



November 28, 2022

Jean Wyatt  
Site Assessment Manager  
U.S. Environmental Protection Agency Region 8  
1595 Wynkoop St.  
Denver, CO 80202

**Subject: Hwy 24 Mill Site Final Preliminary Assessment**  
**Colorado Springs, El Paso County, Colorado**  
**EPA Contract No. 68HE0820D0001**  
**TD No: 2083-2208-02**  
**DTN: 1028b**

Dear Ms. Wyatt:

Tetra Tech, Inc. Superfund Technical Assessment and Response Team is submitting the enclosed Draft Final Preliminary Assessment report for the Hwy 24 Mill site in Colorado Springs, El Paso County, Colorado. This report incorporates comments received from the Colorado Department of Public health and the Environment regarding the draft final report. Supporting reference materials are also included with this submittal.

If you have any questions or comments regarding this submittal, please contact me at (215) 704-5675, or Brian Croft at (206) 300-0301.

Sincerely,

A handwritten signature in black ink that reads 'Nancy Shannon'.

Nancy Shannon  
START V HRS Specialist

A handwritten signature in black ink that reads 'Brian Croft'.

Brian Croft  
START V Project Manager

Enclosure

cc: Didi Fung, START V Program Manager  
Clayton Longest, START V Document Control Coordinator

**FINAL  
PRELIMINARY ASSESSMENT REPORT**

**HWY 24 MILL SITE  
COLORADO SPRINGS, EL PASO COUNTY, COLORADO**

**U.S. EPA ID NO. CON000821192**

**Prepared for  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
Region 8  
Denver, Colorado**

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| EPA Task Monitor      | : | Jean Wyatt        |
| Telephone No.         | : | (303) 312-6258    |
| Prepared by           | : | Tetra Tech, Inc.  |
| START Project Manager | : | Brian Croft       |
| Telephone No.         | : | (206) 300-0301    |

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## 1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), tasked the Tetra Tech, Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) to conduct a preliminary assessment (PA) of the Hwy 24 Mill site in Colorado Springs, El Paso County, Colorado (EPA Identification Number [No.] CON000821192). The PA proceeded under Contract No. 68HE0820D001, Technical Direction (TD) No. 2083-2208-02.

The purpose of a PA is to review existing information about a site and its environs to assess the threats, if any, posed to human health or the environment and to evaluate whether further investigation under CERCLA/SARA is warranted. The scope of the PA includes reviewing information available from federal, state, and local agencies. Based on these sources of information, the site is evaluated according to EPA Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. EPA adopted the HRS to set priorities for evaluation and remedial action at hazardous waste sites. The HRS is the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL identifies sites where EPA may conduct remedial response actions.

This PA report was prepared in accordance with EPA's *Guidance for Performing Preliminary Assessments under CERCLA* (EPA 1991), *Guidance for Performing Site Inspections under CERCLA* (EPA 1992), and *Hazard Ranking System Final Rule* (EPA 2017).

## 2.0 OBJECTIVES

The objectives of this document were designed to support an assessment of hazardous conditions at the site based on current understanding. In addition to reviewing existing information and evaluating current conditions, the PA report also includes an evaluation of analytical results from soil samples collected as part of a recent removal sampling event.

The objectives of this PA were to:

- Assess current and historical conditions at the site, including any industrial uses;
- Evaluate previously collected site data, records, and reference materials, as well as recently collected soil samples to identify sources of contamination and assess migration and exposure pathways;

- Evaluate migration and exposure pathways that could potentially be impacted by hazardous substances, affecting human and environmental health; and
- Identify whether the site warrants further investigation under CERCLA.

### **3.0 SITE BACKGROUND**

This section discusses the site background, including location, description, previous investigations, and removal actions.

#### **3.1 SITE LOCATION AND DESCRIPTION**

The Hwy 24 Mill site is located at 1025 Garner Street, Colorado Springs, Colorado, as shown on **Figure 1**. The geographic coordinates of the site are 38.832490 north latitude and -104.845400 west longitude, as measured from a central point within the area of observed soil contamination at the A-1 Mobile Home Village. The focus of this PA was the A-1 Mobile Village, that encompasses 11.4 acres, and that has documented soil contamination as a result of the deposition and migration of soils and mine tailings associated with the adjacent former Golden Cycle Mill mining facility and associated tailings pile.

The A-1 Mobile Village consists of 82 mobile home lots, as well as an office, garage, and miscellaneous common areas, as shown on **Figure 2** (El Paso County 2022a). The A-1 Mobile Village was constructed adjacent to the former Golden Cycle Mill mining facility and associated tailings pile, Gold Hill Tailings site (EPA ID: COD983801275), located immediately west of the mobile home village (Ecology and Environment [E&E] 1995). In historical aerial photographs from 1960, trailers appear on the property where A-1 Mobile Village is currently located (Environmental Data Resources, Inc. [EDR] 2022). The A-1 Mobile Home Village is bordered to the north and east by Fountain Creek, beyond which is U.S. Highway 24 (W. Cimmaron St.), to the south by a recreational vehicle park, and to the west by the tailings pile and the former Golden Cycle Mill property, which is in the process of being developed and consists of the Gold Hill Mesa housing development and Villa De Mesa condominiums.

#### **3.2 TAILINGS PILE SITE HISTORY**

The tailings pile, located immediately adjacent to the western boundary of the A-1 Mobile Home Village, historically covered approximately 170 acres and consisted of tailings produced by the milling of ore from the Cripple Creek Mining District in Colorado. A total of 14.3 million tons of ore were processed yielding 12.5 million tons of tailings. The tailings were produced by the Golden Cycle Mill mining facility from

approximately 1901 until February 1949. The mill originally processed the ore using a bromide process. In 1907, the mill began using a roasting and cyanide method to process ore (Morrison Knudsen Corporation [Morrison Knudsen] 1993).

A Sanborn fire insurance map from 1907 shows seven furnaces, railroad spurs, various size process and storage tanks inside process buildings, a coal-fired electric generating plant, ore bins and machine and boiler shops. In 1929, a concentrator unit was constructed to treat complex sulfide ores that contain lead, copper, and zinc. Tailings from the concentrator were further treated with cyanide to recover additional gold and silver. In 1931, a small-capacity cyanide unit was added to the plant (Morrison Knudsen 1993).

In 1947, two sprinkler lines were installed on the tailings pile to reduce the amount of fine sand and dust that blew over Colorado Springs during windstorms. Residents near the mill continued to complain about dust blowing off the property. In 1950, approximately 357,440 tons of dirt from hills adjacent to the mill were used to cover the 170-acre tailings pile to a depth of 6 to 8 inches. The mill was dismantled in 1950 (Morrison Knudsen 1993). An aerial photograph from 1969 shows some units of the Villa de Mesa Condominiums completed (EDR 2022). Most of this 11.5-acre development was constructed on the tailings pile (Morrison Knudsen 1993).

In 1972, the Golden Cycle Corporation sold the property to William Wiley. William Wiley formed the Gold Hill Mesa Corporation and formed a joint venture with the Fountain Creek Corporation. The joint venture was granted a conditional use permit by the city of Colorado Springs. The permit allowed for the construction and operation of a pilot scale surface mining operation known as the Gold Hill Recycle Project located on 154 acres of property. This project was to test the feasibility of recovering additional gold and silver from the tailings. A five-acre plot in the southern portion of the property was revegetated in 1973 by Gold Hills Mesa Corporation. Additional revegetation work was conducted by Shuck Corporation in 1974. In 1992, Colorado Springs Regional Building Department condemned the facility due to unsafe conditions and frequent use by youths and transients (Morrison Knudsen 1993).

In 2000 and in 2002, ERSR, LLC, entered into a voluntary cleanup (VCUP) agreement with the Colorado Department of Public Health and the Environment (CDPHE) for the cleanup and reuse of the former Golden Cycle Mill property, including the associated tailings pile (i.e. Gold Hill Tailings site) (Spectrum 2000a; 2000b; 2002). Under the VCUP, the mine waste on the property was proposed to be capped with hardscape (i.e., sidewalks, driveways, parking lots, etc.) or with a landscaped engineered soil cap. The engineered soil cap was to be consisted of a geotextile warning barrier on top of mine waste (i.e., tailings), overlain with a variable thickness of a fill mixture of clay borrow and up to 25% tailings, which is in turn overlain with the

upper 12-inch layer of 100% clay borrow or topsoil depending on vegetation requirements (Newfields 2002). A review of aerial photographs show that construction of the Gold Hill Mesa housing development on the former Golden Cycle Mill property was underway by 2005 (EDR 2022). Most recent aerial photographs show that approximately three-quarters of the former mill property have been redeveloped and the large tailings pile has been significantly reduced and graded to continue expansion of the housing development. A 196-foot tall concrete smokestack associated with the former mill is still intact and present on the property (Morrison Knudsen 1993; Google Earth 2022).

### **3.3 PREVIOUS INVESTIGATIONS**

In 1993, EPA conducted a PA of the Gold Hill Tailings site (EPA ID: COD983801275), which is described as consisting of the 170-acre tailings pile and the millsite of the former Golden Cycle Mill mining facility. During the PA, it was observed that the north and northeast sides of the tailings pile sloped steeply toward Fountain Creek, which is adjacent to the north of the tailings pile, and toward A-1 Mobile Village to the east, forming a depositional area. The edge of this depositional area extended onto the A-1 Mobile Village property and appeared to be within 200 feet of 17 trailers. At the time of the PA, it was unknown if cover material that was placed on the pile in 1949 and 1950 had been eroded to expose tailings material (Morrison Knudsen 1993).

In 1994, EPA conducted a site inspection of the Gold Hill Tailings site, which included the collection of soil samples from the mill area, tailings piles, A-1 Mobile Village as well as background soil samples for comparison. Contaminants in the soil samples collected from the mill, tailings pile, and mobile home village were considered significantly above background if concentrations were at least three times the concentrations in the background samples. Analytical results of these samples are summarized below (Morrison Knudsen 1994):

- Samples collected from the mill area indicated the presence of arsenic (up to 385 milligrams per kilogram [mg/kg]), lead (up to 1,630 mg/kg), mercury (up to 4.7 mg/kg), and cyanide (up to 393 mg/kg) at concentrations significantly above background.
- Samples collected from the tailings pile indicated the presence of arsenic (up to 290 mg/kg), lead (up to 1,240 mg/kg), mercury (up to 0.34 mg/kg), and cyanide (up to 25.4 mg/kg) at concentrations significantly above background.
- Samples collected from the depositional area at A-1 Mobile Village indicated the presence of arsenic (up to 103 mg/kg), lead (up to 779 mg/kg), mercury (up to 0.19 mg/kg), and cyanide (up to 1.7 mg/kg) at concentrations significantly above background.

In February 1995, EPA investigated the Gold Hill Tailings site that included the collection of soil samples from the A-1 Mobile Village and the tailings pile as well as interior dust samples from several mobile homes.

All soil samples were analyzed in the field using X-ray fluorescence (XRF); seven soil samples from the tailings pile and three soil samples from A-1 Mobile Village were submitted to a fixed laboratory for analysis. Laboratory analytical results of the samples are summarized below (E&E 1995):

- Dust samples collected from the interiors of several mobile homes indicated the presence of arsenic (up to 65.9 mg/kg) and lead (up to 432 mg/kg).
- Samples collected from the A-1 Mobile Village indicated the presence of arsenic (up to 80 mg/kg), lead (up to 527 mg/kg), and cyanide (up to 1.8 mg/kg).
- Samples collected from the area between the A-1 Mobile Village and the tailings pile indicated the presence of arsenic (up to 97 mg/kg), lead (up to 248 mg/kg), and cyanide (up to 10.1 mg/kg).
- Samples collected from the tailings pile indicated the presence of arsenic (up to 272 mg/kg), lead (up to 1,570 mg/kg), and cyanide (up to 13 mg/kg).

Historically, dust from the Gold Hill Tailings site, the former Golden Cycle Mill mining facility and the 170-acre tailings pile located on the mining facility property, appeared to be an issue to the nearby residential area. In 1996, EPA had developed a sampling plan to collect air samples from nearby residential areas to determine whether residential populations were being exposed to hazardous substances associated with contaminated soil at the mill property and tailings pile. However, during this time period, the project area was the subject of a CDPHE VCUP that resulted in soil cover and dust mitigation measures that were implemented during the voluntary clean-up at the Gold Hill Tailings site. Based on available information, it does not appear that EPA conducted air sampling in residential areas at this time.

#### **4.0 SOURCE DESCRIPTION AND WASTE CHARACTERISTICS**

This section describes the source at the site and provides information on waste source characteristics.

##### **4.1 SOURCE DESCRIPTION**

For HRS purposes, a source is defined as an area where a hazardous substance has been deposited, stored, or placed, as well as those soils that have become contaminated from the migration of a hazardous substance.

The sources associated with the Hwy 24 Mill site are described below and shown on **Figure 2**:

- Source 1:** Contaminated soil associated with the location of the former mill area on the former Golden Cycle Mill property.
- Source 2:** Contaminated soil associated with the 170-acre tailings pile located on the former Golden Cycle Mill property. #



As discussed in Section 2.2, the Golden Cycle Mill operated from approximately 1901 to 1949 milling ore. During its years of operation, an approximately 170-acre tailings pile was generated on the property. The tailings piled was covered with 6 to 8 inches of soil in 1950, once milling operations ceased. However, based on samples collected from the tailings pile in 1994, as discussed below, it is likely the soil cover placed on the tailings pile in 1950 eroded over time.

In 1994, soil samples collected from the mill area (Source 1) indicated the presence of arsenic (up to 385 mg/kg), lead (up to 1,630 mg/kg), mercury (up to 4.7 mg/kg), and cyanide (up to 393 mg/kg) and from the tailings pile (Source 2) indicated the presence of arsenic (up to 290 mg/kg), lead (up to 1,240 mg/kg), mercury (up to 0.34 mg/kg), and cyanide (up to 25.4 mg/kg) at concentrations significantly above background. Since 2000, the former mill and tailings pile have been the subject of a CDPHE VCUP, with the mine waste being capped by hardscape or engineered soil cap and a housing development constructed on the property.

**Source 3:** Contaminated soil at the A-1 Mobile Home Village.

As previously discussed, the A-1 Mobile Home Village is adjacent to the former mill property (Source 1). Additionally, the approximate 170-acre tailings pile (Source 2) abuts the mobile home park to the west. Historically, a portion of the tailings pile had been observed encroaching onto the A-1 Mobile Village property (Morrison Knudsen 1993). Six to 8 inches of soil were placed on the tailings pile in 1950 and a cap was installed in the early 2000s. However, prior to the soil coverage in 1950, contaminated soil from the tailings pile likely migrated onto the property that became A-1 Mobile Village by means of overland flow during periods of rain or by aerial deposition during windy periods. Runoff channels from the tailings pile toward A-1 Mobile Village can be seen on aerial photographs dating back to 1937 and continuing to the present (EDR 2022; Google Earth 2022).

**Source 4:** Potentially contaminated soil on nearby properties to the former mill and tailings pile.

Contaminated soil associated with Sources 1 and 2, as well as potential emissions from the smokestack during its years of operation, likely have been deposited onto nearby properties by means of air deposition prior to 1950. The cover on the tailings pile likely eroded over time, as evidenced by soil samples collected from the tailings pile in 1994 and 1995 containing high concentrations of arsenic, lead, mercury, and cyanide; therefore, the tailings pile likely continued to be a source for hazardous substances being deposited on nearby properties via air deposition until the early 2000s when the property was entered into the CDPHE VCUP. Information regarding the historic use and hazardous substances associated with the smokestack is not currently available.

## 4.2 WASTE CHARACTERISTICS

In May 2022, Tetra Tech, on behalf of EPA, collected soil samples from the A-1 Mobile Village to characterize the concentrations of metals—particularly lead and arsenic—in surface. Samples were collected from decision units (DU) using incremental sampling methodology (ISM). A total of 97 DUs are associated with the sampling including:

- 83 individual lots (including the 81 occupied trailer properties, one office property, and one vacant property); and
- 14 common areas such as unoccupied areas along roadways located throughout the mobile village.

In addition, three off-site (background) DUs were sampled to assess background for the site:

- Three areas located at Sondermann Park in Colorado Springs were selected approximately 2 miles north of the site.

During ISM sampling activities, 5-point composite soil samples were collected from two depth intervals at each sampled DU, including 0 to 1 inch below ground surface (bgs) and 1 to 6 inches bgs.

Concentrations of arsenic in background soils in the 0 to 1 inch depth interval ranged from 7.1 to 11 mg/kg, and lead ranged from 29 to 36 mg/kg. In the 1 to 6 inches depth interval, arsenic concentrations ranged from 7.4 to 11 mg/kg, and lead concentrations ranged from 22 to 37 mg/kg. These concentrations were in line with the U.S. Geological Survey published background level for El Paso County, Colorado of 35.2 mg/kg for lead, and 7.88 mg/kg for arsenic (USGS 2008).

Arsenic and lead in soils at the A-1 Mobile Home Village (Source 3) were consistently higher in concentration as compared to background. Concentrations of arsenic in soils in the 0 to 1 inch depth interval ranged from 19 to 100 mg/kg, and lead ranged from 50 to 640 mg/kg. In the 1 to 6 inches depth interval, arsenic concentrations ranged from 15 to 140 mg/kg, and lead concentrations ranged from 48 to 700 mg/kg. In addition to arsenic and lead, several other metals were also detected in soil samples at concentrations exceeding three times the background level, such as antimony, cadmium, copper, silver, and zinc.

Analytical results of the highest concentration of each analyte in the three background samples are summarized in **Table 1**. The background concentrations were used in this PA to identify whether samples met the observed contamination criteria for the soil exposure component of the soil exposure and subsurface intrusion pathway. The area of soil with observed contamination is defined as that in which metal concentrations equal or exceed three times background levels. When considering all inorganics, all collected samples had at least one inorganic analyte that meets the observed contamination criteria (**Table 1**).

Therefore, the entire A-1 Mobile Village property (Source 3), as shown on **Figure 2**, is considered the area of observed contamination.

Samples were not collected from the former mill property (Source 1) or tailings pile (Source 2) as part of this PA as those areas are currently being addressed under a CDPHE VCUP. Additionally, EPA has not yet collected soil samples from additional areas, such as the residential area to the north and northeast across Route 24 (Source 4), to determine whether an area of observed contamination is present beyond the A-1 Mobile Home Village.

## **5.0 MIGRATION AND EXPOSURE PATHWAYS**

This section describes the migration and exposure pathway characteristics, provides information on potential targets associated with each pathway, and presents conclusions regarding the significance of each migration or exposure pathway.

### **5.1 GROUNDWATER MIGRATION PATHWAY**

#### **5.1.1 Geology and Hydrogeology**

The site lies within the Denver Basin, a sub-basin of the South Platte River Basin. The site is underlain by the Pierre Shale Formation, which consists of medium to dark gray marine claystone, shale, siltstone, limestone, and sandstone that was deposited in a shallow seaway during the Cretaceous Period. The thickness of the Pierre Shale Formation ranges from 3,555 to 5,290 feet in the Denver Basin. The Pierre Shale Formation is underlain by the Niobrara Formation, which consists of shale in the upper portion of the formation, and a dense limestone in the lower portion. The Niobrara Formation has an apparent thickness of 300 feet. The Fox Hills Sandstone, a shaly sand, overlies the Pierre Shale Formation, and has an apparent thickness of approximately 200 feet. The southwest edge of the Denver Basin lies a few miles northeast of the site (Colorado Geological Survey [CGS] 1974, 1993, 2000; Morrison Knudsen 1993). Surficial geologic maps indicate that Fountain Creek, upstream and downstream from the site, is underlain by alluvium (CGS 2000). The surficial deposits on the east side of the site consist of windblown sands (CGS 2000).

West of the site is a geologically complex area where many formations outcrop at or near hogback ridges. These formations include the Morrison, Ralston Creek, Lykins, Lyons Sandstone, Pike's Peak Granite, Boulder Creek Granodiorite, Niobrara, Carlisle Shale, Greenhorn Limestone, and Graneros Shale formations (Morrison Knudsen 1993; CGS 1993, 2000).

The primary source of groundwater in the South Platte River basin is infiltration of precipitation. Part of the snowmelt and rain is carried by the streams, part evaporates, and the remainder infiltrates into the ground. The water that is not consumed by vegetation moves downward into the zone of saturation (the zone saturated with water under hydrostatic pressure) in the soil or rocks. Water in the zone of saturation percolates laterally through the more permeable consolidated rock formations and through the unconsolidated rock materials that overlie the bedrock, ultimately discharging at the surface through wells, seeps, and springs or by evapotranspiration. Groundwater is recharged mainly by subsurface inflow through unconsolidated rock materials; by seepage from streams, reservoirs, and canals; infiltration at irrigated tracts, and by infiltration of precipitation falling directly on the basin (CGS 1964). The depth to unconfined groundwater in valleys in the basin is related to the configuration of the land surface; generally, the depth is greater where the land surface is high, and least where the land surface is low. The depth to groundwater can range from 0 to 80 feet bgs in the unconfined alluvial aquifer (CGS 1964).

Most of the formations within 4 miles of the site are not considered important aquifers; however, the alluvium and Fox Hills Formation are considered important aquifers in the Denver Basin and may yield large quantities of water for public supply (CGS 1993). Alluvial aquifers in parts of the Denver Basin may have well yields of up to 1,000 gallons per minute (gpm) or more, and wells completed in the Fox Hills Formation have well yields that vary from 100 to 600 gpm (CGS 1974).

### 5.1.2 Groundwater Targets and Conclusions

Potential groundwater targets can include people who obtain drinking water from private domestic wells within the 4-mile radius target distance limit (TDL) of the site; and people supplied drinking water from public water suppliers whose water source is from groundwater wells within the 4-mile TDL (see **Figure 3**).

Most people within a 4-mile radius of the site are supplied drinking water by Colorado Springs Utilities (Colorado Springs Utilities 2022a). The Colorado Springs Utilities water source is numerous surface water sources such as mountain streams, creeks, and reservoirs (Colorado Springs Utilities 2022b). A portion of the municipality of Manitou Springs is located within 4 miles of the site (see **Figure 3**) and is supplied drinking water by the municipality whose water source is a surface water reservoir on the slope of Pike's Peak located approximately 7 miles northwest of the Site (Manitou Springs 2022). Because the source of water for Colorado Springs Utilities and Manitou Springs are surface water sources, people supplied drinking water by these utilities are not considered targets associated with the groundwater migration pathway.

Garden Valley, a public water supplier, was identified in EPA's Safe Drinking Water Information System (Tetra Tech 2022a). Garden Valley's water source is 10 groundwater wells located between 3 and 4 miles

from the site; well locations are confidential and therefore are not depicted on **Figure 3** (Tetra Tech 2022a). Garden Valley supplies drinking water to approximately 900 people that reside at Garden Valley mobile home park (Tetra Tech 2022a; El Paso 2022b; Google Earth 2022).

Private domestic well information was not readily available; however, it is assumed that people outside of the Colorado Springs Utilities, Manitou Springs, and Garden Valley water distribution areas may rely on private domestic wells for drinking water. The area within the 4-mile radius not supplied drinking water by a public water supplier is very limited; therefore, it is anticipated there would be minimal potential targets associated with private domestic wells.

Groundwater samples have not been collected at the site to evaluate whether a release to groundwater attributable to the site has occurred. However, the groundwater migration pathway is not considered a significant pathway of concern at the site based on the minimal number of targets associated with the groundwater migration pathway and the distance of the groundwater supply wells—between 3 and 4 miles—from the site.

## **5.2 SURFACE WATER MIGRATION PATHWAY**

### **5.2.1 Hydrologic Setting**

The site is located within the Fountain Creek Watershed District. The Fountain Creek Watershed District drains approximately 930 square miles and extends through downtown Colorado Springs (Arkansas-Fountain Coalition 2019).

Surface water runoff from the source(s) would flow directly into Fountain Creek, which borders the former mill, tailings pile, and A-1 Mobile Home Village to the north and east. Fountain Creek flows south into the Arkansas River at Pueblo, CO, approximately 45 miles downstream from the Site. Fountain Creek in the vicinity of Colorado Springs has a mean flow rate that ranges from 51 cubic feet per second (cfs) near Colorado Springs to 86 cfs near the City of Fountain (USGS 2022a, 2022b). Fountain Creek is listed as an impaired stream under Section 303(d) of the Clean Water Act for arsenic, iron, manganese, selenium, zinc, and *e. coli* (Arkansas-Fountain Coalition 2019). Fountain Creek encompasses the 15-mile downstream TDL, as shown on **Figure 4.#**

### **5.2.2 Surface Water Targets and Conclusions**

No surface water intakes are located within the 15-mile TDL (Tetra Tech 2022a). Colorado Springs Utilities, the main public water supplier in the vicinity of the site, has an intake in Fountain Creek; however, the intake

is located upstream of the site (Tetra Tech 2022a). The other water sources for Colorado Springs Utilities and Manitou Springs are surface water reservoirs outside the 15-mile TDL (Colorado Springs Utilities 2022b; Manitou Springs 2022).

Fountain Creek is not considered a fishery within the 15-mile TDL because of its severe impairment by heavy metals and *e coli*. However, Fountain Creek is fished for recreation. The following fish species have been caught within the 15-mile TDL: largemouth bass, trout (rainbow, bull, brown, and cutthroat), and northern pike (Fishbrain 2022).

The greenback cutthroat trout (*Oncorhynchus clarkia stomias*) and the pallid sturgeon (*Scaphirynchus albus*) are two federally threatened or endangered fish species known to occur within the 15-mile TDL (U.S. Fish and Wildlife [USFWS] 2022a). Additionally, within the 15-mile TDL, two mammal, three bird, and one plant federally threatened or endangered species are known to occur (USFWS 2022a).

Approximately 1,433 feet of wetland frontage are located within the 15-mile TDL along Fountain Creek—approximately 12 miles downstream of the site (Tetra Tech 2022b).

Surface water and sediment samples have not been collected associated with the site to evaluate whether a release attributable to the site has occurred.

The documented contaminated soil source associated with the A-1 Mobile Home Village, as well as contaminated soil at the former mill and tailings pile, are adjacent to the bank of Fountain Creek. Much of the source areas bordering the creek are not covered with hard surfaces, such as asphalt or concrete, and are sparsely vegetated or bare. Surface water runoff potentially containing hazardous substances associated with the site source(s), contaminated soil, would flow directly into Fountain Creek. Fountain Creek is not used for drinking water within the 15-mile TDL and is severely impaired because of heavy metals and *e coli*; however, while not a designated fishery, documented fishing occurs within Fountain Creek along the TDL. Therefore, there is the potential for human consumption of fish caught in the creek. Additionally, Fountain Creek may be a potential habitat for several federally threatened or endangered species that are noted as occurring within the 15-mile TDL.

### **5.3 SOIL EXPOSURE AND SUBSURFACE INTRUSION PATHWAY**

This section discusses the soil exposure component of the soil exposure and subsurface intrusion pathway, as well as targets associated with this pathway. The subsurface intrusion component of this pathway was not evaluated because the source at the site consists of metals-contaminated soil.

### 5.3.1 Physical Characteristics

Four areas of contaminated or potentially contaminated soil have been identified associated with the Site. Two areas, former mill area and tailings pile, are being addressed under a CDPHE VCUP. Contaminated soil associated with the A-1 Mobile Home encompasses approximately 11.4 acres (El Paso County 2022). The A-1 Mobile Village consists of 81 occupied mobile home lots, an unoccupied lot, as well as an office, garage, and miscellaneous common areas (see **Figure 2**). The individual lots contain sparse vegetation and bare soil. Soil on the western portion of the mobile home village is classified as dump material and the eastern portion is classified as Chaseville-Midway complex, which is a gravelly sandy loam (U.S. Department of Agriculture 2022). Asphalt roads traverse the A-1 Mobile Village property. Access to the mobile home park is unrestricted. Additional areas of contaminated soil may be present as a result of air deposition of hazardous substances associated with the former smokestack at the mill or contaminated soil at the tailings pile; however, EPA has not yet conducted investigations in these areas.

### 5.3.2 Soil Exposure Component Targets and Conclusions

The A-1 Mobile Home Village includes approximately 81 occupied mobile home lots, one unoccupied mobile home lot, as well as an office, garage, and miscellaneous unoccupied areas (see **Figure 2**). As discussed in Section 4, all collected surface soil samples had concentrations of at least one metal at a concentration that meets the criterion for observed contamination (three times background concentration). In addition to meeting the criteria for observed contamination, concentrations of arsenic, cadmium, and manganese in soil samples collected from 64 occupied mobile home lots, 3 occupied mobile home lots, and 4 occupied mobile home lots, respectively, also exceeded applicable EPA's residential Regional Screening Levels (RSL) (EPA 2022). Concentrations of lead that meet the criterion for observed contamination also exceeded EPA's recommended soil lead level in samples collected from 15 occupied mobile home lots.

Using the El Paso County household average of 2.63 persons per household (U.S. Census Bureau 2022), a total of 213 ( $81 \times 2.63$ ) people reside within the area of observed contamination with 168.32 ( $64 \times 2.63$ ) people residing on property with arsenic, cadmium, or manganese levels exceeding the RSL. Approximately 9,192 people reside within 1 mile of the site (Tetra Tech 2022c).

Additional targets associated with the soil exposure pathway may be present in residential areas to the north and northeast across Route 24 from the former mill and tailings pile. Soil in these areas may have become contaminated as a result of the migration of hazardous substances from the tailings pile or smokestack by means of air deposition. The soil exposure component of the soil exposure and subsurface intrusion pathway is the primary pathway of concern at the site.

## 5.4 AIR MIGRATION PATHWAY

This section discusses the air migration pathway, as well as targets associated with this pathway.

### 5.4.1 Physical Characteristics

As previously discussed, the source(s) at the site consists of metals-contaminated soil. The documented contaminated soil present at the site is sparsely vegetated to bare soil; therefore, there is the potential for the contaminated soil to migrate by means of air deposition.

### 5.4.2 Air Migration Pathway Targets and Conclusions

The population that resides within a 4-mile radius of the site is described in the table below:

| Radial Distance from Site<br>(miles) | Population (number of persons) |
|--------------------------------------|--------------------------------|
| 0 - 0.25                             | 534                            |
| >0.25 - 0.50                         | 2,192                          |
| >0.50 - 1.0                          | 6,466                          |
| >1.0 - 2.0                           | 29,680                         |
| >2.0 - 3.0                           | 35,165                         |
| >3.0 - 4.0                           | 45,507                         |

(Tetra Tech 2022c)

#

Several federally threatened or endangered species such as gray wolf (*Canis lupus*), Preble's meadow jumping mouse (*Zapus hudsonius preblei*), mexican spotted owl (*Strix occidentalis lucida*), and eastern black rail (*Laterallus jamaicensis*) are known to or potentially may occur within a 4-mile radius of the site (USFWS 2022b). The wetland acreage within a 4-mile radius of the site is provided in the table below:

| Radial Distance from Site<br>(miles) | Wetlands (acreage) |
|--------------------------------------|--------------------|
| 0 - 0.25                             | 0                  |
| >0.25 - 0.50                         | 0                  |
| >0.50 - 1.0                          | 9.7                |
| >1.0 - 2.0                           | 3.116077           |
| >2.0 - 3.0                           | 23.254747          |
| >3.0 - 4.0                           | 32.236343          |

(Tetra Tech 2022b)

Air samples have not been collected at the site; however, dust samples collected from the interiors of several mobile homes in 1995 showed concentrations of arsenic at 65.9 mg/kg, and lead at 432 mg/kg. Because the



source(s) at the site are largely bare contaminated soil, the air migration pathway is a potential pathway of concern.

## **6.0 SUMMARY AND CONCLUSIONS**

The focus of this PA was the A-1 Mobile Village, that encompasses 11.4 acres, and that has documented soil contamination as a result of the deposition and migration of soils and mine tailings associated with the adjacent former Golden Cycle Mill mining facility and tailings pile. The A-1 Mobile Village consists of 82 mobile home lots, as well as an office, garage, and miscellaneous common areas. The A-1 Mobile Village was constructed adjacent to the tailings pile, Gold Hill Tailings site (EPA ID: COD983801275), associated with the former Golden Cycle Mill located immediately west of the village. In historical aerial photographs from 1960, trailers appear on the property where A-1 Mobile Village is currently located. The A-1 Mobile Home Village is bordered to the north and east by Fountain Creek, beyond which is U.S. Highway 24 (W. Cimmaron St.), to the south by a recreational vehicle park, and to the west by the tailings pile and the former Golden Cycle Mill property, which is in the process of being developed and consists of the Gold Hill Mesa housing development and Villa De Mesa condominiums

Four areas of contaminated soil are source(s) associated with the site: 1) contaminated soil associated with the former mill area; 2) contaminated soil associated with the 170-acre tailings pile; 3) contaminated soil at the A-1 Mobile Home Village; and 4) potentially contaminated soil in other nearby areas. However, since 2000, the former mill (Source 1) and tailings pile (Source 2) have been the subject of a CDPHE VCUP. Contaminated soil at the A-1 Mobile Village and potentially other areas have not been addressed.

The primary pathway of concern at the site is the soil exposure component of the soil exposure and subsurface intrusion pathway. Arsenic and lead in soils at the A-1 Mobile Home Village were consistently higher in concentration as compared to background. In addition to arsenic and lead, several other metals were also detected in soil samples at concentrations exceeding three times the background level, such as antimony, cadmium, copper, silver, and zinc. In addition to meeting the criteria for observed contamination, concentrations of arsenic, cadmium, and manganese in soil samples collected from 64 occupied mobile home lots, 3 occupied mobile home lots, and 4 occupied mobile home lots, respectively, also exceeded applicable EPA's RSLs. Concentrations of lead that meet the criterion for observed contamination also exceeded EPA's recommended soil lead level in samples collected from 15 occupied mobile home lots.

Samples were not collected from the former mill property or tailings pile as part of this PA as those areas are currently being addressed under a CDPHE VCUP. Additionally, EPA has not yet collected soil samples

from additional areas, such as the residential area to the north and northeast across Route 24, to determine whether an area of observed contamination is present beyond the A-1 Mobile Home Village.

The surface water migration pathway and air migration pathway may be pathways of potential concern at the site. Surface water runoff potentially containing hazardous substances associated with the site would flow directly into Fountain Creek. Fountain Creek is not used for drinking water within the 15-mile TDL and is severely impaired because of heavy metals and *e coli*; however, while not a designated fishery, documented fishing occurs within Fountain Creek along the TDL. Therefore, there is the potential for human consumption of fish caught in the creek. Additionally, Fountain Creek may be a potential habitat for several federally threatened or endangered species that are noted as occurring within the 15-mile TDL.

The source at the site is largely bare soil; therefore, there is the potential for hazardous substances associated with the site to migrate via air migration pathway. Air samples have not been collected at the site; however, dust samples collected from the interiors of several mobile homes in 1995 showed concentrations of arsenic at 65.9 mg/kg and lead at 432 mg/kg.

Groundwater samples have not been collected at the site to evaluate whether a release to groundwater attributable to the site has occurred. However, the groundwater migration pathway is not considered a pathway of concern at the site based on the minimal number of targets associated with the groundwater migration pathway and the distance (between 3 and 4 miles) of groundwater supply wells from the site.

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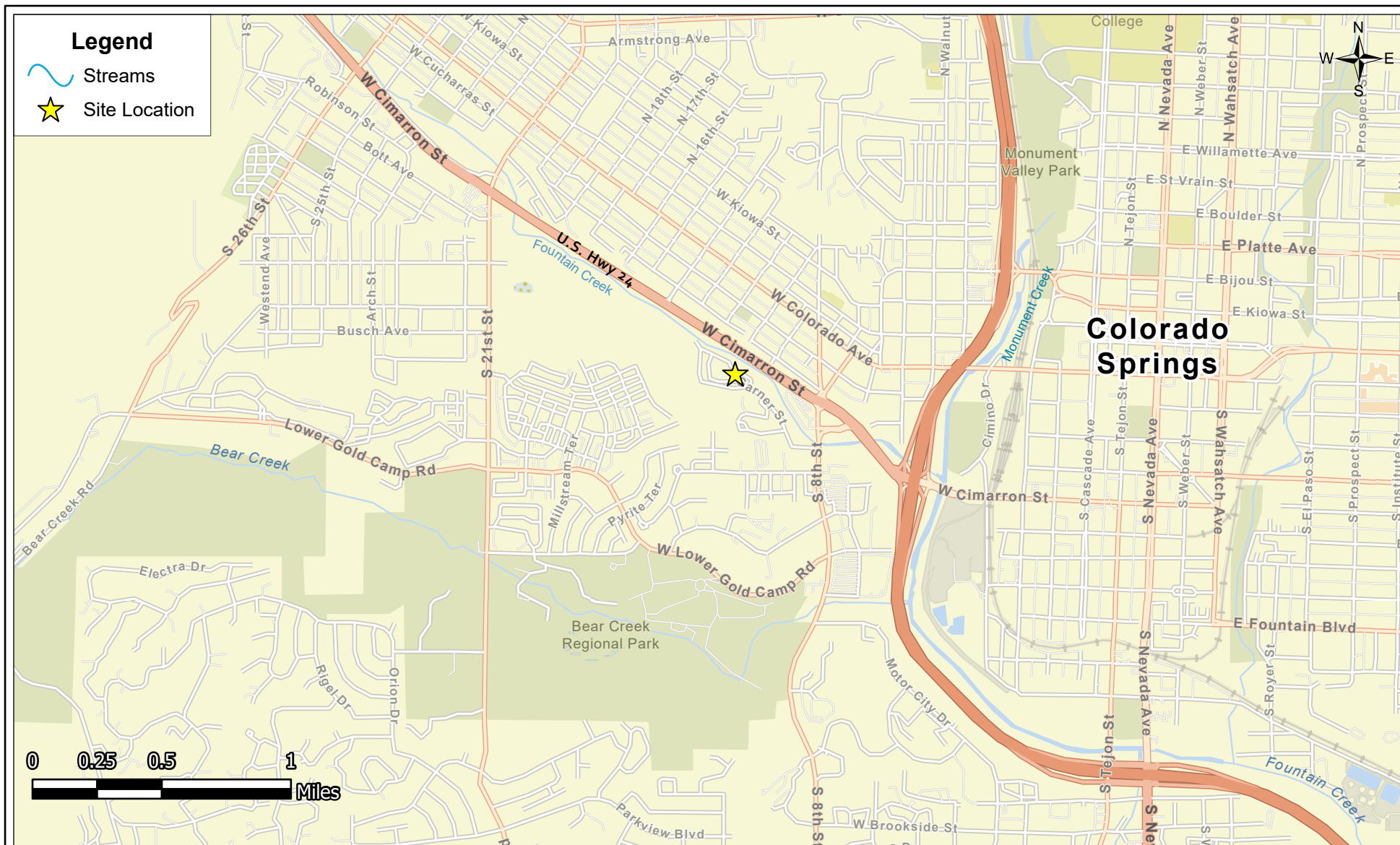
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## **APPENDIX A**

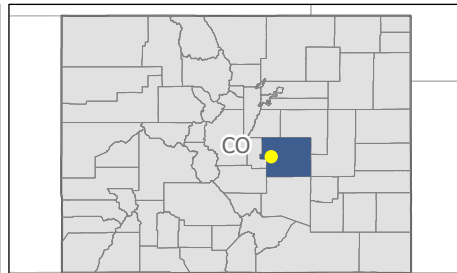
### **FIGURES**

(Four Pages)



#### Notes:

**Source:**  
 Background: ESRI World Street Map Basemap  
 Streams: USGS NHD Cached REST Service  
 Parcels: El Paso County  
 Spatial Reference: WGS 1984 Web Mercator Auxiliary Sphere  
 Coordinate System



United States  
Environmental  
Protection Agency

Region 8 START V  
TD: 2083-2208-02



**TETRA TECH**

Analyst: M. Caldwell  
Date: 11/22/2022

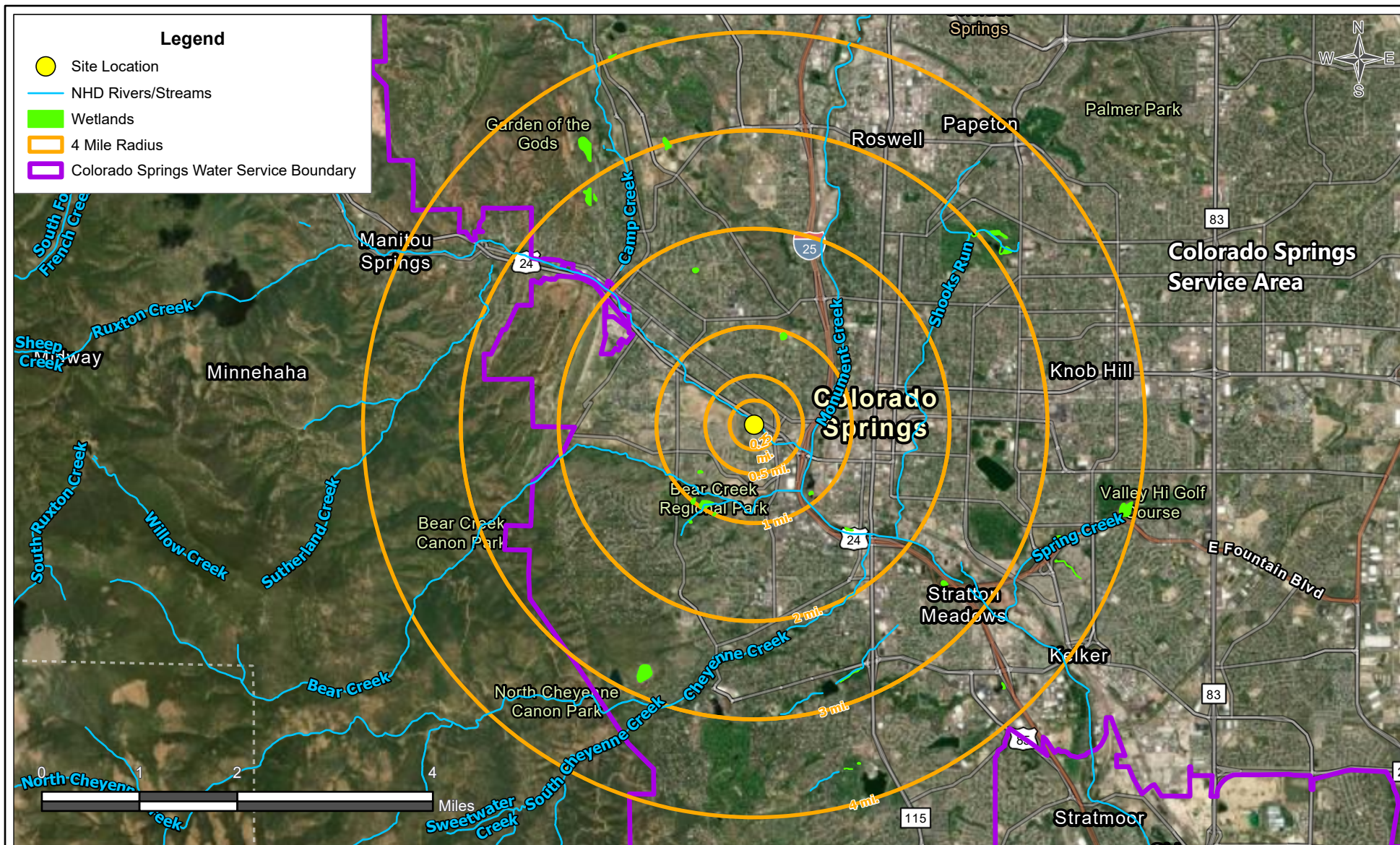
**Hwy 24 Mill Site**  
 Colorado Springs, El Paso County,  
 Colorado

**Figure 1**  
**Site Location**



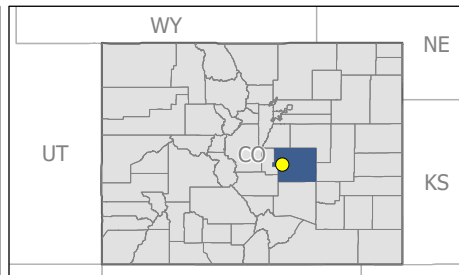






**Notes:**

**Source:**  
 Background: ESRI World Imagery  
 Rivers/Streams: USGS National Hydrography Data Set (NHD)  
 Wetlands: US Fish and Wildlife NWI  
 Spatial Reference: WGS 1984 Web Mercator Auxiliary Sphere  
 Coordinate System



United States  
Environmental  
Protection Agency

Region 8 START V  
TD: 2083-2208-02



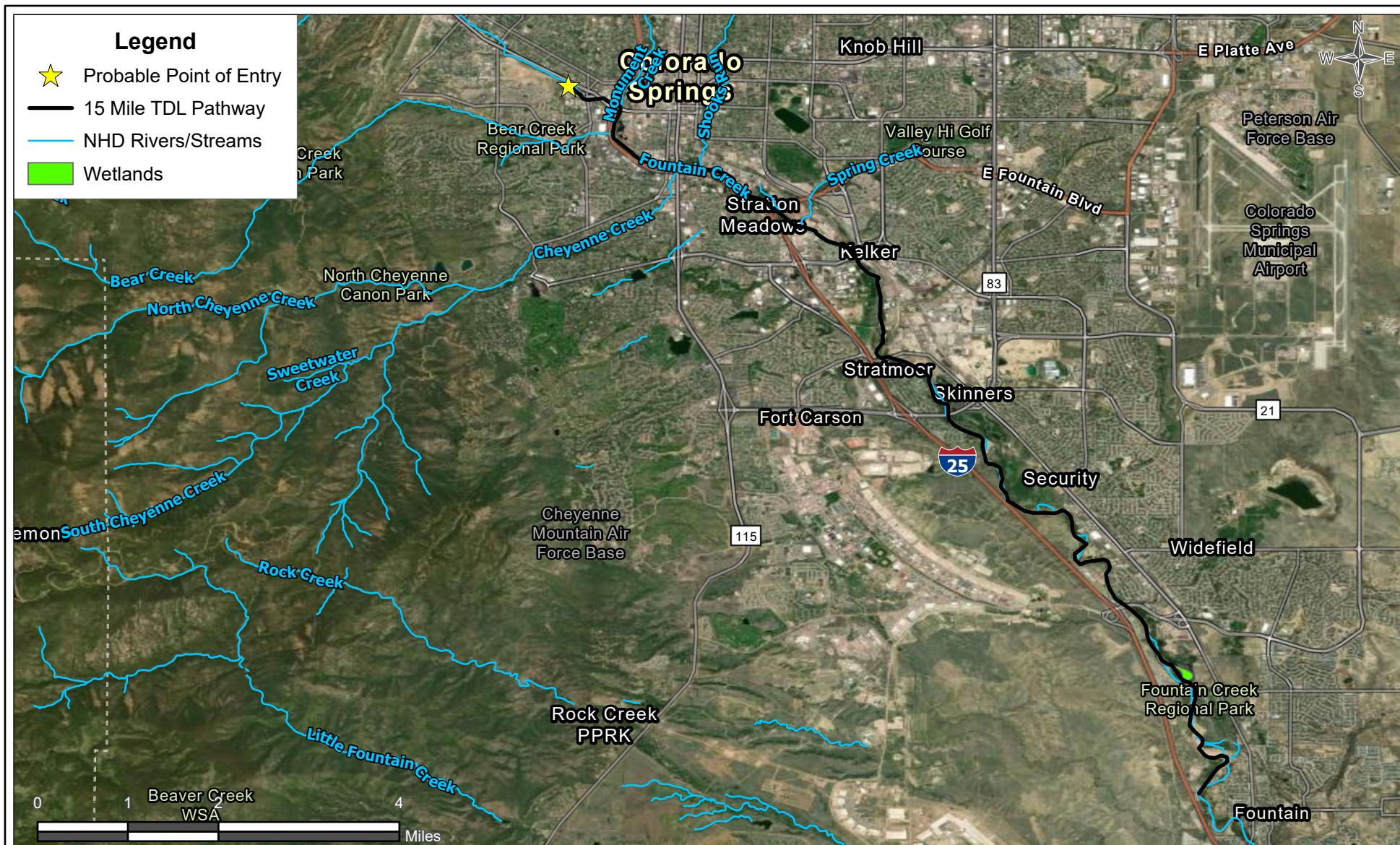
**TETRA TECH**

Analyst: S. DeNeice  
Date: 11/22/2022

Hwy 24 Mill Site  
Colorado Springs, El Paso County,  
Colorado

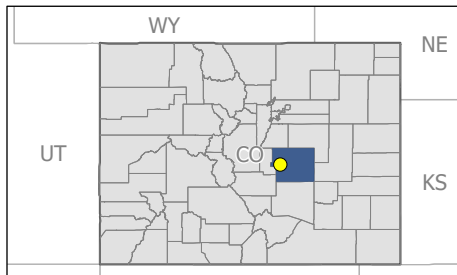
**Figure 3**  
**4-Mile Radius Target Distance Limit**





#### Notes:

Source:  
Background: ESRI World Imagery  
NHD Rivers/Streams: USGS National Hydrography Data Set (NHD)  
Wetlands: US Fish and Wildlife NWI  
Spatial Reference: GCS WGS 1984  
Coordinate System



United States  
Environmental  
Protection Agency

Region 8 START V  
TD: 2083-2208-02



**TETRA TECH**

Analyst: S. DeNeice  
Date: 11/22/2022

Hwy 24 Mill Site  
Colorado Springs, El Paso County,  
Colorado

**Figure 4**  
**15 Mile Downstream Target**  
**Distance Limit**

## **APPENDIX B**

### **TABLE**

(59 Pages)

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-01A-00-01</b> | <b>GS-01A-01-06</b> | <b>GS-01B-00-01</b> | <b>GS-01B-01-06</b> | <b>GS-01E-00-01</b> | <b>GS-01E-01-06</b> | <b>GS-02A-00-01</b> | <b>GS-02A-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7100                | 6800                | 8000                | 9100                | 6500                | 7100                | 7300                | 7900                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.69                | 0.62                | 1                   | 0.51                | 1.2                 | 0.99                | 0.56                | 0.55                |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 29                  | 24                  | 46                  | 25                  | 54                  | 45                  | 24                  | 26                  |
| Barium         | 15000                      | 98                                      | 100                                     | 160                 | 150                 | 210                 | 230                 | 180                 | 180                 | 170                 | 180                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 1                   | 1                   | 0.7                 | 0.84                | 0.88                | 1                   | 0.83                | 1.1                 |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.2                 | 1.1                 | 1.7                 | 1.1                 | 1.9                 | 2                   | 1.2                 | 1.4                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 11000               | 11000               | 15000               | 11000               | 15000               | 18000               | 11000               | 11000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 28                  | 23                  | 14                  | 11                  | 16                  | 13                  | 13                  | 16                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 5.8                 | 5.6                 | 6.7                 | 7.5                 | 6.3                 | 6.7                 | 5.7                 | 6.6                 |
| Copper         | 3100                       | 18                                      | 20                                      | 36                  | 33                  | 47                  | 33                  | 63                  | 40                  | 28                  | 30                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 19000               | 18000               | 25000               | 25000               | 26000               | 25000               | 18000               | 20000               |
| Lead           | 400                        | 36                                      | 37                                      | 110                 | 97                  | 230                 | 110                 | 180                 | 180                 | 91                  | 110                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4000                | 3900                | 3000                | 3100                | 4400                | 6000                | 3300                | 3900                |
| Manganese      | 1800                       | 450                                     | 430                                     | 580                 | 540                 | 560                 | 610                 | 850                 | 900                 | 630                 | 690                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 18                  | 18                  | 23                  | 46                  | 14                  | 23                  | 13                  | 15                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3200                | 2700                | 2800                | 2500                | 2900                | 2400                | 3000                | 3000                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.3                 | 2.2                 | 2.5                 | 3.1                 | 2.7                 | 2.9                 | 2.1                 | 2.4                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.78                | 0.65                | 1.5                 | 0.65                | 1.3                 | 1.2                 | 0.59                | 0.58                |
| Sodium         | NE                         | 100U                                    | 100U                                    | 150 J+              | 130 J+              | 410                 | 280                 | 170 J+              | 140 J+              | 120 J+              | 120 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.28                | 0.26                | 0.3                 | 0.26                | 0.31                | 0.33                | 0.25                | 0.28                |
| Vanadium       | 390                        | 20                                      | 21                                      | 27                  | 25                  | 34                  | 31                  | 35                  | 30                  | 25                  | 26                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 320                 | 230                 | 390                 | 230                 | 460                 | 390                 | 310                 | 320                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-02B-00-01</b> | <b>GS-02B-01-06</b> | <b>GS-02E-00-01</b> | <b>GS-02E-01-06</b> | <b>GS-03A-00-01</b> | <b>GS-03A-01-06</b> | <b>GS-03B-00-01</b> | <b>GS-03B-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 8000                | 7400                | 7700                | 7500                | 7800                | 8900                | 7600                | 8400                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.76                | 0.67                | 1.2                 | 1.8                 | 0.9                 | 0.95                | 0.91                | 1.1                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 43                  | 37                  | 47                  | 79                  | 35                  | 41                  | 44                  | 56                  |
| Barium         | 15000                      | 98                                      | 100                                     | 150                 | 110                 | 200                 | 160                 | 180                 | 240                 | 220                 | 210                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.76                | 0.83                | 0.94                | 0.97                | 0.86                | 0.98                | 0.75                | 0.84                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.5                 | 1.2                 | 2.1                 | 2.7                 | 1.4                 | 1.3                 | 2.2                 | 3.1                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 22000               | 23000               | 12000               | 16000               | 11000               | 11000               | 12000               | 13000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 13                  | 11                  | 14                  | 13                  | 15                  | 23                  | 14                  | 13                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 12                  | 12                  | 8                   | 8.6                 | 7.5                 | 9.2                 | 8.7                 | 10                  |
| Copper         | 3100                       | 18                                      | 20                                      | 41                  | 37                  | 46                  | 46                  | 34                  | 40                  | 60                  | 55                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 31000               | 29000               | 26000               | 33000               | 21000               | 26000               | 29000               | 34000               |
| Lead           | 400                        | 36                                      | 37                                      | 130                 | 110                 | 170                 | 280                 | 120                 | 120                 | 160                 | 240                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4400                | 4000                | 3300                | 2900                | 3500                | 4200                | 2700                | 3000                |
| Manganese      | 1800                       | 450                                     | 430                                     | 840                 | 740                 | 790                 | 1100                | 690                 | 790                 | 830                 | 1100                |
| Nickel         | 1500                       | 27                                      | 34                                      | 29                  | 28                  | 19                  | 22                  | 25                  | 140                 | 21                  | 24                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2300                | 2100                | 3200                | 2700                | 3100                | 2500                | 2200                | 2400                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 3.6                 | 3.8                 | 2.7                 | 2.9                 | 2.2                 | 2.7                 | 3.1                 | 3.5                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.87                | 0.75                | 1.1                 | 1.9                 | 0.83                | 1                   | 3.5                 | 2.6                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 190 J+              | 200 J+              | 130 J+              | 130 J+              | 140 J+              | 150 J+              | 130 J+              | 150 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.39                | 0.32                | 0.34                | 0.41                | 0.31                | 0.33                | 0.32                | 0.41                |
| Vanadium       | 390                        | 20                                      | 21                                      | 34                  | 31                  | 36                  | 41                  | 30                  | 34                  | 34                  | 37                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 270                 | 220                 | 470                 | 480                 | 420                 | 260                 | 360                 | 600                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-03E-00-01 | GS-03E-01-06 | GS-03E-00-01-DUP | GS-03E-01-06-DUP | GS-03E-00-01-TRI | GS-03E-01-06-TRI | GS-04A-00-01 | GS-04A-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|------------------|------------------|------------------|------------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 8000         | 8400         | 7700             | 8900             | 7500             | 8800             | 7800         | 8100         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.2          | 1.3          | 1.1              | 0.92             | 1.3              | 1                | 0.57         | 0.54         |
| Arsenic   | 0.68                 | 11                               | 11                               | 44           | 44           | 39               | 43               | 42               | 48               | 29           | 26           |
| Barium    | 15000                | 98                               | 100                              | 200          | 220          | 210              | 240              | 200              | 330              | 210          | 240          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 1            | 1.2          | 0.99             | 1.2              | 1                | 1.2              | 0.77         | 0.8          |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 2.1          | 2.7          | 2.2              | 2.5              | 2.3              | 2.9              | 1.3          | 2            |
| Calcium   | NE                   | 6400                             | 6600                             | 10000        | 12000        | 10000            | 10000            | 12000            | 13000            | 9500         | 9600         |
| Chromium  | 120000               | 36                               | 46                               | 21           | 28           | 22               | 23               | 21               | 24               | 13           | 12           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 7.2          | 6.9          | 6.9              | 7.4              | 7                | 8.7              | 7.9          | 9.9          |
| Copper    | 3100                 | 18                               | 20                               | 41           | 47           | 40               | 45               | 39               | 53               | 41           | 33           |
| Iron      | 55000                | 17000                            | 18000                            | 25000        | 25000        | 24000            | 27000            | 24000            | 28000            | 20000        | 25000        |
| Lead      | 400                  | 36                               | 37                               | 160          | 210          | 170              | 190              | 180              | 270              | 100          | 79           |
| Magnesium | NE                   | 3300                             | 3500                             | 3300         | 4000         | 3100             | 3700             | 3400             | 4800             | 3700         | 3900         |
| Manganese | 1800                 | 450                              | 430                              | 720          | 770          | 670              | 760              | 660              | 870              | 620          | 710          |
| Nickel    | 1500                 | 27                               | 34                               | 16           | 26           | 17               | 31               | 15               | 27               | 17           | 35           |
| Potassium | NE                   | 2400                             | 2400                             | 3500         | 2900         | 3800             | 3100             | 3900             | 3200             | 3000         | 2300         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.6          | 2.9          | 2.6              | 2.8              | 2.7              | 3.1              | 1.9          | 2.3          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.3          | 2.9          | 1.5              | 1.9              | 1.5              | 2.3              | 0.68         | 0.47         |
| Sodium    | NE                   | 100U                             | 100U                             | 150 J+       | 130 J+       | 140 J+           | 160 J+           | 140 J+           | 170 J+           | 98 U         | 140 J+       |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.32         | 0.34         | 0.32             | 0.32             | 0.33             | 0.36             | 0.27         | 0.28         |
| Vanadium  | 390                  | 20                               | 21                               | 35           | 36           | 33               | 40               | 34               | 36               | 27           | 27           |
| Zinc      | 23000                | 75                               | 77                               | 450          | 490          | 420              | 490              | 470              | 570              | 320          | 200          |



**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-04A-00-01-DUP</b> | <b>GS-04A-01-06-DUP</b> | <b>GS-04A-00-01-TRI</b> | <b>GS-04A-01-06-TRI</b> | <b>GS-04B-00-01</b> | <b>GS-04B-01-06</b> | <b>GS-04E-00-01</b> | <b>GS-04E-01-06</b> |
|----------------|----------------------------|---|---|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7500                    | 8800                    | 7700                    | 8600                    | 8100                | 8200                | 8100                | 8300                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.74                    | 0.54                    | 0.69                    | 0.44                    | 1.4                 | 1                   | 0.96                | 1.1                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 28                      | 27                      | 30                      | 27                      | 75                  | 55                  | 46                  | 44                  |
| Barium         | 15000                      | 98                                      | 100                                     | 180                     | 250                     | 200                     | 250                     | 180                 | 160                 | 250                 | 240                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.77                    | 0.88                    | 0.77                    | 0.88                    | 0.95                | 1.1                 | 0.99                | 1.2                 |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 3.1                     | 1.3                     | 1.4                     | 1.2                     | 9.6                 | 9.4                 | 2.2                 | 2.4                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 10000                   | 11000                   | 10000                   | 11000                   | 13000               | 32000               | 10000               | 8800                |
| Chromium       | 120000                     | 36                                      | 46                                      | 12                      | 12                      | 13                      | 13                      | 12                  | 12                  | 18                  | 16                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 8                       | 11                      | 7.8                     | 11                      | 9.8                 | 12                  | 7.5                 | 8.8                 |
| Copper         | 3100                       | 18                                      | 20                                      | 35                      | 36                      | 36                      | 38                      | 58                  | 62                  | 44                  | 42                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 20000                   | 26000                   | 21000                   | 24000                   | 30000               | 28000               | 27000               | 29000               |
| Lead           | 400                        | 36                                      | 37                                      | 94                      | 70                      | 100                     | 76                      | 250                 | 220                 | 180                 | 190                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 3600                    | 4500                    | 3700                    | 4600                    | 6000                | 5800                | 3600                | 3400                |
| Manganese      | 1800                       | 450                                     | 430                                     | 620                     | 770                     | 660                     | 760                     | 2200                | 3100                | 740                 | 900                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 18                      | 52                      | 21                      | 50                      | 19                  | 36                  | 16                  | 27                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2900                    | 2300                    | 3200                    | 2400                    | 3700                | 2800                | 3200                | 2900                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 1.9                     | 2.6                     | 1.9                     | 2.5                     | 2.7                 | 3.2                 | 2.6                 | 3.3                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.66                    | 0.43                    | 0.7                     | 0.53                    | 1.6                 | 1.5                 | 1.3                 | 1.3                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 100 U                   | 150 J+                  | 100 J+                  | 140 J+                  | 500                 | 350                 | 200 J+              | 160 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.27                    | 0.32                    | 0.27                    | 0.3                     | 0.41                | 0.37                | 0.34                | 0.36                |
| Vanadium       | 390                        | 20                                      | 21                                      | 26                      | 28                      | 28                      | 28                      | 41                  | 36                  | 36                  | 34                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 340                     | 200                     | 340                     | 220                     | 2400                | 1700                | 510                 | 480                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-05A-00-01</b> | <b>GS-05A-01-06</b> | <b>GS-05B-00-01</b> | <b>GS-05B-01-06</b> | <b>GS-06A-00-01</b> | <b>GS-06A-01-06</b> | <b>GS-06B-00-01</b> | <b>GS-06B-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7100                | 8100                | 10000               | 9900                | 7300                | 8700                | 7500                | 8700                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.67                | 0.49                | 0.96                | 1.2                 | 0.47                | 0.39                | 1 J                 | 0.65 J              |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 31                  | 24                  | 53                  | 55                  | 19                  | 17                  | 50 J                | 56                  |
| Barium         | 15000                      | 98                                      | 100                                     | 200                 | 210                 | 110                 | 150                 | 190                 | 210                 | 130                 | 130                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.73                | 0.81                | 1.2                 | 1                   | 0.64                | 0.86                | 0.79                | 0.96                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.4                 | 1.1                 | 16                  | 11                  | 0.91                | 0.77                | 23                  | 21                  |
| Calcium        | NE                         | 6400                                    | 6600                                    | 11000               | 10000               | 22000               | 13000               | 7500                | 7300                | 12000               | 22000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 11                  | 11                  | 14                  | 15                  | 9.1                 | 11                  | 12                  | 14                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 6.8                 | 8.1                 | 12                  | 11                  | 6.3                 | 7.5                 | 8.2                 | 10                  |
| Copper         | 3100                       | 18                                      | 20                                      | 31                  | 32                  | 86                  | 76                  | 25                  | 27                  | 41                  | 52                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 21000               | 21000               | 30000               | 29000               | 17000               | 20000               | 25000               | 29000               |
| Lead           | 400                        | 36                                      | 37                                      | 120                 | 100                 | 190                 | 190                 | 61                  | 60                  | 180                 | 220                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4000                | 4200                | 4200                | 4600                | 2500                | 3000                | 6100                | 5700                |
| Manganese      | 1800                       | 450                                     | 430                                     | 570                 | 550                 | 4800                | 2800                | 480                 | 480                 | 2200                | 4000                |
| Nickel         | 1500                       | 27                                      | 34                                      | 15                  | 49                  | 42                  | 25                  | 15                  | 63                  | 33                  | 40                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3200                | 2300                | 2600                | 2900                | 2600                | 2300                | 2700                | 2400                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 1.9                 | 2.1                 | 3.3                 | 2.9                 | 1.8                 | 2.3                 | 2.3                 | 2.8                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.79                | 0.57                | 1.3                 | 1.3                 | 0.41                | 0.3                 | 1.4                 | 1.4                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 130 J+              | 120 J+              | 310                 | 510                 | 89 U                | 110 J+              | 1000                | 440                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.24                | 0.26                | 0.38                | 0.34                | 0.22                | 0.26                | 0.3                 | 0.31                |
| Vanadium       | 390                        | 20                                      | 21                                      | 28                  | 25                  | 39                  | 40                  | 23                  | 25                  | 34                  | 35                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 360                 | 200                 | 2900                | 2600                | 230                 | 180                 | 5500                | 5100                |



**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-06E-00-01 | GS-06E-01-06 | GS-07A-00-01 | GS-07A-01-06 | GS-07A1-00-01 | GS-07A1-01-06 | GS-07B-00-01 | GS-07B-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7800         | 8200         | 7400         | 7900         | 7500          | 7900          | 7100         | 8400         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 0.71         | 1.2          | 0.47         | 0.34         | 0.35          | 0.29          | 0.97         | 0.94         |
| Arsenic   | 0.68                 | 11                               | 11                               | 37           | 70           | 22           | 19           | 22            | 18            | 56           | 60           |
| Barium    | 15000                | 98                               | 100                              | 230          | 310          | 200          | 200          | 200           | 180           | 180          | 140          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 1            | 1.2          | 0.73         | 0.75         | 0.59          | 0.59          | 0.75         | 0.98         |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 2.1          | 2.7          | 1            | 0.9          | 1             | 0.71          | 6.6          | 16           |
| Calcium   | NE                   | 6400                             | 6600                             | 9500         | 7500         | 9900         | 11000        | 7200          | 6000          | 7800         | 21000        |
| Chromium  | 120000               | 36                               | 46                               | 13           | 14           | 11           | 11           | 12            | 11            | 11           | 12           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 6.6          | 9.6          | 8.1          | 7.9          | 6.4           | 6.4           | 7.8          | 12           |
| Copper    | 3100                 | 18                               | 20                               | 36           | 44           | 32           | 30           | 30            | 26            | 43           | 56           |
| Iron      | 55000                | 17000                            | 18000                            | 25000        | 35000        | 20000        | 21000        | 19000         | 18000         | 26000        | 30000        |
| Lead      | 400                  | 36                               | 37                               | 140          | 260          | 80           | 77           | 88            | 63            | 210          | 250          |
| Magnesium | NE                   | 3300                             | 3500                             | 2800         | 2900         | 3400         | 3400         | 2300          | 2200          | 3600         | 4400         |
| Manganese | 1800                 | 450                              | 430                              | 660          | 1000         | 610          | 590          | 420           | 400           | 1600         | 3600         |
| Nickel    | 1500                 | 27                               | 34                               | 16           | 25           | 19           | 46           | 15            | 30            | 20           | 35           |
| Potassium | NE                   | 2400                             | 2400                             | 3200         | 2700         | 2500         | 2100         | 2800          | 2200          | 3000         | 2500         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.5          | 3.5          | 2            | 2.1          | 1.7           | 1.7           | 2.4          | 2.6          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 0.96         | 1.9          | 0.46         | 0.43         | 0.47          | 0.37          | 2            | 1.8          |
| Sodium    | NE                   | 100U                             | 100U                             | 200 J+       | 150 J+       | 120 J+       | 120 J+       | 170 J+        | 240           | 230          | 240          |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.31         | 0.4          | 0.24         | 0.24         | 0.23          | 0.22          | 0.33         | 0.38         |
| Vanadium  | 390                  | 20                               | 21                               | 30           | 39           | 27           | 27           | 26            | 25            | 36           | 38           |
| Zinc      | 23000                | 75                               | 77                               | 370          | 400          | 290          | 210          | 240           | 160           | 1900         | 3700         |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-07E-00-01 | GS-07E-01-06 | GS-08A-00-01 | GS-08A-01-06 | GS-08B-00-01 | GS-08B-01-06 | GS-08E-00-01 | GS-08E-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7400         | 7500         | 7000         | 7700         | 7900         | 11000        | 7100         | 8200         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.1          | 1.9          | 0.44         | 0.25         | 1.1          | 1.7          | 1.1          | 1.3          |
| Arsenic   | 0.68                 | 11                               | 11                               | 54           | 110          | 25           | 15           | 79           | 97           | 48           | 68           |
| Barium    | 15000                | 98                               | 100                              | 200          | 290          | 190          | 200          | 140          | 130          | 220          | 280          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 1            | 0.96         | 0.61         | 0.55         | 0.79         | 1            | 1.1          | 1.3          |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 2.6          | 2.8          | 1.1          | 0.64         | 3.7          | 7            | 2.7          | 2.6          |
| Calcium   | NE                   | 6400                             | 6600                             | 8800         | 7500         | 7200         | 5800         | 14000        | 22000        | 14000        | 8900         |
| Chromium  | 120000               | 36                               | 46                               | 13           | 14           | 12           | 9.9          | 12           | 14           | 16           | 15           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 7            | 8.6          | 5.9          | 5.5          | 6.8          | 7.9          | 6.1          | 7.7          |
| Copper    | 3100                 | 18                               | 20                               | 47           | 55           | 25           | 18           | 120          | 88           | 47           | 41           |
| Iron      | 55000                | 17000                            | 18000                            | 28000        | 41000        | 18000        | 17000        | 42000        | 41000        | 26000        | 32000        |
| Lead      | 400                  | 36                               | 37                               | 240          | 430          | 100          | 54           | 440          | 460          | 190          | 240          |
| Magnesium | NE                   | 3300                             | 3500                             | 3000         | 2900         | 2500         | 2300         | 2700         | 2700         | 4400         | 3600         |
| Manganese | 1800                 | 450                              | 430                              | 850          | 1200         | 490          | 370          | 770          | 1800         | 870          | 980          |
| Nickel    | 1500                 | 27                               | 34                               | 16           | 21           | 12           | 31           | 21           | 35           | 15           | 25           |
| Potassium | NE                   | 2400                             | 2400                             | 3200         | 2700         | 2400         | 1800         | 3000         | 3000         | 4200         | 3400         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.6          | 3.3          | 1.6          | 1.6          | 2.8          | 3            | 2.6          | 3.2          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.7          | 3.2          | 0.72         | 0.37         | 3            | 3.2          | 1.3          | 1.8          |
| Sodium    | NE                   | 100U                             | 100U                             | 170 J+       | 130 J+       | 99 U         | 100 U        | 490          | 400          | 340          | 210 J+       |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.35         | 0.43         | 0.23         | 0.2          | 0.49         | 0.5          | 0.33         | 0.4          |
| Vanadium  | 390                  | 20                               | 21                               | 34           | 45           | 27           | 25           | 39           | 49           | 34           | 40           |
| Zinc      | 23000                | 75                               | 77                               | 500          | 530          | 210          | 120          | 820          | 1500         | 580          | 470          |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-09B-00-01 | GS-09B-01-06 | GS-09E-00-01 | GS-09E-01-06 | GS-10B-00-01 | GS-10B-01-06 | GS-11B-00-01 | GS-11B-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 8300         | 8200         | 7400         | 7500         | 7200         | 7400         | 6400         | 7500         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.1          | 1.1          | 0.9          | 1.3          | 1.4          | 1.6          | 1.6          | 2.1          |
| Arsenic   | 0.68                 | 11                               | 11                               | 79           | 99           | 53           | 79           | 99           | 110          | 95           | 120          |
| Barium    | 15000                | 98                               | 100                              | 250          | 270          | 220          | 260          | 280          | 270          | 270          | 290          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.94         | 0.93         | 1.2          | 1.4          | 0.83         | 1            | 0.79         | 0.97         |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 5.9          | 5.1          | 3.7          | 4.6          | 4.8          | 6.5          | 4.3          | 5.2          |
| Calcium   | NE                   | 6400                             | 6600                             | 9500         | 7500         | 17000        | 21000        | 8500         | 8600         | 8300         | 8700         |
| Chromium  | 120000               | 36                               | 46                               | 13           | 13           | 13           | 15           | 14           | 12           | 11           | 12           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 7.5          | 10           | 6.2          | 6.5          | 7.7          | 7.2          | 6.2          | 6.8          |
| Copper    | 3100                 | 18                               | 20                               | 73           | 83           | 42           | 53           | 64           | 86           | 73           | 87           |
| Iron      | 55000                | 17000                            | 18000                            | 34000        | 38000        | 27000        | 34000        | 36000        | 45000        | 35000        | 44000        |
| Lead      | 400                  | 36                               | 37                               | 360          | 460          | 260          | 380          | 430          | 580          | 490          | 610          |
| Magnesium | NE                   | 3300                             | 3500                             | 3200         | 2900         | 7000         | 8900         | 2900         | 2800         | 2600         | 3200         |
| Manganese | 1800                 | 450                              | 430                              | 1000         | 1400         | 1000         | 1300         | 1300         | 1500         | 960          | 1100         |
| Nickel    | 1500                 | 27                               | 34                               | 20           | 36           | 15           | 18           | 16           | 35           | 15           | 45           |
| Potassium | NE                   | 2400                             | 2400                             | 3200         | 2900         | 3000         | 2800         | 3400         | 3300         | 3100         | 3200         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.8          | 2.7          | 2.7          | 2.9          | 2.4          | 2.9          | 2.4          | 3            |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 2.5          | 3.3          | 1.6          | 2.6          | 3.2          | 4.3          | 3.4          | 4.5          |
| Sodium    | NE                   | 100U                             | 100U                             | 370          | 270          | 110 J+       | 120 J+       | 200 J+       | 260          | 220          | 290          |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.45         | 0.52         | 0.36         | 0.39         | 0.5          | 0.59         | 0.51         | 0.62         |
| Vanadium  | 390                  | 20                               | 21                               | 43           | 45           | 32           | 35           | 46           | 43           | 40           | 43           |
| Zinc      | 23000                | 75                               | 77                               | 1200         | 950          | 700          | 760          | 1000         | 1300         | 910          | 1100         |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-11B-00-01-DUP</b> | <b>GS-11B-01-06-DUP</b> | <b>GS-11B-00-01-TRI</b> | <b>GS-11B-01-06-TRI</b> | <b>GS-11D-00-01</b> | <b>GS-11D-01-06</b> | <b>GS-12B-00-01</b> | <b>GS-12B-01-06</b> |
|----------------|----------------------------|---|---|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 6300                    | 7300                    | 6400                    | 7100                    | 6000                | 6400                | 6500                | 6900                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.8                     | 1.5                     | 2                       | 2.1                     | 0.9                 | 1.1                 | 1.3                 | 1.4                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 96                      | 110                     | 96                      | 110                     | 25                  | 33                  | 63                  | 92                  |
| Barium         | 15000                      | 98                                      | 100                                     | 260                     | 310                     | 260                     | 290                     | 160                 | 180                 | 240                 | 290                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.79                    | 0.93                    | 0.79                    | 0.92                    | 0.85                | 1                   | 0.84                | 0.84                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 4.2                     | 5                       | 4.3                     | 5.1                     | 1.1                 | 1.5                 | 2.5                 | 3.2                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 8200                    | 8500                    | 8200                    | 8500                    | 12000               | 19000               | 8300                | 7900                |
| Chromium       | 120000                     | 36                                      | 46                                      | 11                      | 12                      | 12                      | 11                      | 9.3                 | 11                  | 12                  | 12                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 6.2                     | 6.7                     | 6.4                     | 6.6                     | 4.7                 | 5.2                 | 5.7                 | 6.2                 |
| Copper         | 3100                       | 18                                      | 20                                      | 72                      | 90                      | 74                      | 84                      | 33                  | 37                  | 49                  | 64                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 35000                   | 43000                   | 36000                   | 43000                   | 16000               | 20000               | 28000               | 39000               |
| Lead           | 400                        | 36                                      | 37                                      | 490                     | 590                     | 490                     | 600                     | 92                  | 150                 | 340                 | 570                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 2600                    | 3100                    | 2700                    | 3100                    | 4200                | 6800                | 2500                | 2700                |
| Manganese      | 1800                       | 450                                     | 430                                     | 940                     | 1000                    | 940                     | 1000                    | 510                 | 620                 | 710                 | 860                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 14                      | 47                      | 14                      | 48                      | 16                  | 29                  | 13                  | 30                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3100                    | 3100                    | 3100                    | 3100                    | 1800                | 1900                | 3300                | 3100                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.3                     | 2.7                     | 2.4                     | 2.9                     | 2.1                 | 2.4                 | 2.4                 | 2.6                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 3.4                     | 4.3                     | 3.4                     | 4.3                     | 0.64                | 2.1                 | 2.4                 | 4.1                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 220                     | 280                     | 220                     | 280                     | 95 U                | 130 J+              | 170 J+              | 240                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.51                    | 0.59                    | 0.51                    | 0.58                    | 0.24                | 0.28                | 0.41                | 0.55                |
| Vanadium       | 390                        | 20                                      | 21                                      | 40                      | 43                      | 40                      | 42                      | 22                  | 27                  | 34                  | 40                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 930                     | 1000                    | 940                     | 1100                    | 470                 | 400                 | 600                 | 680                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-12D-00-01 | GS-12D-01-06 | GS-13B-00-01 | GS-13B-01-06 | GS-13D-00-01 | GS-13D-01-06 | GS-14B-00-01 | GS-14B-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 9800         | 8300         | 6400         | 7200         | 7500         | 7300         | 6000         | 6800         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 0.87         | 1            | 1.5          | 1            | 1.3 J        | 1 J          | 1.4          | 1.4          |
| Arsenic   | 0.68                 | 11                               | 11                               | 37           | 43           | 60           | 72           | 61           | 52           | 68           | 72           |
| Barium    | 15000                | 98                               | 100                              | 250          | 240          | 200          | 290          | 250          | 200          | 180          | 210          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 1.2          | 1.1          | 0.67         | 0.74         | 0.96         | 1.2          | 0.7          | 0.74         |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 4.3          | 2.7          | 2.3          | 2.8          | 2.3          | 2            | 2.3          | 2.5          |
| Calcium   | NE                   | 6400                             | 6600                             | 14000        | 14000        | 11000        | 8800         | 20000        | 13000        | 9400         | 9000         |
| Chromium  | 120000               | 36                               | 46                               | 15           | 14           | 12           | 12           | 16           | 14           | 11           | 12           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 5.2          | 6.5          | 7            | 7.8          | 6.8          | 7.1          | 6.5          | 7.2          |
| Copper    | 3100                 | 18                               | 20                               | 39           | 45           | 46           | 60           | 55           | 45           | 56           | 57           |
| Iron      | 55000                | 17000                            | 18000                            | 31000        | 27000        | 28000        | 37000        | 29000        | 29000        | 29000        | 35000        |
| Lead      | 400                  | 36                               | 37                               | 180          | 240          | 290          | 490          | 290          | 230          | 330          | 460          |
| Magnesium | NE                   | 3300                             | 3500                             | 3800         | 4700         | 3100         | 3400         | 4200         | 3800         | 3300         | 3300         |
| Manganese | 1800                 | 450                              | 430                              | 820          | 720          | 730          | 890          | 690          | 800          | 750          | 790          |
| Nickel    | 1500                 | 27                               | 34                               | 29           | 35           | 17           | 72           | 19           | 23           | 18           | 28           |
| Potassium | NE                   | 2400                             | 2400                             | 3400         | 3000         | 3300         | 3200         | 3000         | 2600         | 3200         | 3000         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 4.6          | 2.9          | 2.1          | 2.4          | 2.6          | 2.9          | 2.2          | 2.6          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.2          | 2.4          | 1.9          | 3.1          | 2            | 1.5          | 2.4          | 2.9          |
| Sodium    | NE                   | 100U                             | 100U                             | 210 J+       | 220          | 160 J+       | 180 J+       | 250          | 170 J+       | 180 J+       | 200 J+       |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.44         | 0.38         | 0.35         | 0.47         | 0.38         | 0.38         | 0.38         | 0.44         |
| Vanadium  | 390                  | 20                               | 21                               | 33           | 35           | 38           | 40           | 35           | 31           | 35           | 37           |
| Zinc      | 23000                | 75                               | 77                               | 420          | 370          | 630          | 590          | 520          | 400          | 530          | 510          |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-14B-00-01-DUP</b> | <b>GS-14B-01-06-DUP</b> | <b>GS-14B-00-01-TRI</b> | <b>GS-14B-01-06-TRI</b> | <b>GS-14D-00-01</b> | <b>GS-14D-01-06</b> | <b>GS-15B-00-01</b> | <b>GS-15B-01-06</b> |
|----------------|----------------------------|---|---|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 6600                    | 6800                    | 6700                    | 6600                    | 5500                | 6300                | 5700                | 7700                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.4                     | 1.4                     | 1.4                     | 1.4                     | 0.95 J              | 0.88 J              | 1.1                 | 1.2                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 72                      | 73                      | 72                      | 71                      | 42                  | 42                  | 44                  | 56                  |
| Barium         | 15000                      | 98                                      | 100                                     | 200                     | 200                     | 200                     | 210                     | 170                 | 170                 | 150                 | 200                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.71                    | 0.74                    | 0.72                    | 0.73                    | 0.81                | 0.97                | 0.57                | 0.76                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 2.4                     | 2.4                     | 2.5                     | 2.5                     | 1.6                 | 1.7                 | 1.8                 | 4.3                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 8700                    | 8900                    | 8800                    | 8800                    | 31000               | 22000               | 7500                | 11000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 12                      | 12                      | 12                      | 12                      | 12                  | 12                  | 10                  | 12                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 7                       | 7.2                     | 7.2                     | 7.1                     | 5.4                 | 5.9                 | 5.6                 | 8.7                 |
| Copper         | 3100                       | 18                                      | 20                                      | 64                      | 59                      | 60                      | 57                      | 49                  | 40                  | 40                  | 46                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 34000                   | 35000                   | 35000                   | 35000                   | 21000               | 24000               | 22000               | 28000               |
| Lead           | 400                        | 36                                      | 37                                      | 450                     | 460                     | 460                     | 460                     | 190                 | 200                 | 200                 | 220                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 3100                    | 3200                    | 3200                    | 3200                    | 6500                | 6000                | 2300                | 3900                |
| Manganese      | 1800                       | 450                                     | 430                                     | 780                     | 780                     | 800                     | 790                     | 630                 | 640                 | 570                 | 1400                |
| Nickel         | 1500                       | 27                                      | 34                                      | 29                      | 29                      | 25                      | 28                      | 19                  | 26                  | 14                  | 27                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3000                    | 3000                    | 3000                    | 3000                    | 2100                | 2200                | 2500                | 2400                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.5                     | 2.6                     | 2.6                     | 2.5                     | 1.8                 | 2.2                 | 1.8                 | 2.6                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 3                       | 3                       | 3                       | 3.1                     | 1.3 J               | 1.4                 | 1.4                 | 1.6                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 200 J+                  | 200 J+                  | 200 J+                  | 200 J+                  | 260                 | 160 J+              | 160 J+              | 170 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.45                    | 0.46                    | 0.45                    | 0.45                    | 0.28                | 0.31                | 0.27                | 0.35                |
| Vanadium       | 390                        | 20                                      | 21                                      | 36                      | 36                      | 36                      | 36                      | 27                  | 26                  | 30                  | 37                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 520                     | 510                     | 520                     | 510                     | 450                 | 340                 | 450                 | 880                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-16B-00-01 | GS-16B-01-06 | GS-16B1-00-01 | GS-16B1-01-06 | GS-16D-00-01 | GS-16D-01-06 | GS-17B-00-01 | GS-17B-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 6600         | 7800         | 7200          | 7900          | 7800         | 8600         | 6900         | 8400         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.1          | 1.2          | 0.67          | 0.5           | 0.82         | 0.85         | 1            | 0.8          |
| Arsenic   | 0.68                 | 11                               | 11                               | 46           | 65           | 35            | 24            | 35           | 37           | 47           | 42           |
| Barium    | 15000                | 98                               | 100                              | 170          | 210          | 200           | 210           | 180          | 210          | 190          | 240          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.75         | 0.85         | 0.69          | 0.75          | 0.71         | 0.8          | 0.69         | 0.81         |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 1.6          | 2            | 1.1           | 1.2           | 1.8          | 1.8          | 1.6          | 1.5          |
| Calcium   | NE                   | 6400                             | 6600                             | 9300         | 11000        | 10000         | 7900          | 12000        | 14000        | 15000        | 14000        |
| Chromium  | 120000               | 36                               | 46                               | 11           | 14           | 13            | 9.3           | 13           | 11           | 13           | 15           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 8            | 9.7          | 6.5           | 7.4           | 5.9          | 6.6          | 8.1          | 10           |
| Copper    | 3100                 | 18                               | 20                               | 42           | 49           | 43            | 31            | 37           | 42           | 41           | 44           |
| Iron      | 55000                | 17000                            | 18000                            | 25000        | 34000        | 19000         | 20000         | 22000        | 25000        | 24000        | 29000        |
| Lead      | 400                  | 36                               | 37                               | 180          | 250          | 92            | 79            | 150          | 180          | 160          | 150          |
| Magnesium | NE                   | 3300                             | 3500                             | 3100         | 3700         | 2900          | 2800          | 3600         | 4000         | 3400         | 4200         |
| Manganese | 1800                 | 450                              | 430                              | 680          | 930          | 520           | 510           | 560          | 630          | 700          | 750          |
| Nickel    | 1500                 | 27                               | 34                               | 20           | 42           | 17            | 25            | 18           | 35           | 20           | 35           |
| Potassium | NE                   | 2400                             | 2400                             | 2600         | 2700         | 2700          | 2000          | 3300         | 2800         | 2900         | 2300         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.5          | 3.2          | 2.1           | 2.3           | 2            | 2.4          | 2.3          | 3.1          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.3          | 1.8          | 0.68          | 0.53          | 1.1          | 1.1          | 1.1          | 1            |
| Sodium    | NE                   | 100U                             | 100U                             | 170 J+       | 170 J+       | 240           | 160 J+        | 620          | 570          | 190 J+       | 180 J+       |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.31         | 0.37         | 0.23          | 0.23          | 0.28         | 0.31         | 0.29         | 0.32         |
| Vanadium  | 390                  | 20                               | 21                               | 31           | 38           | 27            | 25            | 32           | 35           | 33           | 36           |
| Zinc      | 23000                | 75                               | 77                               | 390          | 400          | 290           | 260           | 340          | 320          | 350          | 290          |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-17D-00-01</b> | <b>GS-17D-01-06</b> | <b>GS-18B-00-01</b> | <b>GS-18B-01-06</b> | <b>GS-18D-00-01</b> | <b>GS-18D-01-06</b> | <b>GS-19B-00-01</b> | <b>GS-19B-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7500                | 9600                | 7100                | 8100                | 7000                | 7800                | 7100                | 7500                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.2                 | 1.4                 | 1.2                 | 0.84                | 1.1                 | 0.78                | 1.4                 | 0.67                |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 44                  | 55                  | 32                  | 36                  | 43                  | 28                  | 49                  | 30                  |
| Barium         | 15000                      | 98                                      | 100                                     | 210                 | 270                 | 180                 | 230                 | 190                 | 200                 | 180                 | 190                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.87                | 1.1                 | 0.73                | 0.83                | 0.72                | 0.97                | 0.77                | 0.85                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 2.3                 | 2.6                 | 1.1                 | 1.5                 | 1.9                 | 2                   | 1.9                 | 1.3                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 15000               | 20000               | 11000               | 11000               | 12000               | 12000               | 10000               | 10000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 13                  | 17                  | 13                  | 15                  | 11                  | 11                  | 14                  | 11                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 8.1                 | 9.9                 | 6.7                 | 9.7                 | 6.6                 | 5.9                 | 7.9                 | 8.6                 |
| Copper         | 3100                       | 18                                      | 20                                      | 44                  | 56                  | 32                  | 37                  | 34                  | 31                  | 48                  | 41                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 26000               | 34000               | 21000               | 27000               | 23000               | 22000               | 27000               | 25000               |
| Lead           | 400                        | 36                                      | 37                                      | 160                 | 210                 | 110                 | 120                 | 170                 | 130                 | 190                 | 110                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4500                | 5700                | 2900                | 3900                | 4000                | 4400                | 3000                | 4200                |
| Manganese      | 1800                       | 450                                     | 430                                     | 810                 | 1000                | 530                 | 740                 | 690                 | 640                 | 680                 | 600                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 19                  | 37                  | 18                  | 40                  | 15                  | 37                  | 22                  | 44                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3300                | 3100                | 2300                | 2100                | 2600                | 1800                | 2600                | 1900                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.8                 | 3.5                 | 2.3                 | 2.9                 | 2.3                 | 2.7                 | 2.6                 | 2.9                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 1.4                 | 1.6                 | 0.87                | 0.89                | 1.3                 | 0.88                | 1.2                 | 0.73                |
| Sodium         | NE                         | 100U                                    | 100U                                    | 210 J+              | 200 J+              | 120 J+              | 160 J+              | 120 J+              | 160 J+              | 170 J+              | 140 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.34                | 0.42                | 0.26                | 0.32                | 0.29                | 0.28                | 0.31                | 0.28                |
| Vanadium       | 390                        | 20                                      | 21                                      | 33                  | 42                  | 28                  | 32                  | 31                  | 26                  | 34                  | 27                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 420                 | 470                 | 260                 | 270                 | 380                 | 320                 | 430                 | 230                 |



**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-20B-00-01</b> | <b>GS-20B-01-06</b> | <b>GS-20D-00-01</b> | <b>GS-20D-01-06</b> | <b>GS-21D-00-01</b> | <b>GS-21D-01-06</b> | <b>GS-22D-00-01</b> | <b>GS-22D-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 6900                | 7700                | 7800                | 6900                | 7700                | 6900                | 7300                | 8000                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.54                | 0.69                | 1.1                 | 0.78                | 1.4                 | 2.6                 | 1.2                 | 1.2                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 24                  | 33                  | 48                  | 34                  | 65                  | 140                 | 49                  | 47                  |
| Barium         | 15000                      | 98                                      | 100                                     | 170                 | 200                 | 210                 | 190                 | 220                 | 260                 | 190                 | 210                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.63                | 0.79                | 0.76                | 0.73                | 0.77                | 0.66                | 0.7                 | 0.78                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.2                 | 1.8                 | 2.5                 | 1.6                 | 2.9                 | 2.5                 | 1.8                 | 2.1                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 6900                | 8200                | 13000               | 11000               | 8900                | 7100                | 13000               | 11000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 8.7                 | 9.8                 | 24                  | 14                  | 13                  | 12                  | 14                  | 12                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 6                   | 7.4                 | 8.2                 | 6.6                 | 8.4                 | 8.1                 | 8.6                 | 9.4                 |
| Copper         | 3100                       | 18                                      | 20                                      | 24                  | 33                  | 46                  | 31                  | 47                  | 57                  | 53                  | 45                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 17000               | 23000               | 29000               | 22000               | 32000               | 46000               | 27000               | 29000               |
| Lead           | 400                        | 36                                      | 37                                      | 85                  | 130                 | 200                 | 120                 | 640                 | 500                 | 160                 | 180                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 2200                | 3300                | 3500                | 3800                | 2900                | 2700                | 4000                | 3500                |
| Manganese      | 1800                       | 450                                     | 430                                     | 480                 | 700                 | 940                 | 720                 | 930                 | 1100                | 800                 | 850                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 14                  | 34                  | 46                  | 24                  | 23                  | 26                  | 18                  | 23                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2100                | 1900                | 2300                | 1700                | 2900                | 2700                | 3300                | 2600                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 1.7                 | 2.3                 | 2.6                 | 2.3                 | 2.6                 | 3                   | 2.4                 | 2.8                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.83                | 0.9                 | 1.4                 | 0.89                | 1.8                 | 3.9                 | 1.3                 | 1.2                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 90 U                | 110 J+              | 170 J+              | 140 J+              | 180 J+              | 180 J+              | 570                 | 180 J+              |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.23                | 0.28                | 0.33                | 0.26                | 0.36                | 0.48                | 0.31                | 0.33                |
| Vanadium       | 390                        | 20                                      | 21                                      | 25                  | 28                  | 34                  | 27                  | 36                  | 48                  | 35                  | 36                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 200                 | 260                 | 470                 | 280                 | 540                 | 520                 | 460                 | 410                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-23D-00-01</b> | <b>GS-23D-01-06</b> | <b>GS-24D-00-01</b> | <b>GS-24D-01-06</b> | <b>GS-25D-00-01</b> | <b>GS-25D-01-06</b> | <b>GS-26D-00-01</b> | <b>GS-26D-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7700                | 8400                | 7000                | 7900                | 6800                | 7700                | 7300                | 7000                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.5                 | 1                   | 1.1                 | 1.2                 | 1.2                 | 1.2                 | 1                   | 1                   |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 58                  | 48                  | 48                  | 46                  | 50                  | 58                  | 47                  | 46                  |
| Barium         | 15000                      | 98                                      | 100                                     | 190                 | 170                 | 190                 | 200                 | 200                 | 200                 | 190                 | 180                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.75                | 0.83                | 0.74                | 0.9                 | 0.82                | 0.95                | 0.85                | 0.87                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.4                 | 2.7                 | 2                   | 2.3                 | 2.2                 | 2.5                 | 2                   | 2.3                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 14000               | 17000               | 13000               | 11000               | 14000               | 16000               | 13000               | 14000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 13                  | 13                  | 13                  | 13                  | 12                  | 12                  | 14                  | 11                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 11                  | 11                  | 7.9                 | 8.2                 | 7.7                 | 8.5                 | 7                   | 6.6                 |
| Copper         | 3100                       | 18                                      | 20                                      | 42                  | 45                  | 46                  | 42                  | 45                  | 44                  | 66                  | 47                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 31000               | 31000               | 25000               | 28000               | 26000               | 31000               | 24000               | 25000               |
| Lead           | 400                        | 36                                      | 37                                      | 260                 | 190                 | 140                 | 180                 | 200                 | 240                 | 190                 | 200                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4400                | 5100                | 3400                | 3900                | 4200                | 5800                | 3900                | 4700                |
| Manganese      | 1800                       | 450                                     | 430                                     | 840                 | 1000                | 790                 | 840                 | 840                 | 980                 | 760                 | 850                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 23                  | 27                  | 18                  | 28                  | 19                  | 25                  | 16                  | 21                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2200                | 2100                | 2600                | 2600                | 3700                | 3100                | 3200                | 2300                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.7                 | 3.1                 | 2.5                 | 3                   | 2.3                 | 2.8                 | 2.2                 | 2.3                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 1.6                 | 1.3                 | 1.2                 | 1.2                 | 1.3                 | 1.6                 | 1.2                 | 1.4                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 240                 | 160 J+              | 130 J+              | 120 J+              | 300                 | 240                 | 440                 | 250                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.36                | 0.35                | 0.32                | 0.35                | 0.32                | 0.37                | 0.31                | 0.31                |
| Vanadium       | 390                        | 20                                      | 21                                      | 39                  | 36                  | 34                  | 33                  | 34                  | 36                  | 32                  | 31                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 280                 | 380                 | 510                 | 440                 | 410                 | 410                 | 500                 | 590                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-27D-00-01 | GS-27D-01-06 | GS-28D-00-01 | GS-28D-01-06 | GS-29A4-00-01 | GS-29A4-01-06 | GS-29A5-00-01 | GS-29A5-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7300         | 7600         | 6800         | 7700         | 5400          | 4400          | 4900          | 4100          |
| Antimony  | 31                   | 0.25                             | 0.25                             | 0.69         | 0.65         | 1.2          | 1.3          | 2             | 2.4           | 2.2           | 2.6           |
| Arsenic   | 0.68                 | 11                               | 11                               | 30           | 33           | 49           | 58           | 94            | 100           | 95            | 110           |
| Barium    | 15000                | 98                               | 100                              | 200          | 190          | 170          | 180          | 190           | 160           | 160           | 170           |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.72         | 0.79         | 1.1          | 1.5          | 0.86          | 0.78          | 0.65          | 0.55          |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 1.4          | 1.5          | 2.2          | 2.5          | 1.6           | 1.8           | 2.5           | 2             |
| Calcium   | NE                   | 6400                             | 6600                             | 9500         | 11000        | 9300         | 9200         | 14000         | 16000         | 7200          | 7600          |
| Chromium  | 120000               | 36                               | 46                               | 11           | 10           | 13           | 14           | 28            | 27            | 11            | 19            |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 6.8          | 6.1          | 6            | 6.6          | 6.5           | 5.8           | 6.5           | 5.6           |
| Copper    | 3100                 | 18                               | 20                               | 27           | 26           | 39           | 39           | 61            | 66            | 61            | 70            |
| Iron      | 55000                | 17000                            | 18000                            | 20000        | 22000        | 23000        | 26000        | 38000         | 40000         | 37000         | 42000         |
| Lead      | 400                  | 36                               | 37                               | 110          | 130          | 180          | 200          | 550           | 610           | 500           | 700           |
| Magnesium | NE                   | 3300                             | 3500                             | 2700         | 2500         | 2800         | 3200         | 4700          | 4800          | 2100          | 2000          |
| Manganese | 1800                 | 450                              | 430                              | 520          | 640          | 760          | 880          | 590           | 560           | 650           | 560           |
| Nickel    | 1500                 | 27                               | 34                               | 13           | 16           | 15           | 19           | 20            | 19            | 12            | 16            |
| Potassium | NE                   | 2400                             | 2400                             | 2900         | 2100         | 2800         | 2600         | 2700          | 2400          | 2600          | 2600          |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.1          | 2.1          | 2.4          | 2.6          | 2.1           | 2             | 2.1           | 2             |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 0.77         | 0.95         | 1.3          | 1.3          | 3.6           | 4.1           | 3.3           | 4.4           |
| Sodium    | NE                   | 100U                             | 100U                             | 340          | 280          | 240          | 240          | 260           | 250           | 210 J+        | 240           |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.25         | 0.24         | 0.34         | 0.37         | 0.52          | 0.51          | 0.47          | 0.54          |
| Vanadium  | 390                  | 20                               | 21                               | 27           | 26           | 33           | 37           | 37            | 37            | 38            | 38            |
| Zinc      | 23000                | 75                               | 77                               | 270          | 260          | 430          | 430          | 370           | 390           | 460           | 420           |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-29D-00-01</b> | <b>GS-29D-01-06</b> | <b>GS-29D-00-01-DUP</b> | <b>GS-29D-01-06-DUP</b> | <b>GS-29D-00-01-TRI</b> | <b>GS-29D-01-06-TRI</b> | <b>GS-30A-00-01</b> | <b>GS-30A-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7200                | 8600                | 7200                    | 8700                    | 7300                    | 9100                    | 5600                | 4500                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.6                 | 1.8                 | 1.6                     | 1.8                     | 1.7                     | 1.7                     | 2.2                 | 1.8                 |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 75                  | 79                  | 75                      | 78                      | 78                      | 79                      | 92                  | 110                 |
| Barium         | 15000                      | 98                                      | 100                                     | 190                 | 220                 | 190                     | 220                     | 180                     | 250                     | 160                 | 190                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 1.4                 | 1.7                 | 1.4                     | 1.8                     | 1.3                     | 1.8                     | 0.66                | 0.5                 |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 4.4                 | 3.8                 | 4.4                     | 3.8                     | 4.3                     | 3.9                     | 2.3                 | 1.9                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 9800                | 8100                | 10000                   | 8100                    | 10000                   | 8200                    | 7100                | 7500                |
| Chromium       | 120000                     | 36                                      | 46                                      | 13                  | 14                  | 13                      | 14                      | 13                      | 15                      | 17                  | 16                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 6.9                 | 7.3                 | 7                       | 7.3                     | 7.2                     | 7.6                     | 7.3                 | 6                   |
| Copper         | 3100                       | 18                                      | 20                                      | 50                  | 43                  | 50                      | 48                      | 52                      | 46                      | 59                  | 77                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 30000               | 30000               | 31000                   | 30000                   | 31000                   | 31000                   | 38000               | 46000               |
| Lead           | 400                        | 36                                      | 37                                      | 370                 | 280                 | 370                     | 280                     | 370                     | 290                     | 480                 | 650                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 3700                | 3300                | 3800                    | 3400                    | 3800                    | 3400                    | 2300                | 1700                |
| Manganese      | 1800                       | 450                                     | 430                                     | 1100                | 1100                | 1100                    | 1100                    | 1100                    | 1200                    | 760                 | 580                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 16                  | 26                  | 15                      | 25                      | 16                      | 23                      | 17                  | 15                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3300                | 3000                | 3300                    | 3000                    | 3300                    | 3100                    | 3100                | 2900                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.5                 | 2.9                 | 2.5                     | 2.9                     | 2.4                     | 3                       | 2.2                 | 2.1                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 2.4                 | 2                   | 2.5                     | 2                       | 2.5                     | 2.2                     | 3.2                 | 4.2                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 210                 | 160 J+              | 220                     | 170 J+                  | 220                     | 170 J+                  | 270                 | 280                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.42                | 0.45                | 0.43                    | 0.44                    | 0.42                    | 0.45                    | 0.48                | 0.53                |
| Vanadium       | 390                        | 20                                      | 21                                      | 38                  | 45                  | 38                      | 45                      | 39                      | 47                      | 41                  | 39                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 760                 | 590                 | 780                     | 600                     | 770                     | 620                     | 450                 | 460                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-31A-00-01 | GS-31A-01-06 | GS-32A-00-01 | GS-32A-01-06 | GS-33A-00-01 | GS-33A-01-06 | GS-34A-00-01 | GS-34A-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 5400         | 5200         | 5900         | 5300         | 7200         | 6900         | 6200         | 6800         |
| Antimony  | 31                   | 0.25                             | 0.25                             | 2.1          | 2            | 1.7          | 1.9          | 1.1          | 1.6          | 1.7          | 1.4          |
| Arsenic   | 0.68                 | 11                               | 11                               | 100          | 100          | 88           | 96           | 83           | 96           | 89           | 77           |
| Barium    | 15000                | 98                               | 100                              | 200          | 220          | 200          | 210          | 260          | 220          | 190          | 180          |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.75         | 0.67         | 0.7          | 0.6          | 0.75         | 0.75         | 0.71         | 0.73         |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 3            | 2.2          | 2            | 1.9          | 2.5          | 2.9          | 2.6          | 3.4          |
| Calcium   | NE                   | 6400                             | 6600                             | 5900         | 4500         | 6900         | 6000         | 9600         | 7800         | 6300         | 6700         |
| Chromium  | 120000               | 36                               | 46                               | 20           | 9.9          | 20           | 19           | 24           | 18           | 21           | 20           |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 6            | 4.8          | 7.2          | 5.4          | 8.9          | 9            | 7.3          | 8.7          |
| Copper    | 3100                 | 18                               | 20                               | 69           | 75           | 65           | 71           | 55           | 60           | 64           | 57           |
| Iron      | 55000                | 17000                            | 18000                            | 38000        | 43000        | 38000        | 42000        | 37000        | 41000        | 40000        | 39000        |
| Lead      | 400                  | 36                               | 37                               | 500          | 650          | 440          | 570          | 390          | 450          | 450          | 410          |
| Magnesium | NE                   | 3300                             | 3500                             | 2000         | 1500         | 2200         | 1700         | 2900         | 2400         | 2100         | 2300         |
| Manganese | 1800                 | 450                              | 430                              | 740          | 520          | 660          | 450          | 850          | 880          | 710          | 770          |
| Nickel    | 1500                 | 27                               | 34                               | 12           | 20           | 17           | 14           | 23           | 20           | 18           | 20           |
| Potassium | NE                   | 2400                             | 2400                             | 3300         | 3100         | 2900         | 2700         | 2900         | 2900         | 3000         | 2700         |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.1          | 2.4          | 2.4          | 2.4          | 2.6          | 2.7          | 2.5          | 2.8          |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 3.7          | 4.5          | 3.3          | 4.1          | 2.7          | 3.3          | 3.1          | 2.8          |
| Sodium    | NE                   | 100U                             | 100U                             | 190 J+       | 220          | 280          | 260          | 260          | 260          | 230          | 240          |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.51         | 0.57         | 0.47         | 0.52         | 0.47         | 0.54         | 0.49         | 0.47         |
| Vanadium  | 390                  | 20                               | 21                               | 41           | 38           | 37           | 36           | 39           | 40           | 37           | 35           |
| Zinc      | 23000                | 75                               | 77                               | 550          | 470          | 450          | 420          | 480          | 500          | 540          | 520          |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-35A-00-01</b> | <b>GS-35A-01-06</b> | <b>GS-36A-00-01</b> | <b>GS-36A-01-06</b> | <b>GS-37A-00-01</b> | <b>GS-37A-01-06</b> | <b>GS-38A-00-01</b> | <b>GS-38A-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 6800                | 6800                | 6800                | 7200                | 7700                | 7900                | 8400                | 8500                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.4                 | 1.3                 | 1.7                 | 1.3                 | 1.1                 | 0.99                | 0.71                | 0.86                |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 74                  | 75                  | 96                  | 80                  | 61                  | 65                  | 50                  | 63                  |
| Barium         | 15000                      | 98                                      | 100                                     | 230                 | 210                 | 220                 | 240                 | 210                 | 260                 | 170                 | 180                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.77                | 0.8                 | 0.82                | 0.85                | 0.83                | 0.87                | 0.94                | 1                   |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 2.3                 | 2.9                 | 3                   | 2.6                 | 3.4                 | 3.8                 | 6                   | 5.6                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 7300                | 7000                | 8100                | 8000                | 8200                | 8400                | 13000               | 10000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 27                  | 22                  | 20                  | 20                  | 22                  | 24                  | 28                  | 19                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 7.7                 | 8.2                 | 7.7                 | 7.9                 | 8.4                 | 8.9                 | 8.4                 | 8.1                 |
| Copper         | 3100                       | 18                                      | 20                                      | 52                  | 56                  | 57                  | 52                  | 48                  | 50                  | 55                  | 63                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 34000               | 36000               | 36000               | 35000               | 29000               | 30000               | 30000               | 34000               |
| Lead           | 400                        | 36                                      | 37                                      | 320                 | 370                 | 350                 | 320                 | 240                 | 270                 | 160                 | 240                 |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 2300                | 2200                | 2500                | 2500                | 2600                | 2500                | 3800                | 3400                |
| Manganese      | 1800                       | 450                                     | 430                                     | 750                 | 890                 | 900                 | 780                 | 1100                | 1300                | 1000                | 940                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 22                  | 19                  | 18                  | 19                  | 21                  | 22                  | 24                  | 19                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3500                | 3400                | 3300                | 2800                | 3000                | 3000                | 3000                | 2800                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.6                 | 2.7                 | 2.6                 | 2.8                 | 2.7                 | 2.8                 | 3.6                 | 3.8                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 2.6                 | 2.7                 | 2.7                 | 2.3                 | 1.9                 | 2.1                 | 1.2                 | 2.1                 |
| Sodium         | NE                         | 100U                                    | 100U                                    | 220                 | 220                 | 180 J+              | 170 J+              | 190 J+              | 200 J+              | 370                 | 330                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.45                | 0.48                | 0.5                 | 0.48                | 0.41                | 0.44                | 0.36                | 0.42                |
| Vanadium       | 390                        | 20                                      | 21                                      | 37                  | 36                  | 44                  | 39                  | 36                  | 39                  | 33                  | 35                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 440                 | 490                 | 550                 | 490                 | 550                 | 570                 | 1200                | 1200                |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-39A-00-01 | GS-39A-01-06 | GS-40A-00-01 | GS-40A-01-06 | GS-40A1-00-01 | GS-40A1-01-06 | GS-40A1-00-01-DUP | GS-40A1-01-06-DUP |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|-------------------|-------------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 9400         | 9700         | 8700         | 9000         | 7500          | 7700          | 7600              | 8300              |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.3          | 1.2          | 1.2          | 0.91         | 0.59          | 0.58          | 0.63              | 0.59              |
| Arsenic   | 0.68                 | 11                               | 11                               | 84           | 84           | 64           | 58           | 36            | 37            | 38                | 43                |
| Barium    | 15000                | 98                               | 100                              | 220          | 250          | 180          | 180          | 180           | 180           | 180               | 190               |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.96         | 0.96         | 0.81         | 0.82         | 0.69          | 0.71          | 0.72              | 0.76              |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 7.6          | 6.8          | 4.8          | 5.3          | 1.3           | 1.3           | 1.6               | 1.6               |
| Calcium   | NE                   | 6400                             | 6600                             | 13000        | 14000        | 17000        | 19000        | 11000         | 12000         | 10000             | 12000             |
| Chromium  | 120000               | 36                               | 46                               | 22           | 25           | 21           | 15           | 16            | 24            | 18                | 25                |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 10           | 10           | 12           | 13           | 9.3           | 10            | 9.5               | 11                |
| Copper    | 3100                 | 18                               | 20                               | 72           | 71           | 54           | 52           | 36            | 36            | 37                | 43                |
| Iron      | 55000                | 17000                            | 18000                            | 33000        | 35000        | 36000        | 38000        | 25000         | 27000         | 25000             | 30000             |
| Lead      | 400                  | 36                               | 37                               | 250          | 270          | 190          | 200          | 95            | 98            | 100               | 110               |
| Magnesium | NE                   | 3300                             | 3500                             | 4000         | 4200         | 3800         | 3700         | 3400          | 3800          | 3500              | 4300              |
| Manganese | 1800                 | 450                              | 430                              | 1200         | 1200         | 1100         | 1200         | 640           | 670           | 670               | 760               |
| Nickel    | 1500                 | 27                               | 34                               | 25           | 25           | 28           | 27           | 20            | 26            | 22                | 27                |
| Potassium | NE                   | 2400                             | 2400                             | 3400         | 3600         | 2900         | 2600         | 2400          | 2400          | 2500              | 2600              |
| Selenium  | 390                  | 2.7                              | 2.6                              | 3            | 3.1          | 3.2          | 3.6          | 2.9           | 3.1           | 3                 | 3.3               |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 2            | 2            | 1.4          | 1.5          | 0.76          | 0.82          | 1.1               | 0.96              |
| Sodium    | NE                   | 100U                             | 100U                             | 370          | 390          | 270          | 260          | 330           | 320           | 380               | 390               |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.44         | 0.45         | 0.43         | 0.43         | 0.3           | 0.32          | 0.31              | 0.34              |
| Vanadium  | 390                  | 20                               | 21                               | 41           | 42           | 38           | 39           | 28            | 29            | 28                | 31                |
| Zinc      | 23000                | 75                               | 77                               | 1600         | 1500         | 690          | 730          | 230           | 240           | 260               | 280               |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-40A1-00-01-TRI</b> | <b>GS-40A1-01-06-TRI</b> | <b>GS-40A2-00-01</b> | <b>GS-40A2-01-06</b> | <b>GS-41A-00-01</b> | <b>GS-41A-01-06</b> | <b>GS-42A-00-01</b> | <b>GS-42A-01-06</b> |
|----------------|----------------------------|---|---|--------------------------|--------------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7400                     | 8300                     | 7800                 | 8600                 | 8900                | 8800                | 8500                | 8700                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.58                     | 0.52                     | 0.59                 | 0.52                 | 0.51                | 0.48                | 0.52                | 0.54                |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 34                       | 37                       | 34                   | 29                   | 35                  | 32                  | 29                  | 29                  |
| Barium         | 15000                      | 98                                      | 100                                     | 190                      | 200                      | 180                  | 180                  | 190                 | 190                 | 170                 | 190                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.69                     | 0.73                     | 0.8                  | 0.78                 | 0.78                | 0.75                | 0.8                 | 0.8                 |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.3                      | 1.4                      | 1.4                  | 1.5                  | 1.5                 | 1.4                 | 1.1                 | 1.1                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 9700                     | 12000                    | 12000                | 13000                | 13000               | 12000               | 15000               | 16000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 18                       | 24                       | 28                   | 34                   | 41                  | 30                  | 38                  | 48                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 8.6                      | 9.9                      | 10                   | 12                   | 12                  | 11                  | 13                  | 13                  |
| Copper         | 3100                       | 18                                      | 20                                      | 33                       | 36                       | 39                   | 41                   | 40                  | 43                  | 39                  | 38                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 24000                    | 27000                    | 28000                | 30000                | 31000               | 31000               | 30000               | 31000               |
| Lead           | 400                        | 36                                      | 37                                      | 92                       | 100                      | 71                   | 61                   | 77                  | 68                  | 60                  | 54                  |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 3200                     | 3900                     | 4200                 | 4400                 | 4500                | 4400                | 4500                | 4700                |
| Manganese      | 1800                       | 450                                     | 430                                     | 600                      | 670                      | 670                  | 650                  | 660                 | 610                 | 740                 | 720                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 20                       | 25                       | 28                   | 33                   | 36                  | 32                  | 35                  | 39                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2400                     | 2400                     | 2600                 | 2500                 | 2500                | 2600                | 2400                | 2400                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.8                      | 3                        | 3.3                  | 3.9                  | 3.6                 | 3.8                 | 3.6                 | 3.6                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.84                     | 0.81                     | 0.6                  | 0.49                 | 0.7                 | 0.53                | 0.46                | 0.45                |
| Sodium         | NE                         | 100U                                    | 100U                                    | 300                      | 310                      | 440                  | 380                  | 300                 | 290                 | 200 J+              | 220                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.29                     | 0.31                     | 0.34                 | 0.38                 | 0.36                | 0.37                | 0.33                | 0.34                |
| Vanadium       | 390                        | 20                                      | 21                                      | 28                       | 30                       | 30                   | 30                   | 33                  | 31                  | 30                  | 31                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 230                      | 240                      | 240                  | 200                  | 210                 | 200                 | 180                 | 180                 |



**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-43A-00-01</b> | <b>GS-43A-01-06</b> | <b>GS-44A-00-01</b> | <b>GS-44A-01-06</b> | <b>GS-45A-00-01</b> | <b>GS-45A-01-06</b> | <b>GS-46A-00-01</b> | <b>GS-46A-01-06</b> |
|----------------|----------------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 8500                | 8900                | 6800                | 6600                | 7100                | 8000                | 7900                | 8300                |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.42 J              | 0.39 J              | 0.44                | 0.45                | 0.65                | 0.41                | 0.61                | 0.56                |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 29                  | 28                  | 21                  | 20                  | 32                  | 23                  | 31                  | 29                  |
| Barium         | 15000                      | 98                                      | 100                                     | 170                 | 170                 | 190                 | 170                 | 190                 | 200                 | 200                 | 220                 |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.75                | 0.78                | 0.66                | 0.65                | 0.72                | 0.79                | 0.79                | 0.83                |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.2                 | 1.2                 | 0.83                | 0.79                | 1.3                 | 1.1                 | 1.4                 | 1.4                 |
| Calcium        | NE                         | 6400                                    | 6600                                    | 13000               | 14000               | 11000               | 10000               | 7800                | 12000               | 12000               | 11000               |
| Chromium       | 120000                     | 36                                      | 46                                      | 15                  | 20                  | 22                  | 34                  | 13                  | 12                  | 19                  | 28                  |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 14                  | 15                  | 7                   | 6.7                 | 9.7                 | 11                  | 12                  | 12                  |
| Copper         | 3100                       | 18                                      | 20                                      | 40                  | 41                  | 26                  | 24                  | 45                  | 38                  | 43                  | 41                  |
| Iron           | 55000                      | 17000                                   | 18000                                   | 29000               | 32000               | 19000               | 18000               | 24000               | 25000               | 27000               | 29000               |
| Lead           | 400                        | 36                                      | 37                                      | 53                  | 50                  | 50                  | 48                  | 86                  | 61                  | 84                  | 71                  |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4300                | 4500                | 3200                | 2900                | 3200                | 3900                | 4400                | 4600                |
| Manganese      | 1800                       | 450                                     | 430                                     | 730                 | 750                 | 480                 | 470                 | 580                 | 670                 | 780                 | 790                 |
| Nickel         | 1500                       | 27                                      | 34                                      | 29                  | 33                  | 20                  | 25                  | 21                  | 39                  | 26                  | 31                  |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2200                | 2300                | 1900                | 1800                | 2900                | 2000                | 2400                | 2400                |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 3.9                 | 4.1                 | 2.1                 | 2                   | 3                   | 3.3                 | 3.1                 | 3.4                 |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.39                | 0.35                | 0.45                | 0.37                | 0.67                | 0.45                | 0.62                | 0.78                |
| Sodium         | NE                         | 100U                                    | 100U                                    | 220                 | 250                 | 170 J+              | 170 J+              | 550                 | 410                 | 390                 | 450                 |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.33                | 0.36                | 0.22                | 0.22                | 0.31                | 0.32                | 0.34                | 0.35                |
| Vanadium       | 390                        | 20                                      | 21                                      | 29                  | 30 J                | 25                  | 24                  | 27                  | 26                  | 29                  | 29                  |
| Zinc           | 23000                      | 75                                      | 77                                      | 170                 | 180                 | 160                 | 140                 | 260                 | 180                 | 250                 | 230                 |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-47A-00-01 | GS-47A-01-06 | GS-HOUSE-00-01 | GS-HOUSE-01-06 | GS-VACANT-00-01 | GS-VACANT-01-06 | GS-CA01-00-01 | GS-CA01-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|--------------|--------------|----------------|----------------|-----------------|-----------------|---------------|---------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7000         | 7100         | 8100           | 8600           | 8600            | 8400            | 6100          | 6700          |
| Antimony  | 31                   | 0.25                             | 0.25                             | 0.67         | 0.61         | 1.1            | 1.2            | 1.1             | 1               | 1.5           | 1.3           |
| Arsenic   | 0.68                 | 11                               | 11                               | 27           | 26           | 49             | 52             | 60              | 58              | 64            | 60            |
| Barium    | 15000                | 98                               | 100                              | 180          | 180          | 210            | 210            | 210             | 210             | 150           | 170           |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.75         | 0.78         | 0.84           | 0.87           | 0.98            | 0.97            | 0.81          | 0.78          |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 1.2          | 1.2          | 2.2            | 2.2            | 2.3             | 2.3             | 1.8           | 1.7           |
| Calcium   | NE                   | 6400                             | 6600                             | 16000        | 16000        | 9100           | 8200           | 10000           | 9900            | 9200          | 11000         |
| Chromium  | 120000               | 36                               | 46                               | 32           | 27           | 21             | 26             | 33              | 35              | 13            | 22            |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 7.1          | 7.5          | 7.7            | 8              | 8.6             | 8.6             | 9.1           | 10            |
| Copper    | 3100                 | 18                               | 20                               | 30           | 29           | 40             | 40             | 40              | 40              | 52            | 57            |
| Iron      | 55000                | 17000                            | 18000                            | 19000        | 20000        | 26000          | 28000          | 30000           | 29000           | 32000         | 36000         |
| Lead      | 400                  | 36                               | 37                               | 94           | 86           | 210            | 210            | 210             | 210             | 290           | 290           |
| Magnesium | NE                   | 3300                             | 3500                             | 5700         | 5400         | 2800           | 2800           | 3700            | 3600            | 2900          | 3000          |
| Manganese | 1800                 | 450                              | 430                              | 570          | 600          | 850            | 890            | 870             | 870             | 740           | 710           |
| Nickel    | 1500                 | 27                               | 34                               | 23           | 22           | 18             | 21             | 29              | 30              | 17            | 25            |
| Potassium | NE                   | 2400                             | 2400                             | 2100         | 2000         | 4600           | 4400           | 3000            | 2900            | 2800          | 2500          |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.2          | 2.4          | 2.7            | 2.7            | 3.2             | 3.2             | 2.9           | 3.3           |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 0.63         | 0.61         | 1.3            | 1.2            | 1.6             | 1.5             | 2             | 1.9           |
| Sodium    | NE                   | 100U                             | 100U                             | 160 J+       | 170 J+       | 170 J+         | 180 J+         | 120 J+          | 120 J+          | 160 J+        | 180 J+        |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.27         | 0.27         | 0.34           | 0.34           | 0.45            | 0.44            | 0.4           | 0.42          |
| Vanadium  | 390                  | 20                               | 21                               | 27           | 27           | 37             | 39             | 35              | 35              | 35            | 36            |
| Zinc      | 23000                | 75                               | 77                               | 230          | 210          | 410            | 420            | 390             | 380             | 370           | 340           |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-CA02-00-01 | GS-CA02-01-06 | GS-CA03-00-01 | GS-CA03-01-06 | GS-CA04-00-01 | GS-CA04-01-06 | GS-CA04-00-01-DUP | GS-CA04-01-06-DUP |
|-----------|----------------------|----------------------------------|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7900          | 8300          | 6900          | 8000          | 6100          | 6200          | 5900              | 6300              |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.1           | 0.76          | 1.3           | 1             | 1.5           | 1.3           | 1.7               | 1.2               |
| Arsenic   | 0.68                 | 11                               | 11                               | 51            | 39            | 62            | 52            | 73            | 63            | 84                | 63                |
| Barium    | 15000                | 98                               | 100                              | 170           | 160           | 170           | 180           | 170           | 170           | 160               | 180               |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.76          | 0.76          | 0.83          | 0.83          | 0.72          | 0.79          | 0.73              | 0.78              |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 1.7           | 1.5           | 2.1           | 2             | 2.5           | 2.3           | 2.7               | 2.2               |
| Calcium   | NE                   | 6400                             | 6600                             | 15000         | 19000         | 20000         | 20000         | 13000         | 14000         | 12000             | 13000             |
| Chromium  | 120000               | 36                               | 46                               | 14            | 15            | 16            | 19            | 19            | 24            | 19                | 26                |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 12            | 14            | 10            | 12            | 8.1           | 7.7           | 7.4               | 8.1               |
| Copper    | 3100                 | 18                               | 20                               | 44            | 45            | 240           | 51            | 46            | 44            | 48                | 44                |
| Iron      | 55000                | 17000                            | 18000                            | 34000         | 36000         | 31000         | 34000         | 29000         | 28000         | 31000             | 29000             |
| Lead      | 400                  | 36                               | 37                               | 160           | 120           | 230           | 180           | 250           | 260           | 310               | 260               |
| Magnesium | NE                   | 3300                             | 3500                             | 3600          | 3700          | 5200          | 4300          | 3600          | 4000          | 3600              | 3900              |
| Manganese | 1800                 | 450                              | 430                              | 850           | 770           | 870           | 850           | 880           | 800           | 880               | 770               |
| Nickel    | 1500                 | 27                               | 34                               | 25            | 28            | 23            | 28            | 20            | 22            | 18                | 24                |
| Potassium | NE                   | 2400                             | 2400                             | 4000          | 2800          | 2400          | 2200          | 2800          | 2800          | 3000              | 2800              |
| Selenium  | 390                  | 2.7                              | 2.6                              | 3.8           | 4.5           | 2.9           | 3.6           | 2.5           | 2.7           | 2.5               | 2.6               |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.1           | 0.83          | 1.6           | 1.3           | 2.1           | 1.8           | 2.3               | 1.8               |
| Sodium    | NE                   | 100U                             | 100U                             | 170 J+        | 200 J+        | 180 J+        | 190 J+        | 150 J+        | 140 J+        | 160 J+            | 140 J+            |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.4           | 0.38          | 0.39          | 0.44          | 0.4           | 0.39          | 0.41              | 0.4               |
| Vanadium  | 390                  | 20                               | 21                               | 37            | 34            | 38            | 38            | 42            | 38            | 43                | 39                |
| Zinc      | 23000                | 75                               | 77                               | 290           | 240           | 500           | 320           | 510           | 440           | 560               | 420               |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-CA04-00-01-TRI | GS-CA04-01-06-TRI | GS-CA05-00-01 | GS-CA05-01-06 | GS-CA06-00-01 | GS-CA06-01-06 | GS-CA07-00-01 | GS-CA07-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 5800              | 5900              | 6600          | 7000          | 7500          | 7700          | 6700          | 6900          |
| Antimony  | 31                   | 0.25                             | 0.25                             | 1.7               | 1.3               | 1.3           | 1.2           | 1.3           | 1.1           | 0.52          | 0.47          |
| Arsenic   | 0.68                 | 11                               | 11                               | 84                | 62                | 69            | 67            | 69            | 60            | 23            | 21            |
| Barium    | 15000                | 98                               | 100                              | 170               | 150               | 170           | 200           | 190           | 190           | 180           | 170           |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.74              | 0.71              | 0.73          | 0.74          | 0.74          | 0.77          | 0.66          | 0.7           |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 2.5               | 2                 | 2.2           | 2.3           | 2.1           | 1.8           | 0.79          | 0.81          |
| Calcium   | NE                   | 6400                             | 6600                             | 12000             | 15000             | 15000         | 14000         | 11000         | 12000         | 15000         | 15000         |
| Chromium  | 120000               | 36                               | 46                               | 16                | 23                | 19            | 21            | 15            | 17            | 17            | 24            |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 7.1               | 7.7               | 8.7           | 9.4           | 9.8           | 10            | 6.1           | 6.9           |
| Copper    | 3100                 | 18                               | 20                               | 48                | 44                | 47            | 46            | 44            | 45            | 23            | 25            |
| Iron      | 55000                | 17000                            | 18000                            | 28000             | 28000             | 30000         | 31000         | 32000         | 33000         | 18000         | 19000         |
| Lead      | 400                  | 36                               | 37                               | 270               | 250               | 230           | 220           | 190           | 180           | 74            | 64            |
| Magnesium | NE                   | 3300                             | 3500                             | 3700              | 3800              | 4800          | 4200          | 3800          | 4000          | 5200          | 4900          |
| Manganese | 1800                 | 450                              | 430                              | 900               | 730               | 820           | 840           | 870           | 830           | 500           | 520           |
| Nickel    | 1500                 | 27                               | 34                               | 16                | 21                | 22            | 23            | 21            | 22            | 15            | 20            |
| Potassium | NE                   | 2400                             | 2400                             | 3000              | 2600              | 2700          | 2700          | 3300          | 3600          | 2600          | 2600          |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.4               | 2.4               | 2.8           | 2.7           | 3.2           | 3.5           | 2.1           | 2.1           |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 2                 | 1.8               | 1.8           | 1.7           | 1.6           | 1.4           | 0.49          | 0.47          |
| Sodium    | NE                   | 100U                             | 100U                             | 160 J+            | 130 J+            | 200 J+        | 190 J+        | 160 J+        | 170 J+        | 99 U          | 100 J+        |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.41              | 0.38              | 0.39          | 0.39          | 0.39          | 0.37          | 0.22          | 0.23          |
| Vanadium  | 390                  | 20                               | 21                               | 43                | 37                | 41            | 40            | 41            | 39            | 26            | 25            |
| Zinc      | 23000                | 75                               | 77                               | 520               | 380               | 390           | 410           | 390           | 350           | 190           | 180           |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| Analyte   | EPA RSL <sup>a</sup> | Background <sup>b</sup><br>00-01 | Background <sup>b</sup><br>01-06 | GS-CA08-00-01 | GS-CA08-01-06 | GS-CA09-00-01 | GS-CA09-01-06 | GS-CA10-00-01 | GS-CA10-01-06 | GS-CA11-00-01 | GS-CA11-01-06 |
|-----------|----------------------|----------------------------------|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Aluminum  | 77000                | 8300                             | 8800                             | 7400          | 7700          | 7000          | 7500          | 8000          | 7800          | 7300          | 7200          |
| Antimony  | 31                   | 0.25                             | 0.25                             | 0.91          | 0.81          | 0.93          | 0.83          | 0.87          | 0.8           | 1.1 J         | 1.3 J         |
| Arsenic   | 0.68                 | 11                               | 11                               | 44            | 42            | 51            | 47            | 48            | 49            | 54            | 68            |
| Barium    | 15000                | 98                               | 100                              | 180           | 180           | 200           | 180           | 210           | 170           | 190           | 160           |
| Beryllium | 160                  | 0.7                              | 0.69                             | 0.77          | 0.89          | 0.8           | 0.81          | 0.75          | 0.83          | 0.72          | 0.76          |
| Cadmium   | 7.1                  | 0.39                             | 0.39                             | 1.7           | 1.8           | 1.8           | 2.1           | 1.8           | 1.8           | 1.7           | 2.3           |
| Calcium   | NE                   | 6400                             | 6600                             | 22000         | 24000         | 16000         | 17000         | 13000         | 18000         | 13000         | 15000         |
| Chromium  | 120000               | 36                               | 46                               | 12            | 12            | 12            | 11            | 12            | 12            | 12            | 11            |
| Cobalt    | 23                   | 7.1                              | 7.6                              | 8.3           | 8.7           | 8.8           | 12            | 12            | 11            | 11            | 12            |
| Copper    | 3100                 | 18                               | 20                               | 37            | 41            | 41            | 38            | 41            | 44            | 44            | 50            |
| Iron      | 55000                | 17000                            | 18000                            | 26000         | 27000         | 27000         | 29000         | 31000         | 33000         | 31000         | 36000         |
| Lead      | 400                  | 36                               | 37                               | 160           | 190           | 180           | 170           | 160           | 210           | 200           | 300           |
| Magnesium | NE                   | 3300                             | 3500                             | 5100          | 6700          | 5100          | 4600          | 4200          | 5000          | 4000          | 4000          |
| Manganese | 1800                 | 450                              | 430                              | 760           | 830           | 810           | 1000          | 870           | 970           | 870           | 1100          |
| Nickel    | 1500                 | 27                               | 34                               | 20            | 25            | 20            | 28            | 25            | 27            | 22            | 28            |
| Potassium | NE                   | 2400                             | 2400                             | 2900          | 2400          | 3000          | 2400          | 2700          | 2200          | 2900          | 2300          |
| Selenium  | 390                  | 2.7                              | 2.6                              | 2.6           | 2.7           | 2.5           | 2.8           | 2.8           | 3.1           | 3.1           | 3.1           |
| Silver    | 390                  | 0.09J                            | 0.098J                           | 1.2           | 1.3           | 1.3           | 1.3           | 1.3           | 1.3           | 1.5           | 2.1 J         |
| Sodium    | NE                   | 100U                             | 100U                             | 150 J+        | 170 J+        | 120 J+        | 120 J+        | 140 J+        | 160 J+        | 150 J+        | 170 J+        |
| Thallium  | 0.78                 | 0.17                             | 0.19                             | 0.34          | 0.35          | 0.36          | 0.35          | 0.39          | 0.43          | 0.38          | 0.48          |
| Vanadium  | 390                  | 20                               | 21                               | 33            | 32            | 33            | 31            | 33            | 32            | 35            | 35            |
| Zinc      | 23000                | 75                               | 77                               | 280           | 290           | 340           | 320           | 300           | 310           | 310           | 360           |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-CA12-00-01</b> | <b>GS-CA12-01-06</b> | <b>GS-CA12-00-01-DUP</b> | <b>GS-CA12-01-06-DUP</b> | <b>GS-CA12-00-01-TRI</b> | <b>GS-CA12-01-06-TRI</b> |
|----------------|----------------------------|---|---|----------------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 7600                 | 7700                 | 7400                     | 7700                     | 7300                     | 8200                     |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 1.2                  | 0.9                  | 1.2                      | 0.85                     | 1.3                      | 0.93                     |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 69                   | 53                   | 59                       | 44                       | 68                       | 57                       |
| Barium         | 15000                      | 98                                      | 100                                     | 160                  | 130                  | 170                      | 130                      | 160                      | 130                      |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.78                 | 0.83                 | 0.78                     | 0.84                     | 0.77                     | 0.85                     |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 2.4                  | 1.8                  | 1.8                      | 1.5                      | 2.3                      | 2.2                      |
| Calcium        | NE                         | 6400                                    | 6600                                    | 12000                | 19000                | 16000                    | 25000                    | 13000                    | 18000                    |
| Chromium       | 120000                     | 36                                      | 46                                      | 13                   | 12                   | 13                       | 12                       | 13                       | 13                       |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 11                   | 10                   | 11                       | 11                       | 10                       | 11                       |
| Copper         | 3100                       | 18                                      | 20                                      | 49                   | 43                   | 43                       | 43                       | 48                       | 48                       |
| Iron           | 55000                      | 17000                                   | 18000                                   | 31000                | 29000                | 30000                    | 30000                    | 30000                    | 32000                    |
| Lead           | 400                        | 36                                      | 37                                      | 210                  | 170                  | 180                      | 140                      | 190                      | 190                      |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 4600                 | 6100                 | 5200                     | 6500                     | 4700                     | 5600                     |
| Manganese      | 1800                       | 450                                     | 430                                     | 980                  | 840                  | 860                      | 830                      | 950                      | 940                      |
| Nickel         | 1500                       | 27                                      | 34                                      | 22                   | 26                   | 24                       | 31                       | 21                       | 31                       |
| Potassium      | NE                         | 2400                                    | 2400                                    | 3000                 | 2200                 | 2700                     | 2100                     | 3000                     | 2300                     |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.9                  | 2.9                  | 2.9                      | 3.2                      | 2.8                      | 3                        |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 1.6                  | 1.9                  | 1.3                      | 0.93                     | 1.5                      | 1.2                      |
| Sodium         | NE                         | 100U                                    | 100U                                    | 160 J+               | 270                  | 170 J+                   | 280                      | 150 J+                   | 250                      |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.39                 | 0.35                 | 0.37                     | 0.35                     | 0.37                     | 0.38                     |
| Vanadium       | 390                        | 20                                      | 21                                      | 39                   | 34                   | 38                       | 32                       | 39                       | 35                       |
| Zinc           | 23000                      | 75                                      | 77                                      | 400                  | 300                  | 330                      | 240                      | 390                      | 340                      |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-CA13-00-01</b> | <b>GS-CA13-01-06</b> | <b>GS-CA13-00-01-DUP</b> | <b>GS-CA13-01-06-DUP</b> | <b>GS-CA13-00-01-TRI</b> | <b>GS-CA13-01-06-TRI</b> |
|----------------|----------------------------|---|---|----------------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 8200                 | 8100                 | 7100                     | 7100                     | 7400                     | 7300                     |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.77                 | 0.85                 | 0.75                     | 0.73                     | 1.2                      | 0.77                     |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 43                   | 46                   | 42                       | 33                       | 70                       | 42                       |
| Barium         | 15000                      | 98                                      | 100                                     | 200                  | 200                  | 150                      | 160                      | 160                      | 180                      |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.88                 | 0.96                 | 0.76                     | 0.84                     | 0.78                     | 0.81                     |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 1.5                  | 1.1                  | 1.4                      | 1.2                      | 2.3                      | 1.5                      |
| Calcium        | NE                         | 6400                                    | 6600                                    | 16000                | 16000                | 17000                    | 24000                    | 14000                    | 19000                    |
| Chromium       | 120000                     | 36                                      | 46                                      | 14                   | 15                   | 18                       | 13                       | 14                       | 13                       |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 9.6                  | 8.7                  | 8.4                      | 8.4                      | 8.7                      | 8.9                      |
| Copper         | 3100                       | 18                                      | 20                                      | 41                   | 31                   | 41                       | 36                       | 45                       | 41                       |
| Iron           | 55000                      | 17000                                   | 18000                                   | 27000                | 24000                | 25000                    | 24000                    | 28000                    | 25000                    |
| Lead           | 400                        | 36                                      | 37                                      | 130                  | 110                  | 130                      | 120                      | 190                      | 130                      |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 5200                 | 4700                 | 4800                     | 7000                     | 4300                     | 5600                     |
| Manganese      | 1800                       | 450                                     | 430                                     | 800                  | 640                  | 700                      | 680                      | 870                      | 730                      |
| Nickel         | 1500                       | 27                                      | 34                                      | 21                   | 35                   | 20                       | 25                       | 20                       | 28                       |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2900                 | 2400                 | 2400                     | 2100                     | 2500                     | 2200                     |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.8                  | 2.8                  | 2.5                      | 2.5                      | 2.7                      | 2.6                      |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.93                 | 0.76                 | 0.98                     | 0.68                     | 1.5                      | 0.93                     |
| Sodium         | NE                         | 100U                                    | 100U                                    | 140 J+               | 130 J+               | 160 J+                   | 180 J+                   | 160 J+                   | 200 J+                   |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.33                 | 0.33                 | 0.31                     | 0.29                     | 0.36                     | 0.33                     |
| Vanadium       | 390                        | 20                                      | 21                                      | 34                   | 38                   | 33                       | 29                       | 38                       | 32                       |
| Zinc           | 23000                      | 75                                      | 77                                      | 300                  | 210                  | 330                      | 300                      | 470                      | 410                      |



**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

| <b>Analyte</b> | <b>EPA RSL<sup>a</sup></b> | <b>Background<sup>b</sup><br/>00-01</b> | <b>Background<sup>b</sup><br/>01-06</b> | <b>GS-CA14-00-01</b> | <b>GS-CA14-01-06</b> | <b>GS-CA14-00-01-DUP</b> | <b>GS-CA14-01-06-DUP</b> | <b>GS-CA14-00-01-TRI</b> | <b>GS-CA14-01-06-TRI</b> |
|----------------|----------------------------|---|---|----------------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Aluminum       | 77000                      | 8300                                    | 8800                                    | 6500                 | 6600                 | 7500                     | 7900                     | 6800                     | 7900                     |
| Antimony       | 31                         | 0.25                                    | 0.25                                    | 0.45                 | 0.33                 | 0.53                     | 0.53                     | 0.57                     | 0.5                      |
| Arsenic        | 0.68                       | 11                                      | 11                                      | 52                   | 18                   | 27                       | 25                       | 59                       | 27                       |
| Barium         | 15000                      | 98                                      | 100                                     | 150                  | 140                  | 180                      | 190                      | 160                      | 190                      |
| Beryllium      | 160                        | 0.7                                     | 0.69                                    | 0.66                 | 0.59                 | 0.81                     | 0.91                     | 0.66                     | 0.93                     |
| Cadmium        | 7.1                        | 0.39                                    | 0.39                                    | 0.76                 | 0.64                 | 0.83                     | 0.94                     | 0.83                     | 0.91                     |
| Calcium        | NE                         | 6400                                    | 6600                                    | 8000                 | 10000                | 12000                    | 16000                    | 8500                     | 15000                    |
| Chromium       | 120000                     | 36                                      | 46                                      | 22                   | 9.7                  | 14                       | 13                       | 23                       | 14                       |
| Cobalt         | 23                         | 7.1                                     | 7.6                                     | 5.2                  | 6.8                  | 6.7                      | 8                        | 5.5                      | 7.6                      |
| Copper         | 3100                       | 18                                      | 20                                      | 22                   | 21                   | 25                       | 31                       | 23                       | 26                       |
| Iron           | 55000                      | 17000                                   | 18000                                   | 14000                | 17000                | 19000                    | 22000                    | 15000                    | 20000                    |
| Lead           | 400                        | 36                                      | 37                                      | 68                   | 58                   | 68                       | 83                       | 75                       | 72                       |
| Magnesium      | NE                         | 3300                                    | 3500                                    | 2600                 | 3400                 | 4300                     | 5600                     | 2800                     | 5500                     |
| Manganese      | 1800                       | 450                                     | 430                                     | 370                  | 440                  | 520                      | 630                      | 400                      | 600                      |
| Nickel         | 1500                       | 27                                      | 34                                      | 11 J+                | 14                   | 15                       | 22                       | 11 J+                    | 18                       |
| Potassium      | NE                         | 2400                                    | 2400                                    | 2300                 | 2100                 | 2700                     | 2100                     | 2300                     | 2100                     |
| Selenium       | 390                        | 2.7                                     | 2.6                                     | 2.1                  | 1.9                  | 2.4                      | 2.6                      | 2                        | 2.6                      |
| Silver         | 390                        | 0.09J                                   | 0.098J                                  | 0.35                 | 0.25                 | 0.42                     | 0.47                     | 0.39                     | 0.42                     |
| Sodium         | NE                         | 100U                                    | 100U                                    | 100 U                | 110 J+               | 100 U                    | 110 J+                   | 100 U                    | 100 J+                   |
| Thallium       | 0.78                       | 0.17                                    | 0.19                                    | 0.2                  | 0.21                 | 0.25                     | 0.28                     | 0.2                      | 0.27                     |
| Vanadium       | 390                        | 20                                      | 21                                      | 21                   | 22                   | 25                       | 27                       | 23                       | 26                       |
| Zinc           | 23000                      | 75                                      | 77                                      | 120                  | 120                  | 160                      | 170                      | 140                      | 160                      |

**Table 1**  
**Analytical Results Summary**  
**(DU Samples)**

**Notes**

All concentrations in milligrams per kilogram (mg/kg)

Indicates concentration that exceeds three times background

**bold** Indicates concentration that exceeds the EPA RSL for residential soil

<sup>a</sup> EPA RSL for residential soil (TR=1E-06, HQ=1), except where noted

<sup>b</sup> Highest concentration for each analyte of the three background samples

bgs Below ground surface

CA Common Area

DU Decision Unit

GS Garner Street

J The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.

NE None established

RSL Regional Screening Level