Field B, the soils investigation focused on Leach Field B. Soil sampling in Leach Field B was conducted on 12/16/2020. Soil samples were collected from 4 soil borings and analyzed for VOCs.

Analytical results of soil samples showed that VOCs were found NDs, below the respective EPA residential standards for soil. Sampling results demonstrated residential standards have been met for soil at the facility.

B. Sediment:

Sediment investigations were performed at the facility. Sediment sampling in onsite pond was performed on 3/2/2020. Two sediment samples were collected and analyzed for VOCs. Generally, analytical results of sediment samples showed that VOCs were found NDs. TCE was detected at an estimated concentration of 0.00025 mg/kg in sample SED-01, which is below the EPA Region III BTAG Freshwater Sediment Screening Benchmark for TCE of 0.0969 mg/kg. Sampling results demonstrated residential standards have been met for sediment at the facility.

C. Surface Water:

Surface water samples from an onsite pond were collected on 3/2/20, 5/20/20, 8/3/20, 11/2/20 and 2/8/2021 and were analyzed for VOCs. Surface water results for TCE in the onsite pond where groundwater discharges were detected up to 1.2 ug/L after the system shutdown. This concentration is slightly above the EPA human health ambient water quality criteria (AWQC) for consumption of water plus organisms for TCE (0.6 ug/L), but below the EPA human health water quality for consumption of organisms only (7.0 ug/L). However, this concentration is within EPA's acceptable risk range of 0.6 ug/l – 6 ug/l ($10^{-6} – 10^{-5}$). Therefore, the highest detection in surface water after system shutdown (1.2 ug/L) would be acceptable. EPA also developed AWQC for noncarcinogenic effects for TCE which must also be considered. The AWQC for

noncarcinogenic effects for TCE are 3 ug/L for consumption of water and organisms, and 30 ug/L for consumption of organisms only. The highest detection for TCE in surface water (1.2 ug/L) is also acceptable based on the noncarcinogenic AWQC. Therefore, EPA has determined that there are currently no onsite unacceptable risks to human health and the environment via surface water pathway.

D. Groundwater:

Groundwater investigations were performed at the facility. Groundwater onsite found to be contaminated with VOCs and leach field "B" was the source of GW contamination. TCE, TCA and PCE were detected in groundwater at concentrations as high as 395 micrograms per liter (ug/l), 590 ug/l, and 8 ug/l, respectively, above the MCLs of 5 ug/l, 200 ug/l, and 5 ug/l, respectively.

In 1989 Johnson Matthey began construction of the groundwater remediation system to remediate the groundwater contamination plume containing TCE, TCA, and PCE. The pump and treat groundwater remediation system was activated in 1990 and has operated continuously through May 5, 2020.

As required by the approved 8/13/2019 Workplan, 4 quarterly GW sampling was conducted after the shutdown of the groundwater remediation system in April 2020. GW samples were collected on 5/20/20, 8/3/20, 11/02/2020 and 2/08/2021 and were analyzed for 1,4-dioxane and VOCs. Analytical results of the groundwater samples demonstrated that 1,4-dioxane was found non detect. Groundwater sampling after system shutdown did not detect any rebound of VOCs, and there were no detections above groundwater cleanup levels based on using the aquifer as a drinking water supply. The highest detection in groundwater prior to system shutdown for TCE at well MW-4D (the most impacted well) was 2.9 ug/L. After system shutdown the highest TCE concentration was 1.8 ug/L. The MCL for TCE is 5.0 ug/L.

Therefore, EPA has determined that groundwater at the facility meets the EPA's residential screening levels for groundwater and there are currently no onsite unacceptable risks to human health and the environment via groundwater pathway.

E. Indoor Air:

VOCs were detected in groundwater at the facility at concentrations below the MCLs. The property meets the residential indoor air screening levels.

Therefore, EPA has determined that there are currently no onsite unacceptable risks to human health and the environment via vapor intrusion pathway.

Section 4: Environmental Indicators

EPA sets national goals to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. The Facility met both of these indicators on November 6, 2017.

Section 5: Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the decision selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed decision. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Ms. Tran Tran
Phone: (215) 814-2079
Fax: (215) 814-3113
Email: tran.tran@epa.gov

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Ms. Tran Tran. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Ms. Tran Tran.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrants a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Ms. Tran Tran at the address listed above.

Decision and Response to Comments (FDRTC). All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Ms. Tran Tran at the address listed above.

Date:

DANA AUNKST Digitally signed by DANA AUNKST Date: 2021.09.13 08:28:32 -04'00'

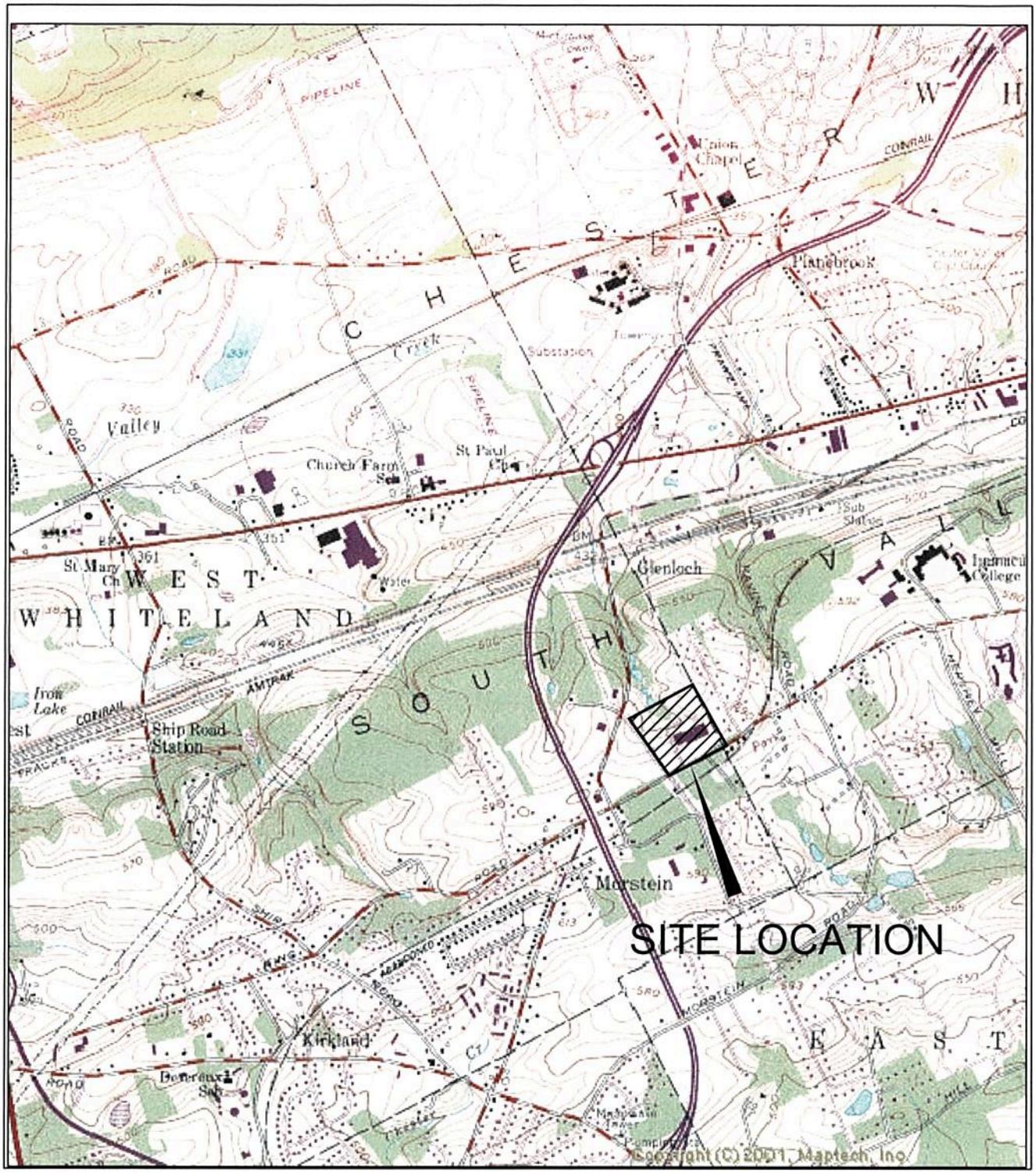
Dana Aunkst, Director
Land, Chemicals and Redevelopment Division
US EPA, Region III

Index to Administrative Record

1. Act 2 Closure Field Investigation Workplan Report prepared for Johnson Matthey Inc. by Roux Associates, Inc. dated August 13, 2019.
2. Act 2 Final Report prepared for Johnson Matthey Inc. by Roux Associates, Inc. dated August 17, 2021.

Attachment 1

Figure 1



PENNSYLVANIA

Quadrangle Location Map

0 2000 4000 Feet

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Source: U.S.G.S. Topographic Maps (7.5 Minute)
Reading PA

Commonwealth of Pennsylvania
Department of Environmental Protection

Johnson Matthey

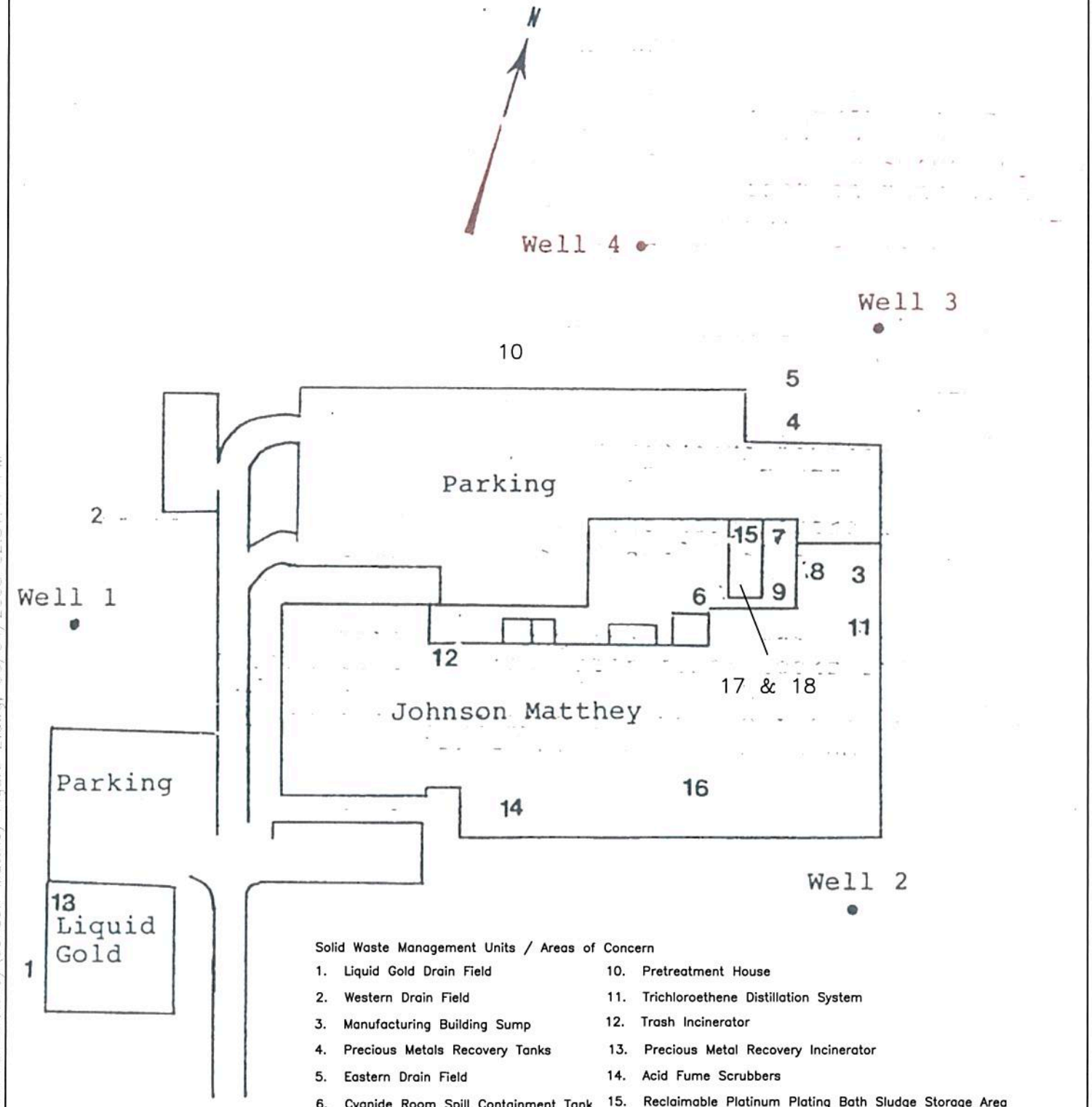
Figure 1

Site Location Map

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Attachment 2

Figure 2



Solid Waste Management Units / Areas of Concern

1. Liquid Gold Drain Field
2. Western Drain Field
3. Manufacturing Building Sump
4. Precious Metals Recovery Tanks
5. Eastern Drain Field
6. Cyanide Room Spill Containment Tank
7. Hazardous Waste Storage Area
8. Acid Neutralization Tank
9. Waste Alkaline Storage Tank
10. Pretreatment House
11. Trichloroethene Distillation System
12. Trash Incinerator
13. Precious Metal Recovery Incinerator
14. Acid Fume Scrubbers
15. Reclaimable Platinum Plating Bath Sludge Storage Area
16. Platinum Reclaimation Furnace
17. Chemical Storage Area
18. Research and Development Chemical Storage Building

Source: Phase II RCRA Assessment dated October 8, 1987

Drawing not to scale
Locations are approximate

I:\Projects\ent_investigations_2002\Johnson Matthey Figure 2.dwg

Commonwealth of Pennsylvania
Department of Environmental Protection

Johnson Matthey

Figure 2
Site Layout Map

FOSTER WHEELER ENVIRONMENTAL CORPORATION