

**SITE MANAGEMENT PLAN  
FORMER PARISH CHEMICAL FACILITY  
145 NORTH GENEVA ROAD  
VINEYARD, UTAH**

**Project No. 1315-002B**

**To:**

**Mr. Ty Howard, Director  
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**Prepared for:**

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**March 8, 2021**

TABLE OF CONTENTS

<u>Section</u>	<u>Page No.</u>
1. INTRODUCTION.....	1
1.1 Site Description.....	1
1.2 Site Background.....	1
1.3 Removal Assessments and Removal Actions.....	1
1.4 Subsurface Investigations.....	2
1.5 Site Excavation Activities.....	6
2. SITE MANAGEMENT.....	8
2.1 Activity and Use Limitations.....	8
2.1.1 Site Management Plan.....	8
2.1.2 Land Use Limitations.....	8
2.1.3 Groundwater Limitations.....	8
2.2 Maintenance, Access, and Inspections.....	8
2.2.1 Notice.....	8
2.3 Environmental Covenant.....	8
2.4 Site Management Contacts.....	8

**Exhibit**

Exhibit A – Historical Sample Location Map and Excavation and Soil Confirmation Sample Location Map

**SITE MANAGEMENT PLAN  
FORMER PARISH CHEMICAL FACILITY  
VINEYARD, UTAH**

## **1. INTRODUCTION**

Wasatch Environmental, Inc., (Wasatch) has prepared this Site Management Plan (SMP) to present the planned long-term approach for managing residual metal-impacts to soil at the former Parish Chemical facility (Facility), located at 145 North Geneva Road in Vineyard, Utah.

This SMP has been prepared in accordance with the requirements of R315-101 "Cleanup Action and Risk-Based Closure Standards" that establish information requirements to support risk-based cleanup and closure standards at facilities for which remediation or removal of hazardous constituents to background levels is not expected to be achieved. The "Owner" (as defined in the Environmental Covenant [EC]) shall comply with the SMP, including provisions relating to the Activity and Use Limitations pertaining to land use limitations and groundwater limitations.

### **1.1 Site Description**

The former Parish Chemical property is 2.147 acres (Tax Parcel Number: 18:017:0010 located at 145 North Geneva Road in Vineyard, Utah County, Utah (as shown in Exhibit A, Figure 1 and Figure 2). The legal description for Parish Chemical is:

COM N 619.57 FT & W 86.68 FT FR E 1/4 COR. SEC. 17, T6S, R2E, SLB&M; S 88 DEG 15' 39" W 101.64 FT; N 89 DEG 23' 38" W 99.15 FT; N 4 DEG 18' 31" E 43.84 FT; N 63 DEG 2' 20" W 18.38 FT; N 3 DEG 37' 44" E 362.19 FT; N 85 DEG 54' 55" E 18.18 FT; N 2 DEG 55' 14" W 39.03 FT; N 89 DEG 51' 49" E 65.96 FT; N 89 DEG 31' 52" E 106.34 FT; N 88 DEG 41' 54" E 14.37 FT; S 1 DEG 20' 52" W 295.79 FT; ALONG A CURVE TO R (CHORD BEARS: S 1 DEG 48' 4" W 157.47 FT, RADIUS = 9950 FT) TO BEG. AREA 2.147 AC.

### **1.2 Site Background**

Under the regulatory oversight of the Utah Department of Environmental Quality, Division of Waste Management and Radiation Control (DWMRC), an environmental response project, as defined at Section 57-25-102(5) of the Utah Code Annotated, approved by the DWMRC for Parish Chemical, has been undertaken to address metal-impacted soil at the Parish Chemical facility.

The current owner provided Wasatch with a March 8, 2018, Phase I Environmental Site Assessment prepared by Ellis Environmental on behalf of Mr. Steve Pruitt, the representative for AFP West. Additionally, Mr. Pruitt provided Wasatch with numerous regulatory agency documents prepared by the United States Environmental Protection Agency (U.S. EPA) and URS Operating Services, Inc., and reports and documents prepared by Anderson Geneva Development, Inc., for the adjoining west former Geneva Steel facility.

Information obtained from the prior reports documents that the Facility was historically vacant agricultural land until construction of the northern manufacturing building in 1952. The Facility was owned and operated as part of the Geneva Steel facility until Parish Chemical purchased the Facility in the late 1970s. Parish Chemical was involved in specialty chemical manufacturing at the beginning of its operations, but subsequently manufactured pharmaceutical chemicals and pesticides. Parish Chemical ceased operations at the Facility in 2013, and the Facility has remained vacant since that time. The Facility building has been demolished within the past year and a half.

### **1.3 Removal Assessments and Removal Actions**

Parish Chemical first came to the attention of the U.S. EPA in 1992 when a ½-mile radius around the Facility was evacuated due to a fire on the second floor of the Facility manufacturing building. Facility inspections by local and state regulators led to a request by the Utah Department of Environmental

Quality (UDEQ) and the U.S. EPA to conduct a removal assessment and, if warranted, conduct a removal action. During a 2008 joint inspection by the U.S. EPA and UDEQ, numerous hazardous waste violations were identified.

In April 2008, the U.S. EPA conducted response actions at the Facility. These response actions included the removal of large quantity containers (hazardous materials such as acids, ethers, oxidizers, corrosives, and caustics) and smaller containers (5 to 3,000 grams of material) that were in the process of failing, leaking, or in serious disrepair.

Following the 2008 removal action, several joint U.S. EPA/UDEQ follow-up inspections were conducted at the Facility between 2009 and 2013. Many of the same concerns identified during the 2008 inspection were noted. These concerns included, but were not limited to:

- Appropriate chemical segregation was not maintained throughout the Facility;
- Storage of hazardous materials was subject to extreme temperature fluctuations;
- Reoccurring, inconsistent, and/or non-existent labeling in chemical storage areas throughout the facility;
- Open wiring and/or ignition sources throughout the Facility;
- Storage container deterioration throughout the Facility;
- Secondary containment was not present and/or functional throughout the Facility;
- Flammable and combustible materials were not stored in an approved flammable liquid storage room; and
- Numerous fire code violations presenting danger to individuals at the facility and surrounding areas.

In 2013, after Parish Chemical ceased operations at the Facility, the U.S. EPA conducted another removal assessment and removal action to secure and properly dispose of the remaining hazardous substances at the facility. These activities included:

- Inspecting the Facility to verify the integrity of the Facility equipment and determine the volume of hazardous substances;
- Segregation of incompatible chemicals and addressing property storage issues throughout the Facility;
- Hazard categorizing of unknown products, intermediaries, and wastes;
- Transfer of contents of tanks and drums for bulk waste shipments;
- Transportation and disposal of all wastes; and
- Decontamination of the Parish Chemical facility/equipment as necessary to prevent further releases of hazardous substances to the environment.

In summary, the U.S. EPA conducted two removal actions at the Facility in 2008 and 2013, which consisted of the removal and disposal of hazardous substances and waste from the Facility, and the decontamination of Facility equipment.

#### **1.4 Subsurface Investigations**

During groundwater monitoring activities conducted on the adjoining west former Geneva Steel facility, bis(2-chloroethyl) ether (BCEE) was detected in groundwater in one monitoring well located west of the Facility in 1998. To investigate the BCEE in groundwater, numerous monitoring wells were installed at the former Geneva Steel facility, which included the installation of two monitoring wells, PC-North and PC-South, located west of the former impoundments in the southwestern portion of the Facility. Subsequent groundwater monitoring events identified a BCEE plume in groundwater at the Geneva Steel facility that appeared to originate from the adjoining east, and hydraulically up-gradient, Parish Chemical facility. The Corrective Action Levels (CALs) approved by the U.S. EPA for BCEE in groundwater at the former Geneva Steel facility are 0.0143 milligrams per liter (mg/L) for residential and 0.0783 mg/L for

construction workers. The U.S. EPA Regional Screening Level (RSL) for tap water for BCEE is 0.000071 mg/L.

In April 2009, a source area investigation was conducted by Anderson Geneva Development at the Facility in an effort to determine if the Facility was the source of the BCEE plume. Seven soil borings (PCS-001 through PCS-007) were completed at the Facility as presented on Figure 1. One soil and one groundwater sample were collected from each location and analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Information obtained from a June 26, 2009, Status Letter for the Source Investigation at the Facility prepared by Anderson Geneva Development documents that concentrations of VOCs and SVOCs were detected in both soil and groundwater samples from the Facility. The report documents that analysis of groundwater resulted in detections of BCEE greater than the U.S. EPA RSL for tap water at locations PCS-002 (0.018 mg/L), PCS-003 (8.6 mg/L [highest observed BCEE concentration in groundwater associated with the plume]), PCS-004 (0.0058 mg/L), and PCS-005 (0.00064 mg/L). Several other VOCs (tetrachloroethene, ethylbenzene, methylene chloride, styrene, and xylenes) were detected in groundwater samples at concentrations that exceeded their respective U.S. EPA federal Maximum Contaminant Levels (MCLs) or U.S. EPA RSLs for tap water.

Additionally, soil samples collected from just above the water table at these locations also exhibited detections of BCEE. Soil samples collected from 5 feet below ground surface (bgs) at sample location PCS-002 contained a BCEE concentration of 0.12 milligrams per kilogram (mg/kg), and soils collected from 5 feet bgs from sample location PCS-003 exhibited a BCEE concentration of 0.8 mg/kg. The soil sample collected from PCS-003 exceeded the U.S. EPA RSL for residential soil of 0.23 mg/kg, and both samples exceeded the DAF-20 groundwater protection level of 0.000072 mg/kg. The U.S. EPA RSL for BCEE in industrial soil is 1.0 mg/kg. Based on the results of this April 2009 investigation, Anderson Geneva Development concluded that it appeared that Parish Chemical is the source for the large off-site BCEE plume, and this source may need to be removed to prevent additional groundwater contamination. Several other constituents (dimethyl phthalate, acetone, ethylbenzene, total xylenes, and chloroethane) were detected in the soil samples; however, all reported concentrations were well below their respective U.S. EPA RSLs for residential soil.

Soil gas samples were collected to evaluate the potential for impacts to indoor air related to the groundwater plume. Sample PC216-SG was collected near the suspected source area of the BCEE plume. BCEE was detected in the source area soil gas sample at a concentration of 0.94 micrograms per cubic meter. Only one sample had been collected in this area and uncertainty remained regarding risk to indoor air at the Facility.

In October 2009, the URS Operating Services, Inc., Superfund Technical Assessment and Response Team was tasked by the U.S. EPA to conduct an investigation at the Facility. The investigation activities included the installation and sampling of seven groundwater monitoring wells (PC-GW-01 through PC-GW-07) at the Facility as depicted on Figure 1. Additionally, two previously installed monitoring wells (formerly PC-North and PC-South, now identified as PC-GW-08 and PC-GW-09) at the Facility were also sampled. These monitoring wells were installed in 2006 during BCEE plume investigation activities for the adjoining former Geneva Steel facility and are located west of the former impoundments in the southwest portion of the Facility as depicted on Figure 1.

Groundwater samples were collected from each monitoring well and analyzed for VOCs, SVOCs, pesticides, polychlorinated biphenyls (PCBs), and total metals. The analytical results indicate that no VOCs, pesticides, or PCBs were detected in any of the collected groundwater samples at concentrations that exceed their respective U.S. EPA federal MCLs or U.S. EPA RSLs for tap water.

BCEE was detected in three groundwater samples (PC-GW-03, PC-GW-08, and PC-GW-09) at concentrations ranging from 0.0023 to 0.0078 mg/L. All concentrations exceed the U.S. EPA RSL for tap water of 0.000071 mg/L. It should be noted that BCEE was detected in groundwater at locations in the southwestern portion of the Facility during the October 2009 investigation, and not in the northwestern portion of the Facility as previously detected during the April 2009 investigation. BCEE was not detected

in the groundwater samples collected from the two up-gradient monitoring wells (PC-GW-01 and PC-GW-02); therefore, it appeared that the source of the BCEE plume was within the Facility.

Additionally, arsenic was detected in groundwater samples PC-GW-03 through PC-GW-05, and PC-GW-07 through PC-GW-10, at concentrations ranging from 0.0139 mg/L to 0.135 mg/L, above its U.S. EPA MCL of 0.01 mg/L. As with BCEE, arsenic was not detected in the groundwater samples collected from the two up-gradient monitoring wells; therefore, it appeared that the likely source for arsenic in groundwater was within the Facility.

In an effort to reduce BCEE concentrations in groundwater, in 2011, Anderson Geneva Development dug three trenches (depicted on Figure 1) just west of, and hydraulically down-gradient from the Facility, to expose the groundwater to sunlight to assess the degradation potential of BCEE after exposure to atmosphere and sunlight.

The easternmost trench (Trench #1) was approximately 126 feet by 42 feet and 12 feet deep, and was located approximately 12 feet from the Facility. The center trench (Trench #2) was 112 feet by 56 feet and 12 feet deep, and was located approximately 10 to 15 feet from the west edge of Trench #1. The westernmost trench (Trench #3) was approximately 70 feet by 40 feet and 12 feet deep, and was located approximately 15 feet from the west edge of Trench #2.

Groundwater in the trenches was sampled and analyzed for SVOCs. Anderson Geneva Development originally intended that the groundwater be sampled in only the summer and fall of 2011; however, the trenches were left open and sampling continued through the winter, spring, summer, and fall of 2012. The analytical results indicated that BCEE was the only SVOC which exceeded its CAL.

BCEE concentrations in groundwater samples collected from Trench #1 went from 1.10 mg/L shortly after the trench was constructed (June 2011) to 0.13 mg/L and 0.14 mg/L in June and August of 2012, respectively. BCEE concentrations in groundwater samples collected from Trench #2 went from a maximum of 1.70 mg/L in June 2011 to 0.053 mg/L in August 2012. BCEE concentrations in groundwater samples collected from Trench #3 went from 0.40 in June 2011 to 0.14 mg/L and 0.15 mg/L in June and August of 2012, respectively.

Based on the analytical results, it was the opinion of Anderson Geneva Development that the utilization of open trenches for the degradation of BCEE in groundwater by exposure to atmosphere and sunlight had been successful, and that the effort to reduce the mass load of BCEE in the local groundwater plume would continue to enhance attenuation of residual BCEE levels.

In July 2018, Wasatch completed additional subsurface investigation activities at the Facility. Wasatch advanced 12 exploratory soil borings (GP-1 through GP-12) using the direct-push method to evaluate soil and groundwater conditions as depicted on Figure 1. Soil borings were advanced in potential source areas (areas of previous chemical storage, near building floor drains, inside the former impoundments, etc.). Two soil samples and one groundwater sample were collected from each boring. Additionally, groundwater samples were collected from monitoring wells located at the facility (PC-GW-06, PC-GW-08, and PC-GW-09), as well as one monitoring well, PC-213, located adjoining west of the Facility. All soil and groundwater samples were analyzed for the following:

- VOCs using U.S. EPA Method 5035A/8260C (both high/low range),
- SVOCs using U.S. EPA Method 8070D + Selected Ion Monitoring (SIM),
- Pesticides using U.S. EPA Method 8081B,
- Herbicides using U.S. EPA Method 8151A, and
- Resource Conservation and Recovery Act (RCRA) D-List metals using U.S. EPA Methods 6020B and 7470A/7471B

Several VOCs were detected in the soil samples; however, all VOCs were detected at concentrations well below their respective U.S. EPA RSLs for Residential and Industrial Soil. Chloroform was detected in soil sample GP-9 (0.2') at a concentration of 8.10 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), above its U.S. EPA

Protection of Groundwater Risk-Based Site-Specific Dilution Attenuation Factor (DAF) of 20 Soil Screening Level (SSL) of 1.22 µg/kg. Although this concentration is above this site-specific regulatory action level, this is a conservative action level, and the concentration was below its U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 440 µg/kg. Additionally, this elevated concentration of chloroform was limited to shallow soil only and was not detected in deeper soil.

Numerous SVOCs were detected in the soil samples collected; however, all detected concentrations were well below their respective U.S. EPA RSLs for Residential and Industrial Soil. It should be noted that BCEE was not detected in any of the soil samples. Naphthalene was detected in soil samples GP-6 (7-8') and GP-9 (0-2') at concentrations of 11.9 µg/kg and 59.7 µg/kg, respectively, exceeding its U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 10.8 µg/kg. Although these concentrations are above these site-specific regulatory action levels, no SVOCs, including naphthalene, were detected in the groundwater at the facility; therefore, SVOCs have not been shown to be leaching into the groundwater at concentrations above their respective U.S. EPA MCLs.

Numerous metals were detected in the soil samples; however, with the exception of total arsenic, all detected concentrations were well below their respective U.S. EPA RSLs for Residential and Industrial Soil. Total arsenic was detected in the soil samples at concentrations ranging from 1.82 mg/kg to 69.8 mg/kg. Many of these arsenic concentrations are above the U.S. EPA RSL for Industrial Soil for arsenic of 3.0 mg/kg. In addition, all of the arsenic concentrations are above the U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 0.03 mg/kg, and many are above the U.S. EPA Protection of Groundwater MCL-Based DAF of 20 SSL of 5.8 mg/kg.

No pesticides or herbicides were detected in any of the soil samples collected.

With the exception of chloroform, no VOCs were detected in any of the groundwater samples. Chloroform was detected in the groundwater sample collected from GP-11 at a concentration of 3.03 micrograms per liter (µg/L), well below its U.S. EPA MCL of 80 µg/L.

No SVOCs, including BCEE, were detected in any of the on-site groundwater samples; however, BCEE was detected in the off-site monitoring well PC-213 (located adjacent west of/or within the BCEE source area) at a concentration of 10.3 µg/L, exceeding its U.S. EPA RSL for tap water of 0.000014 mg/L.

Dissolved arsenic was detected in all of the groundwater samples collected at concentrations ranging from 0.00203 mg/L to 0.122 mg/L. Nine of the groundwater samples collected (GP-3, GP-5, GP-8, GP-9, GP-10, PC-GW-08 and duplicate, PC-GW-09, and PC-213) exhibited dissolved arsenic concentrations above its federal MCL of 0.01 mg/L. It should be noted that borings GP-8 and GP-9 had some of the highest concentrations of arsenic in groundwater and the highest concentrations of arsenic in soil.

One pesticide, endosulfan I, was detected in the groundwater sample GP-10 at a concentration of 0.0234 µg/L, well below its U.S. EPA RSL for tap water of 100 µg/L. No other pesticides were detected in any of the groundwater samples.

No herbicides were detected in any of the groundwater samples.

Based on the results of previous investigations and at the request of the Utah DWMRC, Wasatch conducted surficial soil sampling activities at the Facility to evaluate for potential source areas.

In May and June 2019, Wasatch completed surficial soil sampling activities at the Facility. Wasatch collected 23 surficial soil samples (SS-1 through SS-23 and SS-22-1) at the Facility in areas of potential concern as depicted on Figure 1. As requested by Utah DWMRC personnel, the soil samples were analyzed for SVOCs and RCRA D-List metals.

Numerous SVOCs were detected in the soil samples; however, all detected concentrations were well below their respective U.S. EPA RSLs for Industrial Soil. Several SVOCs were detected at

concentrations exceeding their respective U.S. EPA Protection of Groundwater Risk/MCL-Based Site-Specific DAF of 20 SSLs; however, SVOCs were not detected in any of the groundwater samples collected during our July 2018 investigation.

Numerous metals were detected in the soil samples; however, with the exception of total arsenic and total lead, all detected concentrations were well below their respective U.S. EPA RSLs for both Residential and Industrial Soil.

Total arsenic was detected in all soil samples at concentrations ranging from 1.27 mg/kg to 13,000 mg/kg. Many of these arsenic concentrations were above the U.S. EPA RSL for Industrial Soil for arsenic of 3.0 mg/kg. In addition, all of the arsenic concentrations were above the U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 0.03 mg/kg, and many were above the U.S. EPA Protection of Groundwater MCL-Based DAF of 20 SSL of 5.8 mg/kg.

Total arsenic was detected in soil sample SS-22 and its field duplicate SS-26 at concentrations of 2,930 mg/kg and 13,000 mg/kg, respectively. Because there was such a large difference between the two results, on June 20, 2019, Wasatch personnel collected an additional soil sample (SS-22-1) and an additional field duplicate (SS-26-1) in the area of SS-2. Total arsenic was reported at concentrations of 1,590 mg/kg and 1,790 mg/kg, in the respective samples SS-22-1 and SS-26-1; however, these concentrations are still the highest detected at the Facility, and are well above the U.S. EPA RSL for Industrial Soil and above the U.S. EPA Protection of Groundwater Risk/MCL-Based Site-Specific DAF of 20 SSLs. This area shows some soil staining and appears to be limited in size to approximately 15 feet by 20 feet.

Total lead was detected in soil samples SS-5, SS-22, SS-22-1, and its field duplicate SS-26-1, at concentrations ranging from 819 mg/kg to 1,740 mg/kg above its U.S. EPA RSL for Industrial Soil of 800 mg/kg. Additionally, several soil samples had reported concentrations of lead exceeding the U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 280 mg/kg.

With the exception of arsenic and lead, all metals were reported at concentrations below their respective U.S. EPA RSLs for Residential and Industrial Soil in all of the collected soil samples. The highest concentrations of lead and arsenic appear to be primarily limited to the area of SS-22 (including field duplicates and additional samples collected in this area). Additionally, during sample collection, the soils in this area appeared to be stained. Based on the analytical results, it appeared a metals release had occurred in the area of soil sample SS-22.

Some constituents, primarily metals, were detected at concentrations that exceed their respective U.S. EPA RSLs for Industrial Soil and/or U.S. EPA Protection of Groundwater Risk/MCL-Based Site-Specific DAF of 20 SSLs; therefore, an Industrial Risk Evaluation was conducted for the Facility by AQS Environmental Science. The risk assessment was conducted following the Utah DWMRC and U.S. EPA approved methodologies and U.S. EPA RSLs (April 2019). Samples included 24 surface soil samples (SS-1 through SS-23 and SS-22-1). Samples SS-24 through SS-26 and SS-26-1 were duplicates. Samples were analyzed for SVOCs and metals.

The results of the risk assessment did not support industrial/commercial use without additional actions. Based on the results of the preliminary industrial risk evaluation, there was an apparent hot spot around sample SS-22 that drives site risk. Arsenic concentrations were significantly elevated in the area of SS-22. Based on the results of the Industrial Risk Evaluation, it was necessary to remove and transport the soil in this area to an appropriate disposal facility and to collect confirmation soil samples for metals to demonstrate remaining concentrations were within acceptable levels for industrial/commercial use.

### **1.5 Site Excavation Activities**

In February 2020, Wasatch supervised the removal of approximately 173 tons of arsenic-impacted soil in the area around SS-22. Four composite confirmation sidewall samples and two composite confirmation base soil samples were collected from the excavation as depicted on Figure 2. Numerous metals were

detected in the confirmation soil samples; however, with the exception of total arsenic, all detected concentrations were well below their respective U.S. EPA RSLs for Industrial Soil.

Total arsenic was detected in all of the confirmation soil samples at concentrations ranging from 2.91 mg/kg to 16.1 mg/kg. Many of these arsenic concentrations are above the U.S. EPA RSL for Industrial Soil for arsenic of 3.0 mg/kg; however, none of the total arsenic concentrations exceed the Geneva Steel Background-Based Remediation Goal of 22.8 mg/kg for arsenic. The Geneva Steel Background-Based Remediation Goal of 22.8 mg/kg is the Utah DWMRC approved screening level for Parish Chemical; therefore, all remaining arsenic conditions meet industrial/commercial risk.

Total lead was detected in all of the confirmation soil samples at concentrations ranging from 9.10 mg/kg to 44.2 mg/kg, below the U.S. EPA RSL for Industrial Soil of 800 mg/kg, as well as, the U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 280 mg/kg for total lead.

Total barium was detected in all confirmation soil samples at concentrations ranging from 29.8 mg/kg to 153 mg/kg, below its U.S. EPA RSLs for Industrial Soil of 220,000 mg/kg. These concentrations are also below their respective U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL and Risk-Based Site Specific DAF of 20 SSL of 1,640 mg/kg and 3,200 mg/kg for total barium.

Total cadmium was detected in several of the confirmation soil samples at concentrations ranging from 0.580 mg/kg to 0.924 mg/kg. These concentrations are below its U.S. EPA RSL for Industrial Soil of 980 mg/kg, as well as, the U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 7.6 mg/kg for total cadmium.

Total chromium was detected in most of the confirmation soil samples at concentrations ranging from 17.1 mg/kg to 40.1 mg/kg, below its U.S. EPA RSL for Industrial Soil of 1,800,000 mg/kg, and below the U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 800,000,000 mg/kg for chromium.

Total mercury was detected in two of the confirmation soil samples (CS-W and CS-N) at concentrations of 0.0595 mg/kg and 0.0715 mg/kg, respectively, below its U.S. EPA RSL for Industrial Soil of 46 mg/kg. These concentrations are also below the U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 0.66 mg/kg, and its U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 2.0 mg/kg for total mercury.

Total selenium was detected in duplicate confirmation soil sample CS-E, CS-Ed at a concentration of 3.81 mg/kg, below its U.S. EPA RSLs for Industrial Soil of 5,800 mg/kg. These concentrations are also below its U.S. EPA Protection of Groundwater MCL-Based Site-Specific DAF of 20 SSL of 5.2 mg/kg, as well as, its U.S. EPA Protection of Groundwater Risk-Based Site-Specific DAF of 20 SSL of 10.4 mg/kg for total selenium.

Total silver was not detected in any of the confirmation soil samples.

Based on the analytical results, the remaining metal concentrations are within acceptable levels for industrial/commercial use. As remaining metal concentrations do not meet residential standards, the Facility can only be used for industrial/commercial purposes.

Through this SMP and an Environmental Covenant (EC), including necessary activity and use limitations, the risk posed by residual metal impacts in soil at the former Parish Chemical facility will be mitigated. The management requirements of the SMP and activity and use limitations of the EC will be protective of human health and the environment.

## **2. SITE MANAGEMENT**

### **2.1 Activity and Use Limitations**

The EC to be recorded against the former Parish Chemical facility imposes the following activity and use limitations:

#### **2.1.1 Site Management Plan**

The Owner shall comply with this SMP.

#### **2.1.2 Land Use Limitations**

The former Parish Chemical facility is suitable for commercial and industrial use consistent with applicable local zoning laws. The Facility is not suitable for use as residential or day care.

#### **2.1.3 Groundwater Limitations**

Groundwater shall not be accessed or used for potable, culinary, domestic, commercial or industrial process(es), irrigation, livestock water, or any other purposes except for investigation or remediation thereof.

### **2.2 Maintenance, Access, and Inspections**

Under the EC, the Owner of the former Parish Chemical facility shall be responsible for compliance with the SMP and EC.

The Holder under the EC and the Director and their respective authorized agents, employees, and contractors shall have rights of reasonable access to the former Parish Chemical facility at any time after the effective date of the EC for inspections of the compliance with the EC, and for complying with the terms and conditions of the EC and this SMP. Nothing in this SMP shall be construed as expanding or limiting any access and inspection authorities of the Holder or Director under the law.

#### **2.2.1 Notice**

Any party or person desiring to access the former Parish Chemical facility under authority of the EC shall provide notice to the then current Owner of the former Parish Chemical facility not less than 48 hours in advance of accessing the former Parish Chemical facility, except in the event of an emergency condition which reasonably requires immediate access. In the event of any such emergency condition, the party exercising this access right will provide notice to the then current owner of the affected portion of the former Parish Chemical facility requiring access as soon thereafter as is reasonably possible.

### **2.3 Environmental Covenant**

An EC containing the above referenced activity and use limitations will be recorded with the Office of the County Recorder of Utah County, Utah.

### **2.4 Site Management Contacts**

Inquiries concerning the SMP should be directed to the following:

**Steve Pruitt**  
**AFP West**  
3963 East Alpine Valley Circle  
Sandy, Utah 84092

(801) 541-3733

**Utah Department of Environmental Quality  
Division of Waste Management and Radiation Control**

Director

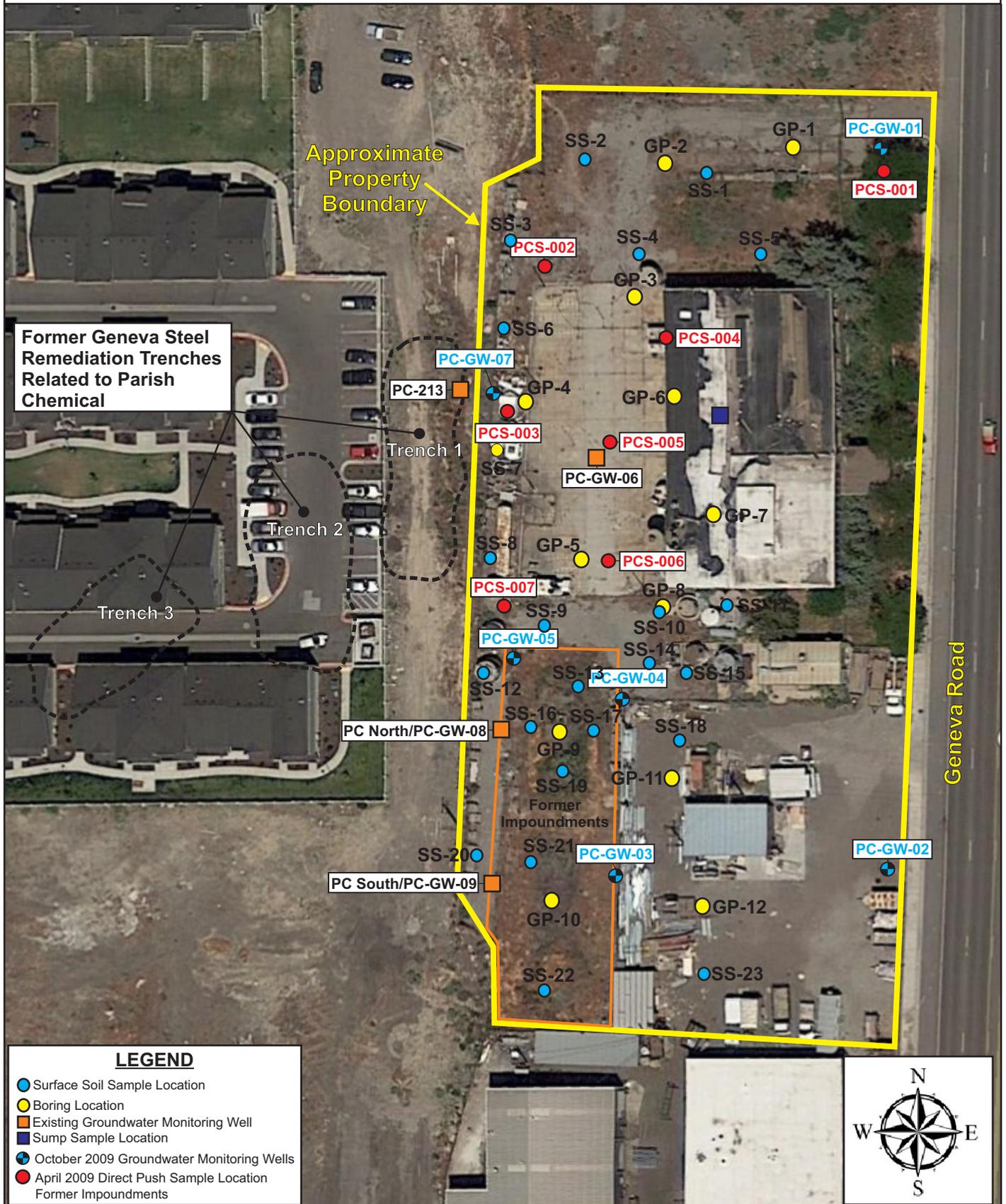
P.O. Box 144880

Salt Lake City, Utah 84114-4880

(801) 536-0200

**Exhibit A**

**Historical Sample Location Map and Excavation and Soil Confirmation Sample Location Map**

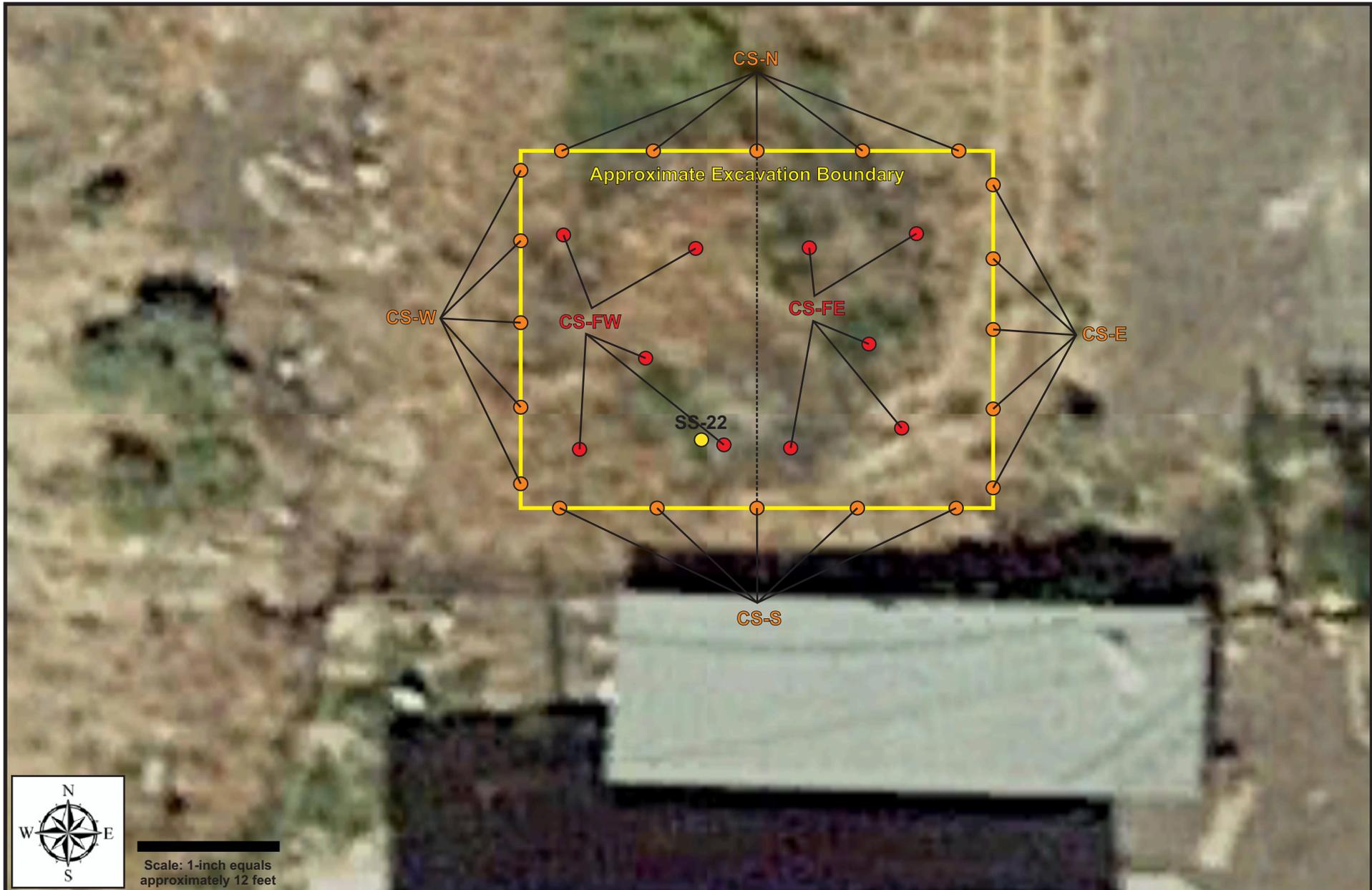


**LEGEND**

- Surface Soil Sample Location
- Boring Location
- Existing Groundwater Monitoring Well
- Sump Sample Location
- October 2009 Groundwater Monitoring Wells
- April 2009 Direct Push Sample Location
- Former Impoundments

Scale: 1 inch equals approximately 64 feet

Figure 1 - Historical Sample Location Map



Scale: 1-inch equals approximately 12 feet

- Previous Surficial Soil Sample
- Approximate Aliquot Floor Sample Location
- Approximate Aliquot Sidewall Sample Location

  
**WASATCH**  
 ENVIRONMENTAL  
*Environmental Science and Engineering*

**Excavation and Soil Confirmation Sample Location Map**

Parish Chemical

PROJECT NO.: 1315-002B	DATE: 3/27/2020	FIGURE 2
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