FINAL SOURCE AREAS, SOIL, AND FACILITY STRUCTURE INVESTIGATION REPORT

PHOENIX–GOODYEAR AIRPORT–NORTH SUPERFUND SITE

Goodyear, Arizona

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AMEC Geomatrix

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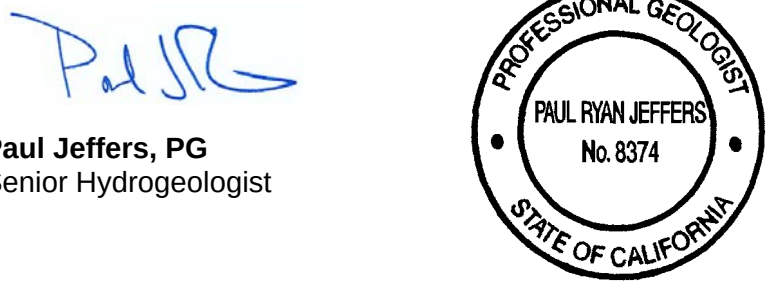

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FINAL SOURCE AREAS, SOIL, AND FACILITY STRUCTURE INVESTIGATION REPORT

Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

1.0 INTRODUCTION

AMEC Geomatrix, Inc. (AMEC Geomatrix), on behalf of Crane Co., has prepared this *Final Source Areas, Soil and Facility Structure Investigation Report* (Report) for the Phoenix-Goodyear Airport-North Superfund Site (PGA-North Site), Goodyear, Arizona. This Report has been prepared to present the results of the Source Areas, Soils and Facility Structures (SASFS) Phase II and associated addenda investigations (Phase II Investigation). The Phase II Investigation was conducted throughout 2009 and early 2011 at the former Unidynamics Phoenix Incorporated (UPI) facility (Site) (Figure 1).

The Phase II Investigation for the Site, including the scope, objectives, procedures, frequency, and rationale for soil and groundwater sampling, were described in the *Source Areas, Soils and Facility Structures Investigation Phase II Work Plan* (Phase II Work Plan), dated June 25, 2008 (ARCADIS, 2008a). The Phase II Investigation also included two additional limited investigations as described in *Addendum I to the Final Source Areas, Soils and Facility Structures Investigation Phase II Work Plan* (Addendum I), dated February 25, 2009 and the *Addendum II to the Final Source Areas, Soils and Facility Structures Investigation Phase II Work Plan* (Addendum II) dated January 27, 2010 (AMEC Geomatrix, 2009 and 2010, respectively). The work was conducted in accordance with the *Unilateral Administrative Order* (United States Environmental Protection Agency [USEPA], 2003) and the *Notice of Lodging of Partial Consent Decree under the Comprehensive Environmental Response, Compensation and Liability Act* (Consent Decree) (USEPA, 2006).

1.1 PURPOSE AND OBJECTIVES

The purpose of the SASFS investigation was to characterize potential source areas at the Site and evaluate these areas for the potential to adversely impact groundwater, soil, or soil vapor. The objectives of the Phase II Investigation were to further characterize and delineate potential source areas where contaminants of concern (COCs) exceeded Applicable or Relevant and Appropriate Requirements (ARARs) and address any remaining data gaps that were identified during the Phase I SASFS Investigation (Phase I Investigation). The specific objectives of the Phase II Investigation are detailed in Section 4.0.

1.2 PROJECT BACKGROUND

UPI began operating the facility as a research, design, development, testing, assembly, and manufacturing plant for ordnance components and related electromechanical devices in 1963. The present owner, Crane Co., purchased UPI and the property in 1985. In 1993, Crane Co. sold the UPI business (excluding buildings and land) to Pacific Scientific Energy Dynamics, which managed operations at the Site until 1994, when site operations ceased.

The property consisted of 24 fixed buildings and approximately eight bunkers. Some of the bunkers were used to store chemicals and products. Each building was designed for a specific operation (e.g., powder processing, ordnance assembly, chemical storage, and packaging). Programs conducted by UPI ranged from small-scale electromechanical research to the assembly and manufacture of specialized devices. UPI used approximately 180 different chemicals and/or chemical mixtures during its years of operation. Many of the chemicals, including volatile organic compounds (VOCs), metals, and pesticides, were disposed of at the Site.

In 1981, the Arizona Department of Health Services (ADHS) identified industrial solvent impacts to drinking water wells in the PGA-North Site area, specifically trichloroethene (TCE) and perchlorate. The USEPA added the Site to the National Priorities List in September 1983. Investigation, evaluation, and remediation have been ongoing since that time. Current remedial efforts for impacted groundwater originating at the Site consist of the on-site main groundwater treatment system (MTS), an on-site soil vapor extraction and treatment system, and three off-site groundwater extraction, treatment, and reinjection systems (33A; EA-05 and IA-10; EA-06/EA-07 and IA-11 through IA-15).

1.3 SITE SETTING

The PGA-North Site is located in Goodyear, Maricopa County, Arizona, approximately 17 miles west of downtown Phoenix. The PGA-North Site includes the former UPI facility, which is located on approximately 58 acres (Figure 1). The physical boundaries of the Site are Van Buren Street to the north, Litchfield Road to the east, a vacant field to the south, and the Southern Pacific Railroad tracks to the west. The Site lies within the western part of the Salt River Valley Basin. Land use in the area surrounding the Site is varied. Agricultural land is found to the west, vacant land zoned industrial lies to the south, residential and commercial properties lie to the east, and commercial properties are located north of the Site.

2.0 GENERAL GEOLOGY

The PGA-North Site is located in the West Salt River Valley (WSRV) basin, which is part of the Basin and Range physiographic province (Basin & Range). The Basin & Range is characterized by deep alluvial basins separated by generally north to northwest trending mountain ranges. Locally, the WSRV alluvial deposits are subdivided into three hydrogeologic units. These three units are designated as the Upper Alluvial Unit (UAU), the Middle Alluvial Unit (MAU), and the Lower Alluvial Unit (LAU). The UAU is further subdivided near the PGA-North Site into three subunits, which are designated Subunit A, Subunit B, and Subunit C (Geomatrix Consultants, 2002a).

2.1 UPPER ALLUVIAL UNIT

This section summarizes the composition of Subunits A, B, and C of the UAU. With the objectives of the SASFS investigation, the Phase II Investigation was limited to Subunit A.

2.1.1 Subunit A

Subunit A is generally composed of interbedded sands, silty sands, and clayey sands that can locally contain sequences of gravel and cobbles suggesting high energy deposits from the ancestral Agua Fria River. Subunit A typically extends from ground surface to approximately 150 to 160 feet below ground surface (bgs) in the vicinity of the Site and generally deepens to the north, to depths of approximately 190 to 200 feet bgs. Approximately one-third to one-half of the lower portion of Subunit A is saturated and is considered an unconfined aquifer.

2.1.2 Subunit B

Subunit B is primarily composed of interbedded silts and clays with lenses of fine to coarse sand suggesting distal facies of an alluvial fan sequence. It is generally 50 to 70 feet thick near the Site extending from about 160 to 230 feet bgs and is fully saturated. Field data collected from the groundwater investigations suggest that it deepens and thins (20 to 40 feet thick) north of I-10 and it may not be laterally continuous near the Agua Fria River channel. However, where Subunit B is present, the finer-grained deposits appear to impede the vertical movement of groundwater from Subunit A into Subunit C.

2.1.3 Subunit C

Subunit C is composed of interbedded mixtures of silty sands, sandy silts, and gravelly sands suggesting mid-fan facies of an alluvial fan sequence with braided channels. On average Subunit C is approximately 130 feet thick and extends from about 230 to 350 feet bgs. Subunit C is fully saturated and is considered to be a leaky to confined aquifer. Subunit C may be further subdivided into an upper and lower zone, based on grain size distribution.

2.2 MIDDLE ALLUVIAL UNIT

The UAU grades into the MAU at approximately 350 to 360 feet bgs. The MAU primarily consists of clay, silt, mudstone, and gypsiferous mudstone with interbedded sand and gravel deposits. In the central portions of the Salt River Valley Basin, the MAU may be up to 1,600 feet thick (Corell and Corkhill 1994).

2.3 LOWER ALLUVIAL UNIT

The LAU is the deepest alluvial unit within the Salt River Basin and overlies or is in fault contact with the underlying bedrock. Regionally, the LAU is composed of conglomerate and gravel near the basin margins, grading to mudstone and some evaporites in the central areas of the basin. No wells within the PGA-North Site are completed within the LAU. Hydraulic conductivity of the LAU is variable ranging from 5 to 60 ft/day (Corell and Corkhill, 1994).

3.0 PREVIOUS INVESTIGATIONS

Numerous investigations and remedial activities have been conducted to investigate and address soil and groundwater impacts at the Site since 1984. Western Technologies, Inc. (1984a and 1984b) and Dames & Moore (1988a, 1988b, and 1988c) conducted several soil investigations to determine the vertical and horizontal extent of impacts. In addition, on-Site groundwater quality has been monitored on at least a quarterly basis for most of the current COCs since 1984. Additional historical investigation and remediation history of the Site is detailed in the *Source Areas, Soils, and Facility Structures Investigation Phase I Work Plan* (Phase I Work Plan) (ARCADIS, 2007a).

3.1 PHASE I SOURCE AREAS, SOIL AND FACILITY STRUCTURE INVESTIGATION ACTIVITIES AND RESULTS

The Phase II Work Plan, prepared by ARCADIS on behalf of Crane Co., presents results of the Phase I Investigation and the scope of work for the Phase II Investigation (ARCADIS, 2008a). Investigation activities and associated results of the Phase I Investigation are summarized in the following subsections.

3.1.1 Known Waste Locations and Potential Source Areas

Thirteen known waste management locations (Locations), Location 1 through Location 13, and an additional nineteen potential source areas (PSAs), PSA-A through PSA-S have been identified at the Site (Figure 2). These Locations and PSAs are areas where waste disposal or spillage was documented by UPI, regulatory agencies, or contractors (Geomatrix Consultants, 2003a).

Phase I Investigation activities included removal of waste disposal structures from the identified Locations, and subsequent collection of soil and groundwater samples. This included sedimentation tanks, evaporation ponds, and associated piping. Soil samples were collected below excavated structures at identified Locations, and from soil borings at PSAs. Groundwater investigation activities consisted of collecting groundwater samples from previously existing Site monitor wells.

3.1.2 Phase I Soil Investigation Activities and Results

A total of 257 soil samples were collected for laboratory analysis at the Site from identified Locations and PSAs during the Phase I Investigation. Soil samples consisted of primary (initial or parent sample), replicate (similar sample collected for missing analyses), or field duplicate (sample analyzed for same compounds as primary sample). In addition, soil samples were collected for lithologic description and were field screened for VOCs with a photoionization detector (PID) to evaluate the need for additional sample collection from each boring. In accordance with the Phase I Work Plan, select soil samples were also field tested for explosive compounds using an explosive field test kit. Field PID readings of soil samples collected during the Phase I Investigation were less than five parts per million (ppm). All field readings for explosives were non-detect. As such, contingency soil samples were not collected as outlined in the Phase I Work Plan sample collection criteria. Soil boring logs and field notes summarizing soil sampling activities were provided in Appendix A and Table 4 of the Phase II Work Plan.

Soil staining was not observed, with the exception of an area in Location 10. Due to the purple soil staining noted inside sedimentation tank ST-09 at boring B10-2 (Figure 3), an additional sample B10-2A was collected and submitted for chemical analyses.

Soil samples collected during the Phase I Investigation were submitted for analysis under chain of custody to Aerotech Environmental Laboratories (AEL), now TestAmerica Inc. (TestAmerica), an Arizona Department of Health Services (ADHS) certified laboratory (License Number AZ0728) in Phoenix, Arizona. Soil sample laboratory analytical results that exceeded one or more ARARs were summarized and presented in Table 5 of the Phase II Work Plan. Complete laboratory analytical reports for soil samples collected during the Phase I Investigation were included in Appendix B and soil analytical data were summarized in Appendix C of the Phase II Work Plan.

The following bullets summarize laboratory analytical results for each analytical suite (VOCs, semi-volatile organic compounds [SVOCs], polynuclear aromatic hydrocarbons [PAHs], metals, pesticides, herbicides, explosives, radionuclides, polychlorinated biphenyls [PCBs],

nitrate, and perchlorate). The number of soil samples collected and the specific COC concentrations exceeding PRGs and/or SRLs are also summarized.

- **VOCs** - 136 primary, 16 replicate, and 8 field duplicate soil samples were collected from the identified Locations and PSAs and submitted for VOCs analyses. In the soil samples submitted for VOC analysis, only 16 analytes of the full list of required analytes (total of 59) were detected above the laboratory reporting limits (RL). Of the 16 analytes detected above the laboratory RL, only TCE (B10-2 and B10-2A) and tetrachloroethene (PCE) (B10-2A) exceeded their respective PRGs. VOC concentrations in the soil samples analyzed did not exceed SRLs.
- **Perchlorate** - 101 primary, 16 replicate, and 7 field duplicate soil samples were collected from the identified Locations and PSAs and submitted for perchlorate analysis. Perchlorate was detected above the laboratory RL in 93 of the soil samples analyzed. However, the detected perchlorate concentrations were below the PRG and the SRL.
- **Explosives** - 115 primary, 2 replicate, and 6 field duplicate soil samples were collected from the identified Locations and PSAs and submitted for explosives analysis. Only eight analytes of the full list of analytes (total of 14) exceeded the laboratory RL. None of the detected concentrations of explosives exceeded their respective PRGs or SRLs.
- **SVOCs/PAHs** - 6 primary soil samples were collected from the Locations and PSAs and submitted for SVOCs/PAHs analysis. Only one analyte of the full list of analytes (total of 70) exceeded the laboratory RL. None of the detected analyte concentrations exceeded their respective PRGs or SRLs.
- **Metals** - 115 primary, 3 replicate, and 6 field duplicate soil samples were collected from the Locations and PSAs and submitted for metals analysis. Twenty-two metal analytes of the full list of analytes (total of 28) were detected above laboratory RL. Only arsenic (119 samples) and lead (B10-2A at 0.5 foot bgs) exceeded the PRGs and/or the SRLs. No other metal concentrations exceeded their respective PRGs or SRLs.
- **Pesticides** - 26 primary soil samples were collected from the identified Locations and PSAs and submitted for pesticides analysis. Only four analytes of the full list of analytes (total of 28) were detected above the laboratory RL. Only dieldrin (BP-9 at 0.5 foot bgs) exceeded the PRG and SRL. No other detected concentrations exceeded their respective PRGs or SRLs.
- **Herbicides** - 26 primary soil samples were collected from the Locations and PSAs and submitted for herbicides analysis. None of the herbicide analytes (total of 8) were detected at concentrations above the laboratory RL.

- **Radionuclide** - 21 primary soil samples and 1 field duplicate soil sample were collected from the Locations and PSAs and submitted for radionuclide activity analysis (total of 5 analytes). All 22 soil samples had detectable activities of uranium, 6 had detectable activities of gross alpha, and 9 had gross beta activities detected above the laboratory RL. Currently, there are no PRGs or SRLs for uranium, gross alpha, and gross beta radionuclide activity concentrations in soil.
- **Nitrate** - 4 primary soil samples were collected from the identified Locations and PSAs and submitted for nitrate analysis. Nitrate was detected at concentrations above the laboratory RL in all four soil samples analyzed. None of the detected concentrations exceeded the respective PRGs or SRLs.
- **PCBs** - 1 primary soil sample was collected from the Locations and PSAs and submitted for PCBs analysis. No compounds from either of the PCB analyte groups were detected at concentrations above the laboratory RL.

3.1.3 Phase I Groundwater Investigation Activities and Results

Groundwater samples were collected from previously existing wells EA-01, EA-03, MW-01, MW-02, MW-03, MW-04, MW-07, MW-08, and MW-09 in August and November 2007 for laboratory analysis. A second round of groundwater samples were collected in November 2007 for explosive compound analyses because the laboratory inadvertently exceeded the hold times of the first samples. In 2007, the reporting limits for some of the groundwater analytical results exceeded the associated ARARs; therefore, groundwater analytical results from the First Quarter of 2008 were included in the Phase II Work Plan. 19 groundwater samples were collected from Site wells during the First Quarter of 2008. Groundwater sampling logs were provided in Appendix D of the Phase II Work Plan (ARCADIS, 2008). Groundwater laboratory analytical results (analytes tested and exceedances of ARARs) were summarized in Table 6 of the Phase II Work Plan. Figure 3 of the Phase II Work Plan identified the location of wells tested and groundwater analytical results that exceeded ARARs.

All groundwater samples were submitted under chain of custody to AEL in Phoenix, Arizona, for analysis. Complete laboratory analytical reports for the groundwater sampling events were included in Appendix E of the Phase II Work Plan. Phase I Investigation and First Quarter of 2008 groundwater sample analytical results were summarized in Appendix F of the Phase II Work Plan.

The following bullets summarize, by analytical suite, the number of groundwater samples analyzed, the number of COCs detected, and those analytes detected at concentrations above the USEPA Maximum Contaminant Level (MCLs) and/or the Arizona Aquifer Water Quality Standards (AWQSs).

- **VOCs** - 27 primary and 2 field duplicate groundwater samples were analyzed for VOCs (total of 59 analytes). TCE was detected in all of the groundwater samples analyzed. 1,1-dichloroethene (1,1-DCE) was detected in one groundwater sample. No other analytes were detected at concentrations above the laboratory RL. TCE concentrations exceeded the MCL and AWQS in 24 of the groundwater samples analyzed.
- **Perchlorate** - 27 primary and 2 field duplicate groundwater samples were analyzed for perchlorate. Perchlorate was detected at concentrations above the laboratory RL in 28 of the samples analyzed; however, only 10 of the reported concentrations were above the MCL and AWQS.
- **Explosives** - 25 primary, 3 field duplicate, and 2 replicate groundwater samples were analyzed for explosive compounds (total of 14 analytes). Only two analytes were detected at concentrations above the laboratory RL, however, none of the detected analyte concentrations exceeded their respective MCLs or AWQSs.
- **SVOCs/PAHs** - 27 primary and 3 duplicate groundwater samples were analyzed for SVOCs/PAHs (total of 68 analytes). Bis(2-ethylhexyl) phthalate was the only analyte detected at concentrations above the laboratory RL. The reported concentrations exceeded the MCL in four of the groundwater samples analyzed.
- **Metals** - 27 primary and 3 duplicate groundwater samples were analyzed for metals (total of 28 analytes). 14 metals were detected at concentrations above the laboratory RL. Of the 14 metals detected, only arsenic (five samples) and selenium (two samples) exceeded their respective MCLs or AWQSs. No other metal concentrations exceeded their respective MCLs or AWQSs.
- **Pesticides** - 26 primary and 3 duplicate groundwater samples were analyzed for pesticides (total of 28 analytes). None of the pesticide analytes were detected at concentrations above the laboratory RL.
- **Herbicides** - 18 primary and 3 duplicate groundwater samples were analyzed for herbicides (total of 8 analytes). None of the herbicide analytes were detected at concentrations above the laboratory RL.
- **Radionuclides** - 27 primary and 3 duplicate groundwater samples were analyzed for radionuclide activity (total of 5 analytes). Only three of the analytes were detected at concentrations above the laboratory RL. None of the radionuclides were detected above their respective MCLs.

4.0 PHASE II SOURCE AREAS, SOIL, AND FACILITY STRUCTURE INVESTIGATION - OBJECTIVES

The Phase II Investigation and associated addenda were conducted to further characterize and delineate areas where COC exceedances occurred during the Phase I Investigation and to address any remaining data gaps identified. Additional samples were collected from 9 of the previously identified Locations, 13 of the identified PSAs, and additional features identified during the Phase II Investigation. The Phase II Investigation also incorporated an evaluation of former facility structures and an inspection of sub-grade features identified during facility demolition activities conducted by Matrix New World, Inc. (Matrix).

4.1 IDENTIFIED WASTE LOCATIONS

Additional soil samples were collected from 9 Locations (Location 2, 3, 5, 6, 7, 8, 9, 10, and 11) as part of the Phase II Investigation (Figure 3). The following summarizes the objectives of the soil sampling activities associated with these Locations.

Location 10 - TCE and PCE were detected at concentrations exceeding their respective PRGs in soil samples collected from boring B10-2A during the Phase I Investigation. Lead was also detected at concentrations exceeding the PRG and SRL from this same boring. The prior soil samples collected from Location 10 with exceedances of TCE, PCE, and lead were collected within the vicinity of a former sedimentation tank (ST-09). Four additional soil borings (B10-04 through B10-07) were advanced in Location 10 during the Phase II Investigation to delineate the spatial extent of impacted soil around the former sedimentation tank.

A soil sample from Location 11 (B11-04) was collected to evaluate any impacted soil associated with the former transformer and is described in more detail in Section 4.3.

The additional soil samples from Locations 2, 3, 5, 6, 7, 8, and 9 were collected due to the analysis of metals being inadvertently omitted from the chain-of-custody forms during the Phase I Investigation.

4.2 POTENTIAL SOURCE AREAS

Additional soil samples were collected from 13 PSAs (PSA-B, -C –D –E, -F –G, -H, -I, -J, -K, -L, -O, and -P) as part of the Phase II Investigation (Figure 3). The following summarizes the objectives of the soil sampling activities associated with these PSAs.

PSA-P - Dieldrin was detected at a concentration exceeding the PRG in soil samples collected from boring BP-9 during the Phase I Investigation. Three additional soil borings (BP-11, BP-12, and BP-13) were advanced in PSA-P during the Phase II Investigation to delineate the spatial extent of soil impacted by dieldrin around the prior exceedance point (BP-9).

Soil samples collected from PSA-B, -C, -D, -E, -F, -G, -H, -I, -J, -K, -L, and -O were submitted for analysis of constituents that were inadvertently not analyzed for during the Phase I Investigation.

4.3 ADDENDUM I

An inspection of the Site facility structures was conducted by representatives of AMEC Geomatrix, Matrix, and CH2M Hill on February 5, 2009. A sub-grade pH neutralization tank and former transformer observed in Location 11 were identified during the Site inspection (Figure 3). As a result of the Site inspection, AMEC Geomatrix prepared Addendum I to provide a scope of work for additional sampling of soils and liquids associated with the former features in Location 11.

Stained soil adjacent to the former transformer pad and liquid in pipes protruding through the transformer concrete pad were observed during the Site inspection. One additional soil sample (B11-04) was collected during the Phase II Investigation to evaluate any impacted soil associated with the former transformer. One sample (TR11-01) of oil within the two pipes protruding through the concrete pad was collected. AMEC Geomatrix also collected a sample of water (NT11-01) present at the time in the former pH neutralization tank associated with Location 11 and Building 22. The sample of the water was analyzed to determine the presence of COCs associated with Location 11.

4.4 ADDENDUM II

Addendum II was prepared to provide a scope of work for additional investigation of features and soil sampling associated with former Building 1. The objectives of Addendum II were to investigate a concrete vault structure identified as PSA-S, a potential septic tank, and two potential dry wells located during demolition and slab removal activities. These features were investigated to determine if they were potential sources of COCs.

AMEC Geomatrix conducted an excavation around the concrete vault structure identified as PSA-S that was located during the slab demolition and removal activities for former Building 1. Four soil samples (BS-01, BS-02, BS-03, and BS-04) were collected from around the concrete structure. An excavation around the potential septic tank was conducted and a soil sample (PDS-4) was collected.

A limited excavation around two potential drywell structures (DW1 and DW2) located near Building 1 was conducted. One soil sample from each location (PDS-1 and PDS-2) was collected.

4.5 ADDITIONAL SOIL GAS SAMPLING

Three borings (AB-4, AB-5, and AB-6) were advanced as part of the Soil Gas Investigation (SGI) to further investigate potential sources of contamination from the known waste management Locations 2, 5, and 8 (Figure 4). The SGI borings were advanced at Phase I Investigation boring locations B2-2, B5-3, and B8-5 (Figure 3). Soil, soil gas, and groundwater samples were collected from the SGI borings to evaluate the potential of these known former waste locations as potential sources of contamination.

4.6 SLAB DEMOLITION AND REMOVAL INVESTIGATION (COOLING TOWER SUMP)

An objective of the Phase II Investigation was to inspect and evaluate the former facility structures to identify new PSAs and to complete investigation activities, where necessary, and determine if operations associated with the additional PSAs resulted in soil and/or groundwater impacts. Investigation of the facility structures was deferred during the Phase I Investigation until a time when the buildings were deemed safe for entry following the explosive compound decontamination of the buildings completed by Battelle in November 2007 (Battelle, 2008). Subsequent to USEPA's approval of the Phase II Work Plan, Crane Co. proposed to demolish the on-Site structures at the facility. The demolition of the facility structures provided an opportunity to enhance the evaluation of sub-grade features to aid in the determination of potential source areas.

During facility structure demolition activities conducted in 2009, total chromium was detected in a water sample collected from a former aboveground cooling tower sump located near Building 2 at a concentration of 29 microgram per liter (μg/L). The reported concentration of total chromium was below the MCL and AWQS of 100 μg/L. The area surrounding and under the former aboveground cooling tower sump was visually inspected and no noticeable staining of soil was observed.

In a comment letter submitted by CH2M Hill, the United States Army Corps of Engineers, and the Arizona Department of Environmental Quality on December 10, 2010 (USEPA, 2010), the USEPA requested that Crane Co. investigate the soils around and under the cooling tower sump. Upon approval from USEPA, four soil samples (CTS-01 through CTS-04) were collected around and under the cooling tower sump (Figure 5).

5.0 SASFS PHASE II INVESTIGATION METHODS AND FIELD ACTIVITIES

The following sections present a summary of the Phase II Investigation methods and field activities. Field investigation activities were conducted in general accordance with the Phase II Work Plan, Addendum I and Addendum II. Activities associated with the Phase II Investigation were as follows:

- Site walk with USEPA representatives;
- Pre-field activities;
- Excavation of the drywells and other points and linear source features;
- Soil borings and field screening of soil cuttings; and
- Soil, soil gas, and groundwater sample collection, handling and analysis.

Table 1 presents a list of samples collected as part of the Phase II Investigation and associated addenda. Quality control samples were collected as outlined in the Phase I Work Plan and the Quality Assurance Project Plan (QAPP). Figures 3, 4, and 5 present sample locations for the Phase II, Addendum I, and Addendum II Investigations.

5.1 FACILITY STRUCTURE INVESTIGATION

AMEC Geomatrix conducted an initial Site walk with USEPA representatives on February 5, 2009 prior to initiation of the demolition activities. Accessible areas of the facility structures were observed to identify buildings with floor drains, sumps, troughs, underground piping and other features that may have been used in process areas to convey raw materials and/or process wastes.

During Site inspection activities, a sub-grade pH neutralization tank and former transformer located in Location 11 (Figure 3) were discussed for additional sampling and characterization (Addendum I).

5.2 PRE-FIELD ACTIVITIES

Prior to initiating field activities the following pre-field activities were performed:

- Submitted a Notification of Initiation of Fieldwork to the USEPA fifteen days prior to the initiation of field activities;
- obtained the necessary permits from the Arizona Department of Water Resources;
- contacted Arizona Blue Stake to initially clear proposed boring locations for public utilities; and

- retained a private utility locating subcontractor to clear the drilling locations of utilities prior to the initiation of intrusive activities.

5.3 DRILLING AND LITHOLOGIC LOGGING

Three drilling methods were used during this investigation, direct push, air rotary casing hammer (ARCH), and Sonic™. The drilling methodologies used and the associated borings are described below.

Direct -push drilling consists of hydraulically pushing a small diameter, hollow steel rod to a specific depth for soil sample collection. Soil samples are retrieved from acetate or polyethethylene liners that are inserted into the sampler/core barrel installed on the end of the steel rods. Twelve borings were advanced and sampled using a Geoprobe® drill rig; Location 6 (B6-08), Location 10 (B10-04, B10-05, B10-06, B10-07), PSA-B (BB-03), PSA-D (BD-04), PSA-F (BF-04), PSA-L (BL-02), PSA-P (BP-11, BP-12, and BP-13) (Figure 3).

The ARCH system consists of a non-rotating flush-threaded casing driven in conjunction with a conventional air rotary drill string. Cuttings are cleared from the borehole by air circulation. The material is discharged through a hose into a cyclone, which separates the air from the formation cuttings to facilitate sampling and drill cuttings containment. The advanced drive casing is a heavy wall flush-treaded pipe. The casing is driven with a pneumatic or hydraulic hammer. This drilling method is well suited for conventional soil sampling, SimulProbe® sampling for soil gas and groundwater, and HydroPunch® sampling for groundwater. Addendum II soil borings PDS-1 and PDS-2 were advanced using the ARCH system.

The Sonic™ drilling method utilizes high-speed counter-balance on the top of the drill stem to produce resonant energy waves which minimize borehole friction on the drill pipe and speeds drilling. The Sonic™ method also creates a continuous core of material drilled. This minimizes investigative derived wastes and allows for a better determination of the subsurface lithology. Six borings were advanced using Sonic™ drilling methodology; Location 2 (B2-07), Location 3 (B3-04), Location 5 (B5-04), Location 6 (B6-09), Location 8 (B8-09), and Location 11 (B11-NT02) (Figure 3). In addition, soil borings AB-4, AB-5, and AB-6 were advanced using the Sonic™ drilling method (Figure 4).

Soil lithologic logging activities were performed by an AMEC Geomatrix field geologist under the supervision of a licensed professional geologist. Lithology was assessed from cuttings collected through soil cores and logged using the United Soil Classification System (USCS) for guidance as described in ASTM International (ASTM) Standard D 2488-09a (ASTM, 2009). Visual grain-size distribution, color, moisture content, and other pertinent characteristics were also included on the lithologic logs. Lithologic logs are provided in Appendix A.

5.4 SOIL SAMPLING

Soil samples collected during the Phase II Investigation were obtained using a SimulProbe® sampling device, direct-push method, and hand auger/shovel. The soil sampling devices were decontaminated before collection of each soil sample in accordance with the Phase II Work Plan. Table 1 presents a list of soil samples collected as part of the Phase II Investigation and associated addenda sampling. Soil samples collected were analyzed by one or more of the following USEPA Test Methods:

- VOCs using USEPA Test Method 8260B,
- SVOCs using USEPA Test Method 8270C,
- Perchlorate using USEPA Test Method 314,
- Explosives using USEPA Test Method 8330,
- Metals using USEPA Test Method 6010B, 7471A,
- Total cyanide using USEPA Test Method 9014,
- Hexavalent chromium using USEPA Test Method 7199,
- PCBs using USEPA Test Method 8082,
- Organochlorine pesticides using USEPA Test Method 8081A,
- Organophosphorus pesticides using USEPA Test Method 8141A,
- Chlorinated herbicides using USEPA Test Method 8151A,
- Total uranium using USEPA Test Method 6020,
- Cobalt-60 activity using USEPA Test Method 901.1,
- Cesium-137 activity using USEPA Test Method 901.1, and
- Gross Alpha/Beta/Gamma activity using USEPA Test Method 900.

For analysis of VOCs, approximately 10 grams of soil was collected from the lead brass, aluminum sampling sleeve, or acetate liners using an Environmental Sampling Supply, Inc. Lock-n-Load™ disposable plastic cut-off syringe and placed in 40 milliliter (mL) volatile organic analysis (VOA) vials preserved with methanol. During limited soil sampling activities associated with the cooling tower sump, soil samples obtained for VOC analysis were collected using the USEPA approved Encore® sampling device. The Encore® sampler was attached to a reusable T-handle to collect the soil sample from cuttings retrieved from a depth of three feet from each boring using a hand auger. Two Encore® samplers were submitted for each soil sample location. Soil samples collected for analysis of total metals were collected in four-ounce clear glass jars. Soil samples were stored on ice and submitted under chain-of-custody documentation for laboratory analysis.

Soil samples were monitored for organic vapors using a PID equipped with a 10.6 electron volt (eV) lamp for screening VOCs. The screening equipment was calibrated daily using isobutylene gas having a concentration of 100 ppm. Monitoring of soil sample off-gassing was performed by placing a sample of soil into a plastic bag. The bag was then sealed and the soil was broken up inside the bag. The PID probe was then inserted into the bag to monitor the headspace. PID measurements were recorded on the lithologic logs and field notes. PID readings are presented in Appendix A on the soil boring logs.

Background ambient air monitoring was conducted using the PID and included collecting measurements within the drilling area (*i.e.,* breathing zone) for comparison to job safety criteria and calibration check measurements against standard gas to insure continued accuracy of measurements. PID measurements were recorded on the field logs.

5.5 SOIL GAS SAMPLING

Soil gas samples were collected at potential drywell sources identified during the slab demolition and removal investigation (PDS-1 and PDS-2, Figure 3; AB-4, AB-5, and AB-6, (Figure 4). Soil gas samples were collected concurrently with the soil samples using the SimulProbe® sampling device. Prior to sample collection at each depth interval, new polyethylene tubing was connected to the sampling tip of the SimulProbe® sampling device through the drive rods. Between sample intervals, the used sample tubing was discarded and new polyethylene tubing was cut to approximately 10 feet more than the depth of the next sample interval.

The SimulProbe® sampler was lowered into the boring ahead of each sampling interval and driven approximately 24-inches below the open borehole to the targeted sampling depth. The SimulProbe® was then pulled back approximately four inches to expose a screen and allow for soil gas collection. A vacuum pump was used to purge three tubing volumes prior to collection of a soil gas sample at each sampling interval. The purge times for each sample are documented on the soil gas sampling logs (Appendix C). Purging and sampling was conducted at a flow rate of approximately 200 milliliters per minute (mL/min) to limit stripping and prevent ambient air from diluting the soil gas samples. During pre-sampling/purging activities, soil gas was monitored in the sample tubing at the effluent of the air sampling pump for organic vapors using a PID equipped with a 10.6 eV lamp for screening VOCs. The PID was calibrated against isobutylene gas having a concentration of 100 ppm. Each soil gas sample was collected in a pre-cleaned laboratory provided Stabilizer™ one-liter Summa™-style canister and was submitted for analysis of VOCs via USEPA Test Method TO-15.

5.6 GROUNDWATER SAMPLING

Depth-discrete groundwater samples were collected from each potential drywell source boring (PDS-1 and PDS-2) and from borings AB-4, AB-5, and AB-6. The groundwater samples were collected using HydroPunch® sampling techniques to evaluate groundwater for the presence of VOCs and perchlorate.

Groundwater samples were collected using the HydroPunch® sampling technique by advancing the boring to a depth above the desired sampling interval. The HydroPunch® sampler was then advanced approximately 18-inches to the desired sampling depth for sample collection. A new 0.010-inch polyvinyl chloride screen was attached to a new drop-off tip for each sampling interval. The screen and drop-off tip were then inserted into the body of the HydroPunch® sampler until the O-Ring on the cone was sealed in the drive shoe. Once driven to the desired depth, the body of the HydroPunch® unit was pulled back exposing the screen. After the HydroPunch® screen section collected water, the groundwater samples were collected. A new/clean disposable bailer and disposable twine were lowered and partially submerged into the HydroPunch® sampling device at each sampling depth to collect the groundwater sample. Groundwater collected using the disposable bailers were transferred to 40 mL VOA vials preserved with hydrochloric acid and stored on ice prior to delivery to the laboratory.

5.7 SURVEY

Sample points from the identified Locations, PSAs, and sub-slab features identified during Site demolition and removal activities were surveyed using a hand-held sub-meter Trimble GeoXH™ global positioning system (GPS) and Topcon GPS unit.

5.8 PHASE II INVESTIGATION SAMPLING

On March 4, 2009 AMEC Geomatrix collected soil samples from Locations 7, 9, and 11 and PSA-C, -E, -G, -H, -I, -J, -K, and -O (Table 1 & Figure 3). Soil samples were collected from a target depth of 0.5 feet bgs from the identified Locations and PSAs except for Location 7, where the soil sample was collected from 1.5 feet bgs. Soil samples were collected using hand sampling methodologies. Two field duplicates and one equipment blank sample were collected as part of quality assurance (QA) and quality control (QC) samples (Table 1).

- Soil samples collected from Locations 7 and 9, and PSAs-C, -E, -G, -H, -I, -J, -K, and -O were submitted for analysis of metals, total cyanide, and hexavalent chromium.
- Soil samples collected from PSA-H and PSA-O were also analyzed for total uranium.

- Soil samples from PSA-I, PSA-J, and PSA-K were also analyzed for organophosphorous pesticides.
- The soil sample collected from Location 11 was analyzed for PCBs.

On October 9, 2009, Johnson Environmental Technologies (JET) advanced twelve direct-push borings; B6-08 (Location 6), B10-04, B10-05, B10-06, B10-07 (Location 10), BB-03 (PSA-B), BD-04 (PSA-D), BF-04 (PSA-F), BL-02 (PSA-L), BP-11, BP-12, and BP-13 (PSA-P) (Table 1 and Figure 3). Soil samples were collected in 40 mL VOA vials, one-liter plastic bottles, and/or eight-ounce glass jars in accordance with the laboratory submittal requirements. Soil sample depths ranged from approximately 0.5 to 12 feet bgs. Four QA/QC samples including two field duplicates, one equipment blank, and one trip blank were collected along with rest of samples during this sampling event (Table 1).

- Soil samples from PSA-D (BD-04 at 0.5 feet bgs), and PSA-F (BF-04 at 0.5 feet bgs), were submitted for analysis of metals, total cyanide, and hexavalent chromium.
- Soil samples from Location 10 (B10-04 at 10 feet bgs; B10-05 at 5 and 10 feet bgs; B10-06 at 5 and 10 feet bgs; and B10-07 at 5 and 10 feet bgs) were submitted for analysis of metals, total cyanide, hexavalent chromium, and VOCs.
- Soil samples from PSA-L (BL-02) were collected at 0.5 and 4 feet bgs. The soil sample from 0.5 feet bgs was analyzed for metals, total cyanide, hexavalent chromium, orgnaochlorine pesticides, organophosphorus pesticides, chlorinated herbicides, and nitrate. The soil sample collected at 4 feet bgs was analyzed for SVOCs.
- The soil sample collected from PSA-B (BB-03 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.
- Soil samples collected from PSA-P (BP-11 at 0.5 and 5 feet bgs; BP-12 at 0.5 and 5 feet bgs; and BP-13 at 0.5 and 5 feet bgs) were submitted for analysis of organochlorine pesticides and organophosphorus pesticides.

On December 2, 3, and 4, 2009 Boart Longyear advanced six borings; Location 2 (B2-07), Location 3 (B3-04), Location 5 (B5-04), Location 6 (B6-09), Location 8 (B8-09), and Location 11 (B11-NT02). Each boring was advanced using the Sonic™ drilling method. Soil samples were collected from borings B2-07 at 26 feet bgs, B3-04 at 17 feet bgs, B5-04 at 20 feet bgs, B6-09 at 17 feet bgs, B8-09 at 45 feet bgs, and B11-NT02 at 15, 30, and 45 feet bgs. Soil samples collected from each boring were analyzed for metals, total cyanide, and hexavalent chromium. In addition to the aforementioned analysis, soil samples collected from B11-NT02 were analyzed for VOCs, SVOCs, and perchlorate. Four QA/QC samples including one field

duplicate, one equipment blank, and two trip blanks were collected along with rest of samples during this sampling event (Table 1).

5.9 ADDENDUM I SAMPLING

On March 5, 2009, AMEC Geomatrix collected one sample (TR11-01) of oil within two pipes protruding through the concrete slab of the former transformer located in Location 11 (Table 1 and Figure 3). The oil sample was collected using a new disposable pipet. The sample was submitted for analysis of PCBs. One sample (NT11-01) of the liquid in the pH neutralization tank within Location 11 was collected using a new disposable bailer. The sample was submitted for analysis of VOCs, SVOCs, perchlorate, explosives, metals, total cyanide, and hexavalent chromium. One QA/QC sample, a trip blank, was collected as part of this sampling event (Table 1).

5.10 ADDENDUM II SAMPLING

As part of Addendum II, a limited excavation around two potential drywell structures (DW1 and DW2), one potential septic tank located near Building 1, and a concrete vault structure identified as PSA-S was conducted on June 23 and 24, 2010.

On June 23, 2010 excavation of the first potential drywell structure (DW1) was located approximately 60 feet west of the southern portion of former Building 1 in a former paved area. Two 10-inch clay pipes running east-west into a broken concrete portion of the structure were located at a depth of approximately 3 feet bgs. Liquid was not present in the pipes, however PID readings collected in the pipes were 0.2 ppm. The structure consisted of three approximately 5-foot diameter by 5-foot tall concrete collars stacked on top of each other filled with gravel. A soil sample was collected from approximately 17 feet bgs (approximately two feet below the potential drywell structure) and submitted for laboratory analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, perchlorate, and explosives. After completion of soil sampling activities, the exploratory excavation was backfilled with native soil.

An additional potential drywell structure (DW2) was located west of former Building 1 and north of former Building 2. The structure was approximately 5-feet in diameter by 5-feet deep constructed of red brick with a large concrete foundation. There were two 8-inch clay pipes entering at the east and west sides, sloping to the center of structure. One 2-inch steel pipe was located at the base on the south side of the structure. No elevated PID readings were observed and liquids were not present. A soil sample was collected from the base of the potential drywell structure at approximately 10 feet bgs and submitted for laboratory analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, perchlorate, and explosives.

After completion of soil sampling activities, the exploratory excavation was backfilled with native soil.

On June 24, 2010 approximately 600 gallons of water was pumped from a potential septic tank located north of former Building 1. The potential septic tank structure had two separation chambers for liquid and solids on a 5-foot diameter base by 5-foot tall. PID readings were collected at 5 feet bgs (0.1 ppm) and at 10 feet bgs (0.0 ppm). An excavation around the potential septic tank was conducted and a soil sample was collected from approximately 10 feet bgs. The soil sample was submitted for laboratory analysis of metals, total cyanide, hexavalent chromium, explosives, perchlorate, VOCs, and SVOCs. After completion of soil sampling activities, the exploratory excavation was backfilled with native soil.

AMEC Geomatrix also conducted an excavation on June 24, 2010 around the concrete vault structure identified as PSA-S that was located during the slab demolition and removal activities for former Building 1. The concrete vault structure had a staircase on the southeast corner of the vault. The bottom of the concrete structure was observed at approximately 12 feet bgs. Four soil samples were collected from around the concrete structure at depths of approximately 12 feet bgs (Figure 4). The samples were submitted for laboratory analysis of radionuclide activity (Cobalt 60 activity, Gross Alpha/Beta/Gamma activity).

On August 17 and 19, 2010 AMEC Geomatrix contracted Layne Christian Company (Layne) to advance two boreholes (PDS-2 and PDS-1) located west and southwest of Building 1, respectively. The borings were advanced to investigate the two potential drywell structures (DW1 and DW2). Each soil boring was advanced using ARCH drilling methodologies. Soil and soil gas samples were collected at 30 and 60 feet bgs using the SimulProbe® sampling device. A groundwater sample was collected from each boring at a depth of approximately 90 feet bgs using a HydroPunch® sampling device. Soil samples were submitted for analysis of VOCs SVOCs, explosives, metals, total cyanide, and hexavalent chromium. Groundwater samples were analyzed for VOCs and perchlorate. Soil gas samples were submitted for analysis of VOCs. One duplicate sample for each media (i.e. soil, soil gas, and groundwater), two equipment blanks, and two trip blanks were collected for QA/QC purposes. Each borehole was abandoned with cement-bentonite grout mix.

5.11 ADDITIONAL SOIL GAS SAMPLING

Between December 15 and 19, 2009 AMEC Geomatrix contracted Boart Longyear to advance three boreholes (AB-4, AB-5, and AB-6) as part of the SGI (Figure 4). Each soil boring was advanced using Sonic™ drilling methodologies. Soil and soil gas samples were collected at approximately 10-foot intervals in each boring to a depth of approximately 90 feet bgs using

the SimulProbe® sampling device. Depth-discrete groundwater samples were collected from each boring at approximately 10-foot intervals, beginning just below the first encountered groundwater to approximately 120 feet bgs using a HydroPunch® sampling device. Soil gas samples were submitted for analysis of VOCs. Groundwater samples were submitted for analysis of VOCs and perchlorate. Borings AB-4, AB-5, and AB-6 were abandoned by filling the borehole with a cement-bentonite grout mix. Two soil sample duplicates, one soil gas sample duplicate, three groundwater sample duplicates, six equipment blanks, and five trip blanks were collected for QA/QC purposes.

5.12 COOLING TOWER SUMP

On March 15, 2011, AMEC Geomatrix collected four soil samples around and under the cooling tower sump using hand sampling techniques. The sample locations (CTS-02, CTS-03, CTS-04, and CTS-05) were advanced to a depth of approximately 3 feet bgs using a decontaminated hand auger. Soil samples were collected from the hand auger using an Encore® sampling device for VOC analysis and four-ounce glass jars for analysis of VOCs, metals, total cyanide, and hexavalent chromium. Figure 5 presents the location of the four borings near the cooling tower sump. Each soil sampling location was backfilled with native soil.

5.13 BACKGROUND SOIL SAMPLING FOR RADIONUCLIDES

On August 25, 2010 six soil samples were collected from non-process/production areas for background radiochemical activity analysis (Cobalt 60 activity, Gross Alpha/Beta/Gamma activity, and uranium activity). The soil samples were collected from approximately 3 feet bgs using a decontaminated hand auger. Figure 4 presents the location of the radionuclide background samples collected. Each soil sampling location was backfilled with native soil.

5.14 INVESTIGATIVE DERIVED WASTE

Investigation-derived waste (IDW) streams generated during the Phase II Investigation, Addendum I and II activities included drill cuttings and decontamination water generated during the field sampling activities. Soil cuttings were temporarily stored on-Site in roll-off bins pending waste characterization and disposal to Southwest Regional Landfill. Composite soil samples were collected from each roll-off bin for analysis and characterization. The IDW soil samples were analyzed for Toxicity Characteristic Leaching Procedures (TCLPs), VOCs, and TCLP Resource and Conservation Recovery Act (RCRA) metals. Upon receipt of the analytical results, the soil cuttings were transported to Southwest Regional Landfill for disposal in accordance with local, state, and federal regulations.

- Liquid IDW was temporarily stored on-Site in large capacity poly-tanks until it could be discharged and treated at the MTS located at the Site.
- Water that was present in the pH neutralization tank located north of the former Building 22 in Location 11 was transferred to temporary storage tanks on-Site until it could be discharged and treated at the MTS after receipt of analytical results.
- Standing oil previously located by the former transformers was containerized and disposed of off-Site by an APS (transformer owner) contractor.
- Water from the potential septic tank (approximately 600 gallons) located north of former Building 1 was disposed off-Site by PSC after receipt of analytical results.

6.0 SLAB DEMOLITION AND REMOVAL INVESTIGATION

An inspection of Site facility structures was conducted by representatives of AMEC Geomatrix, Matrix, and CH2M Hill (the USEPA's consultant) on February 5, 2009. The exterior and interior of Buildings 2, 3, 4, 5, 6, 9, 11, 20, 23, and 28 were visually assessed to identify potential areas of concern. Areas of staining, cracks in foundations or slabs, and drains where chemicals may have inadvertently been discharged were identified and drains of interest were marked with fluorescent orange paint.

Asbestos abatement, demolition and disposal activities were initiated by Matrix's subcontractor on February 17, 2009. USEPA representatives agreed that building demolition activities could be initiated and that removal of concrete slabs, foundations, and sub-grade features would be addressed with USEPA oversight. As the buildings and surficial debris were removed, AMEC Geomatrix and Matrix representatives collected GPS coordinates of items such as drains, troughs, sub-grade pipes, and/or other structures encountered. Drains, sumps, troughs, and exposed underground piping were evaluated during the slab removal activities. Features that were encountered were screened with a PID and lower explosive limit (LEL) meter. Soil samples were collected of visually stained soils or at locations indicating elevated PID readings of 20 ppm or greater as agreed upon with USEPA representatives. Additionally, samples of unknown liquids encountered in drains or pipes were collected and submitted for laboratory analysis.

Table 2 presents information pertaining to observations made during slab demolition and removal investigation activities including floor drains, process related pipes, trenches, staining on ground, odors, underground pipes, concrete structure, etc. The following subsections present a summary of details regarding operations completed within each of the buildings and information regarding investigation activities that were completed during the slab demolition and removal activities.

6.1 BUILDING 1

Building 1 was constructed in 1963 when the site was first developed and was used for offices, powder processing, ordnance assembly and testing, engineering, research and laser labs, and shipping and receiving. Building 1 included a leachfield that handled the drainage from the laboratory sink in the southeast corner of the building. All other operations in Building 1 drained into the City of Goodyear sewer system (Dames & Moore, 1988c). The leachfield was identified as Location 7 and was investigated during the Phase I activities. Results of these investigation activities are presented in the Phase II Work Plan (ARCADIS, 2008). Radioactive materials testing had historically been associated with a bunker located under the southern area of Building 1.

During the slab removal activities for Building 1, two sections of a sub-grade concrete structure were encountered underlying the south central portion of the concrete slab. The north portion of the structure was approximately 10 feet wide by 20 feet long. The top portion of a steep staircase was observed on the east side of the north portion of the structure. An approximately 5-foot by 5-foot void was observed on the west side of the north portion of the sub-grade structure. The south portion of the sub-grade structure was approximately two to three feet and north portion of the structure was approximately eight feet wide by 10 feet long. No openings were observed on the surface of the south portion of the sub-grade feature. The sub-grade concrete structure was identified as the cobalt irradiation facility associated with PSA-S (Figure 3). AMEC Geomatrix investigated PSA-S further as part of Addendum II.

During the evaluation of Building 1, a sub-grade structure with a lid was observed north of the slab for the building (Figure 3). The structure had the appearance of a septic tank and contained a standing liquid. A sample of the liquid (Bld 1 Tank-08212009) was collected and submitted for analysis of VOCs by USEPA Test Method 8260B, SVOCs by USEPA Test Method 8270B, metals by USEPA Test Methods E200.7/7470A/4500CN-E, perchlorate by USEPA Test Method E314, and explosives by USEPA Test Method 8330. Analytical results for the liquid sample from the potential septic tank are summarized in Section 6.5.1.

A preliminary inspection of Building 1 completed by ARCADIS on January 7, 2008 indicated that floor drains, sumps, and trenches were operated within process areas of Building 1. Floor drains and underground piping associated with items such as drains, restroom facilities, electric conduit, fire risers, and water lines were encountered under the slab of Building 1 during demolition and removal activities. The underground lines encountered were predominantly made of steel though some plastic lines were located. GPS coordinates of underground lines and measured PID and LEL readings are included on Table 2. Measured

PID and LEL readings associated with the underground pipes encountered under Building 1 were generally less than 10 ppm and 0 percent (%), respectively.

One three-inch diameter steel pipe with a y-fitting was encountered under the north-central portion of Building 1. The pipe contained a small amount of liquid and had a PID reading of 66.9 ppm and a LEL reading of 0%. A sample of the liquid (Bld1-47-09012009) was obtained and submitted for analysis of VOCs by USEPA Test Method 8260B. One soil sample (Bld-47-09012009) was also obtained in the vicinity of the three-inch steel pipe and submitted for analysis of VOCs by USEPA Test Method 8260B. Analytical results for these samples are summarized in Section 6.5.1.

6.2 BUILDING 2

Building 2 was built in 1963 and was used to house boilers, other mechanical equipment, and plating and circuit board laboratories. Floor drains were observed in the slab of Building 2 prior to the demolition activities. Two cooling towers were located north of Building 2 with an aboveground sump located between the cooling towers and Building 2. The aboveground sump was connected via piping to the basins of the cooling towers. Water was present in the sump and was sampled on May 11, 2009 prior to demolition activities associated with the Building 2 and the cooling towers. The water sample (Bd2-05112009) was submitted for laboratory analysis of total chromium based on the potential of chromium associated with former antiscalent compounds historically utilized in cooling towers. Analytical results for the water sample from the cooling tower sump are presented in Section 6.5.2.

A ground-mounted electric transformer was located north of Building 2. The transformer was owned by Arizona Public Service (APS). Oil stained concrete and asphalt was present around the transformer. The transformer was removed by APS and the oil stained concrete, asphalt, and associated stained soil was excavated by an APS contractor. Sub-grade transite pipes were observed extending from the transformer under the concrete slab of Building 2. Additionally, sections of transite pipe were observed under the slab extending east from underneath Building 2 under the slab of Building 1. The sections of transite pipe were removed and handled by the demolition contractor. Disposal waste manifest is included in Appendix E. AMEC Geomatrix, Matrix, and/or USEPA representative provided partial oversight to the activities.

Sections of steel pipe were observed underneath the concrete slab for Building 2 during slab removal activities. GPS coordinates, PID, and LEL readings were obtained for the underground steel pipes and floor drains observed during the slab removal activities (Table 2). No stained soils or noticeable odors were encountered under Building 2.

One metal electric conduit was observed under the slab of the building that contained rust colored water. This liquid was not sampled as it was encountered in an electric conduit. No other drains or underground pipes observed during the demolition of the slab for Building 2 contained liquids. One section of two-inch diameter steel pipe encountered under the slab had a PID reading of 6.8 ppm and an LEL reading of 0%. Another section of two-inch steel pipe had a PID reading of 0.2 ppm and an LEL reading of 0%. The other pipes and drains encountered in Building 2 had PID readings of 0.0 ppm and LEL readings of 0%.

6.3 BUILDING 3

Building 3 was built in 1963 and was used for powder processing (mixing and blending powders and chemicals) from 1963 through 1972, engineering labs from 1967 through 1972, infrared (IR) flares from 1963 through 1970, and ordnance assembly from 1971 to closure. In 1967, Building 3 was expanded to accommodate the engineering lab. The addition included four mixing bays with water troughs in three of the bays. A drywell, sedimentation tank, and pond were constructed to accept water from these troughs (Dames & Moore, 1988a).
No piping penetrations were observed prior to the demolition of the slab for Building 3. No soil staining or odors were noted under the slab for Building 3. Steel, plastic, and copper lines were encountered under the slab during the demolition and removal activities. Several of the pipes were associated with electric conduit or water piping. No liquid was observed in the open pipes under the concrete slab for Building 3. No elevated PID or LEL readings were noted during the excavation of the slab for Building 3 associated with the piping encountered. Table 2 includes measured PID and LEL readings and GPS coordinates collected for trenches in the concrete slab of Building 3 and encountered underground piping.

6.4 BUILDING 4

Building 4 was constructed in 1965 and was utilized for the production of CS tear gas until 1966. Other operations included the production of smoke grenades and 81 mm flares from 1966 to 1970, ordnance assembly from 1970 to 1983, ordnance test area from 1970 to 1993, aerospike testing from 1978 to 1993, and plastic foaming from 1980 to 1993. The slab for Building 4 did not contain observable piping penetrations prior to the slab demolition activities.

Sections of four-inch diameter belled steel piping were observed under the slab for Building 4. No elevated PID or LEL readings were noted. A section of purple stained concrete slab was observed on the northeast portion of the concrete slab for Building 4. The purple staining was generally observed on the concrete and not the soil underlying the slab. No other staining and no odors were noted during the slab removal activities for Building 4. Measured GPS coordinates and PID and LEL readings are included on Table 2.

6.5 BUILDING 5

Building 5 was constructed in 1966 for the assembly of smoke grenades and 81 mm flares from 1966 to 1970, and assembly of various ordnance devices from 1971 to 1993. Potential drain line penetrations were observed in the concrete slab for Building 5 prior to the demolition of the slab was initiated. A two-inch diameter plastic pipe, a four-inch diameter steel pipe, and a six-inch diameter red clay pipe were observed under the slab for Building 5. Measured PID and LEL readings were 0.0 ppm and 0%, respectively (Table 2). No soil stains were observed and no odors were noted during the slab removal activities.

6.6 BUILDING 6

Building 6 was constructed in 1966 and used for inert storage from 1966 to 1993, and for the cleaning of parts from 1983 to 1993. Piping penetrations were not observed in the slab of Building 6 prior to demolition activities. A section of transite piping was encountered north of the footer for Building 6. The section of traniste pipe was removed and handled by the demolition contractor. The transite pipe had a PID reading of 0.0 ppm and a LEL reading of 0%. No other piping was observed under the slab for this building. No soil staining or noticeable odors were observed during the slab demolition and removal activities for Building 6.

6.7 BUILDING 7

Building 7 was constructed in 1966 and used for 81 mm flare chemical storage from 1966 to 1970 and inert materials and equipment storage from 1966 to 1993. A preliminary site inspection of this building was conducted by ARCADIS on January 7, 2008. No floor drains were noted during the inspection of the building. No process related piping penetrations were observed in the concrete slab of Building 7 prior to the demolition of the slab. No trenches or underground pipes were observed under the slab of Building 7. Additionally, no staining or detectable odors were noted during the slab demolition and removal activities for this building.

6.8 BUILDING 8

Building 8 was constructed in 1966 and used to mix smoke grenade chemicals from 1966 to 1971, and as a pyrotechnic test area from 1971 to 1993. An area within the building used as an explosive test area from 1967 through 1993 was referred to as Building 8A. Piping penetrations were not observed in the concrete slab of Building 8. No underground pipes, soil staining, or detectable odors were observed under the concrete slabs of this building.

6.9 BUILDING 9

Building 9 was built in 1966 and was used for equipment and inert storage, and heat powder mixing from 1966 to 1993. The area in which heat powder mixing was performed was historically referred to as Building 9A. A preliminary site inspection was conducted by ARCADIS on January 7, 2008. The presence of floor drains was not noted by ARCADIS.

Floor trenches were observed on the slab of Building 9 prior to demolition and removal activities. The floor trenches were approximately three to four-inches deep by approximately one-foot wide. No potential process related piping penetrations were observed in the concrete slab of Building 9 prior to the demolition and removal activities associated with the slab. One natural gas line running north to south was observed under the west portion of the slab for this building. PID readings obtained from the pipe were 0.0 ppm. GPS locations associated with the pipe are included on Table 2.

Purple stained soil was observed under the concrete slab of Building 9. The purple staining was identified as the prior use of a violet dye as described in the Phase II Work Plan. The purple stained soil was shoveled up by Kary Environmental Services (KES), a subcontractor of Matrix during the demolition activities. The stained soil was placed in two 55-gallon drums and disposal was handled by KES. PID readings obtained for the purple stained soil were 0.0 ppm.

6.10 BUILDING 10

Building 10 was built in 1966 and utilized for file and equipment storage from 1966 to 1993. No piping penetrations were observed in the slab for Building 10. No pipes, soil staining, or odors were observed under the slab for this building.

6.11 BUILDING 11

Building 11 was used for processing and blending various chemicals and powders. Operations included mixing smoke grenade chemicals and production of IR flares from 1967-1970, and processing of various chemicals and powders from 1970 to closure in 1993. A floor trench was observed in the concrete sidewalk located adjacent to the west of the slab of Building 11 running north to south. No piping penetrations were observed in the slab for Building 11 prior to demolition. No stained soil or detectable odors were encountered under Building 11 during the slab removal process. Furthermore, no sub-grade trenches, process related pipes, sumps, or potential waste conveyance structures were encountered under the slab for Building 11.

6.12 BUILDING 12

Building 12 was constructed in 1966 for the purpose of curing 81 mm flare candles. In 1973 two bays were added for the purpose of blending and processing various chemicals and powders. At that time, a trough measuring one foot wide by three inches deep was installed in the floor to collect wash-down wastes. The trough was then connected to sedimentation tank ST-06 that, in turn, drained water by gravity flow to drywell DW-12 (Figure 3). A second addition to Building 12 was constructed in 1976 for the manufacturing of CP explosives. As a result of the expansion, two more 750-gallon sedimentation tanks (ST-07 and ST-08, Figure 3) were added in the area to the east of the original tank. The center tank (ST-07) collected the CP process waste materials from a floor drain, two cup drains and a sink in the building. The contents of ST-07 were then pumped to ST-06 to drain into the drywell. The eastern-most sedimentation tank (ST-08) collected water from cooling condensers and aspirators.

During the initial phases of the demolition activities, a red oily liquid was encountered in a section of above grade pipe located towards the south side of Building 12. Matrix contracted KES to investigate the material. Samples of the liquid and soil that the liquid dripped contained elevated concentrations of oil range organic hydrocarbons. An additional sample of the red oil was collected and submitted for laboratory analysis of VOCs and metals. The oil did not contain any VOCs at concentrations exceeding laboratory reporting limits. The sample of the oil contained cadmium and lead at concentrations of 0.55 and 24 milligrams per kilogram (mg/kg), respectively. KES concluded this material was likely residual hydraulic type oil. The red oil was not encountered any other sections of Building 12 during demolition and slab removal activities.

Floor drains were observed in the concrete slab of Building 12 prior to demolition. A sub-grade propellant casting bay was located on the central portion of the slab in one of the assembly bays. A series of plastic 2-inch to 6-inch diameter drain lines was observed under the concrete slab of Building 12 during the removal activities. The drain lines were connected to the floor drains observed in the concrete slab and connected to drain points previously plumbed to sedimentation tanks located south of Building 12 in Location 8. No unknown liquids, stained soils, or unusual odors were encountered in the pipelines or soil encountered under Building 12 during the slab demolition and removal activities. PID and LEL readings collected from drain lines and soils under the slab of Building 12 did not exceed 0.0 ppm or 0%, respectively. Measured GPS coordinates, PID, and LEL readings collected during the slab demolition and removal activities for Building 12 are included on Table 2.

6.13 BUILDING 13

Building 13 was constructed in 1971 to house maintenance welding and electrical shops until closure in 1993. No piping penetrations were observed in the slab of this building. No process related trenching, piping, or other sub-surface structures were observed under the slab of Building 13. Additionally, no staining or noticeable odors were detected under this slab.

6.14 BUILDING 14

Building 14 was constructed in 1966 and housed a lunch room, rest rooms and a change area until closure in 1993. Sewer and water line penetrations were observed in the slab for Building 14 prior to removal. No process related piping or trenches were observed underneath the slab. No soil staining or odors were noted underneath Building 14's slab. Air monitoring was conducted with a PID and an LEL. PID readings were 0.0 ppm and LEL readings were 0% during monitored slab removal activities.

6.15 BUILDING 15

Building 15 was constructed in 1969 and utilized as a storage area for ordnance devices from 1969 to 1993. There are no known or potential COCs associated with historic operations in this building. No pipe penetrations were observed in Building 15's slab prior to removal. No pipes, soil staining, or odors were observed under the slab for this building. PID and LEL readings of were 0.0 ppm and 0%, respectively during removal of the slab.

6.16 BUILDING 16

Building 16 was constructed in 1966 and utilized as a storage area for smoke grenades and 81 mm candles from 1966 to 1970. The building was also used for inert storage and as a packing area from 1971 to 1993 as well as a maintenance and supply area from 1987 to 1993. There are no known potential COCs associated with historic operations in this building. Process piping penetrations were not observed in the concrete slab of Building 16 prior to demolition and removal activities. No staining or odors noted during the removal of the slab. One steel pipe was observed on the north side the slab for the building. An initial PID reading was recorded at 0.6 ppm that went back down to 0.0 ppm. The LEL reading for the pipe was 6%. No other trenches, underground piping, or other subsurface features were observed during the slab demolition and removal activities.

6.17 BUILDING 17

Building 17 was constructed in 1968 and utilized for explosive compound testing from 1968 to 1993. The building was also used for ballistic actuator testing from 1970 to 1993 and for loading and deconstructing safes from 1978 to 1984. A preliminary site inspection of Building

17 was conducted by ARCADIS on January 7, 2008. Floor drains were not observed in Building 17. No piping penetrations were observed in the concrete slab of Building 17 prior to demolition and removal activities. Process related piping, trenching, or sub-surface features were not present under the slab of Building 17. No staining or detectable odors were noted during the slab removal activities.

6.18 BUILDING 18

Building 18 was constructed in 1967 and used for testing of pyrotechnics, propellants and explosives, and hot gas dissemination chemicals. A preliminary site inspection of Building 18 was conducted by ARCADIS on January 7, 2008 and no floor drains were noted. Piping presentations were not observed in the concrete slab of Building 18 prior to demolition and removal activities. An approximate one square foot by one foot deep sump was observed at the base of the walkway extending into the bunker associated with Building 18. No piping was observed under the slab for Building 18. An approximate three foot section of a four-inch diameter steel pipe was located within the dirt berm of the bunker associated with Building 18. The PID and LEL readings for this pipe were 0.0 ppm and 0%, respectively. No staining or noticeable odors were observed under the slab of Building 18 or the associated bunker.

6.19 BUILDING 19

Building 19 was a covered shed built in 1968 that was historically used for storage of new and waste solvents, and bottled gases from 1968-1987. A preliminary site inspection of Building 19 was conducted by ARCADIS on January 7, 2008. Floor drains were not noted during the ARCADIS inspection. No process piping penetrations were observed in Building 19's slab prior to excavation and removal activities. Process related piping, trenching, or sub-surface features were not present under the slab of Building 19. No staining or detectable odors were noted during the slab removal activities.

6.20 BUILDING 20

Building 20 was constructed in 1966 and was utilized for offices and electronic laboratories from 1966 to 1983. The building was also used for tool and fixture storage and a paint shop from1980 to 1993; and maintenance shops, storage, and passivation of parts from 1983 to 1993. No known potential COCs associated with historic operations in this building were previously identified in the Phase I investigation.

No process piping penetrations were observed in the slab of Building 20 prior to excavation and removal activities. Plastic and steel pipes were located primarily under the north portion of Building 20 and were electric conduit and potentially a water line. One end of an eight-inch

diameter plastic line had a PID reading of 0.2 ppm. PID and LEL readings from the other pipes encountered under the slab of Building 20 did not exceed 0.0 ppm or 0%, respectively. GPS locations associated with the pipes encountered under Building 20 are included on Table 2. No staining or odors were noted during the removal of the slab.

6.21 BUILDING 21

Building 21 was constructed in 1965 and utilized for testing of smoke grenades and 81 mm flares from 1965 to 1970, and for machining of propellants from 1971 to 1993. No penetrations were observed in the slab for Building 21 prior to removal. An initial approximately four-inch thick concrete slab was removed and an additional slab was observed underneath the four-inch section. The underlying slab was cleared of debris. No penetrations were observed in the underlying slab prior. No process or waste conveyance piping, soil staining, or odors were observed under the slabs of this building. No odors or soil staining was observed under the slabs of Building 21. Air monitoring conducted during slab removal activities indicated PID readings of 0.0 ppm and LEL readings of 0%.

6.22 BUILDING 22

Building 22 was constructed in 1982. From construction to closure in 1993, the building was utilized for testing of production ordnance and electromechanical devices, electronic and electro-mechanical prototype assembly, engineering ordnance and loading, processing of plastic explosives, ordnance engineering testing, electrical and electronic calibration, loading and destruct safe devices, processing of EXTEX, and to house an environmental testing laboratory, machine shop, and plating laboratory. This building was divided into two parts. The western part was used for ordnance activities and had a number of wet labs that were connected to the city sewer by way of a pH neutralization tank. Piping in the remainder of the building, which contained electronic non-ordnance labs, was connected directly to the sewer without going through the neutralization tank located north of the building (Donahue, 2005).

Floor drains were observed in the concrete slab of Building 22 throughout the building prior to the initiation of demolition activities. A section of a two-inch diameter steel pipe was located under concrete slab of Building 22. No odors or staining were present around the steel pipe. Additionally, PID and LEL readings from the ends of the steel pipe were 0 ppm and 0%, respectively. A series of plastic drain lines were encountered under the slab of Building 22 during demolition and removal activities. Liquid was present near one four-inch diameter plastic drain line that had a PID reading of 1.3 ppm and an LEL of 0%. Soil adjacent to the four-inch plastic drain line had a PID reading of 14.1 ppm and an LEL of 0%. The soil was not stained and did not have a detectable odor. A sample of the soil (Bld 22-9-07152009) was

collected and submitted to TestAmerica for the analysis of VOCs by USEPA Test Method 8260B. Analytical results for the soil sample are presented in Section 6.5.3.

A 1.5-inch diameter copper pipe extending from the south side of Building 22 north was located under the concrete slab of the building during demolition and removal activities. The copper pipe extended from an area that previously contained air compressor equipment to supply Building 22 with compressed air. An oil type liquid was present in the pipe. The copper pipe had a PID reading of 25.8 ppm. A sample of the oil (Bld 22-10.1-07152009) was collected and submitted for laboratory analysis of hydrocarbons by USEPA Test Method 8015B and VOCs by USEPA Test Method 8260B. The oil from the copper pipe was containerized and disposed of by the demolition subcontractor. A small quantity of the oil from one end of the copper pipe leaked onto the adjacent soil. A sample of the oil impacted soil (Bld 22-10.2-07152009) was collected and submitted for laboratory analysis of VOCs by USEPA Test Method 8260B. Analytical results for the oil and soil samples are presented in Section 6.5.3.

No other stained soils or odors were encountered under the concrete slab of Building 22 during the demolition and removal activities. No other elevated PID or LEL readings from pipes encountered under the slab were noted. Measured GPS coordinates, PID, and LEL readings collected during the slab demolition and removal activities for Building 22 are included on Table 2.

6.23 BUILDING 23

Building 23 was constructed in 1967 and was used for storage of non-explosive chemical storage until closure in 1993. No known potential COCs associated with historic operations in this building were previously identified during the Phase I Investigation. No floor drains, trenches, or sumps were observed in the slab of Building 23 prior to demolition and removal activities. No underground piping, staining, or detectable odors were noted during the removal of the slab for this building.

6.24 BUILDING 24

Building 24 was constructed in 1984 and was used for smoke generator testing until closure in 1993. There are no known potential COCs associated with historic operations in this building. No penetrations were observed in Building 24's slab prior to removal. No pipes or trenches, soil staining, or odors were noted under the slab of Building 24. Air monitoring conducted with a PID and LEL during the removal of the slab for this building indicated readings of 0.0 ppm and 0%, respectively.

6.25 BUILDING 25

The Phase II Work Plan indicated that Building 25 was potentially associated with PSA-S, an underground bunker associated with the former irradiation facility. The location of PSA-S was encountered under the central portion of Building 1 during slab removal activities. Building 25 was found to be only a guard shack located south of the fully expanded Building 1. A potential electric conduit pipe penetration was observed adjacent to the east edge of the slab for Building 25. No pipes or trenches, soil staining, or odors were noted under the slab of Building 25 were noted during the excavation and removal of the concrete slab.

7.0 PHASE II SOURCE AREAS, SOIL AND FACILITY STRUCTURE INVESTIGATION – RESULTS

The following sections present a summary of the Phase II Investigation and associated addenda analytical results. Analytical results for soil samples were compared to USEPA Region 9 Preliminary Remediation Goals (PRGs), Arizona Non-Residential Soil Remediation Levels (SRLs), and/or USEPA Industrial Regional Screening Level (RSLs). In addition, soil sample analytical results for arsenic were compared to average background concentrations as documented in the Phase II Work Plan. Analytical results for soil gas samples were compared to USEPA Residential RSLs. Analytical results for groundwater samples were compared to USEPA Region 9 MCLs, Arizona AWQSs, USEPA Region 9 PRGs for tap water, and/or USEPA RSLs for tap water.

7.1 PHASE II SAMPLING RESULTS

During the Phase II Investigation soil samples were collected from 8 identified waste Locations and 13 PSAs.

Soil samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory method detection limit (MDL) and the laboratory RL and are considered quantitative estimates. Complete analytical results for soil samples collected during the Phase II Investigation are provided in Appendix B. Laboratory analytical results are summarized in Table 3 (VOCs), Table 4 (SVOCs), Table 6 (metals), and Table 8 (herbicides and pesticides). Detected compounds are summarized in the subsections below:

7.1.1 Identified Waste Locations

Location 2 – One soil sample (SASFS-B207-26-120209) from Location 2 (B2-07 at 26 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, titanium, vanadium, and zinc were detected in sample B2-07 at 26 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

Location 3 – One soil sample (SASFS-B304-17-120209) from Location 3 (B3-04 at 17 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, sodium, titanium, vanadium, and zinc were detected in sample B3-04 at 17 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.6 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

Location 5 – One soil sample (SASFS-B504-20-120309) from Location 5 (B5-04 at 20 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample B5-04 at 20 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

Location 6 – One soil sample (SASFS-B609-17-120309) from Location 6 (B6-09 at 17 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium. A soil sample was collected from B6-08; however the sample was inadvertently collected at 12 feet bgs rather than the target depth of 17 feet bgs and was not analyzed.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample B6-09 at 17 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.5 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

Location 7 - One soil sample (SASFS-B703-1.5-03042009) from Location 7 (B7-03 at 1.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample B7-03 at 1.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.7 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

Location 8 – One soil sample (SASFS-B809-45-120309) from Location 8 (B8-09 at 45 feet bgs) were submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample B8-09 at 45 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 9.9 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was above the average background concentration of 7.8 mg/kg.

Location 9 – One soil sample (SASFS-B905-0.5-03042009) from Location 9 (B9-05 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, and vanadium were detected in sample B9-05 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 7.8 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was equal to the average background concentration of 7.8 mg/kg.

Location 10 – Seven soil samples (SASFS-B1004-10-10092009, SASFS-B1005-05-10092009, SASFS-B1005-10-10092009, SASFS-B1006-05-10092009, SASFS-B1006-10-10092009 SASFS-B1007-05-10092009, and SASFS-B1007-10-10092009) from Location 10 (B10-04 at 10 feet bgs; B10-05 at 5 and 10 feet bgs; B10-06 at 5 and 10 feet bgs; and B10-07 at 5 and 10 feet bgs) were submitted for analysis of metals, total cyanide,

hexavalent chromium, and VOCs. Soil sample SASFS-B1005-10-10092009FD was collected as a field duplicate and analyzed for the same constituents.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in all soil samples collected above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs. Cadmium, mercury, and total cyanide were detected in sample B10-06 at 5 feet bgs but were below their corresponding PRGs, SRLs, and RSLs. Hexavalent chromium was detected in sample B10-05 at 10 feet bgs but was below the PRG, SRL, and RSL. Lead was detected in samples B10-06 at 5 and 10 feet bgs but was below the PRG, SRL, and RSL.
- Arsenic was detected above the laboratory MDL in all soil samples collected with the exception of B10-05 at 5 feet bgs at concentrations ranging from 5.6 to 20 mg/kg. All of the reported concentrations of arsenic are above the PRG and RSL of 1.6 mg/kg and 5 of 7 reported concentrations are above the SRL of 10 mg/kg. Five of seven samples had concentrations of arsenic above the average background concentration of 7.8 mg/kg.
- TCE was detected at a concentration of 470 J micrograms per kilogram (µg/kg) in sample B10-06 at a depth of 5 feet bgs. The reported concentration is above the PRG (110 µg/kg) and below the SRL (65,000 µg/kg) and the RSL (14,000 µg/kg).
- Methyl tert-butyl ether (MTBE) was detected at a concentration of 34 J µg/kg in sample B10-05 at a depth of 10 feet bgs. MTBE was not detected in the associated field duplicate sample. The reported concentration is below the PRG (36,000 µg/kg), SRL (710,000 µg/kg), and the RSL (220,000 µg/kg).
- 1,2,3-Trichlorobenzene was detected at a concentration of 28 J µg/kg in sample B10-05 at a depth of 10 feet bgs. 1,2,3-Trichlorobenzene was not detected in the associated field duplicate sample. The reported concentration is below the RSL (490,000 µg/kg). PRGs and SRLs for 1,2,3-Trichlorobenzene are not established.

7.1.2 Potential Source Areas

PSA-B - One soil sample (SASFS-BB03-0.5-10092009) from PSA-B (BB-03 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BB-03 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.
- Arsenic was detected above the laboratory MDL at a concentration of 5.5 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and

below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-C - One soil sample (SASFS-BC06-0.5-03042009) from PSA-C (BC-06 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BC-06 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 7.2 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-D - One soil sample (SASFS-BD04-0.5-10092009) from PSA-D (BD-04 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, lead, mercury, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BD-04 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.5 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-E - One soil sample (SASFS-BE04-0.5-03042009) from PSA-E (BE-04 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BE-04 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.5 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-F - One soil sample (SASFS-BF04-0.5-10092009) from PSA-F (BF-04 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BF-04 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 6.2 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-G - One soil sample (SASFS-BG08-0.5-03042009) from PSA-G (BG-08 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, and hexavalent chromium.

- Aluminum, barium, beryllium, boron, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BG-08 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 7.1 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-H - One soil sample (SASFS-BH04-0.5-03042009) from PSA-H (BH-04 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, and uranium.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BH-04 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 6.0 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

- Uranium was detected above the laboratory MDL at a concentration of 0.78 mg/kg. The reported concentration of uranium is below the PRGs, SRLs, and RSLs of 200 mg/kg.

PSA-I - One soil sample (SASFS-BI03-0.5-03042009) from PSA-I (BI-03 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, and organophosphorus pesticides.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BI-03 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 7.5 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-J - One soil sample (SASFS-BJ14-0.5-03042009) from PSA-J (BJ-14 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, and organophosphorus pesticides. Soil sample SASFS-BJ14-0.5-03042009FD was collected as a field duplicate and analyzed for organochlorine pesticides.

- Aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BJ-14 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 6.2 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-K - One soil sample (SASFS-BK03-0.5-03042009) from PSA-K (BK-03 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, and organophosphorus pesticides.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, hexavalent chromium, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BK-03 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.6 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

PSA-L – One soil sample (SASFS-BL02-0.5-10092009) from PSA-L (BL-02 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, organophosphorus pesticides, organochlorine pesticides, herbicides, and nitrate. One soil sample (SASFS-BL02-04-10092009) from PSA-L (BL-02 at 4 feet bgs) was submitted for analysis of SVOCs.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BL-02 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.6 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

- Dieldrin was detected in sample BL-02 at 0.5 feet bgs above the laboratory MDL at a concentration of 0.075 mg/kg. The reported concentration of dieldrin is below the PRG (0.11 mg/kg), RSL (0.11 mg/kg), and SRL (1.1 mg/kg).

- 4,4-DDE was detected in sample BL-02 at 0.5 feet bgs above the laboratory MDL at a concentration of 0.054 mg/kg. The reported concentration of 4,4-DDE is below the PRG (7 mg/kg), RSL (70 mg/kg), and SRL (5.1 mg/kg).

- 4,4-DDT was detected in sample BL-02 at 0.5 feet bgs above the laboratory MDL at a concentration of 0.038 mg/kg. The reported concentration of 4,4-DDT is below the PRG (7 mg/kg), RSL (7 mg/kg), and SRL (70 mg/kg).

PSA-O - One soil sample (SASFS-BO14-0.5-03042009) from PSA-O (BO-14 at 0.5 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, and uranium. Soil sample SASFS-BO14-0.5-03042009FD was collected as a field duplicate an analyzed the same constituents.

- Aluminum, barium, beryllium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in sample BO-14 at 0.5 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 6.4 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

- Uranium was detected above the laboratory MDL at a concentration of 0.83 mg/kg in the field duplicate sample (primary sample concentration was 0.76 mg/kg). The reported concentration of uranium is below the PRGs, SRLs, and RSLs of 200 mg/kg.

PSA-P – Six soil samples (SASFS-BP11-0.5-10092009, SASFS-BP11-05-10092009, SASFS-BP12-0.5-10092009, SASFS-BP12-05-10092009, SASFS-BP13-0.5-10092009, and SASFS-BP13-05-10092009) from PSA-P (BP-11, -12, and -13 at 0.5 and 5 feet bgs) were submitted for analysis of organophosphorus pesticide and organochlorine pesticides. Soil sample SASFS-BP12-05-10092009FD was collected as a field duplicate an analyzed the same constituents.

- Dieldrin was detected in sample BP-11 at 0.5 feet bgs above the laboratory MDL at a concentration of 0.0061 mg/kg. The reported concentration of dieldrin is below the PRG (0.11 mg/kg), RSL (0.11 mg/kg), and SRL (1.1 mg/kg).

- 4,4-DDE was detected in samples BP-11, BP-12, and BP-13 at 0.5 feet bgs above the laboratory MDL at concentrations of 0.18 mg/kg, 0.044 mg/kg, and 0.012 mg/kg, respectively.. The reported concentrations of 4,4-DDE are below the PRG (7 mg/kg), RSL (70 mg/kg), and SRL (5.1 mg/kg).

- 4,4-DDT was detected in sample BP-11 and BP-12 at 0.5 feet bgs above the laboratory MDL at concentrations of 0.21 mg/kg and 0.078 mg/kg, respectively. The reported concentrations of 4,4-DDT are below the PRG (7 mg/kg), RSL (7 mg/kg), and SRL (70 mg/kg).

- Toxaphene was detected in sample BP-11 and BP-12 at 0.5 feet bgs above the laboratory MDL at concentrations of 0.40 mg/kg and 0.11 mg/kg, respectively. The reported concentrations of toxaphene are below the PRG (3,100 mg/kg), RSL (1.6 mg/kg), and SRL (16 mg/kg).

7.2 ADDENDUM I SAMPLING RESULTS

During the Addendum I Investigation, soil samples and a liquid sample were collected from a sub-grade pH neutralization tank observed in Location 11. In addition, soil samples and an oil sample were collected from a former transformer observed in Location 11.

The soil, liquid, and oil samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory MDL and the laboratory RL and are considered quantitative estimates. Complete analytical results for samples collected during the Addendum I Investigation are provided in Appendix B. Soil sample results are summarized in Tables 3 through 7. The liquid and oil sample results are

summarized in Tables 10 through 14. Detected compounds are summarized in the subsections below:

7.2.1 pH Neutralization Tank

Three soil samples (SASFS-B11NT02-15-120409, SASFS-B11NT02-30-120409, and SASFS-B11NT02-45-120409) from the pH Neutralization Tank (B11-NT02 at 15, 30, and 45 feet bgs) were submitted for analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, and perchlorate. Soil sample SASFS-B11NT02-15-120409-FD was collected as a field duplicate an analyzed the same constituents.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, selenium (B11-NT-02 at 45 feet bgs), silicon, sodium, vanadium, and zinc were detected in samples B11-NT02 at 15, 30, and 45 feet bgs above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at concentrations ranging from 5.6 to 11 mg/kg. The reported concentrations of arsenic are above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg with the exception of B11-NT-02 at 30 feet bgs (11 mg/kg). The detected concentrations of arsenic are below the average background concentration of 7.8 mg/kg, with the exception of B11-NT-02 at 30 feet bgs (11 mg/kg).

- Perchlorate was detected in sample B11-NT02 at 15 feet bgs above the laboratory MDL at a concentration of 0.0093 J mg/kg. Perchlorate was not detected in the field duplicate sample (SASFS-B11NT02-15-120409-FD) above the laboratory MDL. The reported concentration of perchlorate is below the PRG (100 mg/kg), RSL (720 mg/kg), and SRL (720 mg/kg).

One liquid sample (SASFS-NT1101-03052009) from the pH neutralization tank (NT11-01) was collected and submitted for analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, explosives, and perchlorate.

- Barium, boron, calcium, iron, magnesium, potassium, silicon, and sodium were detected in samples NT11-01 above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- HMX was detected in sample NT11-01 above the laboratory MDL at a concentration of 0.43 µg/L. The reported concentration of HMX is below the PRG and RSL for tap water of 1800 µg/L. MCLs and AWQSs for HMX are not established.

- Perchlorate was detected in sample NT11-01 above the laboratory MDL at a concentration of 1.9 J µg/L. The reported concentration of perchlorate is below the PRG for tap water (3.6 µg/L) and RSL for tap water (26 µg/L). MCLs and AWQSs for perchlorate are not established.

7.2.2 Former Transformer

One soil sample (SASFS-B1104-0.5-03042009) from the former transformer (B11-04 at 0.5 feet bgs) was submitted for analysis of PCBs. No PCBs were detected above the laboratory MDL.

A sample of the oil (SASFS-TR1101-03052009) from the former transformer (TR11-01) was collected and submitted for analysis of PCBs. No PCBs were detected above the laboratory MDL.

7.3 ADDENDUM II SAMPLING RESULTS

During the Addendum II Investigation, soil, soil gas, and groundwater samples were collected from two potential drywell structures; a soil sample was collected from a potential septic tank. In addition, a soil sample was collected from a concrete vault structure identified as PSA-S.

The soil, soil gas, and groundwater samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory MDL and the laboratory RL and are considered quantitative estimates. Complete analytical results for the samples collected during the Addendum II Investigation are provided in Appendix B. Soil sample analytical results are summarized in Tables 3, 4, 6, 7, and 9. Soil gas sample analytical results are summarized in Table 17. Groundwater sample analytical results are summarized in Tables 10 and 11. Radionuclide analytical results are summarized in Table 18. Detected compounds are summarized in the subsections below:

7.3.1 Potential Drywell Structures

Potential Drywell Structure DW1

Three soil samples (SASFS-PDS1-17-062310, SASFS-PDS1-30-08192010, and SASFS-PDS1-60-0892010) from the potential drywell structure DW1 (PDS-1 at 17 feet bgs and PDS1 at 30 and 60 feet bgs) were submitted for analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, and explosives. Soil sample PDS-1 was additionally analyzed for perchlorate. Soil sample SASFS-PDS1-30-08192010DUP was collected as a field duplicate an analyzed the same constituents.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc

were detected in samples PDS-1 at 17 feet bgs and PDS1 at 30 and 60 feet bgs above the laboratory MDLs with the exception of boron and lead in soil sample PDS1 at 60 feet bgs. All the detected concentrations were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at concentrations ranging from 5.2 to 9.8 mg/kg. The reported concentrations of arsenic are above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentrations of arsenic are below the average background concentration of 7.8 mg/kg, with the exception of PDS1 at 30 feet bgs (9.8 mg/kg duplicate sample).

Two soil gas samples (SASFS-PDS1-30-08192010 and SASFS-PDS1-60-08192010) from the potential drywell structure DW1 (PDS1 at 30 and 60 feet bgs) were submitted for analysis of VOCs. Soil gas sample SASFS-PDS1-30-08192010DUP was collected as a field duplicate an analyzed the same constituents.

- TCE was detected in sample PDS1 at 60 feet bgs above the laboratory MDL at a concentration of 0.60 parts per billion by volume (ppbv). The reported concentration of TCE is above the RSL for residential air (0.22 ppbv).
- 1,2,4-Trimethylbenzene was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 0.52 ppbv (0.74 ppbv duplicate) and 0.57 ppbv, respectively. The reported concentrations of 1,2,4-Trimethylbenzene are below the RSL for residential air (1.49 ppbv).
- 1,3-Dichlorobenzene was detected in sample PDS1 at 60 feet bgs above the laboratory MDL at a concentration of 0.52 ppbv. RSLs for residential air for1,3-Dichlorobenzene are not established.
- 2,2,4-Trimethylpentane was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 0.79 ppbv. The analyte was not detected above the laboratory MDL in the duplicate sample. RSLs for residential air for 2,2,4-Trimethylpentane are not established.
- 2-Butanone was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 25 J ppbv (44 J ppbv duplicate) and 5.4 ppbv, respectively. The reported concentrations of 2-Butanone are below the RSL for residential air (1,760 ppbv).
- 4-Methyl-2-pentanone was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 1.5 J ppbv (3.1 J ppbv duplicate). The reported concentration of 4-Methyl-2-pentanone is below the RSL for residential air (757 ppbv).

- Acetone was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 76 J ppbv (110 J ppbv duplicate) and 16 ppbv, respectively. The reported concentrations of acetone are below the RSL for residential air (13,500 ppbv).
- Benzene was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 1.6 ppbv (1.9 ppbv duplicate) and 0.86 ppbv, respectively. The reported concentrations of benzene are above the RSL for residential air (0.097 ppbv).
- Carbon disulfide was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 4.6 ppbv (4.6 ppbv duplicate). The reported concentration of carbon disulfide is below the RSL for residential air (234 ppbv).
- Chloromethane was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 1.1 ppbv (1.0 ppbv duplicate) and 0.65 ppbv, respectively. The reported concentrations of chloromethane are below the RSL for residential air (45 ppbv).
- Dichlorodifluoromethane was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 0.51 ppbv. The analyte was not detected above the laboratory MDL in the duplicate sample. The reported concentration of dichlorodifluoromethane is below the RSL for residential air (42 ppbv).
- Hexane was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 6.3 J ppbv (8.9 J ppbv duplicate). The reported concentration of hexane is below the RSL for residential air (207 ppbv).
- Methyl n-butyl ketone was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 2.4 ppbv (7.1 ppbv duplicate). The reported concentration of methyl n-butyl ketone is below the RSL for residential air (7.57 ppbv).
- N-Nonane was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 0.67 ppbv (0.78 ppbv duplicate). The reported concentration of N-Nonane is below the RSL for residential air (40 ppbv).
- Propene was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 20 J ppbv (28 Jppbv duplicate) and 2.6 ppbv, respectively. The reported concentrations of propene are below the RSL for residential air (1,720 ppbv).
- Toluene was detected in samples PDS1 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 2.0 ppbv (1.8 ppbv duplicate) and 0.58 ppbv, respectively. The reported concentrations of toluene are below the RSL for residential air (1,380 ppbv).

- Trichlorofluoromethane was detected in sample PDS1 at 30 feet bgs above the laboratory MDL at a concentration of 1.3 J ppbv (2.3 J ppbv duplicate). The reported concentration of trichlorofluoromethane is below the RSL for residential air (130 ppbv).

One groundwater sample (SASFS-PDS1-90-08192010) from the potential drywell structure DW1 (PDS1 at 90 feet bgs) was submitted for analysis of VOCs and perchlorate.

- TCE was detected in sample PDS1 at 90 feet bgs above the laboratory MDL at a concentration of 1.5 µg/L. The reported concentration of TCE is below the RSL for tap water (2.0 µg/L) and the AWQS and MCL of 5 µg/L, however the concentration is above the PRG for tap water (0.028 µg/L).

- Perchlorate was detected in sample PDS1 at 90 feet bgs above the laboratory MDL at a concentration of 2.2 µg/L. The reported concentration of perchlorate is below the RSL for tap water (26 µg/L) and the PRG for tap water (3.6 µg/L). MCLs and AWQSs for perchlorate are not established.

Potential Drywell Structure DW2

Three soil samples (SASFS-PDS2-10-062310, SASFS-PDS2-30-08172010, and SASFS-PDS2-60-08172010) from the potential drywell structure DW2 (PDS-2 at 10 feet bgs and PDS2 at 30 and 60 feet bgs) were submitted for analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, and explosives. Soil sample PDS-2 was additionally analyzed for perchlorate.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in samples PDS-2 at 10 feet bgs and PDS1 at 30 and 60 feet bgs above the laboratory MDLs. In addition, lead was detected in soil sample PDS2 at 30 feet bgs. All the reported concentrations were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at concentrations ranging from 6.7 to 8.8 mg/kg. The reported concentrations of arsenic are above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentrations of arsenic are below the average background concentration of 7.8 mg/kg, with the exception of PDS2 at 30 feet bgs (8.8 mg/kg).

- Perchlorate was detected in sample PDS-2 at 10 feet bgs above the laboratory MDL at a concentration of 0.0095 J mg/kg. The reported concentration of

perchlorate is below the PRG (100 mg/kg), RSL (720 mg/kg), and SRL (720 mg/kg).

Two soil gas samples (SASFS-PDS2-30-08172010 and SASFS-PDS2-60-08172010) from the potential drywell structure DW2 (PDS2 at 30 and 60 feet bgs) were submitted for analysis of VOCs.

- TCE was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 1.9 parts ppbv. The reported concentration of TCE is above the RSL for residential air (0.22 ppbv).
- 1,2,4-Trimethylbenzene was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 0.50 ppbv and 0.84 ppbv, respectively. The reported concentrations of 1,2,4-Trimethylbenzene are below the RSL for residential air (1.49 ppbv).
- 1,3-Dichlorobenzene was detected in sample PDS2 at 60 feet bgs above the laboratory MDL at a concentration of 1.2 ppbv. RSLs for residential air for1,3-Dichlorobenzene are not established.
- 2-Butanone was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 2.7 ppbv and 5.7 ppbv, respectively. The reported concentrations of 2-Butanone are below the RSL for residential air (1,760 ppbv).
- Acetone was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 17 ppbv and 24 ppbv, respectively. The reported concentrations of acetone are below the RSL for residential air (13,500 ppbv).
- Carbon disulfide was detected in sample PDS2 at 60 feet bgs above the laboratory MDL at a concentration of 0.75 ppbv. The reported concentration of carbon disulfide is below the RSL for residential air (234 ppbv).
- Chloromethane was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 0.52 ppbv and 0.66 ppbv, respectively. The reported concentrations of chloromethane are below the RSL for residential air (45 ppbv).
- cis-1,2-Dichloroethene was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 1.2 ppbv. RSLs for residential air for cis-1,2-Dichloroethene are not established.
- Cyclohexane was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 1.2 ppbv. The reported concentration of cyclohexane is below the RSL for residential air (1,830 ppbv).

- Hexane was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 0.70 ppbv and 0.84 ppbv, respectively. The reported concentrations of hexane are below the RSL for residential air (207 ppbv).
- Isopropanol was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 5.5 ppbv. The reported concentration of isopropanol is below the RSL for residential air (2,970 ppbv).
- Methylene chloride was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 1.2 ppbv. The reported concentration of methylene chloride is below the RSL for residential air (1.5 ppbv).
- Propene was detected in samples PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 2.3 ppbv. The reported concentration of propene is below the RSL for residential air (1,720 ppbv).
- PCE was detected in sample PDS2 at 30 feet bgs above the laboratory MDL at a concentration of 0.81 parts ppbv. The reported concentration of PCE is above the RSL for residential air (0.06 ppbv).
- Toluene was detected in samples PDS2 at 30 and 60 feet bgs above the laboratory MDL at concentrations of 1.1 ppbv and 0.64 ppbv, respectively. The reported concentrations of toluene are below the RSL for residential air (1,380 ppbv).

One groundwater sample (SASFS-PDS2-90-08172010) from the potential drywell structure DW2 (PDS2 at 90 feet bgs) was submitted for analysis of VOCs and perchlorate. Groundwater sample SASFS-PDS2-90-08172010DUP was collected as a field duplicate an analyzed the same constituents.

Acetone was detected in sample PDS2 at 90 feet bgs above the laboratory MDL at a concentration of 7.8 J µg/L (5.2 J µg/L duplicate). The reported concentration of acetone is below the RSL for tap water (22,000 µg/L) and the PRG for tap water (5,500 µg/L). MCLs and AWQSs for acetone are not established.

- TCE was detected in sample PDS2 at 90 feet bgs above the laboratory MDL at a concentration of 8.2 J µg/L (5.8 J µg/L duplicate). The reported concentration of TCE is above the RSL for tap water (2.0 µg/L), AWQS and MCL of 5 µg/L, and the PRG for tap water (0.028 µg/L).
- Perchlorate was detected in sample PDS2 at 90 feet bgs above the laboratory MDL at a concentration of 1.8 J µg/L (1.1 J µg/L duplicate). The reported concentration of perchlorate is below the RSL for tap water (26 µg/L) and the PRG for tap water (3.6 µg/L). MCLs and AWQSs for perchlorate are not established.

7.3.2 Potential Septic Tank

One soil sample (SASFS-PDS4-10-062410) from the potential septic tank (PDS-4 at 10 feet bgs) was submitted for analysis of metals, total cyanide, hexavalent chromium, VOCs, SVOCs, explosives, and perchlorate.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, selenium, silicon, sodium, vanadium, and zinc were detected above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at a concentration of 5.2 mg/kg. The reported concentration of arsenic is above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentration of arsenic was below the average background concentration of 7.8 mg/kg.

7.3.3 Potential Concrete Vault Structure (PSA-S)

Four soil samples (SASFS-PSAS-B1-12-062410, SASFS-PSAS-B2-12-062410, SASFS-PSAS-B3-12-062410, and SASFS-PSAS-B4-12-062410) from PSA-S were collected at approximately 12 feet bgs for radionuclide activity analysis.

- Gross alpha activities in the soil samples collected from PSA-S ranged from 12.6 $\pm$ 1.5 pCi/gram to 53.0 $\pm$ 4.0 pCi/gram. Gross beta activities were detected at concentrations ranging from 23.9 $\pm$ 1.2 pCi/gram to 30.8 $\pm$ 1.4.pCi/gram. Gross gamma activity analyzed as Cesium-134 and Cesium-137 and Cobalt-60 activities were below the laboratory RL.

- In order to determine background concentrations, six soil samples (SASFS-RBS1-3-082510, SASFS-RBS2-3-082510, SASFS-RBS3-3-082510, SASFS-RBS4-3-082510, SASFS-RBS5-3-082510, and SASFS-RBS6-3-082510) were collected at approximately 3 feet bgs from non process or production areas for radionuclide activity analysis. Gross alpha activities in the background soil samples were detected at concentrations ranging from 9.4 $\pm$ 2.8 pCi/gram to 19.9 $\pm$ 2.9 pCi/gram. Gross beta activities ranged from 12.7 $\pm$ 2.3 pCi/gram to 23.4 $\pm$ 1.5.pCi/gram. Cesium–134 activity was detected at a maximum concentration of 0.028 + 0.008.pCi/gram in one of the six samples. Cesium-137 activity and Cobalt-60 activity were not detected above the laboratory RL.

7.4 ADDITIONAL SOIL GAS SAMPLING RESULTS

Additional soil, soil gas, and groundwater samples were collected from the SGI borings (AB-4, AB-5, and AB-6) to evaluate the potential of former waste Locations 2, 5, and 8, respectively.

The soil, soil gas, and groundwater samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory MDL and the laboratory RL and are considered quantitative estimates. Complete analytical results for the samples collected during the Additional SGI are provided in Appendix B. Soil sample analytical results are summarized in Table 16A. Soil gas sample analytical results are summarized in Table 16B. Groundwater sample analytical results are summarized in Table 16C. Detected compounds are summarized in the subsections below:

7.4.1 Boring AB-4

Nine soil samples (AB4-10-121509, AB4-20-121509, AB4-30-121509, AB4-40-121509, AB4-50-121509, AB4-60-121509, AB4-70-121509, AB4-80-121509, and AB4-90-121609) from Location 2 (AB-4 at 10, 20, 30, 40, 50, 60, 70, 80, and 90 feet bgs) were submitted for analysis of VOCs. Soil sample AB4-40-121509 DUP was collected as a field duplicate an analyzed for VOCs.

- No VOCs were detected above the laboratory MDL.

Nine soil gas samples (AB4-10-121509, AB4-20-121509, AB4-30-121509, AB4-40-121509, AB4-50-121509, AB4-60-121509, AB4-70-121509, AB4-80-121509, and AB4-90-121609) from Location 2 (AB-4 at 10, 20, 30, 40, 50, 60, 70, 80, and 90 feet bgs) were submitted for analysis of VOCs. Three soil gas samples (AB4-20-121509 DUP, AB4-70-121509 DUP, and AB4-90-121609 DUP) were collected as a field duplicates an analyzed for VOCs.

- TCE was detected at concentrations above the laboratory MDL ranging from 0.53 to 2,045 ppbv in samples collected from 10 to 90 feet bgs with the exception of the sample at 30 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 90 feet bgs. The reported concentrations of TCE are above the RSL for residential air (0.22 ppbv).
- 2-Butanone was detected at concentrations above the laboratory MDL ranging from 9.01 to 37.28 ppbv in samples collected from 10 to 70 feet bgs. The maximum concentration detected was at 30 feet bgs. The reported concentrations of 2-Butanone are below the RSL for residential air (1,760 ppbv).
- Acetone was detected at concentrations above the laboratory MDL ranging from 185.12 to 1,041.32 ppbv in samples collected from 10 to 80 feet bgs. The

maximum concentration detected was at 50 feet bgs. The reported concentrations of acetone are below the RSL for residential air (13,500 ppbv).

- Benzene was detected at concentrations above the laboratory MDL ranging from 0.95 to 10.90 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of benzene are above the RSL for residential air (0.097 ppbv).
- Chloroform was detected at concentrations above the laboratory MDL ranging from 0.81 to 5.44 ppbv in samples collected from 40 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of chloroform are above the RSL for residential air (0.023 ppbv).
- Dichlorodifluoromethane was detected at a concentration above the laboratory MDL in three samples collected from 10, 20 and 40 feet bgs (0.41 U ppbv, 0.41 U ppbv, and 0.43 U ppbv, respectively). The maximum concentration detected was at 40 feet bgs. The reported concentrations of dichlorodifluoromethane are below the RSL for residential air (42.5 ppbv).
- Ethyl acetate was detected at a concentration above the laboratory MDL in the sample collected from 80 feet bgs (10.17 ppbv). RSLs for ethyl acetate are not established.
- 1,1-DCE was detected at a concentration above the laboratory MDL in two samples collected from 80 and 90 feet bgs (36.97 ppbv and 23.11 ppbv, respectively). The reported concentrations of 1,1-DCE are below the RSL for residential air (53 ppbv).
- Ethylbenzene was detected at concentrations above the laboratory MDL ranging from 0.65 to 0.82 ppbv in samples collected from 20 to 70 feet bgs. The maximum concentration detected was at 60 feet bgs. The reported concentrations of ethylbenzene are above the RSL for residential air (0.22 ppbv).
- 2-Hexanone was detected at concentrations above the laboratory MDL ranging from 1.12 to 2.91 ppbv in samples collected from 10 to 70 feet bgs. The maximum concentration detected was at 50 feet bgs. RSLs for 2-Hexanone are not established.
- Toluene was detected at concentrations above the laboratory MDL ranging from 3.16 to 13.86 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of toluene are below the RSL for residential air (1,380 ppbv).
- 4-Methyl-2-pentanone was detected at a concentration above the laboratory MDL in two samples collected from 30 and 50 feet bgs (0.67 ppbv and 0.56 ppbv, respectively). The reported concentrations of 4-Methyl-2-pentanone are below the RSL for residential air (757 ppbv).

- n-Hexane was detected at concentrations above the laboratory MDL ranging from 1.14 to 10.41 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 30 feet bgs. The reported concentrations of n-Hexane are below the RSL for residential air (207 ppbv).
- Propene was detected at concentrations above the laboratory MDL ranging from 26.62 to 500.38 J ppbv in samples collected from 10 to 90 feet bgs. The concentrations increased with depth to the highest detected concentration at 90 feet bgs. The reported concentrations of propene are below the RSL for residential air (1,720 ppbv).
- Chloromethane was detected at a concentration above the laboratory MDL in two samples collected from 20 and 30 feet bgs (4.26 ppbv and 1.06 ppbv, respectively). The reported concentrations of chloromethane are below the RSL for residential air (45 ppbv).
- 1,3-Butadiene was detected at concentrations above the laboratory MDL ranging from 2.57 to 28.16 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of 1,3-Butadiene are above the RSL for residential air (0.037 ppbv).
- 2-Propanol was detected at concentrations above the laboratory MDL ranging from 1.64 to 4.84 ppbv in samples collected from 30 to 70 feet bgs. The maximum concentration detected was at 30 feet bgs. RSLs for 2-Propanol are not established.
- Trichlorofluoromethane was detected at concentrations above the laboratory MDL ranging from 0.51 to 3.75 ppbv in samples collected from 10 to 70 feet bgs. The maximum concentration detected was at 40 feet bgs. The reported concentrations of trichlorofluoromethane are below the RSL for residential air (130 ppbv).
- Trichlorotrifluoroethane was detected at concentrations above the laboratory MDL ranging from 0.35 to 4.30 ppbv in samples collected from 60 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for trichlorotrifluoroethane are not established.
- Carbon disulfide was detected at a concentration above the laboratory MDL in the sample collected from 30 feet bgs (7.94 ppbv). The reported concentration of Carbon disulfide is below the RSL for residential air (234 ppbv).
- Tetrahydrofuran was detected at a concentration above the laboratory MDL in the sample collected from 90 feet bgs (55.92 J ppbv). RSLs for tetrahydrofuran are not established.

- 2,2,4-Trimethylpentane was detected at a concentration above the laboratory MDL in the sample collected from 30 feet bgs (0.57 ppbv). RSLs for 2,2,4-Trimethylpentane are not established.
- n-Heptane was detected at concentrations above the laboratory MDL ranging from 0.64 to 4.82 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for n-Heptane are not established.
- m,p-Xylenes was detected at concentrations above the laboratory MDL ranging from 1.35 to 2.0 ppbv in samples collected from 20 to 70 feet bgs. The maximum concentration detected was at 60 feet bgs. The reported concentrations of m,p-Xylenes are below the RSL for residential air (168 ppbv).
- o-Xylene was detected at concentrations above the laboratory MDL ranging from 0.49 to 0.7 ppbv in samples collected from 20 to 70 feet bgs. The maximum concentration detected was at 60 feet bgs. The reported concentrations of o-Xylene are below the RSL for residential air (168 ppbv).

Three groundwater samples (AB4-101-121609, AB4-110-121609, and AB4-120-121609) from Location 2 (AB-4 at 101, 110, and 120 feet bgs) were submitted for analysis of VOCs. Groundwater sample AB4-110-121609 DUP was collected as a field duplicate an analyzed the same constituents.

- 2-Butanone was detected in sample AB-4 at 101 feet bgs above the laboratory MDL at a concentration of 7.9 J µg/L. The reported concentration of 2-Butanone is below the RSL for tap water (7,100 µg/L) and the PRG for tap water (7,000 µg/L). MCLs and AWQSs for 2-Butanone are not established.

- Chloroform was detected in sample AB-4 at 101 feet bgs above the laboratory MDL at a concentration of 0.23 U µg/L. The reported concentration of chloroform is above the RSL for tap water (0.19 µg/L) and the PRG for tap water (0.17 µg/L), however the concentration is below the MCL (80 µg/L). AWQSs for chloroform are not established.

- 2-Hexanone was detected in sample AB-4 at 101 feet bgs above the laboratory MDL at a concentration of 1.3 µg/L. MCLs, AWQSs, RSL (tap water), and PRG (tap water) for 2-Hexanone are not established.

- Toluene was detected in sample AB-4 at 101 feet bgs above the laboratory MDL at a concentration of 0.46 µg/L. The reported concentration of toluene is below the RSL for tap water (2,300 µg/L), the PRG for tap water (720 µg/L), and the MCL and AWQS of 1,000 µg/L.

- TCE was detected in samples AB-4 at 101, 110, and 120 feet bgs above the laboratory MDL at concentrations of 54 µg/L, 14 µg/L (15 µg/L duplicate), and 9.3 µg/L, respectively. The reported concentrations of TCE are above the RSL for tap water (2.0 µg/L), the PRG for tap water (0.028 µg/L), and the AWQS and MCL of 5 µg/L.

7.4.2 Boring AB-5

Eight soil samples (AB5-10-121709, AB5-20-121709, AB5-30-121709, AB5-40-121709, AB5-50-121709, AB5-60-121709, AB5-70-121709, and AB5-80-121709) from Location 5 (AB-5 at 10, 20, 30, 40, 50, 60, 70, and 80 feet bgs) were submitted for analysis of VOCs.

- 2-Butanone was detected in samples AB-5 at 10 and 60 feet bgs above the laboratory MDL at concentrations of 410 U µg/kg and 220 U µg/kg, respectively. The reported concentrations of 2-Butanone are below the PRG (110,000,000 µg/kg), the SRL (34,000,000 µg/kg), and the RSL (200,000,000 µg/kg).

- Toluene was detected in samples AB-5 at 20 and 30 feet bgs above the laboratory MDL at concentrations of 28 J µg/kg and 31 J µg/kg, respectively. The reported concentration of toluene is below the PRG (520,000 µg/kg), the SRL (650,000 µg/kg), and the RSL (45,000,000 µg/kg).

Eight soil gas samples (AB5-10-121709, AB5-20-121709, AB5-30-121709, AB5-40-121709, AB5-50-121709, AB5-60-121709, AB5-70-121709, and AB5-80-121709) from Location 5 (AB-5 at 10, 20, 30, 40, 50, 60, 70, and 80 feet bgs) were submitted for analysis of VOCs. Soil gas sample AB5-40-121709 DUP was collected as a field duplicate an analyzed the same constituents.

- TCE was detected at concentrations above the laboratory MDL ranging from 0.58 to 155.13 ppbv in samples collected from 10 to 80 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 80 feet bgs. The reported concentrations of TCE are above the RSL for residential air (0.22 ppbv).
- 2-Butanone was detected at concentrations above the laboratory MDL ranging from 8.70 to 86.98 ppbv in samples collected from 20 to 80 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 80 feet bgs. The reported concentrations of 2-Butanone are below the RSL for residential air (1,760 ppbv).
- Vinyl Acetate was detected at a concentration above the laboratory MDL in three samples collected from 40, 60 and 70 feet bgs (6.5 J ppbv, 10.14 J ppbv, and

15.09 J ppbv, respectively). The maximum concentration detected was at 70 feet bgs. The reported concentrations of vinyl acetate are below the RSL for residential air (59.6 ppbv).

- Acetone was detected at concentrations above the laboratory MDL ranging from 192.84 to 1,658.40 ppbv in samples collected from 10 to 80 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 80 feet bgs. The reported concentrations of acetone are below the RSL for residential air (13,500 ppbv).
- Benzene was detected at concentrations above the laboratory MDL ranging from 0.95 to 31.55 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of benzene are above the RSL for residential air (0.097 ppbv).
- Chloroform was detected at concentrations above the laboratory MDL ranging from 0.69 to 1.73 ppbv in samples collected from 50 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of chloroform are above the RSL for residential air (0.023 ppbv).
- Dichlorodifluoromethane was detected at a concentration above the laboratory MDL ranging from 0.43 U to 0.50 U ppbv in samples collected from 10 to 40 feet bgs. The maximum concentration detected was at 40 feet bgs. The reported concentrations of dichlorodifluoromethane are below the RSL for residential air (42.5 ppbv).
- 1,1-DCE was detected at a concentration above the laboratory MDL in one sample collected from 80 feet bgs (4.16 ppbv). The reported concentration of 1,1-DCE is below the RSL for residential air (53 ppbv).
- Ethylbenzene was detected at concentrations above the laboratory MDL ranging from 0.53 to 0.82 ppbv in samples collected from 20 to 70 feet bgs. The maximum concentration detected was at 40 feet bgs. The reported concentrations of ethylbenzene are above the RSL for residential air (0.22 ppbv).
- 2-Hexanone was detected at concentrations above the laboratory MDL ranging from 1.03 to 4.25 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for 2-Hexanone are not established.
- 4-Methyl-2-pentanone was detected at concentrations above the laboratory MDL ranging from 0.54 to 1.03 ppbv in samples collected from 30 to 70 feet bgs. The maximum concentration detected was at 70 feet bgs. The reported concentrations of 4-Methyl-2-pentanone are below the RSL for residential air (757 ppbv).

- n-Hexane was detected at concentrations above the laboratory MDL ranging from 1.48 to 23.15 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of n-Hexane are below the RSL for residential air (207 ppbv).
- Propene was detected at concentrations above the laboratory MDL ranging from 15.97 to 904.94 ppbv in samples collected from 10 to 80 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 90 feet bgs. The reported concentrations of propene are below the RSL for residential air (1,720 ppbv).
- Chloromethane was detected at a concentration above the laboratory MDL in two samples collected from 50 and 60 feet bgs (1.51 ppbv and 1.24 ppbv, respectively). The reported concentrations of chloromethane are below the RSL for residential air (45 ppbv).
- 1,3-Butadiene was detected at concentrations above the laboratory MDL ranging from 1.33 to 132.52 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. The reported concentrations of 1,3-Butadiene are above the RSL for residential air (0.037 ppbv).
- 2-Propanol was detected at concentrations above the laboratory MDL ranging from 2.16 to 8.57 ppbv in samples collected from 30 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for 2-Propanol are not established.
- Trichlorofluoromethane was detected at concentrations above the laboratory MDL ranging from 0.38 to 1.63 ppbv in samples collected from 10 to 60 feet bgs. The maximum concentration detected was at 20 feet bgs. The reported concentrations of trichlorofluoromethane are below the RSL for residential air (130 ppbv).
- Trichlorotrifluoroethane was detected at concentrations above the laboratory MDL ranging from 0.29 to 11.24 ppbv in samples collected from 60 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for trichlorotrifluoroethane are not established.
- Tetrahydrofuran was detected at concentrations above the laboratory MDL ranging from 0.71 U to 1.06 U ppbv in samples collected from 40 to 70 feet bgs. The maximum concentration detected was at 70 feet bgs. RSLs for tetrahydrofuran are not established.
- 2,2,4-Trimethylpentane was detected at concentrations above the laboratory MDL ranging from 0.65 to 2.55 ppbv in samples collected from 10 to 80 feet bgs, with the exception of samples collected at 50 and 70 feet bgs.. The maximum

concentration detected was at 80 feet bgs. RSLs for 2,2,4-Trimethylpentane are not established.

- n-Heptane was detected at concentrations above the laboratory MDL ranging from 0.73 to 7.33 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 80 feet bgs. RSLs for n-Heptane are not established.
- m,p-Xylenes was detected at concentrations above the laboratory MDL ranging from 1.10 to 1.81 ppbv in samples collected from 20 to 70 feet bgs. The maximum concentration detected was at 70 feet bgs. The reported concentrations of m,p-Xylenes are below the RSL for residential air (168 ppbv).
- o-Xylene was detected at concentrations above the laboratory MDL ranging from 0.46 to 0.65 ppbv in samples collected from 30 to 70 feet bgs. The maximum concentration detected was at 40 and 70 feet bgs. The reported concentrations of o-Xylene are below the RSL for residential air (168 ppbv).

Three groundwater samples (AB5-98-121709, AB5-110-121709, and AB5-120-121809) from Location 5 (AB-5 at 98, 110, and 120 feet bgs) were submitted for analysis of VOCs. Groundwater sample AB5-110-121709 DUP was collected as a field duplicate an analyzed the same constituents.

- 2-Butanone was detected in sample AB-5 at 98 feet bgs above the laboratory MDL at a concentration of 4.1 J µg/L. The reported concentration of 2-Butanone is below the RSL for tap water (7,100 µg/L) and the PRG for tap water (7,000 µg/L). MCLs and AWQSs for 2-Butanone are not established.

- Ethylbenzene was detected in sample AB-5 at 110 feet bgs above the laboratory MDL at a concentration of 0.25 J µg/L. Ethylbenzene was not detected above the laboratory MDL in the duplicate sample collected. The reported concentration of ethylbenzene is below the RSL for tap water (1.5 µg/L), the PRG for tap water (1,300 µg/L), and the MCL and AWQS of 700 µg/L.

- 2-Hexanone was detected in sample AB-5 at 98 feet bgs above the laboratory MDL at a concentration of 3.2 J µg/L. MCLs, AWQSs, RSL (tap water), and PRG (tap water) for 2-Hexanone are not established.

- Toluene was detected in samples AB-5 at 98 feet bgs and in the duplicate sample at 110 feet bgs above the laboratory MDL at a concentration of 0.40 J µg/L and 0.66 J µg/L, respectively. The reported concentrations of toluene are below the RSL for tap water (2,300 µg/L), the PRG for tap water (720 µg/L), and the MCL and AWQS of 1,000 µg/L.

- n-Propylbenzene was detected in samples AB-5 at 110 feet above the laboratory MDL at a concentration of 0.21 J µg/L. The reported concentrations of n-Propylbenzene are below the RSL for tap water (1,300 µg/L) and the PRG for tap water (240 µg/L). MCLs and AWQSs for n-Propylbenzene are not established.

- TCE was detected in samples AB-5 at 98 and 110 feet bgs above the laboratory MDL at concentrations of 2.0 U µg/L and 11 µg/L (12 µg/L duplicate), respectively. The reported concentrations of TCE are above the RSL for tap water (2.0 µg/L), the PRG for tap water (0.028 µg/L), the AWQS and MCL of 5 µg/L (with the exception of the sample at 98 feet bgs).

7.4.3 Boring AB-6

Six soil samples (AB6-10-121809, AB6-30-121809, AB6-40-121809, AB6-60-121909, AB6-70-121909, and AB6-80-121909) from Location 8 (AB-6 at 10, 30, 40, 60, 70, and 80 feet bgs) were submitted for analysis of VOCs. Soil sample AB6-70-121909 DUP was collected as a field duplicate an analyzed the same constituents.

- 1,2,3-Trichlorobenzene was detected in sample AB-6 at 70 feet bgs (duplicate sample) above the laboratory MDL at a concentration of 36 µg/kg. The reported concentration of 1,2,3-Trichlorobenzene is below the RSL (490,000 µg/kg). PRJs and SRLs for 1,2,3-Trichlorobenzene are not established.

- 2-Butanone was detected in samples AB-6 at 40 and 80 feet bgs above the laboratory MDL at concentrations of 310 J µg/kg and 250 J µg/kg, respectively. The reported concentrations of 2-Butanone are below the PRG (110,000,000 µg/kg), the SRL (34,000,000 µg/kg), and the RSL (200,000,000 µg/kg).

- Methylene Chloride was detected in sample AB-6 at 60 feet bgs above the laboratory MDL at a concentration of 47 U µg/kg. The reported concentrations of methylene chloride are below the PRG (21,000 µg/kg), the SRL (210,000 µg/kg), and the RSL (53,000 µg/kg).

Eight soil gas samples (AB6-10-121809, AB6-20-121809, AB6-30-121809, AB6-40-121809, AB6-50-121909, AB6-60-121909, AB6-70-121909, and AB6-80-121909) from Location 8 (AB-6 at 10, 20, 30, 40, 50, 60, 70, and 80 feet bgs) were submitted for analysis of VOCs. Soil gas sample AB6-20-121809 DUP was collected as a field duplicate an analyzed the same constituents.

- TCE was detected at a concentration above the laboratory MDL in the sample collected from 80 feet bgs (2.73 ppbv). The reported concentration of TCE is above the RSL for residential air (0.22 ppbv).
- 2-Butanone was detected at concentrations above the laboratory MDL ranging from 11.80 to 55.91 ppbv in samples collected from 60 to 80 feet bgs. The maximum concentration detected was at 60 feet bgs. The reported concentrations of 2-Butanone are below the RSL for residential air (1,760 ppbv).
- Acetone was detected at concentrations above the laboratory MDL ranging from 181.27 to 1,388.43 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 30 feet bgs. The reported concentrations of acetone are below the RSL for residential air (13,500 ppbv).
- Benzene was detected at concentrations above the laboratory MDL in samples collected from 50, 60, and 80 feet bgs (2.29 ppbv, 12.04 ppbv, and 9.75 ppbv, respectively). The maximum concentration detected was at 60 feet bgs. The reported concentrations of benzene are above the RSL for residential air (0.097 ppbv).
- Cyclohexane was detected at a concentration above the laboratory MDL in two samples collected from 50 and 60 feet bgs (3.19 ppbv and 1.70 ppbv, respectively). RSLs for cyclohexane are not established.
- Chloroform was detected at a concentration above the laboratory MDL in one sample collected from 80 feet bgs (0.56 ppbv). The reported concentration of chloroform is above the RSL for residential air (0.023 ppbv).
- Ethylbenzene was detected at a concentration above the laboratory MDL in two samples collected from 50 and 80 feet bgs (1.16 ppbv and 0.65 ppbv, respectively). The reported concentrations of ethylbenzene are above the RSL for residential air (0.22 ppbv).
- 2-Hexanone was detected at a concentration above the laboratory MDL in two samples collected from 60 and 80 feet bgs (3.35 ppbv and 1.95 ppbv, respectively). RSLs for 2-Hexanone are not established.
- 4-Methyl-2-pentanone was detected at a concentration above the laboratory MDL in the sample collected from 80 feet bgs (0.72 ppbv). The reported concentration of 4-Methyl-2-pentanone is below the RSL for residential air (757 ppbv).
- n-Hexane was detected at concentrations above the laboratory MDL ranging from 2.19 to 22.63 ppbv in samples collected from 40 to 80 feet bgs. The maximum concentration detected was at 40 feet bgs. The reported concentrations of n-Hexane are below the RSL for residential air (207 ppbv).

- Propene was detected at concentrations above the laboratory MDL ranging from 10.65 to 1,011.41 ppbv in samples collected from 20 to 80 feet bgs. The concentrations generally increased with depth to the highest detected concentration at 80 feet bgs. The reported concentrations of propene are below the RSL for residential air (1,720 ppbv).
- Chloromethane was detected at a concentration above the laboratory MDL in the sample collected from 80 feet bgs (1.95 ppbv). The reported concentration of chloromethane is below the RSL for residential air (45 ppbv).
- 1,3-Butadiene was detected at concentrations above the laboratory MDL in samples collected from 40, 60, 70, and 80 feet bgs (36.86 ppbv, 22.36 ppbv, 6.63 ppbv, and 91.11 ppbv, respectively). The maximum concentration detected was at 80 feet bgs. The reported concentrations of 1,3-Butadiene are above the RSL for residential air (0.037 ppbv).
- 2-Propanol was detected at concentrations above the laboratory MDL in samples collected from 50, 60, and 80 feet bgs (1.98 ppbv, 6.34 ppbv, and 1.98 ppbv, respectively). The maximum concentration detected was at 60 feet bgs. RSLs for 2-Propanol are not established.
- Trichlorofluoromethane was detected at concentrations above the laboratory MDL ranging from 2.61 to 1,956.76 ppbv in samples collected from 10 to 80 feet bgs. The maximum concentration detected was at 30 feet bgs. The reported concentrations of trichlorofluoromethane detected from 10 to 40 feet bgs are above the RSL for residential air (130 ppbv), while the detected concentrations from 50 to 80 feet bgs are below the RSL for residential air.
- Tetrahydrofuran was detected at a concentration above the laboratory MDL in the sample collected from 80 feet bgs (1.18 ppbv). RSLs for tetrahydrofuran are not established.
- 2,2,4-Trimethylpentane was detected at concentrations above the laboratory MDL in samples collected from 50, 60, and 80 feet bgs (5.88 ppbv, 1.61 ppbv, and 0.51 ppbv, respectively). The maximum concentration detected was at 50 feet bgs. RSLs for 2,2,4-Trimethylpentane are not established.
- n-Heptane was detected at concentrations above the laboratory MDL ranging from 1.18 to 14.66 ppbv in samples collected from 50 to 80 feet bgs. The maximum concentration detected was at 60 feet bgs. RSLs for n-Heptane are not established.
- m,p-Xylenes was detected at concentrations above the laboratory MDL ranging from 1.10 to 3.16 ppbv in samples collected from 50 to 80 feet bgs. The maximum

concentration detected was at 50 feet bgs. The reported concentrations of m,p-Xylenes are below the RSL for residential air (168 ppbv).

- o-Xylene was detected at a concentration above the laboratory MDL in two samples collected from 50 and 80 feet bgs (1.22 ppbv and 0.61 ppbv, respectively). The reported concentrations of o-Xylene are below the RSL for residential air (168 ppbv).

Two groundwater samples (AB6-90-121909 and AB6-105-121909) from Location 6 (AB-6 at 90 and 105 feet bgs) were submitted for analysis of VOCs. Groundwater sample AB6-90-121909 DUP was collected as a field duplicate an analyzed the same constituents.

- 2-Butanone was detected in sample AB-6 at 105 feet bgs above the laboratory MDL at a concentration of 3.8 J µg/L. The reported concentration of 2-Butanone is below the RSL for tap water (7,100 µg/L) and the PRG for tap water (7,000 µg/L). MCLs and AWQSs for 2-Butanone are not established.

- Acetone was detected in sample AB-6 at 105 feet bgs above the laboratory MDL at a concentration of 15 U µg/L. The reported concentration of Acetone is below the RSL for tap water (22,000 µg/L) and the PRG for tap water (5,500 µg/L). MCLs and AWQSs for Acetone are not established.

- TCE was detected in sample AB-6 at 105 feet bgs above the laboratory MDL at a concentration of 2.7 µg/L. The reported concentrations of TCE are above the RSL for tap water (2.0 µg/L), the PRG for tap water (0.028 µg/L), however the concentration is below the AWQS and MCL of 5 µg/L.

7.5 COOLING TOWER SUMP

During the Phase II Investigation four soil samples were collected around and under the cooling tower sump.

Soil samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory MDL and the laboratory RL and are considered quantitative estimates. Complete analytical results for soil samples collected during the additional investigation of the cooling tower sump are provided in Appendix B. Laboratory analytical results are summarized in Table 6A. Detected compounds are summarized below:

Four soil samples (CTS-01-031511, CTS-02-031511, CTS-03-031511, and CTS-04-031511) from the cooling tower sump (CTS-01, -02, -03, and -04 at 3 feet bgs) were submitted for

analysis of metals, total cyanide, uranium, and VOCs. No VOCs were detected above the laboratory RL.

- Aluminum, barium, boron, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, silicon, sodium, vanadium, and zinc were detected in all four samples above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Arsenic was detected above the laboratory MDL at concentrations ranging from 6.1 to 7.9 mg/kg. The reported concentrations of arsenic are above the PRG and RSL of 1.6 mg/kg and below the SRL of 10 mg/kg. The detected concentrations of arsenic are below the average background concentration of 7.8 mg/kg, with the exception of CTS-04 at 3 feet bgs (7.9 mg/kg).

- Uranium was detected above the laboratory MDL in two soil samples at concentrations of 1.1 mg/kg and 1.0 mg/kg (CTS-01 and CTS-03, respectively). The reported concentrations of uranium are below the PRG (200 mg/kg), the SRL (200 mg/kg), and the RSL (3,100 mg/kg).

7.6 SLAB DEMOLITION AND REMOVAL INVESTIGATION

During the slab demolition and removal investigation soil samples were collected of visually stained soils or at locations indicating elevated PID readings of 20 ppm or greater. Additionally, samples of unknown liquids encountered in drains or pipes were collected and submitted for laboratory analysis.

Soil samples collected for laboratory analysis were submitted to TestAmerica. Analytical results flagged with a "J" were reported between the laboratory MDL and the laboratory RL and are considered quantitative estimates. Complete analytical results for soil samples collected during the Phase II Investigation are provided in Appendix B. Laboratory analytical results are summarized in Tables 15A and 15B. Detected compounds are summarized in the subsections below:

7.6.1 Building 1 Sample Results

One liquid sample (Bld 1 Tank-08212009) collected from the water present in the potential septic tank located north of Building 1 was submitted for analysis of total metals, VOCs, SVOCs, perchlorate, and explosives.

- Barium, boron, calcium, copper, iron, magnesium, manganese, molybdenum, nickel, potassium, silicon, sodium, and vanadium were detected in the liquid sample collected

above the laboratory MDLs, but were below their corresponding PRGs, SRLs, and RSLs.

- Acetone was detected above the laboratory MDL in the liquid sample collected at a concentration of 280 µg/L. The detected concentration of acetone was below the PRG for tap water (5,500 µg/L) and the RSL for tap water (22,000 µg/L). MCLs and AWQSs for acetone are not established.

One liquid sample (Bld1-47-09012009) found in a three-inch diameter steel pipe with a y-fitting encountered under the north-central portion of Building 1 was analyzed for VOCs.

- 2-Butanone was detected in the liquid sample collected above the laboratory MDL at a concentration of 31 µg/L. The reported concentration of 2-Butanone is below the RSL for tap water (7,100 µg/L) and the PRG for tap water (7,000 µg/L). MCLs and AWQSs for 2-Butanone are not established.

- Acetone was detected in the liquid sample collected above the laboratory MDL at a concentration of 100 µg/L. The detected concentration of acetone is below the PRG for tap water (5,500 µg/L) and the RSL for tap water (22,000 µg/L). MCLs and AWQSs for acetone are not established.

- Benzene was detected in the liquid sample collected above the laboratory MDL at a concentration of 0.57 J µg/L. The detected concentration of benzene is above the PRG for tap water (0.35 µg/L) and the RSL for tap water (0.41 µg/L), however the detected concentration is below the MCL and AWQS of 5 µg/L.

- Trichlorofluoromethane was detected in the liquid sample collected above the laboratory MDL at a concentration of 0.67 J µg/L. The detected concentration of trichlorofluoromethane is below the PRG for tap water (1,300 µg/L) and the RSL for tap water (2,300 µg/L). MCLs and AWQSs for trichlorofluoromethane are not established.

- 1,2,4-trimethylbenzne was detected in the liquid sample collected above the laboratory MDL at a concentration of 0.39 µg/L. The detected concentration of 1,2,4-trimethylbenzne is below the PRG for tap water (12 µg/L) and the RSL for tap water (15 µg/L). MCLs and AWQSs for 1,2,4-trimethylbenzne are not established.

- 4-methyl-2-pentanone was detected in the liquid sample collected above the laboratory MDL at a concentration of 2.6 µg/L. The detected concentration of 4-methyl-2-pentanone is below the RSL for tap water (2,000 µg/L). MCLs, AWQSs, and PRGs for tap water for 4-methyl-2-pentanone are not established.

One soil sample (Bld1-47-09012009) collected in the vicinity of the three-inch steel pipe was analyzed for VOCs. No VOCs were detected above the laboratory RL in the soil sample.

7.6.2 Building 2 Sample Results

One sample of water (Bd2-05112009) present in a cooling tower sump previously located north of Building 2 was analyzed for total chromium.

- Total chromium was detected at a concentration of 29 µg/L. The detected concentration of total chromium was below the MCL and AWQS of 100 µg/L.

7.6.3 Building 22 Sample Results

Soil adjacent to a four-inch diameter plastic drain line located under the slab of Building 22 had a PID reading of 14.1 ppm and an LEL of 0%. A sample of the soil (Bld 22-9-07152009) was collected adjacent to the 4-inch plastic drain line and was analyzed for VOCs. No VOCs were detected above laboratory RL.

One sample of oil (Bld 22-10.1-07152009) encountered in a 1.5-inch copper pipe located under the concrete slab of Building 22 was submitted laboratory analysis of VOCs and hydrocarbons by USEPA Test Method 8015B. No VOCs were detected above laboratory RL.

- The oil sample contained diesel range hydrocarbons and oil range hydrocarbons at concentrations of 810,000 mg/kg and 320,000 mg/kg, respectively. The oil was likely the residual of compressor oil from the generation of compressed air.

One soil sample (Bld 22-10.2-07152009) that contained a small amount of the oil from the 1.5-inch copper pipe from underneath Building 22's slab was also submitted for laboratory analysis of VOCs. No VOCs were detected above laboratory RL.

8.0 DATA EVALUATION – QUALITY ASSURANCE AND QUALITY CONTROL

AMEC Geomatrix collected a total of 84 soil samples (including 8 field duplicates), 14 groundwater samples (including 4 field duplicates), 36 soil gas samples (including 6 field duplicates), 3 liquid samples, and 2 oil samples. In addition, 5 equipment rinsate blanks and 6 trip blanks were collected for QA/QC purposes.

8.1 DATA USABILITY ASSESSMENT

The samples underwent a Tier I data validation, which includes 100% data quality review. A portion of the samples underwent Tier III data validation which includes full data validation. The data validation and data quality review were performed in general accordance with:

- ARCADIS, 2004b. *Final Quality Assurance Project Plan (QAPP) Addendum Main Drywells Source Area Investigation, Phoenix-Goodyear Airport – North Superfund Site Goodyear, Arizona*, October, 2004.
- USEPA, 2008a. *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review, USEPA/540-R-08-01*.
- USEPA, 2008b. *USEPA CLP National Functional Guidelines for Superfund Inorganic Methods Data Review, USEPA/540-R-10-011.*
- USEPA, 2004. *SW-846 Test Methods for Evaluating Solid Wastes, Update IIIB.*
- USEPA, 2001. *Region 9 Data Evaluation/Validation Guidance, R9QA/006.1, US USEPA Region 9 Quality Assurance Office, Version 1, Draft,* December 2001.
- USEPA, 1999. *Determination of VOCs in Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), Compendium Method TO-15, USEPA/625/R-96/010b,* January, 1999.

Results that were rejected are described as follows: (AMEC Geomatrix R qualified these [0.6%] records.

- The non-detected benzoic acid result from sample SASFS-EB1-10092009 was rejected because of a very low recovery in an associated laboratory control sample.
- The non-detected benzoic acid results from samples SASFS-BL02-04-10092009, SASFS-B11NT02-15-120409, SASFS-B11NT02-15-120409-FD, SASFS-PDS1-30-08192010, and SASFS-PDS1-30-08192010DUP were rejected because of very low recoveries in associated matrix spike samples.
- The non-detected SVOC acid extractable results from sample SASFS-EB1-120409 were rejected because of very low surrogate recoveries.
- The non-detected OP results from sample SASFS-BJ14-0.5-03042009 were rejected because of a very low surrogate recovery.
- The non-detected nitrate results from sample SASFS-BL02-0.5-10092009 was rejected due to an exceeded holding time.

Several VOCs were detected at concentrations less than the RL in associated equipment blanks, trip blanks, and/or laboratory method blanks. No data were qualified due to these low-level blank detections.

The remainder of the data from this event are usable and of acceptable quality. A number of results, while considered usable, were qualified due to minor quality control anomalies. Specifically, portions of the VOC, perchlorate, SVOC, Organophosphorus pesticide, nitroaromatics and nitramines, and metals data were qualified as estimated because of low calibration check verification standard recoveries, high or low matrix spike recoveries, high or low surrogate recoveries, low laboratory control sample recoveries, laboratory or field duplicate imprecision, or results reported between the method detection limit and reporting limit. AMEC Geomatrix J or UJ qualified 315 (6.0%) records as estimated results.

More than 99% of the data should be considered valid, which exceeds the 90% completeness goal for this project. The data validation reports and tables are found in Appendix D.

AMEC Geomatrix's review of the analytical data for the former aboveground cooling tower sump soil sampling investigation indicated the data are fully usable with the addition of one qualifier. The silica analytical result for soil sample CTS-03-031511 was flagged with a "J", because of low matrix spike recoveries, indicating a possibly low analytical bias. No data were rejected as part of the data validation process and 100 percent of the data should be considered valid.

9.0 SUMMARY AND RECOMMENDATIONS

The following provides a summary of the analytical results collected during the Phase II Investigation and associated addendum activities.

- Only one soil sample collected contained a VOC concentration exceeding the PRGs. No soil samples collected contained VOCs exceeding the SRLs. The soil sample collected at a depth of 5 feet bgs from B10-06 contained TCE at a concentration of 470 J µg/kg. A soil sample collected from 10-feet bgs at boring B10-06 did not contain any VOCs exceeding the laboratory MDL.

- SVOCs, explosives, and PCBs were not detected in soil samples at concentrations exceeding the laboratory MDLs.

- Trace amounts of 4,4-DDE, 4,4,-DDT, dieldrin, and toxaphene were detected in soil samples collected from PSA-L and PSA-P. The detected concentrations of these organochlorine pesticides were below PRGs and SRLs. No other organochlorine and

organophosphorous pesticides or chlorinated herbicides were detected in soil samples at concentrations exceeding the laboratory MDLs.

- Several metals were detected in soil samples. Only arsenic was detected at concentrations exceeding the PRGs and SRLs. The detected concentrations of arsenic were generally within background concentrations as documented in the SASFS Phase II Work Plan.

- Radionuclide activity results for soil samples collected from PSA-S did not indicate Cobalt-60 or gross gamma (as measured by Cesium-134 and Cesium-137) activities exceeding laboratory MDLs. The soil samples had gross alpha and beta activities detected above the laboratory RL but were generally in line with alpha and beta activities noted in the background samples.

- Observations of sub-slab features including the general lack of staining and odors, PID, and LEL readings did not indicate the presence of additional potential source areas. Additionally, the analytical results for samples collected based on the presence of a liquid in a pipe/drain or slightly elevated PID readings did not indicate the presence of elevated concentrations of COCs.

- Soil gas samples collected from borings PDS-1 and PDS-2 associated with the potential drywells located south and west of Building 1 contained low amounts of VOCs slightly above the laboratory MDLs. The detected analytes were generally lower than the VOCs detected in soil gas samples collected during the SGI.

- No VOCs, SVOCs, or explosives were detected in soil samples collected from the excavations or borings associated with the potential drywells or the potential septic tank located north of the Building 1. Perchlorate was detected in only one sample collected in association with these three features at a concentration well below the PRG and SRL. Concentrations of metals in soil samples collected in association with the three features were not detected above the PRGs or SRLs, with the exception of arsenic. The detected levels of arsenic in soil were within the regional background concentrations.

- Groundwater samples collected from the two potential drywell source borings PDS-1 and PDS-2 contained only TCE exceeding the PRG, MCL, and/or the AWQS. Additionally, the groundwater samples from these borings contained perchlorate at concentrations exceeding the laboratory MDLs but below the PRG.

- Analytical results for samples collected form Locations 2, 5, and 8 during the SGI indicated the presence of VOCs above laboratory MDLs. Detected concentrations of TCE in borings advanced in these Locations during the SGI generally increased in

depth and were indicative of off-gassing from the underlying groundwater. The SGI analytical results for Locations 2, 5, and 8 do not indicate these Locations are continued sources of COCs.

Based on the analytical results from samples collected as part of the SASFS Phase II and associated addenda investigations, no additional sources of COCs were identified and additional investigation is not warranted at the Site.

10.0 REFERENCES

AMEC Geomatrix, 2009. *Addendum I to the Final Source Areas, Soils and Facility Structures Investigation Work Plan, Phase II.* February 25, 2009.

AMEC Geomatrix, 2010. *Addendum II to the Final Source Areas, Soils and Facility Structures Work Plan, Phase II.* January 27, 2010.

ARCADIS, 2004a. *Main Drywells Source Area Investigation Workplan, Phoenix–Goodyear Airport North Superfund Site Goodyear, Arizona.* October.

ARCADIS, 2004b. *Final Quality Assurance Project Plan (QAPP) Addendum Main Drywells Source Area Investigation, Phoenix-Goodyear Airport – North Superfund Site Goodyear, Arizona.* October.

ARCADIS G&M, Inc., 2006. *Final 2006 Groundwater Monitoring Work Plan, Phoenix-Goodyear Airport - North Superfund Site, Goodyear, Arizona*. October 25.

ARCADIS G&M Inc., 2007a. *Source Areas, Soils and Facilities Structures, Phase I Work Plan*, March 27.

ARCADIS G&M Inc., 2007b. *Final Addendum to the Source Area, Soils and Facility Structures Investigation Work Plan. Prepared for Crane Co*. September 6.

ARCADIS G&M Inc., 2008a. *Source Areas, Soils and Facility Structures Investigation Work Plan, Phase II. Phoenix-Goodyear Airport-North Superfund Site, Goodyear, Arizona*. June 25, 2008.

ARCADIS G & M, 2008b. *July 2008 Groundwater Flow Model Update, Phoenix-Goodyear Airport-North, Superfund Site, Maricopa County, Arizona*. July 2008.

ASTM International, 2009. *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).*

Battelle, 2008. *Draft Completion Report for Decontamination of Buildings Housing Explosives Operations at the Former Unidynamics/Phoenix, Inc. Site. Goodyear, Arizona*. February.

CH2M Hill, 1987. *External Draft Technical Memorandum. Installation of Phase II Stage 2 Monitoring Wells, Phoenix-Goodyear Airport RI/FS*. December 1987.

Corell, S. W., and E.F. Corkhill. 1994. *A Regional Groundwater Flow Model of the Salt River Valley – Phase II, Phoenix Active Management Area, Numerical Model, Calibration, and Recommendations. Arizona Department of Water Resources – Hydrology Division, Modeling Report No. 8*.

Dames & Moore, 1988a. *Revised Soil Sampling Plan for Unidynamics Facility*, January 13.

Dames & Moore, 1988b. *Results of the Phase II Groundwater Investigation.* July.

Dames & Moore, 1988c. *Draft Technical Memorandum, Preliminary Results of the Unidynamics Soil Investigation*. July 14.

Donahue, William C. 2005. Personal Communication during Site Interview. April 2005 and June 2005.

Geomatrix Consultants, 2002a. Conceptual Hydrogeologic Model. *PGA-North, Phoenix-Goodyear Airport North Superfund Site, Goodyear, Arizona.* June.

Geomatrix Consultants, 2002b. *Report on Aquifer Testing Activities for the Period August 2001-May 2002, Phoenix-Goodyear Airport North Superfund Site, Goodyear, Arizona*. May 24, 2002.

Geomatrix Consultants, 2003a. *Draft Final Site Briefing Package, Phoenix-Goodyear Airport North Superfund Site, Goodyear, Arizona.* April.

Geomatrix Consultants, 2003b. *Quality Assurance Project Plan Addendum for Soil Gas Sampling and Analysis, Phoenix–Goodyear Airport North Superfund Site Goodyear, Arizona.* April.

USEPA, 1989. *Record of Decision: Phoenix-Goodyear Airport Area, Arizona. AZ980695902, OU 01*. September 26.

USEPA, 1999. *Determination of VOCs in Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS), Compendium Method TO-15, USEPA/625/R-96/010b.* January.

USEPA, 2001. *Region 9 Data Evaluation/Validation Guidance, R9QA/006.1, EPA Region 9 Quality Assurance Office, Version 1.* December.

USEPA, 2003. *Unilateral Administrative Order 9-2003-01, Phoenix Goodyear Airport (PGA) North Superfund Site.* January 2, 2003.

USEPA, 2004. *SW-846 Test Methods for Evaluating Solid Wastes, Update IIIB*.

USEPA, 2006. *Notice of Lodging of Partial Consent Decree Under the Comprehensive Environmental Response, Compensation and Liability Act, CIV-03-226-PHX-ROS/ CIV-04-1400-PHX-ROS (Consolidated).* April 26, 2006.

USEPA, 2008a. *EPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review, EPA/540-R-08-01.*

USEPA, 2008b. *EPA CLP National Functional Guidelines for Superfund Inorganic Methods Data Review, EPA/540-R-10-011.*

USEPA, 2010. *Comment Letter submitted by CH2M Hill (CH2M), the United States Army Corps of Engineers (USACE), and the Arizona Department of Environmental Quality (ADEQ) regarding the Draft Source Areas, Soil, and Facility Structures (SASFS) Investigation Report.* December 10.

Western Technologies, 1984a. *Dry Well Solid Testing Project, Unidynamics/Phoenix, Inc., Goodyear, Arizona. May*. 1984.

Western Technologies, 1984b. *Dry Well Soil Testing Project, Phase II, Unidynamics/Phoenix, Inc., Goodyear, Arizona.* June 15, 1984.

TABLES

TABLE 1
SASFS PHASE II INVESTIGATION SAMPLE LIST
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

PSA / Location Designation	Boring Designation	Sampling Depth (feet bgs)	Sample Identification	Sample Date	Sample Matrix	Analytes Tested	Reason for Sampling / Notes
Identified Waste Locations							
Location 2	B2-07	26	SASFS-B207-26-120209	12/2/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 3	B3-04	17	SASFS-B304-17-120209	12/2/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 5	B5-04	20	SASFS-B504-20-120309	12/3/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 6	B6-09	17	SASFS-B609-17-120309	12/3/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 7	B7-03	1.5	SASFS-B703-1.5-03042009	3/4/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 8	B8-09	45	SASFS-B809-45-120309	12/3/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 9	B9-05	0.5	SASFS-B905-0.5-03042009	3/4/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
Location 10	B10-06	5	SASFS-B1006-05-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
		10	SASFS-B1006-10-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
	B10-04	10	SASFS-B1004-10-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
	B10-07	5	SASFS-B1007-05-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
		10	SASFS-B1007-10-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
	B10-05	5	SASFS-B1005-05-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
		10	SASFS-B1005-10-10092009	10/9/2009	Soil	Metals A, VOCs	Lateral/Vertical Soil Contamination Delineation from Phase I
		10	SASFS-B1005-10-10092009FD	10/9/2009	Soil	Metals A, VOCs	10 foot Duplicate
Potential Source Areas							
PSA-B	BB-03	0.5	SASFS-BB03-0.5-10092009	10/9/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-C	BC-06	0.5	SASFS-BC06-0.5-03042009	3/4/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-D	BD-04	0.5	SASFS-BD04-0.5-10092009	10/9/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-E	BE-04	0.5	SASFS-BE04-0.5-03042009	3/4/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-F	BF-04	0.5	SASFS-BF04-0.5-10092009	10/9/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-G	BG-08	0.5	SASFS-BG08-0.5-03042009	3/4/2009	Soil	Metals A	Compounds inadvertently Not Analyzed During Phase I
PSA-H	BH-04	0.5	SASFS-BH04-0.5-03042009	3/4/2009	Soil	Metals A, Uranium	Compounds inadvertently Not Analyzed During Phase I
PSA-I	BI-03	0.5	SASFS-BI03-0.5-03042009	3/4/2009	Soil	Metals A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
PSA-J	BJ-14	0.5	SASFS-BJ14-0.5-03042009	3/4/2009	Soil	Metals A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		0.5	SASFS-BJ14-0.5-03042009FD	3/4/2009	Soil	Pesticides B	0.5 foot Duplicate
PSA-K	BK-03	0.5	SASFS-BK03-0.5-03042009	3/4/2009	Soil	Metals A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
PSA-L	BL-02	0.5	SASFS-BL02-0.5-10092009	10/9/2009	Soil	Herbicides, Metals A, Nitrate, Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		4	SASFS-BL02-04-10092009	10/9/2009	Soil	SVOCs	Compounds inadvertently Not Analyzed During Phase I
PSA-O	BO-14	0.5	SASFS-BO14-0.5-03042009	3/4/2009	Soil	Metals A, Uranium	Compounds inadvertently Not Analyzed During Phase I
		0.5	SASFS-BO14-0.5-03042009FD	3/4/2009	Soil	Metals A, Uranium	0.5 foot Duplicate
PSA-P	BP-12	0.5	SASFS-BP12-0.5-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		5	SASFS-BP12-05-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		5	SASFS-BP12-05-10092009FD	10/9/2009	Soil	Pesticides A, Pesticides B	5 foot Duplicate
	BP-13	0.5	SASFS-BP13-0.5-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		5	SASFS-BP13-05-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
	BP-11	0.5	SASFS-BP11-0.5-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
		5	SASFS-BP11-05-10092009	10/9/2009	Soil	Pesticides A, Pesticides B	Compounds inadvertently Not Analyzed During Phase I
Addendum I Sample Locations							
Location 11	B11-NT02	15	SASFS-B11NT02-15-120409	12/4/2009	Soil	VOCs, SVOCs, Metals A, Perchlorate	Boring Under former pH Neutralization Tank in Location 11
		15	SASFS-B11NT02-15-120409-FD	12/4/2009	Soil	VOCs, SVOCs, Metals A, Perchlorate	
		30	SASFS-B11NT02-30-120409	12/4/2009	Soil	VOCs, SVOCs, Metals A, Perchlorate	
		45	SASFS-B11NT02-45-120409	12/4/2009	Soil	VOCs, SVOCs, Metals A, Perchlorate	
Location 11	NT11-01	10	SASFS-NT1101-03052009	3/5/2009	Liquid	VOCs, SVOCs, Explosives, Metals A, Perchlorate	Sample of Liquid from Former pH Neutralization Tank in Location 11
Location 11	B11-04	0.5	SASFS-B1104-0.5-03042009	3/4/2009	Soil	PCBs	Stained Soil in Front of Former Transformer in Location 11
Location 11	TR11-01	N/A	SASFS-TR1101-03052009	3/5/2009	Oil	PCBs	Former Transformer Oil Sample

TABLE 1
SASFS PHASE II INVESTIGATION SAMPLE LIST
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

PSA / Location Designation	Boring Designation	Sampling Depth (feet bgs)	Sample Identification	Sample Date	Sample Matrix	Analytes Tested	Reason for Sampling / Notes
Addendum II Sample Locations							
Potential DW1	PDS-1	17	SASFS-PDS1-17-062310	6/23/2010	Soil	VOCs, SVOCs, Explosives, Metals A, Perchlorate	Potential drywell source located SW of Buildings 1 and 2
Potential DW1	PDS1	30	SASFS-PDS1-30-08192010	8/19/2010	Soil	VOCs, SVOCs, Explosives, Metals A	Potential drywell source located SW of Buildings 1 and 2
		30	SASFS-PDS1-30-08192010DUP	8/19/2010	Soil	VOCs, SVOCs, Explosives, Metals A	30 foot Duplicate
		60	SAFS-PDS1-60-0892010	8/19/2010	Soil	VOCs, SVOCs, Explosives, Metals A	Potential drywell source located SW of Buildings 1 and 2
Potential DW1	PDS1	30	SASFS-PDS1-30-08192010	8/19/2010	Air	VOCs	Potential drywell source located SW of Buildings 1 and 2
		30	SASFS-PDS1-30-08192010DUP	8/19/2010	Air	VOCs	30 foot Duplicate
		60	SASFS-PDS1-60-08192010	8/19/2010	Air	VOCs	Potential drywell source located SW of Buildings 1 and 2
Potential DW1	PDS1	90	SASFS-PDS1-90-08192010	8/19/2010	Water	VOCs, Perchlorate	Potential drywell source located SW of Buildings 1 and 2
Potential DW2	PDS-2	10	SASFS-PDS2-10-062310	6/23/2010	Soil	VOCs, SVOCs, Explosives, Metals A, Perchlorate	Potential drywell source located NW of Buildings 1 and 2
Potential DW2	PDS2	30	SASFS-PDS2-30-08172010	8/17/2010	Soil	VOCs, SVOCs, Explosives, Metals A	Potential drywell source located NW of Buildings 1 and 2
		60	SASFS-PDS2-60-08172010	8/17/2010	Soil	VOCs, SVOCs, Explosives, Metals A	Potential drywell source located NW of Buildings 1 and 2
Potential DW2	PDS2	30	SASFS-PDS2-30-08172010	8/17/2010	Air	VOCs	Potential drywell source located NW of Buildings 1 and 2
		60	SASFS-PDS2-60-08172010	8/17/2010	Air	VOCs	Potential drywell source located NW of Buildings 1 and 2
Potential DW2	PDS2	90	SASFS-PDS2-90-08172010	8/17/2010	Water	VOCs, Perchlorate	Potential drywell source located NW of Buildings 1 and 2
		90	SASFS-PDS2-90-08172010DUP	8/17/2010	Water	VOCs, Perchlorate	90 foot Duplicate
Potential Septic	PDS-4	10	SASFS-PDS4-10-062410	6/24/2010	Soil	VOCs, SVOCs, Explosives, Metals A, Perchlorate	Potential septic tank located north of Building 1
PSA-S	BS-01	12	SASFS-PSAS-B1-12-062410	6/24/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta/Gamma Activity	Radiochem sampling around PSA-S
	BS-02	12	SASFS-PSAS-B2-12-062410	6/24/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta/Gamma Activity	Radiochem sampling around PSA-S
	BS-03	12	SASFS-PSAS-B3-12-062410	6/24/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta/Gamma Activity	Radiochem sampling around PSA-S
	BS-04	12	SASFS-PSAS-B4-12-062410	6/24/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta/Gamma Activity	Radiochem sampling around PSA-S
Background	RBS-1	3	SASFS-RBS1-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Background	RBS-2	3	SASFS-RBS2-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Background	RBS-3	3	SASFS-RBS3-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Background	RBS-4	3	SASFS-RBS4-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Background	RBS-5	3	SASFS-RBS5-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Background	RBS-6	3	SASFS-RBS6-3-082510	8/25/2010	Soil	Cobalt-60 Activity, Gross Alpha/Beta Activity, Uranium Activity, Cesium Activity	Non-process/production area radiochem background sample.
Additional Soil Gas Investigation							
Location 2	AB-4	10	AB4-10-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	20	AB4-20-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	30	AB4-30-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	40	AB4-40-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	40	AB4-40-121509 DUP	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	50	AB4-50-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	60	AB4-60-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	70	AB4-70-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	80	AB4-80-121509	12/15/2009	Soil	VOCs	Additional sampling at former waste Location 2
	AB-4	90	AB4-90-121609	12/16/2009	Soil	VOCs	Additional sampling at former waste Location 2
Location 2	AB-4	10	AB4-10-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	20	AB4-20-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	20	AB4-20-121509 DUP	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	30	AB4-30-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	40	AB4-40-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	50	AB4-50-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	60	AB4-60-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	70	AB4-70-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	70	AB4-70-121509 DUP	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	80	AB4-80-121509	12/15/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	90	AB4-90-121609	12/16/2009	Air	VOCs	Additional sampling at former waste Location 2
	AB-4	90	AB4-90-121609 DUP	12/16/2009	Air	VOCs	Additional sampling at former waste Location 2
Location 2	AB-4	101	AB4-101-121609	12/16/2009	Water	VOCs	Additional sampling at former waste Location 2
	AB-4	110	AB4-110-121609	12/16/2009	Water	VOCs	Additional sampling at former waste Location 2
	AB-4	110	AB4-110-121609 DUP	12/16/2009	Water	VOCs	Additional sampling at former waste Location 2
	AB-4	120	AB4-120-121609	12/16/2009	Water	VOCs	Additional sampling at former waste Location 2

TABLE 1
SASFS PHASE II INVESTIGATION SAMPLE LIST
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

PSA / Location Designation	Boring Designation	Sampling Depth (feet bgs)	Sample Identification	Sample Date	Sample Matrix	Analytes Tested	Reason for Sampling / Notes
Location 5	AB-5	10	AB5-10-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	20	AB5-20-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	30	AB5-30-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	40	AB5-40-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	50	AB5-50-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	60	AB5-60-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	70	AB5-70-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
	AB-5	80	AB5-80-121709	12/17/2009	Soil	VOCs	Additional sampling at former waste Location 5
Location 5	AB-5	10	AB5-10-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	20	AB5-20-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	30	AB5-30-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	40	AB5-40-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	40	AB5-40-121709 DUP	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	50	AB5-50-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	60	AB5-60-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	70	AB5-70-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
	AB-5	80	AB5-80-121709	12/17/2009	Air	VOCs	Additional sampling at former waste Location 5
Location 5	AB-5	98	AB5-98-121709	12/17/2009	Water	VOCs	Additional sampling at former waste Location 5
	AB-5	110	AB5-110-121709	12/17/2009	Water	VOCs	Additional sampling at former waste Location 5
	AB-5	110	AB5-110-121709 DUP	12/17/2009	Water	VOCs	Additional sampling at former waste Location 5
	AB-5	120	AB5-120-121809	12/18/2009	Water	VOCs	Additional sampling at former waste Location 5
Location 8	AB-6	10	AB6-10-121809	12/18/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	30	AB6-30-121809	12/18/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	40	AB6-40-121809	12/18/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	60	AB6-60-121909	12/19/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	70	AB6-70-121909	12/19/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	70	AB6-70-121909 DUP	12/19/2009	Soil	VOCs	Additional sampling at former waste Location 8
	AB-6	80	AB6-80-121909	12/19/2009	Soil	VOCs	Additional sampling at former waste Location 8
Location 8	AB-6	10	AB6-10-121809	12/18/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	20	AB6-20-121809	12/18/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	20	AB6-20-121809 DUP	12/18/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	30	AB6-30-121809	12/18/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	40	AB6-40-121809	12/18/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	50	AB6-50-121909	12/19/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	60	AB6-60-121909	12/19/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	70	AB6-70-121909	12/19/2009	Air	VOCs	Additional sampling at former waste Location 8
	AB-6	80	AB6-80-121909	12/19/2009	Air	VOCs	Additional sampling at former waste Location 8
Location 8	AB-6	90	AB6-90-121909	12/19/2009	Water	VOCs	Additional sampling at former waste Location 8
	AB-6	90	AB6-90-121909 DUP	12/19/2009	Water	VOCs	Additional sampling at former waste Location 8
	AB-6	105	AB6-105-121909	12/19/2009	Water	VOCs	Additional sampling at former waste Location 8
Cooling Tower Sump							
Building 2	CTS-01	3	CTS-01-031511	3/15/2011	Soil	VOCs, Metals A	Investigate soil near cooling tower sump near Building 2
Building 2	CTS-02	3	CTS-02-031511	3/15/2011	Soil	VOCs, Metals A	Investigate soil near cooling tower sump near Building 2
Building 2	CTS-03	3	CTS-03-031511	3/15/2011	Soil	VOCs, Metals A	Investigate soil near cooling tower sump near Building 2
Building 2	CTS-04	3	CTS-04-031511	3/15/2011	Soil	VOCs, Metals A	Investigate soil near cooling tower sump near Building 2

TABLE 1
SASFS PHASE II INVESTIGATION SAMPLE LIST
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

PSA / Location Designation	Boring Designation	Sampling Depth (feet bgs)	Sample Identification	Sample Date	Sample Matrix	Analytes Tested	Reason for Sampling / Notes
QA/QC Samples							
QA/QC	N/A	N/A	SASFS-EB1-03042009	3/4/2009	Water	Metals A, PCBs, Pesticides A	Equipment Rinsate Blank
QA/QC	N/A	N/A	SASFS-TB01-03052009	3/5/2009	Water	VOCs	Trip Blank
QA/QC	N/A	N/A	SASFS-EB1-10092009	10/9/2009	Water	VOCS, Metals A, Pesticides A, Pesticides B, Herbicides	Equipment Rinsate Blank
QA/QC	N/A	N/A	SASFS-TB1-100092009	---	Water	VOCs	Trip Blank
QA/QC	N/A	N/A	SASFS-EB1-120409	12/4/2009	Water	VOCs, SVOCs, Metals A, Perchlorate	Equipment Rinsate Blank
QA/QC	N/A	N/A	SASFS-TB1-120409	---	Water	VOCs	Trip Blank
QA/QC	N/A	N/A	SASFS-TB2-120409	---	Water	VOCs	Trip Blank
QA/QC	N/A	N/A	TB-100-08172010	---	Water	VOCS	Trip Blank
QA/QC	N/A	N/A	EB-100-08192010	8/19/2010	Water	VOCs	Equipment Rinsate Blank
QA/QC	N/A	N/A	EB-200-08192010	8/19/2010	Water	VOCs	Equipment Rinsate Blank
QA/QC	N/A	N/A	TB-100-08192010	---	Water	VOCs	Trip Blank

Notes:
Explosives analyzed in accordance with USEPA Test Method 8330.
Herbicides - Chlorinated herbicides analyzed in accordance with USEPA Test Method 8151A.
PCBs - Polychlorinated biphenyls analyzed in accordance with USEPA Test Method 8082.
Metals A - Original proposed list in SASFS Phase I Investigation. Metals analyzed in accordance with USEPA Test Methods 6010, 7471, and 9010A, total cyanide using Test Method 9014, Hexavalent chromium using USEPA Test Method 7199.
Pesticides A - Organochlorine pesticides analyzed in accordance with USEPA Test Method 8081A.
Pesticides B - Organophosphorous pesticides analyzed in accordance with USEPA Test Method 8141A.
PCBs - Polychlorinated biphenyls analyzed in accordance with USEPA Test Method 8082.
PSA - Potential Source Area.
QA/QC - Quality assurance/quality control.
SVOCs - Semi-volatile organic compounds analyzed in accordance with USEPA Test Method 8270B.
USEPA - United States Environmental Protection Agency
VOCs - Volatile organic compounds analyzed in accordance with USEPA Test Method 8260B.
SW - Southwest
NW - Northwest
N/A - Not applicable.
bgs - below ground surface.

TABLE 2
SASFS SLAB DEOMOLITION AND REMOVAL INVESTIGATION
FIELD PARAMETERS
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Point Identification	Feature Description - Notes	Liquid Present	PID Reading [ppm]	LEL Reading [%]	Longitude	Latitude
1	Building 1 - 4" Steel Pipe Extending Down	No	0.0	0	-112.35928	33.44583
2	Building 1 - 4" Steel Pipe Extending Down	No	0.0	0	-112.35926	33.44583
3	Building 1 - 2" Steel Pipe Extending Down	No	0.0	0	-112.35926	33.44583
4	Building 1 - 4" Steel Pipe Extending Down	No	0.0	0	-112.35926	33.44583
5	Building 1 - 4" Steel Pipe Extending Down	No	0.0	0	-112.35924	33.44583
6	Building 1 - 2" Steel Pipe Extending Down	No	0.0	0	-112.35922	33.44583
7	Building 1 - 2" Steel Pipe Extending Down	No	0.0	0	-112.35922	33.44583
8	Building 1 - 4" Steel Pipe Extending Down	No	0.0	0	-112.35919	33.44581
9	Building 1 - Two 2" Steel Pipes Extending Down and Connected	No	1.5	0	-112.35888	33.44578
10	Building 1 - 2" Steel Pipe	No	1.2	0	-112.35891	33.44590
11	Building 1 - Section of 3" Steel Pipe	No	0.0	0	-112.35903	33.44560
12	Building 1 - Section of 2" Steel Pipe	No	0.0	0	-112.35899	33.44574
13	Building 1 - Section of 2" Steel Pipe	No	0.1	0	-112.35910	33.44574
14	Building 1 - Section of 4" Steel Pipe	No	0.0	0	-112.35911	33.44571
15	Building 1 - Section of 1.5" Steel Pipe	No	0.1	0	-112.35918	33.44575
16	Building 1 - Section of 3" Steel Pipe	No	0.1	0	-112.35924	33.44572
17	Building 1 - Section of 2" Steel Pipe	No	0.8	0	-112.35908	33.44583
18	Building 1 - 2" Steel Pipe Extending Down	No	0.3	0	-112.35915	33.44592
19	Building 1 - Section of 2" Steel Pipe	No	1.4	0	-112.35904	33.44589
20	Building 1 - 2" Steel Pipe Tee Fixture and P-Traps	No	0.0	0	-112.35905	33.44591
21	Building 1 - 2" Steel Pipe with Elbow Extending Laterally Across Slab then Elbow and Section Down through Slab.	No	0.1	0	-112.35901	33.44591
22	Building 1 - 4" x 2" Steel Reducer and 2" Steel Pipe	No	0.2	0	-112.35907	33.44598
23	Building 1 - Section of 4" Steel Pipe Wrapped with Black Tape	No	1.7	0	-112.35896	33.44604
24	Building 1 - 2" Steel Pipe	No	0.0	0	-112.35916	33.44597
25	Building 1 - Section of 2" PVC Pipe with P-Trap	No	0.9	0	-112.35915	33.44596
26	Building 1 - Section of 2" Steel Pipe	No	2.2	0	-112.35890	33.44608
27	Building 1 - Section of 2" PVC Pipe Extending N-S	No	0.0	0	-112.35934	33.44578
28	Building 1 - 4" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35914	33.44618
29	Building 1 - 2" Steel Pipe	No	0.0	0	-112.35914	33.44617
30	Building 1 - 4" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35914	33.44618
31	Building 1 - 4" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35915	33.44616
32	Building 1 - 2" Steel Pipe	No	0.0	0	-112.35920	33.44602
33	Building 1 - 4" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35916	33.44615
34	Building 1 - 1.5" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35916	33.44618
35	Building 1 - 1.5" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35916	33.44616
36	Building 1 - 1.5" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35916	33.44616
37	Building 1 - 4' x 2" Steel Drain Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35917	33.44618
38	Building 1 - 4" Steel Drain Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35918	33.44617
39	Building 1 - 1.5" Steel Pipe Extending Down - Surrounded by 1" Square Tile	No	0.0	0	-112.35919	33.44617
40	Building 1 - 1.5" Steel Pipe Extending Down - Located Adjacent to 1" Square Tile	No	0.0	0	-112.35919	33.44620
41	Building 1 - 4" Steel Pipe Extending Down - Located Next to 1" Square Tile	No	0.0	0	-112.35917	33.44620
42	Building 1 - Section of 3" Steel Pipe	No	0.0	0	-112.35919	33.44603
43	Building 1 - Section of 2" Steel Pipe	No	0.3	0	-112.35910	33.44610
44	Building 1 - Section of 4" Steel Pipe with Y-Fitting Connected to Section of 2" Steel Pipe	No	0.0	0	-112.35904	33.44635

TABLE 2
SASFS SLAB DEOMOLITION AND REMOVAL INVESTIGATION
FIELD PARAMETERS
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Point Identification	Feature Description - Notes	Liquid Present	PID Reading [ppm]	LEL Reading [%]	Longitude	Latitude
45	Building 1 - Section of 2" Steel Pipe	No	0.0	0	-112.35904	33.44649
46	Building 1 - 4" Steel Square Tubing Connected to 3" Steel Pipe Extending along East Side of East N-S Trench	No	0.3	0	-112.36331	33.44539
47	Building 1 - Section of 3" Steel Pipe	No	0.0	0	-112.36401	33.44536
48	Building 1 - 3" Steel Y Connected to 3" Steel Pipe (Below - Item 49) - Extends SW	Yes	---	---	-112.35922	33.44666
49	Building 1 - Section of 3" Steel Pipe	Yes	66.9	0	-112.35922	33.44666
50	Building 1 - Section of 4" Transite Pipe	No	---	---	-112.35917	33.44615
51	Building 1 - Section of 3" Steel Pipe	No	0.0	0	-112.35918	33.44626
52	Building 1 - 3" Steel Pipe Extending Down	No	0.0	0	-112.35919	33.44633
53	Building 1 - Section of 4" Steel Pipe	No	0.0	0	-112.35918	33.44638
54	Building 1 - 3" Steel Pipe	No	0.0	0	-112.35907	33.44635
55	Building 1 - Section of 2" Steel Pipe	No	0.0	0	-112.35916	33.44651
56	Building 1 - 3" Steel Pipe Extending Down	No	0.0	0	-112.35917	33.44652
57	Building 1 - 4" Steel Pipe	No	0.0	0	-112.35916	33.44653
58	Building 1 - 4" x 3" Steel Pipe Reducer	No	1.4	0	-112.35923	33.44660
59	Building 1 - 4" Steel Drain	No	5.5	0	-112.35931	33.44673
60	Building 1 - Section of 1" Steel Pipe	No	0.0	0	-112.35926	33.44659
61	Building 1 - 2" Steel Pipe	No	0.0	0	-112.35927	33.44670
62	Building 1 - 3" Steel Pipe	No	0.0	0	-112.35930	33.44665
63	Building 1 - 6" Plastic Pipe with Four 0.5" Braided Poly Lines Marked Water	No	0.0	0	-112.35930	33.44666
64	Building 1 - 4" Steel Floor Drain Connected to 2" Steel Pipe	No	0.0	0	-112.35936	33.44676
65	Building 1 - Section of 3" Steel Pipe and P-Trap	No	0.0	0	-112.35926	33.44656
66	Building 1 - 2" Steel Floor Drain Extending Down	No	0.0	0	-112.35930	33.44681
67	Building 1 - Fire Risers	---	---	---	-112.35940	33.44597
68	Building 1 - 3" Steel Line	No	0.0	0	-112.35934	33.44648
69	Building 1 - 2" Steel Line - Electric	No	0.0	0	-112.35939	33.44670
70	Building 1 - 2" Steel Line - Electric - Filled with Cement	---	---	---	-112.35938	33.44672
71	Building 1 - Sections of 2" and 4" Transite Pipe	No	---	---	-112.35935	33.44661
72	Building 1 - 4" Steel Pipe x 2" Steel Pipe on One Side	No	0.0	0	-112.35898	33.44681
73	Building 1 - Potential Drywell or Utility Vault - West of Slab - Manhole Marked Sewer - Approximately 3' Dia x 2' Deep (Dirt fell in and true bottom not determined.)	No	0.0	0	-112.35952	33.44575
74	Building 1 - Potential Drywell or Sediment Tank - West of Building - Approximately 4' to 5' in Diameter x 13' Deep.	---	---	---	-112.35969	33.44547
75	Building 2 - Transformer Location - Transite Pipes Extending South into Building 2	No	0.0	0	-112.35961	33.44573
76	Building 2 - Transite Pipe Extending into Electric Service Area	No	0.0	0	-112.35957	33.44572
77	Building 2 - Floor Drain Connected to 2" Steel Line	No	0.0	0	-112.35971	33.44570
78	Building 2 - Electric Conduit with Rusty Water	Yes	0.0	0	-112.35970	33.44565
79	Building 2 - 3" Steel Pipe	No	0.0	0	-112.35965	33.44563
80	Building 2 - 4' Steel Pipe	No	0.2	0	-112.35961	33.44567
81	Building 2 - 2" Steel Pipe	No	6.8	0	-112.35953	33.44569
82	Building 3 - Two 0.5" Copper Lines Extending N-S	No	0.0	0	-112.36161	33.44627
83	Building 3 - Steel Pipe with Plug	No	0.3	0	-112.36161	33.44625
84	Building 3 - 2" Plastic Pipe Extending N-S	No	0.0	0	-112.36161	33.44631
85	Building 3 - 2" Steel Pipe Extending Down	No	0.0	0	-112.36164	33.44635
86	Building 3 - 4" Steel Water Pipe Extneding Down	---	---	---	-112.36159	33.44635

TABLE 2
SASFS SLAB DEOMOLITION AND REMOVAL INVESTIGATION
FIELD PARAMETERS
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Point Identification	Feature Description - Notes	Liquid Present	PID Reading [ppm]	LEL Reading [%]	Longitude	Latitude
87	Building 3 - 3" Tape Wrapped Steel Pipe Next to Electric Lines	No	1.3	0	-112.36159	33.44638
88	Building 3 - 2" Steel Pipe Extending Down	No	0.0	0	-112.36165	33.44642
89	Building 3 - Capped 4" Steel Water Pipe	---	---	---	-112.36160	33.44642
90	Building 4 - Approximately 4" Steel Pipe - Belled	No	0.0	0	-112.36095	33.44562
91	Building 4 - Approximately 4" Steel Pipe - Belled	No	0.0	8	-112.36096	33.44570
92	Building 4 - Approximately 4" Steel Pipe - Belled	No	---	---	-112.36086	33.44578
93	Building 4 - Approximately 4" Steel Pipe - Belled	No	---	---	-112.36088	33.44575
94	Building 4 - Purple staining on northeast portion of concrete slab for Building 4.	---	0.0	0	-112.36086	33.44582
95	Builiding 5 - Approximately 6" Red Clay Pipe	No	0.0	0	-112.36074	33.44566
96	Building 5 - Approximately 2" Plastic and Approximately 4" Steel Pipes	No	0.0	0	-112.36058	33.44568
97	Building 6 - Transite pipe extending out of north side Building 6 slab.	No	0.0	0	-112.36095	33.44589
98	Building 9 - North end of gas line.	No	0.0	---	-112.36171	33.44566
99	Building 9 - South end of gas line.	No	0.0	---	-112.36172	33.44557
100	Building 12 - Two 4" Diameter Steel Pipes Going into Floor - Connect to Pit in Propellant Casting Bay	No	0.0	0	-112.36094	33.44520
101	Building 12 - 4" Plastic Line Running N-S - North End	No	0.0	0	-112.36086	33.44521
102	Building 12 - 4" Plastic Line Running N-S - South End	No	0.0	0	-112.36087	33.44511
103	Building 12 - 4" Plastic Line - South End	No	0.0	0	-112.36104	33.44513
104	Building 12 - 4" Plastic Line - 4" Tee	No	0.0	0	-112.36103	33.44524
105	Building 12 - 4" Plastic Line - North End	No	0.0	0	-112.36103	33.44528
106	Building 12 - 4" Plastic Line with Y Fitting, Extends E-W	No	0.0	0	-112.36100	33.44523
107	Building 12 - 4" Plastic Line with 45-Degree Fitting to NW Extending East	No	0.0	0	-112.36099	33.44522
108	Building 12 - 2" Plastic Line Running N-S, South End	No	0.0	0	-112.36080	33.44513
109	Building 12 - 2" Plastic Line to Line Running N-S, Terminates at Vent Pipe to East	No	0.0	0	-112.36080	33.44514
110	Building 12 - 6" Plastic Drain	No	0.0	0	-112.36080	33.44518
111	Building 12 - 4" Plastic Drain and Y Fitting	No	0.0	0	-112.36079	33.44518
112	Building 12- 2" Plastic Line - Running N-S	No	0.0	0	-112.36079	33.44522
113	Building 12 - 2" Plastic Line - East End	No	0.0	0	-112.36079	33.44523
114	Building 12 - 2" Plastic Line - West End	No	0.0	0	-112.36080	33.44523
115	Building 12 - 2" Plastic Line - Running N-S - North End	No	0.0	0	-112.36079	33.44527
116	Building 12 - 4" Plastic Line Running E-W - Connected to N-S 2" ABS Line	No	0.0	0	-112.36081	33.44528
117	Building 20 - 8" Plastic Line Extending E-W (Under former patio cover)	No	0.2	0	-112.35972	33.44603
118	Building 20 - 8" Plastic Line Extending E-W (Under former patio cover)	No	0.0	0	-112.35973	33.44602
119	Building 20 - 2" Steel Pipe (Under former patio cover)	No	0.0	0	-112.35969	33.44602
120	Building 20 - 2" Plastic Lines - Electric Conduit (Under former patio cover)	No	---	---	-112.35976	33.44603
121	Building 20 - 4" Steel Pipe	No	0.0	0	-112.35981	33.44597
122	Building 22 - 4" Plastic Drain Line	No	0.0	0	-112.36084	33.44410
123	Building 22 - Floor Drain in Concrete Slab	---	---	---	-112.36091	33.44422
124	Building 22 - 4" Plastic Line	No	0.0	0	-112.36085	33.44412
125	Building 22 - 2" Plastic Line with P-Trap	No	0.0	0	-112.36070	33.44412
126	Building 22 - 2" Plastic Line Extending N-S	No	0.0	0	-112.36071	33.44416
127	Building 22 - 4" Plastic Line Connect to Floor Drain	No	0.0	0	-112.36073	33.44406
128	Building 22 - 4" Plastic Line	No	0.0	0	-112.36083	33.44418
129	Building 22 - 2" x 4" Plastic Reducer (Tag on line listed Flammable Acid Drain Line) - Sampled liquid for VOC)	Yes	1.3	0	-112.36082	33.44418

TABLE 2
SASFS SLAB DEOMOLITION AND REMOVAL INVESTIGATION
FIELD PARAMETERS
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Point Identification	Feature Description - Notes	Liquid Present	PID Reading [ppm]	LEL Reading [%]	Longitude	Latitude
130	Building 22 - 4" Plastic Tee with Plastic Line Extending West (Tee labeled flame retardant)	No	14.1	0	-112.36094	33.44414
131	Building 22 - Leak of Oil from 1.5" Copper Line (Item 123) on Soil. Sample Location.	Yes	25.8	0	-112.36099	33.44409
132	Building 22 - 1.5" Copper Line Extending N-S with Oil Liquid	Yes	25.8	---	-112.36106	33.44411
133	Building 22 - 1.5" Plastic Line Extending N-S	No	0.0	0	-112.36106	33.44411
134	Building 22 - 1.5" Plastic Line Extending N-S	No	0.0	0	-112.36106	33.44411
135	Building 22 - 1.5" Plastic Line Extending N-S	No	0.0	0	-112.36106	33.44411
136	Building 22 - 1.5" Plastic Line Extending N-S	No	0.0	0	-112.36105	33.44457
137	Building 22 - 2" Plastic Elbow with Line Extending West	No	0.0	0	-112.36100	33.44448
138	Building 22 - Floor Drain Connected to 2" Plastic P-Trap and Line	No	5.2	0	-112.36096	33.44445
139	Building 22 - 4" Plastic Line Extending Down	No	0.0	0	-112.36090	33.44444
140	Building 22 - 4" Plastic Line Extending Down	No	0.8	0	-112.36084	33.44442
141	Building 22 - 4" Plastic Line Extending Down	No	1.8	0	-112.36074	33.44443
142	Building 22 - 2" Steel Pipe Extending Down (East Side)	No	0.0	0	-112.36056	33.44429
143	Building 22 - 2" Steel Pipe Extending Down (West Side)	No	0.0	0	-112.36059	33.44428
144	Building 22 - 2" Plastic Line Extending E-W	No	0.0	0	-112.36067	33.44439
145	Building 22 - 2" Plastic Line Extending E-W	No	0.0	0	-112.36068	33.44440
146	Building 22 - Floor Drain Connected to 2" Plastic Line Extending N-S	No	1.5	0	-112.36067	33.44435
147	Building 22 - 2" Plastic Line Extending N-S	No	0.0	0	-112.36101	33.44429
148	Building 22 - Concrete Vault with Two 6" Plastic Lines through Side Wal	No	0.4	0	-112.36102	33.44424

Notes:
PID - Photoionization detector
ppm - parts per million
LEL - Lower explosive limit
% - percent
PVC - Polyvinyl chloride
Dia - Diameter
VOC - Volatile organic contaminant
N-S - North South
SW - South West
E-W - East West
NW - North West
' - foot
" - inch

TABLE 3

SASFS PHASE II VOCs ANALYTICAL RESULTS FOR SOIL SAMPLES

Phoenix-Goodyear Airport-North Superfund Site

Goodyear, Arizona

Results reported in micrograms per kilogram (µg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																																
		1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Phenylbutane	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane	Chloroethane	Chloroform
SASFS-B1004-10-10092009	10/9/2009	< 22	< 20	< 27	< 17	< 27	< 22	< 21	< 23	< 23	< 32	< 24	< 34	< 22	< 19	< 14	< 16	< 22	< 28	< 230	< 17	< 20	< 21	< 200	< 380	< 26	< 21	< 21	< 9.6	< 23	< 13	< 28	< 13	< 35	< 28
SASFS-B1005-05-10092009	10/9/2009	< 23	< 21	< 28	< 18	< 28	< 23	< 22	< 24	< 23	< 33	< 25	< 35	< 23	< 19	< 15	< 16	< 23	< 30	< 240	< 18	< 21	< 22	< 200	< 400	< 27	< 22	< 22	< 9.9	< 24	< 14	< 29	< 14	< 36	< 29
SASFS-B1005-10-10092009	10/9/2009	< 28	< 26	< 34	< 22	< 33	< 28	28 J	< 29	< 28	< 40	< 31	< 42	< 28	< 23	< 18	< 20	< 28	< 36	< 290	< 22	< 25	< 26	< 250	< 480	< 33	< 26	< 26	< 12	< 29	< 16	< 35	< 16	< 44	< 35
SASFS-B1005-10-10092009 FD	10/9/2009	< 26	< 24	< 32	< 20	< 31	< 26	< 24	< 27	< 26	< 37	< 29	< 40	< 26	< 22	< 17	< 18	< 26	< 33	< 270	< 20	< 24	< 24	< 230	< 450	< 31	< 25	< 24	< 11	< 27	< 15	< 33	< 15	< 41	< 32
SASFS-B1006-05-10092009	10/9/2009	< 250	< 230	< 300	< 190	< 300	< 250	< 230	***< 250***	< 250	< 350	< 270	< 380	< 250	< 210	< 160	< 180	< 250	< 320	< 2600	< 190	< 220	< 230	< 2200	< 4200	< 290	< 230	< 230	< 110	< 250	< 140	< 310	< 150	< 390	< 310
SASFS-B1006-10-10092009	10/9/2009	< 27	< 25	< 33	< 21	< 33	< 27	< 26	< 28	< 28	< 39	< 30	< 41	< 27	< 23	< 18	< 19	< 27	< 35	< 280	< 21	< 25	< 26	< 240	< 470	< 32	< 26	< 25	< 12	< 28	< 16	< 34	< 16	< 43	< 34
SASFS-B1007-05-10092009	10/9/2009	< 21	< 19	< 25	< 16	< 25	< 21	< 19	< 21	< 21	< 29	< 23	< 32	< 21	< 17	< 13	< 15	< 21	< 27	< 220	< 16	< 19	< 19	< 180	< 360	< 25	< 20	< 19	< 8.9	< 21	< 12	< 26	< 12	< 33	< 26
SASFS-B1007-10-10092009	10/9/2009	< 21	< 19	< 26	< 16	< 25	< 21	< 20	< 22	< 21	< 30	< 23	< 32	< 21	< 18	< 14	< 15	< 21	< 27	< 220	< 16	< 19	< 20	< 190	< 360	< 25	< 20	< 20	< 9.1	< 22	< 12	< 27	< 12	< 33	< 26
SASFS-B11NT02-15-120309	12/4/2009	< 24 U	< 22 U	< 29 U	< 18 U	< 28 U	< 24 U	< 22 U	< 24 U	< 24 U	< 34 U	< 26 U	< 36 U	< 24 U	< 20 U	< 15 U	< 17 U	< 24 U	< 30 U	< 250 U	< 19 U	< 22 U	< 22 U	< 210 U	< 410 U	< 28 U	< 22 U	< 22 U	< 10 U	< 24 U	< 14 U	< 30 U	< 14 U	< 38 U	< 30 U
SASFS-B11NT02-15-120309-FD	12/4/2009	< 22 U	< 20 U	< 26 U	< 17 U	< 26 U	< 22 U	< 20 U	< 22 U	< 22 U	< 31 U	< 24 U	< 33 U	< 21 U	< 18 U	< 14 U	< 15 U	< 22 U	< 28 U	< 220 U	< 17 U	< 20 U	< 20 U	< 190 U	< 370 U	< 26 U	< 20 U	< 20 U	< 9.3 U	< 22 U	< 13 U	< 27 U	< 13 U	< 34 U	< 27 U
SASFS-B11NT02-30-120309	12/4/2009	< 25 U	< 23 U	< 30 U	< 19 U	< 30 U	< 25 U	< 24 U	< 26 U	< 25 U	< 36 U	< 28 U	< 38 U	< 25 U	< 21 U	< 16 U	< 18 U	< 25 U	< 32 U	< 260 U	< 20 U	< 23 U	< 24 U	< 220 U	< 430 U	< 30 U	< 24 U	< 23 U	< 11 U	< 26 U	< 15 U	< 32 U	< 15 U	< 40 U	< 31 U
SASFS-B11NT02-45-120309	12/4/2009	< 20 U	< 18 U	< 24 U	< 16 U	< 24 U	< 20 U	< 19 U	< 21 U	< 20 U	< 28 U	< 22 U	< 30 U	< 20 U	< 17 U	< 13 U	< 14 U	< 20 U	< 26 U	< 210 U	< 16 U	< 18 U	< 19 U	< 180 U	< 340 U	< 24 U	< 19 U	< 19 U	< 8.6 U	< 21 U	< 12 U	< 25 U	< 12 U	< 32 U	< 25 U
SASFS-PDS1-17-062310	6/23/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
SASFS-PDS2-10-062310	6/23/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
SASFS-PDS4-10-062410	6/24/2010	< 63	< 63	< 63	< 63	< 63	< 63	< 130	***< 130***	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 130	< 310	< 63	< 63	< 63	< 310	< 630	< 63	< 63	< 63	< 310	< 63	< 63	< 63	< 63	< 63	< 63
SASFS-PDS2-30-08172010-S	8/17/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
SASFS-PDS2-60-08172010-S	8/17/2010	< 44	< 44	< 44	< 44	< 44	< 44	< 89	*< 89*	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 89	< 220	< 44	< 44	< 44	< 220	< 440	< 44	< 44	< 44	< 220	< 44	< 44	< 44	< 44	< 44	< 44
SASFS-PDS1-30-08192010DUP-S	8/19/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
SASFS-PDS1-30-08192010-S	8/19/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
SASFS-PDS1-60-08192010-S	8/19/2010	< 50	< 50	< 50	< 50	< 50	< 50	< 100	***< 100***	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 250	< 50	< 50	< 50	< 250	< 500	< 50	< 50	< 50	< 250	< 50	< 50	< 50	< 50	< 50	< 50
Soil Arizona Non-Residential SRL		1.2E+06	9.3E+03	1.6E+04	1.7E+06	4.1E+05	NE	NE	1.1E+02	2.2E+05	1.7E+05	6.0E+05	6.0E+03	7.4E+03	7.0E+04	6.0E+05	3.6E+05	7.9E+04	NE	3.4E+07	5.1E+05	2.2E+05	NE	NE	5.4E+07	1.4E+03	9.2E+04	1.8E+04	1.3E+04	5.5E+03	5.3E+05	NE	2.6E+04	6.5E+04	2.0E+04
Soil Region 9 PRG		1.2E+06	9.3E+02	1.6E+03	1.7E+06	4.1E+05	NE	NE	7.6E+01	2.2E+05	1.7E+05	6.0E+05	6.0E+02	7.4E+02	7.0E+04	6.0E+05	3.6E+05	7.9E+03	NE	1.1E+08	5.6E+05	2.2E+05	NE	NE	5.4E+07	1.4E+03	9.2E+04	1.8E+03	1.3E+04	5.5E+02	5.3E+05	NE	2.6E+03	6.5E+03	4.7E+02
Soil USEPA RSL (Industrial)		3.8E+08	9.3E+03	5.3E+03	1.7E+04	1.1E+04	NE	4.9E+05	9.5E+01	9.9E+04	2.6E+05	9.8E+06	2.2E+03	4.5E+03	1.0E+07	NE	2.0E+07	1.2E+04	NE	2.0E+08	2.0E+07	NE	7.2E+07	5.3E+07	6.3E+08	5.4E+03	1.8E+06	1.4E+03	3.2E+04	3.0E+03	1.4E+06	NE	3.3E+03	6.1E+07	1.5E+03
USEPA Test Method		**SW8260B**																																

Results reported in micrograms per kilogram (µg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																							
		Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cymene	Dichlorodifluoromethane	Ethylbenzene	Ethylene dibromide	Methyl n-butyl ketone	Methyl tert-butyl ether	Methylene Chloride	n-Butylbenzene	n-Propylbenzene	o-Xylene	Styrene	Tert-butyl benzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Tribromomethane	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride	Xylenes, m-p
SASFS-B1004-10-10092009	10/9/2009	< 30	< 24	< 17	< 23	< 22	<15	<18	<240	<20	<36	<20	<20	<18	<14	<24	<11	<17	<21	<17	<23 UJ	<24	<36	<29	<29	<39
SASFS-B1005-05-10092009	10/9/2009	< 31	< 25	< 18	< 24	< 23	<15	<19	<250	<21	<38	<21	<21	<19	<15	<24	<11	<18	<22	<18	<24 UJ	<25	<38	<31	<30	<41
SASFS-B1005-10-10092009	10/9/2009	< 37	< 30	< 22	< 29	< 27	<19	<23	<300	34 J	<46	<25	<25	<23	<18	<30	<14	<22	<26	<22	<29 UJ	<30	<46	<37	<36	<50
SASFS-B1005-10-10092009 FD	10/9/2009	< 35	< 28	< 20	< 27	< 26	<17	<21	<280	<23	<43	<24	<23	<21	<17	<28	<13	<20	<25	<20	<27 UJ	<28	<43	<34	<34	<46
SASFS-B1006-05-10092009	10/9/2009	< 330	< 270	< 190	< 260	< 240	<170	<200	<2700	<220	<410	<230	<220	<200	<160	<260	<120	<190	<230	<190	<260 UJ	*470 J*	<400	<330	<320	<440
SASFS-B1006-10-10092009	10/9/2009	< 36	< 30	< 21	< 29	< 27	<18	<22	<290	<25	<45	<25	<24	<22	<17	<29	<14	<21	<26	<21	<28 UJ	<30	<45	<36	<35	<48
SASFS-B1007-05-10092009	10/9/2009	< 28	< 23	< 16	< 22	< 20	<14	<17	<220	<19	<34	<19	<18	<17	<13	<22	<10	<16	<20	<16	<22 UJ	<23	<34	<27	<27	<37
SASFS-B1007-10-10092009	10/9/2009	< 28	< 23	< 17	< 22	< 21	<14	<17	<230	<19	<35	<19	<19	<17	<13	<22	<10	<16	<20	<16	<22 UJ	<23	<34	<28	<27	<37
SASFS-B11NT02-15-120309	12/4/2009	< 32 U	< 26 U	< 19 U	< 25 U	< 23 U	< 16 U	< 19 U	< 260 U	< 21 U	< 39 U	< 22 U	<21	<19	<15	<25	<12	<19	<23	<19	<25	<26	<39	<32	<31	<42
SASFS-B11NT02-15-120309-FD	12/4/2009	< 29 U	< 24 U	< 17 U	< 23 U	< 21 U	< 14 U	< 18 U	< 230 U	< 19 U	< 35 U	< 20 U	<19	<18	<14	<23	<11	<17	<20	<17	<22	<23	<35	<29	<28	<38
SASFS-B11NT02-30-120309	12/4/2009	< 33 U	< 27 U	< 20 U	< 26 U	< 25 U	< 17 U	< 20 U	< 270 U	< 23 U	< 41 U	< 23 U	<22	<21	<16	<27	<12	<20	<24	<20	<26	<27	<41	<33	<32	<45
SASFS-B11NT02-45-120309	12/4/2009	< 27 U	< 22 U	< 16 U	< 21 U	< 20 U	< 13 U	< 16 U	< 220 U	< 18 U	< 33 U	< 18 U	<18	<16	<13	<21	<10	<16	<19	<16	<21	<22	<33	<27	<26	<36
SASFS-PDS1-17-062310	6/23/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50 UJ	< 100
SASFS-PDS2-10-062310	6/23/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
SASFS-PDS4-10-062410	6/24/2010	< 310	< 63	< 63	< 63	< 63	< 63	< 63	< 310	< 63	< 130	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 63	< 130
SASFS-PDS2-30-08172010-S	8/17/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
SASFS-PDS2-60-08172010-S	8/17/2010	< 220	< 44	< 44	< 44	< 44	< 44	< 44	< 220	< 44	< 89	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 44	< 89
SASFS-PDS1-30-08192010DUP-S	8/19/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
SASFS-PDS1-30-08192010-S	8/19/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
SASFS-PDS1-60-08192010-S	8/19/2010	< 250	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
Soil Arizona Non-Residential SRL		1.6E+05	1.5E+05	1.8E+04	NE	3.1E+05	4.0E+05	NE	NE	7.1E+05	2.1E+05	2.4E+05	2.4E+05	NE	1.5E+06	3.9E+05	1.3E+04	6.5E+05	2.3E+05	1.8E+04	2.2E+06	6.5E+04	1.3E+07	1.4E+06	7.5E+02	NE
Soil Region 9 PRG		1.6E+05	1.5E+05	NE	NE	3.1E+05	4.0E+05	NE	NE	3.6E+04	2.1E+04	2.4E+05	2.4E+05	NE	1.7E+06	3.9E+05	1.3E+03	5.2E+05	2.3E+05	1.8E+03	2.2E+05	1.1E+02	2.0E+06	1.4E+06	7.5E+02	NE
Soil USEPA RSL (Industrial)		5.0E+05	2.0E+06	NE	NE	7.8E+05	2.7E+04	1.1E+05	1.4E+06	2.2E+05	5.3E+04	NE	2.1E+07	1.9E+07	3.6E+07	NE	2.6E+03	4.5E+07	6.9E+05	NE	2.2E+05	1.4E+04	3.4E+06	4.1E+06	1.7E+03	1.7E+07
USEPA Test Method		**SW8260B**																								

Notes:

Italic results exceed Region 9 PRG

Bold results exceed USEPA RSL and Region 9 PRG

Bold and Italic results exceed USEPA RSL, Region 9 PRG and Arizona Non-Residential SRL

Detected result less than ARARs.

NE = not established

USEPA = United States Environmental Protection Agency

SRL = Soil Remediation Level

RSL = Regional Screening Level

VOCs = Volatile Organic Compounds

< = less than

PRG = Preliminary Remediation Goal

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

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 4
SASFS PHASE II SVOCs ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																																
		1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine (As Azobenzene)	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,2-Oxybis(1-Chloropropane)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3-Dichlorobenzidine	3-Methylphenol/4-Methylphenol	3-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Bromophenyl Phenyl Ether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl Phenyl Ether	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(A)Anthracene	Benzo(A)Pyrene
SASFS-BL02-04-10092009	10/9/2009	< 0.27	< 0.55	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 2.7	< 0.27	< 0.27	< 0.27	< 0.27	< 0.55	< 0.27	< 0.27	< 0.27	< 0.27	< 0.55	< 0.27	< 2.7	< 0.27	< 0.27	< 0.55	< 0.27	< 0.27	< 0.55	< 0.27	< 0.27	< 0.27	< 0.27	**< 0.27**
SASFS-B11NT02-15-120309	12/4/2009	< 0.27	< 0.53	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 2.7	< 0.27	< 0.27	< 0.27	< 0.27	< 0.53	< 0.27	< 0.27	< 0.27	< 0.27	< 0.53	< 0.27	< 2.7	< 0.27	< 0.27	< 0.53	< 0.27	< 0.27	< 0.53	< 0.27	< 0.27	< 0.27	< 0.27	**< 0.27**
SASFS-B11NT02-15-120309-FD	12/4/2009	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 2.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 2.8	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	**< 0.28**
SASFS-B11NT02-30-120309	12/4/2009	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 3.3	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	**< 0.33**
SASFS-B11NT02-45-120309	12/4/2009	< 0.26	< 0.52	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 2.6	< 0.26	< 0.26	< 0.26	< 0.26	< 0.52	< 0.26	< 0.26	< 0.26	< 0.26	< 0.52	< 0.26	< 2.6	< 0.26	< 0.26	< 0.52	< 0.26	< 0.26	< 0.52	< 0.26	< 0.26	< 0.26	< 0.26	**< 0.26**
SASFS-PDS1-17-062310	6/23/2010	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**
SASFS-PDS2-10-062310	6/23/2010	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**
SASFS-PDS4-10-062410	6/24/2010	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 2.5 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**
SASFS-PDS2-30-08172010-S	8/17/2010	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 2.5	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**
SASFS-PDS2-60-08172010-S	8/17/2010	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 2.5	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**
SASFS-PDS1-30-08192010DUP-S	8/19/2010	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 2.5	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**
SASFS-PDS1-30-08192010-S	8/19/2010	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 2.5	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**
SASFS-PDS1-60-08192010-S	8/19/2010	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 2.5	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**
Soil Arizona Non-Residential SRL		220	600	NE	600	79	790	62000	62	2000	14000	1200	1200	620	55000	370	NE	31000	1800	NE	38	3100	180	NE	NE	NE	2500	NE	820	NE	29000	NE	240000	21	2.1
Soil Region 9 PRG		220	600	NE	600	7.9	7.4	62000	62	1800	12000	1200	1200	620	23000	240	NE	31000	1800	NE	3.8	3100	82	NE	NE	NE	2500	NE	82	NE	29000	NE	100000	2.1	0.21
Soil USEPA RSL (Industrial)		99	9800	23	NE	12	NE	62000	160	1800	12000	1200	5.5	620	82000	5100	4100	31000	6000	NE	3.8	3100	NE	49	1200	NE	8.6	NE	86	NE	33000	NE	170000	2.1	0.21
USEPA Test Method		**SW8270**																																

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																																
		Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butyl Benzyl Phthalate	Chrysene	Dibenz(A,H)Anthracene	Dibenzofuran	Diethyl Phthalate	Dimethyl Phthalate	Di-N-Butylphthalate	Di-N-Octyl Phthalate	Fluoranthene	Fluorene	Hexachloro-1,3-Butadiene	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodi-N-Propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
SASFS-BL02-04-10092009	10/9/2009	< 0.27	< 0.27	< 0.27	< 1.1 R	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	**< 0.27**	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	<0.19	<0.18	<0.16	<0.17	<0.16	<0.15	<0.18	<0.19	<0.18	<0.18	<0.2	<0.17	<0.51	<0.17	<0.17	<0.17	<0.12
SASFS-B11NT02-15-120309	12/4/2009	< 0.27	< 0.27	< 0.27	< 1.1 R	< 0.27 UJ	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	**< 0.27**	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.53	< 0.53	< 0.27	< 0.27	< 0.53	< 0.27	<0.2	<0.17	<0.5	<0.17	<0.17	<0.17	<0.11
SASFS-B11NT02-15-120309-FD	12/4/2009	< 0.28	< 0.28	< 0.28	< 1.1 R	< 0.28 UJ	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	**< 0.28**	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.56	< 0.56	< 0.28	< 0.28	< 0.56	< 0.28	<0.2	<0.18	<0.52	<0.18	<0.18	<0.17	<0.12
SASFS-B11NT02-30-120309	12/4/2009	< 0.33	< 0.33	< 0.33	< 1.3	< 0.33 UJ	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	**< 0.33**	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.33	< 0.33	< 0.65	< 0.33	<0.24	<0.21	<0.6	<0.2	<0.21	<0.2	<0.14
SASFS-B11NT02-45-120309	12/4/2009	< 0.26	< 0.26	< 0.26	< 1.0	< 0.26 UJ	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	**< 0.26**	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.52	< 0.52	< 0.26	< 0.26	< 0.52	< 0.26	<0.19	<0.17	<0.48	<0.16	<0.16	<0.16	<0.11
SASFS-PDS1-17-062310	6/23/2010	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 1.0 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	**< 0.50 UJ**	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ
SASFS-PDS2-10-062310	6/23/2010	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 1.0 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	**< 0.50 UJ**	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ
SASFS-PDS4-10-062410	6/24/2010	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 1.0 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	**< 0.25 UJ**	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.50 UJ	< 0.25 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	**< 0.50 UJ**	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ	< 0.25 UJ	< 0.50 UJ
SASFS-PDS2-30-08172010-S	8/17/2010	< 0.25	< 0.25	< 0.25	< 1.0	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	**< 0.50**	< 0.25	< 0.50	< 0.25	< 0.50	< 0.25	< 0.50
SASFS-PDS2-60-08172010-S	8/17/2010	< 0.25	< 0.25	< 0.25	< 1.0	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	**< 0.50**	< 0.25	< 0.50	< 0.25	< 0.50	< 0.25	< 0.50
SASFS-PDS1-30-08192010DUP-S	8/19/2010	< 0.25	< 0.25	< 0.25	< 1.0 R	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	**< 0.50**	< 0.25	< 0.50	< 0.25	< 0.50	< 0.25	< 0.50
SASFS-PDS1-30-08192010-S	8/19/2010	< 0.25	< 0.25	< 0.25	< 1.0 R	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	**< 0.50**	< 0.25	< 0.50	< 0.25	< 0.50	< 0.25	< 0.50
SASFS-PDS1-60-08192010-S	8/19/2010	< 0.25	< 0.25	< 0.25	< 1.0	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	**< 0.25**	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.25	< 0.50	< 0.25	**< 0.50**	< 0.25	< 0.50	< 0.25	< 0.50	< 0.25	< 0.50
Soil Arizona Non-Residential SRL		21	NE	210	1000000	180000	NE	5.8	1200	120000	2000	2.1	140	490000	1000000	62000	25000	22000	26000	180	11	3700	620	21	18000	190	100	2.5	3500	90	NE	180000	29000	620
Soil Region 9 PRG		2.1	NE	21	100000	100000	NE	0.58	120	100000	210	0.21	1600	100000	100000	62000	25000	22000	26000	22	1.1	3700	120	2.1	510	190	100	0.25	350	9	NE	100000	29000	620
Soil USEPA RSL (Industrial)		2.1	NE	21	2500000	62000	1800	1	120	910	210	0.21	100	490000	NE	62000	NE	22000	22000	22	1.1	3700	120	2.1	1800	18	24	0.25	350	2.7	NE	180000	170000	1000
USEPA Test Method		**SW8270**																																

Notes:

Bold results exceed USEPA RSL and Region 9 PRG

Detected result less than ARARs.

ARARs = Applicable or Relevant and Appropriate Requirements

PRG = Preliminary Remediation Goal

NE = Not established

USEPA = United States Environmental Protection Agency

SRL = Soil Remediation Level

RSL = Regional Screening Level

SVOCs = Semi-Volatile Organic Compounds

< = less than

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R = The sample results are unusable.

TABLE 5
SASFS PHASE II PCBs ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME						
		Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
Soil Sample								
SASFS-B1104-0.5-03042009	3/4/2009	< 0.058	< 0.058	< 0.058	< 0.12	< 0.058	< 0.058	< 0.058
Soil Arizona Non-Residential SRL		NE	NE	NE	NE	NE	NE	NE
Soil Region 9 PRG		NE	NE	NE	NE	NE	NE	NE
Soil USEPA RSL (Industrial)		210	0.54	0.54	0.74	0.74	0.74	0.74
USEPA Test Method		**SW8082**						

Notes:

NE = Not established

USEPA = United States Environmental Protection Agency

SRL = Soil Remediation Level

RSL = Regional Screening Level

PCBs = Polychlorinated Biphenyls

< = less than

PRG = Preliminary Remediation Goal

TABLE 6
SASFS PHASE II METALS ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																		
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium metal	Chromium	Cobalt	Copper	Hexavalent Chromium	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel
SASFS-B014-0.5-03042009	3/4/2009	9,800	< 5.3	**6.4**	100	0.56	< 11	< 0.53	31000	15	5.7	18	< 0.20	13,000	6.5	7300	270	< 0.11	< 2.1	14
SASFS-B014-0.5-03042009FD	3/4/2009	9,600	< 5.3	**5.9**	100	0.56	< 11	< 0.53	35000	15	5.5	18	< 0.20	12,000	6.1	7300	270	< 0.11	< 2.1	13
SASFS-B103-0.5-03042009	3/4/2009	10,000	< 5.2	**7.5**	130	0.57	< 10	< 0.52	58000	15	5.8	18	< 0.20	11,000	15	10000	220	< 0.10	< 2.1	13
SASFS-B703-1.5-03042009	3/4/2009	9,800	< 5.2	**5.7**	120	0.56	< 10	< 0.52	33000	16	5.3	17	< 0.20	13,000	6.3	8100	270	< 0.10	< 2.1	13
SASFS-B905-0.5-03042009	3/4/2009	8,900	< 5.2 UJ	**7.8**	170	< 0.52	30 J	< 0.52	25000	16 J	5.2	21	< 0.20	12,000	20 J	6800	260	< 0.10	< 2.1	13
SASFS-BC06-0.5-03042009	3/4/2009	8,500	< 5.3	**7.2**	89	< 0.53	< 11	< 0.53	28000	13	5.1	19	< 0.20	12,000	9.5	5600	210	< 0.11	< 2.1	12
SASFS-BE04-0.5-03042009	3/4/2009	9,100	< 5.2	**5.5**	100	0.53	< 10	< 0.52	31000	15	5.2	19	< 0.20	12,000	9.2	7300	260	< 0.10	< 2.1	13
SASFS-BG08-0.5-03042009	3/4/2009	10,000	< 5.4	**7.1**	120	0.59	< 11	< 0.54	51000	17	5.6	18	< 0.20	13,000	5.8	9400	220	< 0.11	< 2.1	13
SASFS-BH04-0.5-03042009	3/4/2009	9,700	< 5.3	**6**	98	0.54	< 11	< 0.53	35000	15	5.3	17	< 0.20	12,000	5.4	8000	270	< 0.11	< 2.1	13
SASFS-BJ14-0.5-03042009	3/4/2009	7,500	< 5.1	**6.2**	170	< 0.51	< 10	< 0.51	40000	12	4.4	15	< 0.20	11,000	9.1	5800	180	< 0.10	< 2.1	11
SASFS-BK03-0.5-03042009	3/4/2009	9,000	< 5.2	**5.6**	97	< 0.52	< 10	< 0.52	30000	20	5.2	34	2.8	12,000	46	6400	250	< 0.10	< 2.1	15
SASFS-B1004-10-10092009	10/9/2009	16,000	< 5.8	***15***	110	< 0.58	28	< 0.58	11000	56	7.7	29	<0.14	15,000	<0.35	40000	170	<0.006	<0.11	16
SASFS-B1005-05-10092009	10/9/2009	10,000	< 5.4	**< 5.4**	100	< 0.54	17	< 0.54	37000	13	5.6	12	<0.13	11,000	<0.32	8300	230	<0.0056	<0.1	11
SASFS-B1005-10-10092009	10/9/2009	15,000	< 5.7	***11***	220	< 0.57	29	< 0.57	110000	16 J	6.1	17	<0.14	12,000	<0.34	52000	370 J	<0.006	<0.11	13
SASFS-B1005-10-10092009 FD	10/9/2009	13,000	< 5.7	***14***	180	< 0.57	25	< 0.57	94000	22	5	18	1.8	12,000	<0.34	41000	210	<0.006	<0.11	12
SASFS-B1006-05-10092009	10/9/2009	9,600	< 5.6	**6.9**	660	< 0.56	20	1.8	52000	32	4.4	77	<0.13	16,000	210	5800	170	2.5	<0.11	12
SASFS-B1006-10-10092009	10/9/2009	20,000	< 5.9	***20***	150	< 0.59	33	< 0.59	39000	35	9.6	29	<0.14	17,000	6	37000	400	<0.0062	<0.11	19
SASFS-B1007-05-10092009	10/9/2009	9,000	< 5.4	**5.6**	76	< 0.54	14	< 0.54	44000	12	5	11	<0.13	9,700	<0.32	6400	160	<0.0056	<0.1	9.8
SASFS-B1007-10-10092009	10/9/2009	9,500	< 5.5	***13***	52	< 0.55	17	< 0.55	21000	27	4.2	14	<0.13	9,400	<0.33	18000	100	<0.0057	<0.1	9.8
SASFS-BB03-0.5-10092009	10/9/2009	11,000	< 5.3	**5.5**	98	< 0.53	17	< 0.53	35000	15	6.1	15	<0.13	12,000	6	7600	260	<0.0056	<0.1	13
SASFS-BD04-0.5-10092009	10/9/2009	10,000	< 5.2	**5.5**	94	< 0.52	14	< 0.52	26000	14	5.9	14	<0.12	11,000	5.5	6600	270	0.17	<0.099	12
SASFS-BF04-0.5-10092009	10/9/2009	11,000	< 5.4	**6.2**	120	< 0.54	19	< 0.54	39000	15	5.6	15	<0.13	11,000	7.5	11000	240	<0.0056	<0.1	12
SASFS-BL02-0.5-10092009	10/9/2009	11,000	< 5.4	**5.6**	140	< 0.54	14	< 0.54	35000	14	6	14	<0.13	12,000	<0.32	6400	220	<0.0056	<0.1	12
SASFS-B207-26-120209	12/2/2009	15,000	< 5.0	**< 5.0**	72	< 0.50	40	< 0.50	200000	33	6	15	< 0.20	8,700	< 5.0	11000	220	< 0.10	< 2.0	11
SASFS-B304-17-120209	12/2/2009	10,000	< 5.0	**5.6**	39	< 0.50	37	< 0.50	220000	16	4.5	14	< 0.20	7,800	< 5.0	9600	170	< 0.10	< 2.0	9.5
SASFS-B11NT02-15-120309	12/4/2009	5500 J	< 5.3	**7.8**	130	< 0.53	40	< 0.53	4200 J	16 J	5.5	11	< 0.21	8,700	< 5.3	4900 J	110	< 0.11	< 2.1	10 J
SASFS-B11NT02-15-120309-FD	12/4/2009	11000 J	< 5.6	**< 5.6**	110	< 0.56	43	< 0.56	140000 J	36 J	3.1	9.4	< 0.22	7,400	< 5.6	57000 J	100	< 0.11	< 2.2	7.6 J
SASFS-B11NT02-30-120309	12/4/2009	19,000	< 6.5	***11***	120	< 0.65	85	< 0.65	42000	34	10	25	< 0.26	16,000	< 6.5	8900	300	< 0.13	< 2.6	21
SASFS-B11NT02-45-120309	12/4/2009	5,000	< 5.2 UJ	**5.6**	27	< 0.52	69	< 0.52	1700	16	5.5	9.7	< 0.21	14,000	< 5.2	2400	160	< 0.10	< 2.1	9.3
SASFS-B504-20-120309	12/3/2009	13,000	< 5.9	**< 5.9**	47	< 0.59	58	< 0.59	16000	22	9	16	< 0.23	11,000	11	9100	310	< 0.12	< 2.4	12
SASFS-B609-17-120309	12/3/2009	11,000	< 5.4	**5.5**	77	< 0.54	40	< 0.54	230000	17	4.8	12	< 0.21	7,700	< 5.4	8200	180	< 0.11	< 2.1	9.5
SASFS-B809-45-120309	12/3/2009	16,000	< 5.6	**9.9**	140	< 0.56	78	< 0.56	3300	24	11	22	< 0.22	15,000	5.7	5900	280	< 0.11	< 2.2	21
SASFS-PDS1-17-062310	6/23/2010	7,300	< 5.0	**< 5.0**	81	< 0.50	49	< 0.50	7100	13	4.1	9.7	< 1.0	10,000	< 5.0	5400	130	< 0.10	< 2.0	8.2
SASFS-PDS2-10-062310	6/23/2010	6,800	< 5.0	**6.8**	88	< 0.50	51	< 0.50	14000	16	3.7	11	< 1.0	10,000	< 5.0	15000	110	< 0.10	< 2.0	7.5
SASFS-PDS4-10-062410	6/24/2010	7,800	< 5.0	**5.2**	200	< 0.50	56	< 0.50	4400	18	4.4	13	< 1.0	11,000	< 5.0	13000	120	< 0.10	< 2.0	9.1
SASFS-PDS2-30-08172010-S	8/17/2010	18,000	< 5.0	**8.8**	180	< 0.50	18	< 0.50	30000	39	11	37	< 0.20	22,000	8.3	13000	500	< 0.10	< 2.0	25
SASFS-PDS2-60-08172010-S	8/17/2010	8,300	< 5.0	**6.7**	94	< 0.50	13	< 0.50	4300	21	14	43	< 0.20	21,000	< 5.0	6700	460	< 0.10	< 2.0	32
SASFS-PDS1-30-08192010DUP-S	8/19/2010	11,000	< 5.0	**9.8**	100	< 0.50	18	< 0.50	150000	16	6.5	25	< 0.20	12,000	5.3	12000	320	< 0.10	< 2.0	11
SASFS-PDS1-30-08192010-S	8/19/2010	11,000	< 5.0	**7.6**	110	< 0.50	18	< 0.50	140000	14	7.4	40	< 0.20	11,000	5.7	9600	390	< 0.10	< 2.0	12
SASFS-PDS1-60-08192010-S	8/19/2010	4,400	< 5.0	**5.3**	54	< 0.50	< 10	< 0.50	3000	6.8	4.1	12	< 0.20	8,300	< 5.0	2400	210	< 0.10	< 2.0	8.1
Soil Arizona Non-Residential SRL		920,000	410	10	170,000	1,900	200,000	510	NE	NE	13,000	41,000	65	NE	800	NE	32,000	NE	5,100	20,000
Soil Region 9 PRG		100,000	410	2	67,000	1,900	100,000	450	NE	450	1,900	41,000	64	100,000	800	NE	19,000	NE	5,100	20,000
Soil USEPA RSL (Industrial)		990,000	410	2	190,000	2,000	200,000	800	NE	NE	300	41,000	6	720,000	800	NE	2,300	310	5,100	20,000
USEPA Test Method		**SW6010B**																**SW7471A**	**SW6010B**	

TABLE 6
SASFS PHASE II METALS ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME									
		Potassium	Selenium	Silicon	Silver	Sodium	Thallium	Total Cyanide	Vanadium	Zinc	Uranium
SASFS-B014-0.5-03042009	3/4/2009	3300	< 5.3	170	< 2.6	190	< 5.3	< 0.42	23	33	0.76
SASFS-B014-0.5-03042009FD	3/4/2009	3300	< 5.3	250	< 2.6	190	< 5.3	< 0.42	21	31	0.83
SASFS-B103-0.5-03042009	3/4/2009	3600	< 5.2	170	< 2.6	180	< 5.2	< 0.42	26	30	--
SASFS-B703-1.5-03042009	3/4/2009	3100	< 5.2	170	< 2.6	230	< 5.2	< 0.42	23	32	--
SASFS-B905-0.5-03042009	3/4/2009	3700	< 5.2	240	< 2.6	140	< 5.2	< 0.42	20	98 J	--
SASFS-BC06-0.5-03042009	3/4/2009	3000	< 5.3	210	< 2.7	100	< 5.3	< 0.43	21	28	--
SASFS-BE04-0.5-03042009	3/4/2009	3100	< 5.2	210	< 2.6	150	< 5.2	< 0.42	22	120	--
SASFS-BG08-0.5-03042009	3/4/2009	3000	< 5.4	170	< 2.7	170	< 5.4	< 0.43	26	35	--
SASFS-BH04-0.5-03042009	3/4/2009	3600	< 5.3	210	< 2.6	220	< 5.3	< 0.42	20	33	0.78
SASFS-BJ14-0.5-03042009	3/4/2009	2400	< 5.1	200	< 2.6	160	< 5.1	< 0.41	20	42	--
SASFS-BK03-0.5-03042009	3/4/2009	3200	< 5.2	180	< 2.6	130	< 5.2	< 0.42	20	66	--
SASFS-B1004-10-10092009	10/9/2009	4200	<2.1	2100	<0.22	590	<1.9	<0.18	130	40	--
SASFS-B1005-05-10092009	10/9/2009	3000	<2.	2100	<0.2	440	<1.8	<0.16	22	28	--
SASFS-B1005-10-10092009	10/9/2009	4000	<2.1	2000	<0.22	660	<1.9	<0.18	34 J	34	--
SASFS-B1005-10-10092009 FD	10/9/2009	3500	<2.1	1900	<0.22	610	<1.9	<0.17	79	31	--
SASFS-B1006-05-10092009	10/9/2009	3100	<2.	1600	<0.21	150	<1.9	1	24	310	--
SASFS-B1006-10-10092009	10/9/2009	7400	<2.2	1800	<0.22	490	<2.	<0.18	130	45	--
SASFS-B1007-05-10092009	10/9/2009	2800	<2.	1900	<0.2	290	<1.8	<0.16	23	24	--
SASFS-B1007-10-10092009	10/9/2009	2000	<2.	1600	<0.21	480	<1.8	<0.17	52	21	--
SASFS-BB03-0.5-10092009	10/9/2009	3700	<2.	1800	<0.2	530	<1.8	<0.16	24	33	--
SASFS-BD04-0.5-10092009	10/9/2009	3700	<1.9	1700	<0.2	160	<1.7	<0.16	21	31	--
SASFS-BF04-0.5-10092009	10/9/2009	3700	<2.	2100	<0.2	320	<1.8	<0.16	23	34	--
SASFS-BL02-0.5-10092009	10/9/2009	3600	<2.	2200	<0.2	110	<1.8	<0.16	25	30	--
SASFS-B207-26-120209	12/2/2009	3500	< 5.0	130	< 2.5	250	--	< 0.40	19	26	--
SASFS-B304-17-120209	12/2/2009	3000	< 5.0	< 100	< 2.5	340	--	< 0.40	21	23	--
SASFS-B11NT02-15-120309	12/4/2009	1100 J	<2.	260 J	<0.2	230 J	--	<0.16	31 J	22	--
SASFS-B11NT02-15-120309-FD	12/4/2009	4700 J	<2.1	340 J	<0.21	850 J	--	<0.17	22 J	21	--
SASFS-B11NT02-30-120309	12/4/2009	2900	<2.4	380	<0.25	960	--	<0.2	46	42	--
SASFS-B11NT02-45-120309	12/4/2009	610	1.9 UJ	300	<0.2	570	--	<0.16	42	21	--
SASFS-B504-20-120309	12/3/2009	2100	<2.2	310	<0.22	550	--	<0.18	28	26	--
SASFS-B609-17-120309	12/3/2009	4200	<2.	1100	<0.2	980	--	<0.16	21	26	--
SASFS-B809-45-120309	12/3/2009	3200	<2.1	420	<0.21	300	--	<0.17	41	48	--
SASFS-PDS1-17-062310	6/23/2010	1500	< 5.0	250	< 2.5	< 50	< 5.0	< 0.40	15	18	--
SASFS-PDS2-10-062310	6/23/2010	1700	< 5.0	220	< 2.5	750	< 5.0	< 0.40	39	15	--
SASFS-PDS4-10-062410	6/24/2010	2000	< 5.0	290	< 2.5	230	< 5.0	< 0.40	34	21	--
SASFS-PDS2-30-08172010-S	8/17/2010	3100	< 5.0	660	< 2.5	3700	< 5.0	< 0.35	41	49	--
SASFS-PDS2-60-08172010-S	8/17/2010	680	< 5.0	1500	< 2.5	1600	< 5.0	< 0.34	41	42	--
SASFS-PDS1-30-08192010DUP-S	8/19/2010	1600	< 5.0	310	< 2.5	470	< 5.0	< 0.40	21	21	--
SASFS-PDS1-30-08192010-S	8/19/2010	1700	< 5.0	1300	< 2.5	470	< 5.0	< 0.40	21	29	--
SASFS-PDS1-60-08192010-S	8/19/2010	480	< 5.0	1300	< 2.5	120	< 5.0	< 0.28	19	15	--
Soil Arizona Non-Residential SRL		NE	NE	NE	5,100	NE	67	12,000	1,000	310,000	200
Soil Region 9 PRG		NE	NE	NE	5,100	NE	67	12,000	1,000	100,000	200
Soil USEPA RSL (Industrial)		NE	5,100	NE	5,100	NE	NE	20,000	5,200	310,000	3,100
USEPA Test Method		**SW6010B**						**SW9010 C/9014**	**SW6010B**		**SW6020**

Notes:

Bold results exceed USEPA RSL and Region 9 PRG

Bold and Italic results exceed USEPA RSL, Region 9 PRG and Arizona Non-Residential SRL

Detected result less than ARARs.

NE = Not established
USEPA = United States Environmental Protection Agency
SRL = Soil Remediation Level
RSL = Regional Screening Level
-- = sample not analyzed
< = less than
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
PRG = Preliminary Remediation Goal
ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 6A
CONCENTRATIONS OF TOTAL METALS IN SOIL SAMPLES
Former Aboveground Cooling Tower Sump
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																	
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Cobalt	Copper	Cyanide	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel
CTS-01-031511	3/15/2011	11,000	<5.0	**6.3**	100	<0.50	56	<0.50	27,000	18	5.8	15	<0.40	9,700	<5.0	9,600	200	<0.10	<2.0	11
CTS-02-031511	3/15/2011	9,800	<5.0	**6.5**	90	<0.50	53	<0.50	37,000	17	5.6	13	<0.40	9,200	<5.0	10,000	170	<0.10	<2.0	10
CTS-03-031511	3/15/2011	9,700	<5.0	**6.1**	110	<0.50	53	<0.50	31,000	17	5.7	25	<0.40	9,300	<5.0	9,500	180	<0.10	<2.0	11
CTS-04-031511	3/15/2011	11,000	<5.0	**7.9**	88	<0.50	55	<0.50	31,000	17	5.7	14	<0.40	9,300	<5.0	11,000	180	<0.10	<2.0	11
Arizona Non-Residential SRL		920,000	410	10	170,000	1,900	200,000	510	NE	NE	13,000	41,000	12,000	NE	800	NE	32,000	NE	5,100	20,000
USEPA Region 9 PRG		100,000	410	1.6	67,000	1,900	100,000	450	NE	450	1,900	41,000	12,000	100,000	800	NE	19,000	NE	5,100	20,000
USEPA Industrial RSL		990,000	410	1.6	190,000	2,000	200,000	800	NE	NE	300	41,000	20,000	720,000	800	NE	23,000	310	5,100	20,000
USEPA Test Method		**SW6010B**											**SW9010C/9014**	**SW6010B**				**SW7471A**	**SW6010B**	

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME								
		Potassium	Selenium	Silica	Silver	Sodium	Thallium	Uranium	Vanadium	Zinc
CTS-01-031511	3/15/2011	2,700	<5.0	950	<2.5	230	<5.0	1.1	34	26
CTS-02-031511	3/15/2011	2,800	<5.0	730	<2.5	260	<5.0	<1.0	32	24
CTS-03-031511	3/15/2011	2,700	<5.0	650J	<2.5	200	<5.0	1.0	32	25
CTS-04-031511	3/15/2011	2,900	<5.0	740	<2.5	230	<5.0	<1.0	36	25
Arizona Non-Residential SRL		NE	5,100	NE	5,100	NE	67	200	1,000	310,000
USEPA Region 9 PRG		NE	5,100	NE	5,100	NE	67	200	1,000	100,000
USEPA Industrial RSL		NE	5,100	NE	5,100	NE	NE	3,100	5,200	310,000
USEPA Test Method		**SW6010B**						**SW6020**	**SW6010B**	

Notes:
Bold results exceed USEPA RSL and Region 9 PRG
Bold and Italic results exceed USEPA RSL, Region 9 PRG and Arizona Non-Residential SRL
Detected result less than ARARs.
NE = Not established
USEPA = United States Environmental Protection Agency
SRL = Soil Remediation Level
PRG = Preliminary Remediation Goal
RSL = Regional Screening Level for Soil
< = less than
ARARs = Applicable or Relevant and Appropriate Requirements
J = The analyte was positively identified; the associated numerical value
is the approximate concentration of the analyte in the sample.

TABLE 7
SASFS PHASE II PERCHLORATE ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	Perchlorate
SASFS-B11NT02-15-120309	12/4/2009	0.0093 J
SASFS-B11NT02-15-120309-FD	12/4/2009	<0.0041
SASFS-B11NT02-30-120309	12/4/2009	<0.0047
SASFS-B11NT02-45-120309	12/4/2009	<0.0038
SASFS-PDS1-17-062310	6/23/2010	< 0.0036
SASFS-PDS2-10-062310	6/23/2010	0.0095 J
SASFS-PDS4-10-062410	6/24/2010	< 0.0036
Soil Arizona Non-Residential SRL		720
Soil Region 9 PRG		100
Soil USEPA RSL (Industrial)		720
USEPA Test Method		E314.0

NOTES:

Detected result less than ARARs.

USEPA = United States Environmental Protection Agency

SRL = Soil Remediation Level

RSL = Regional Screening Level

< = less than

PRG = Preliminary Remediation Goal

ARARs = Applicable or Relevant and Appropriate Requirements

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

TABLE 8
SASFS PHASE II HERBICIDES AND PESTICIDES ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME																				
		Chlorpyrifos	Demeton, Total	Diazinon	Disulfoton	Ethion	Fenthion	Malathion	Methyl parathion	Parathion	2,4,5-T	2,4,5-TP (Silvex)	2,4-D	2,4-DB	Dicamba	Dichloroprop	Dinoseb	Pentachlorophenol	4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	Alpha BHC
SASFS-B103-0.5-03042009	3/4/2009	< 0.26 UJ	< 0.52 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26	< 0.26 UJ	< 0.26 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BJ14-0.5-03042009	3/4/2009	< 0.26 R	< 0.51 R	< 0.26 R	< 0.26 R	< 0.26 R	< 0.26 R	< 0.26 R	< 0.26 R	< 0.26 R	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BJ14-0.5-03042009FD	3/4/2009	< 0.26	< 0.52	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BK03-0.5-03042009	3/4/2009	< 0.26 UJ	< 0.52 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	< 0.26 UJ	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BL02-0.5-10092009	10/9/2009	< 0.27	< 0.54	< 0.27	< 0.27	<0.064	<0.05	<0.07	<0.077	<0.073	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	< 0.027	<0.0039	< 0.027	0.054	0.038	< 0.027	< 0.027
SASFS-BP11-0.5-10092009	10/9/2009	< 0.26	< 0.51	< 0.26	< 0.26	<0.062	<0.048	<0.067	<0.074	<0.07	--	--	--	--	--	--	--	--	< 0.0051	0.18	0.21	< 0.0051	< 0.0051
SASFS-BP11-05-10092009	10/9/2009	< 0.26	< 0.53	< 0.26	< 0.26	<0.063	<0.049	<0.068	<0.076	<0.072	--	--	--	--	--	--	--	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
SASFS-BP12-0.5-10092009	10/9/2009	< 0.26	< 0.52	< 0.26	< 0.26	<0.062	<0.049	<0.068	<0.075	<0.071	--	--	--	--	--	--	--	--	< 0.0052	0.044	0.078	< 0.0052	< 0.0052
SASFS-BP12-05-10092009	10/9/2009	< 0.27	< 0.53	< 0.27	< 0.27	<0.064	<0.05	<0.069	<0.077	<0.073	--	--	--	--	--	--	--	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
SASFS-BP12-05-10092009 FD	10/9/2009	< 0.27	< 0.54	< 0.27	< 0.27	<0.065	<0.051	<0.07	<0.078	<0.073	--	--	--	--	--	--	--	--	< 0.0054	< 0.0054	< 0.0054	< 0.0054	< 0.0054
SASFS-BP13-0.5-10092009	10/9/2009	< 0.26	< 0.52	< 0.26	< 0.26	<0.062	<0.049	<0.067	<0.074	<0.07	--	--	--	--	--	--	--	--	< 0.0052	0.012	< 0.0052	< 0.0052	< 0.0052
SASFS-BP13-05-10092009	10/9/2009	< 0.27	< 0.53	< 0.27	< 0.27	<0.064	<0.05	<0.069	<0.077	<0.073	--	--	--	--	--	--	--	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Soil Arizona Non-Residential SRL		1,800	25	550	25	310	NE	12,000	150	3,700	NE	NE	7,700	4,900	18,000	NE	620	NE	100	70	70	1	NE
Soil Region 9 PRG		1,800	25	550	25	310	NE	12,000	150	3,700	6,200	4,900	7,700	4,900	18,000	NE	620	NE	10	7	7	0	0
Soil USEPA RSL (Industrial)		1,800	25	430	25	310	NE	12,000	150	3,700	6,200	4,900	7,700	4,900	18,000	NE	620	3	7	5	7	0	0
USEPA Test Method		**SW8141A**									**SW8151A**								**SW8081A**				

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME													
		Beta BHC	Chlordane	Delta BHC	Dieldrin	Endosulfan I	Endosulfan II	ENDosulfan sulfate	Endrin	Endrin aldehyde	gamma-BHC (LiNDane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
SASFS-B103-0.5-03042009	3/4/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BJ14-0.5-03042009	3/4/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BJ14-0.5-03042009FD	3/4/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BK03-0.5-03042009	3/4/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SASFS-BL02-0.5-10092009	10/9/2009	< 0.027	< 0.27	< 0.027	0.075	< 0.027	< 0.027	<0.0037	<0.0063	<0.01	<0.0064	<0.0072	<0.0057	<0.0039	<0.25
SASFS-BP11-0.5-10092009	10/9/2009	< 0.0051	< 0.051	< 0.0051	0.0061	< 0.0051	< 0.0051	<0.00071	<0.0012	<0.0019	<0.0012	<0.0014	<0.0011	<0.00074	0.4
SASFS-BP11-05-10092009	10/9/2009	< 0.0053	< 0.053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	<0.00073	<0.0012	<0.002	<0.0013	<0.0014	<0.0011	<0.00076	<0.05
SASFS-BP12-0.5-10092009	10/9/2009	< 0.0052	< 0.052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	<0.00072	<0.0012	<0.002	<0.0012	<0.0014	<0.0011	<0.00075	0.11
SASFS-BP12-05-10092009	10/9/2009	< 0.0053	< 0.053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	<0.00074	<0.0013	<0.002	<0.0013	<0.0014	<0.0011	<0.00077	<0.051
SASFS-BP12-05-10092009 FD	10/9/2009	< 0.0054	< 0.054	< 0.0054	< 0.0054	< 0.0054	< 0.0054	<0.00074	<0.0013	<0.002	<0.0013	<0.0014	<0.0011	<0.00078	<0.051
SASFS-BP13-0.5-10092009	10/9/2009	< 0.0052	< 0.052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	<0.00071	<0.0012	<0.002	<0.0012	<0.0014	<0.0011	<0.00074	<0.049
SASFS-BP13-05-10092009	10/9/2009	< 0.0053	< 0.053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	<0.00074	<0.0012	<0.002	<0.0013	<0.0014	<0.0011	<0.00077	<0.051
Soil Arizona Non-Residential SRL		NE	65	NE	1	3,700	3,700	NE	180	NE	NE	3.8	1.9	3100	16
Soil Region 9 PRG		1.3	6.5	NE	0.11	NE	NE	NE	180	NE	1.7	0.38	0.19	3100	3,100
Soil USEPA RSL (Industrial)		0.96	6.5	NE	0.11	NE	NE	NE	180	NE	2.1	0.38	0.19	3100	1.6
USEPA Test Method		**SW8081A**													

Notes:

Detected result less than ARARs.
NE = Not established
USEPA = United States Environmental Protection Agency
SRL = Soil Remediation Level
RSL = Regional Screening Level
-- = sample not analyzed
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The sample results are unusable.
PRG = Preliminary Remediation Goal
ARARs = Applicable or Relevant and Appropriate Requirements
< = less than

TABLE 9
SASFS PHASE II EXPLOSIVES ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per kilogram (mg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME													
		1,3,5-Trinitrobenzene	1,3-dinitrobenzene	2,4,6-Trinitrotoluene	2,4-dinitrotoluene	2,6-dinitrotoluene	2-Amino-4,6-dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Amino-2,6-dinitrotoluene	4-Nitrotoluene	HMX	nitrobenzene	RDX	Tetryl
SASFS-PDS1-17-062310	6/23/2010	< 0.02	< 0.049	< 0.02	< 0.02	< 0.029	< 0.098	< 0.078	< 0.069	< 0.02	< 0.078	< 0.029	< 0.049	< 0.039	< 0.049
SASFS-PDS2-10-062310	6/23/2010	< 0.02	< 0.049	< 0.02	< 0.02	< 0.029	< 0.098	< 0.078	< 0.069	< 0.02	< 0.078	< 0.029	< 0.049	< 0.039	< 0.049
SASFS-PDS4-10-062410	6/24/2010	< 0.02	< 0.05	< 0.02	< 0.02	< 0.03	< 0.1	< 0.081	< 0.071	< 0.02	< 0.081	< 0.03	< 0.05	< 0.04	< 0.05
SASFS-PDS2-30-08172010-S	8/17/2010	< 0.02	< 0.05	< 0.02	< 0.02	< 0.03	< 0.099	< 0.079	< 0.069	< 0.02	< 0.079	< 0.03	< 0.05	< 0.04	< 0.05
SASFS-PDS2-60-08172010-S	8/17/2010	< 0.02	< 0.05	< 0.02	< 0.02	< 0.03	< 0.1	< 0.081	< 0.071	< 0.02	< 0.081	< 0.03	< 0.05	< 0.04	< 0.05
SASFS-PDS1-30-08192010DUP-S	8/19/2010	< 0.019	< 0.048	< 0.019	< 0.019	< 0.029	< 0.097	< 0.078	< 0.068	< 0.019	< 0.078	< 0.029	< 0.048	< 0.039	< 0.048
SASFS-PDS1-30-08192010-S	8/19/2010	< 0.02	< 0.05	< 0.02	< 0.02	< 0.03	< 0.1	< 0.08	< 0.07	< 0.02	< 0.08	< 0.03	< 0.05	< 0.04	< 0.05
SASFS-PDS1-60-08192010-S	8/19/2010	< 0.02	< 0.05	< 0.02	< 0.02	< 0.03	< 0.099	< 0.079 UJ	< 0.069 UJ	< 0.02	< 0.079 UJ	< 0.03	< 0.05	< 0.04	< 0.05
Soil Arizona Non-Residential SRL		18,000	62	310	1,200	620	NE	22	1,000	NE	300	31,000	100	160	NE
Soil Region 9 PRG		18,000	62	57	1,200	620	NE	2.2	1,000	NE	30	31,000	100	16	6,200
Soil USEPA RSL (Industrial)		27,000	62	79	5.5	620	2,000	13	62	1,900	110	49,000	24	24	2,500
USEPA Test Method		**SW8330**													

Notes:

NE = Not established
USEPA = United States Environmental Protection Agency
SRL = Soil Remediation Level
RSL = Regional Screening Level
UJ = The analyte was not detected above the reported sample quantitation limit.
However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
PRG = Preliminary Remediation Goal
< = less than

TABLE 10
SASFS PHASE II VOCs
ANALYTICAL RESULTS FOR WATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																												
		1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethene	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Phenylbutane	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon Tetrachloride	Chlorobenzene
SASFS-NT1101-03052009	3/5/2009	< 1.0	**< 1.0**	**< 1.0**	< 1.0	< 1.0	< 1.0	< 2.0	**< 2.0**	< 1.0	< 1.0	< 1.0	**< 1.0**	**< 1.0**	< 1.0	< 1.0	< 1.0	**< 1.0**	< 2.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 20	**< 1.0**	< 1.0	*< 1.0*	< 2.0	**< 1.0**	< 1.0
SASFS-TB-01-03052009	3/5/2009	< 1.0	**< 1.0**	**< 1.0**	< 1.0	< 1.0	< 1.0	< 2.0	**< 2.0**	< 1.0	< 1.0	< 1.0	**< 1.0**	**< 1.0**	< 1.0	< 1.0	< 1.0	**< 1.0**	< 2.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 20	**< 1.0**	< 1.0	*< 1.0*	< 2.0	**< 1.0**	< 1.0
SASFS-EB1-10092009	10/9/2009	< 0.22	**< 0.12**	< 0.19	< 0.17	0.30 J	< 0.19	< 0.27	**< 0.31**	< 0.18	< 0.13	< 0.12	**< 0.20**	< 0.15	< 0.16	< 0.18	< 0.18	< 0.16	< 0.18	< 1.8	< 0.17	< 0.14	< 0.15	< 0.43	< 3.8	< 0.15	< 0.15	*< 0.15*	< 0.22	< 0.19	< 0.12
SASFS-TB1-10092009	10/9/2009	< 0.22	**< 0.12**	< 0.19	< 0.17	0.35 J	< 0.19	< 0.27	**< 0.31**	< 0.18	< 0.13	< 0.12	**< 0.20**	< 0.15	< 0.16	< 0.18	< 0.18	< 0.16	< 0.18	< 1.8	< 0.17	< 0.14	< 0.15	< 0.43	< 3.8	< 0.15	< 0.15	*< 0.15*	< 0.22	< 0.19	< 0.12
SASFS-EB1-120309	12/4/2009	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
SASFS-TB1-120309	12/3/2009	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	0.32 J	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
SASFS-TB2-120309	12/3/2009	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
SASFS-PDS2-90-08172010	8/17/2010	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 UJ	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	7.8 J	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
SASFS-PDS2-90-08172010DUP	8/17/2010	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	5.2 J	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
SASFS-PDS1-90-08192010	8/19/2010	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
EB-100-08192010	8/19/2010	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
EB-200-08192010	8/19/2010	< 0.22 U	**< 0.12 U**	< 0.19 U	< 0.17 U	< 0.23 U	< 0.19 U	< 0.27 U	**< 0.31 U**	< 0.18 U	< 0.13 U	< 0.12 U	**< 0.20 U**	< 0.15 U	< 0.16 U	< 0.18 U	< 0.18 U	< 0.16 U	< 0.18 U	< 1.8 U	< 0.17 U	< 0.14 U	< 0.15 U	< 0.43 U	< 3.8 U	< 0.15 U	< 0.15 U	*< 0.15 U*	< 0.22 U	< 0.19 U	< 0.12 U
Water Arizona AWQS		200	NE	5	NE	7	NE	NE	NE	70	NE	NE	5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5	NE	NE	NE	5	NE
Water USEPA MCL		200	NE	5	NE	7	NE	NE	NE	70	NE	600	5	5	NE	NE	NE	NE	75	NE	NE	NE	NE	NE	NE	NE	5	NE	80	NE	5	100
Water USEPA Region 9 PRG (tap water)		3,200	0.055	0.2	NE	340	NE	NE	0.0056	7.2	12	370	0.12	0.16	12	180	120	0.5	NE	7,000	120	240	NE	NE	5,500	0.35	20	0.18	8.7	0.17	110
Water USEPA RSL (tap water)		9,100	0.067	0.24	2.4	340	NE	29	0.00072	2.3	15	370	0.15	0.39	370	NE	730	0.43	NE	7,100	730	NE	2,600	2,000	22,000	0.41	88	0.12	8.7	0.44	91
USEPA Test Method		**SW8260B**																													

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																												
		Chlorobromomethane	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cymene	Dichlorodifluoromethane	Ethylbenzene	Ethylene dibromide	Methyl n-butyl ketone	Methyl tert-butyl ether	Methylene Chloride	n-Butylbenzene	n-Propylbenzene	o-Xylene	Styrene	Tert-butyl benzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Tribromomethane	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride	Xylenes, m-p
SASFS-NT1101-03052009	3/5/2009	< 1.0	**< 1.0**	< 1.0	**< 1.0**	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**< 1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**< 1.0**	< 2.0
SASFS-TB-01-03052009	3/5/2009	< 1.0	**< 1.0**	< 1.0	**< 1.0**	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**< 1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**< 1.0**	< 2.0
SASFS-EB1-10092009	10/9/2009	< 0.20	**< 0.15**	< 0.26	< 0.16	< 0.20	< 0.18	< 0.17	< 0.21	< 0.15	<0.16	<0.14	<0.31	<0.18	<0.5	<0.17	<0.18	<0.19	<0.15	<0.17	**<0.23**	<0.35	<0.22	<0.097	<0.19	0.42 J	<0.17	<0.21	**<0.24**	<0.35
SASFS-TB1-10092009	10/9/2009	< 0.20	**< 0.15**	< 0.26	< 0.16	< 0.20	< 0.18	< 0.17	< 0.21	< 0.15	<0.16	<0.14	<0.31	<0.18	<0.5	<0.17	<0.18	<0.19	<0.15	<0.17	**<0.23**	<0.35	<0.22	<0.097	<0.19	0.41 J	<0.17	<0.21	**<0.24**	<0.35
SASFS-EB1-120309	12/4/2009	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	<0.18	<0.19	<0.15	<0.17	**<0.23**	<0.35	<0.22	<0.097	<0.19	<0.19	<0.17	<0.21	**<0.24**	<0.35
SASFS-TB1-120309	12/3/2009	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	<0.18	<0.19	<0.15	<0.17	**<0.23**	<0.35	<0.22	<0.097	<0.19	<0.19	<0.17	<0.21	**<0.24**	<0.35
SASFS-TB2-120309	12/3/2009	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	<0.18	<0.19	<0.15	<0.17	**<0.23**	<0.35	<0.22	<0.097	<0.19	<0.19	<0.17	<0.21	**<0.24**	<0.35
SASFS-PDS2-90-08172010	8/17/2010	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 UJ	< 0.18 U	< 0.50 U	< 0.17 U	< 0.18 U	< 0.19 U	< 0.15 U	< 0.17 U	**< 0.23 U**	< 0.35 U	< 0.22 U	< 0.097 U	< 0.19 U	***8.2 J***	< 0.17 U	< 0.21 U	**< 0.24 U**	< 0.35 U
SASFS-PDS2-90-08172010DUP	8/17/2010	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	< 0.18 U	< 0.19 U	< 0.15 U	< 0.17 U	**< 0.23 U**	< 0.35 U	< 0.22 U	< 0.097 U	< 0.19 U	***5.8 J***	< 0.17 U	< 0.21 U	**< 0.24 U**	< 0.35 U
SASFS-PDS1-90-08192010	8/19/2010	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	< 0.18 U	< 0.19 U	< 0.15 U	< 0.17 U	**< 0.23 U**	< 0.35 U	< 0.22 U	< 0.097 U	< 0.19 U	1.5	< 0.17 U	< 0.21 U	**< 0.24 U**	< 0.35 U
EB-100-08192010	8/19/2010	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	< 0.18 U	< 0.19 U	< 0.15 U	< 0.17 U	**< 0.23 U**	< 0.35 U	< 0.22 U	< 0.097 U	< 0.19 U	< 0.19 U	< 0.17 U	< 0.21 U	**< 0.24 U**	< 0.35 U
EB-200-08192010	8/19/2010	< 0.20 U	**< 0.15 U**	< 0.26 U	< 0.16 U	< 0.20 U	< 0.18 U	< 0.17 U	< 0.21 U	< 0.15 U	< 0.16 U	< 0.14 U	< 0.31 U	< 0.18 U	< 0.50 U	< 0.17 U	< 0.18 U	< 0.19 U	< 0.15 U	< 0.17 U	**< 0.23 U**	< 0.35 U	< 0.22 U	< 0.097 U	< 0.19 U	< 0.19 U	< 0.17 U	< 0.21 U	**< 0.24 U**	< 0.35 U
Water Arizona AWQS		NE	NE	NE	NE	NE	NE	NE	NE	NE	700	NE	NE	NE	NE	NE	NE	NE	100	NE	5	1,000	NE	NE	NE	5	NE	NE	2	NE
Water USEPA MCL		NE	NE	NE	80	NE	70	NE	NE	NE	700	NE	NE	NE	NE	NE	NE	NE	NE	NE	5	1,000	NE	NE	NE	5	NE	NE	2	NE
Water USEPA Region 9 PRG (tap water)		NE	0.13	4.6	0.17	160	61	NE	NE	390	1,300	NE	NE	11	4.3	240	240	NE	1,600	240	0.1	720	120	0.4	8.5	0.028	1,300	410	0.02	NE
Water USEPA RSL (tap water)		NE	0.15	21,000	0.19	190	73	NE	NE	390	1.5	8.2	47	12	4.8	NE	1,300	1,200	1,600	NE	0.11	2,300	1,100	NE	8.5	2	2,300	410	0.016	1,200
USEPA Test Method		**SW8260B**																												

Notes:

Bold results exceed USEPA RSL and Region 9 PRG

Bold and Italic results exceed USEPA RSL, Region 9 PRG, Arizona AWQs and USEPA MCL

Detected result less than ARARs.

Italic results exceed USEPA RSL

Results exceed Region 9 PRG

NE = Not established
AWQS = Aquifer Water Quality Standards
USEPA = United States Environmental Protection Agency

VOCs = Volatile Organic Contaminants
MCL = Maximum Contaminant Level
RSL = Regional Screening Level

PRG = Preliminary Remediation Goal
< = less than
ARARs = Applicable or Relevant and Appropriate Requirements

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted contract required quantitation limit (CRQL) for sample and method.

TABLE 11
SASFS PHASE II PERCHLORATE
ANALYTICAL RESULTS FOR WATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	Perchlorate
SASFS-NT1101-03052009	3/5/2009	1.9 J
SASFS-EB1-120309	12/4/2009	<0.47
SASFS-PDS2-90-08172010	8/17/2010	1.8 J
SASFS-PDS2-90-08172010DUP	8/17/2010	1.1 J
SASFS-PDS1-90-08192010	8/19/2010	2.2
Water Arizona AWQS		NE
Water USEPA MCL		NE
Water USEPA Region 9 PRG (tap water)		3.6
Water USEPA RSL (tap water)		26
USEPA Test Method		E314.0

NOTES:

Detected result less than ARARs.

NE = not established

AWQS = Aquifer Water Quality Standards

USEPA = United States Environmental Protection Agency

MCL = Maximum Contaminant Level

RSL = Regional Screening Level

EB = Equipment blank sample

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

PRG = Preliminary Remediation Goal

< = less than

ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 12
SASFS PHASE II SVOCs
ANALYTICAL RESULTS FOR WATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																																
		1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine (As Azobenzene)	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,2-Oxybis (1-Chloropropane)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3-Dichlorobenzidine	3-Methylphenol/4-Methylphenol	3-Nitroaniline	4,6-Dinitro-2-Methylphenol	4-Bromophenyl Phenyl Ether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl Phenyl Ether	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(A)Anthracene	Benzo(A)Pyrene
SASFS-NT1101-03052009	3/5/2009	**< 10**	< 10	< 10	< 10	**< 10**	< 10	< 20	**< 20**	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 15	**< 10**	< 10	< 10	**< 50**	< 10	< 10	**< 10**	< 10	**< 10**	< 25	< 10	< 10	< 10	**< 10**	***< 10***
SASFS-EB1-10092009	10/9/2009	**< 12**	< 12	< 12	< 12	**< 12**	< 12	< 24	**< 24**	< 12	< 12	< 61	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 18	**< 12**	< 12	< 12	**< 61**	< 12	< 12	**< 12**	< 12	**< 12**	< 30	< 12	< 12	< 12	**< 12**	***< 12***
SASFS-EB1-120309	12/4/2009	**< 10**	< 10	< 10	< 10	**< 10**	< 10	< 20 R	**< 20 R**	< 10 R	< 10 R	< 50 R	< 10	< 10	< 10	< 10 R	< 10	< 10 R	< 10	< 15 R	**< 10**	< 10 R	< 10	**< 50 R**	< 10	< 10 R	**< 10**	< 10	**< 10**	< 25 R	< 10	< 10	< 10	**< 10**	***< 10***
Water Arizona AWQS		70	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2
Water USEPA MCL		70	600	NE	NE	75	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.2
Water USEPA Region 9 PRG [tap water]		7.2	370	NE	180	0.5	NE	3,600	3.6	110	730	73	73	36	490	30	NE	1,800	110	NE	0.15	180	3.2	NE	NE	NE	150	NE	3.2	NE	370	NE	1,800	0.092	0.0092
Water USEPA RSL [tap water]		2.3	3,700	0.12	NE	0.43	NE	3,700	6.1	110	730	73	0.22	37	2,900	1,800	150	1,800	370	NE	0.15	180	NE	2.9	73	NE	0.34	NE	3.4	NE	2,200	NE	11,000	0.029	0.0029
USEPA Test Method		**SW8270**																																

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																																
		Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	BIS(2-Chloroethoxy)Methane	BIS(2-Chlorethyl)Ether	BIS(2-Ethylhexyl)Phthalate	Butyl Benzyl Phthalate	Chrysene	Dibenzo(A,H)Anthracene)	Dibenzofuran	Diethyl Phthalate	Dimethyl Phthalate	Di-N-Butylphthalate	Di-N-Octyl Phthalate	Fluoranthene	Fluorene	Hexachloro-1,3-Butadiene	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-CD)Pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitrosodi-N-Propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
SASFS-NT1101-03052009	3/5/2009	**< 10**	< 10	**< 10**	< 25	< 10	< 10	**< 10**	*< 10*	< 10	**< 10**	**< 10**	< 10	< 10	< 20	< 10	< 10	< 10	< 10	**< 10**	***< 10***	< 10	**< 10**	**< 10**	< 10	**< 10**	**< 10**	**< 10**	< 10	***< 50***	< 10	< 10	< 10
SASFS-EB1-10092009	10/9/2009	**< 12**	< 12	**< 12**	< 30 R	< 12	< 12	**< 12**	*< 12*	< 12	**< 12**	**< 12**	< 12	< 12	< 24	< 12	< 12	<2.2	<2.8	**<2.5**	***<4.7***	<3.8	<3.2	**<2.4**	<2.9	<2.8	<2.5	**<3.**	<2.4	***<11.***	<2.6	<8.2	<2.4
SASFS-EB1-120309	12/4/2009	**< 10**	< 10	**< 10**	< 25 R	< 10	< 10	**< 10**	*< 10*	< 10	**< 10**	**< 10**	< 10	< 10	< 20	< 10	< 10	< 10	< 10	**< 10**	***< 10***	< 10	**< 10**	**< 10**	< 10	**< 10**	<2	**<2.5**	<1.9	***<8.7 R***	<2.1	<6.7 R	<2
Water Arizona AWQS		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1	50	NE	NE	NE	NE	NE	NE	NE	1	NE	NE	NE
Water USEPA MCL		NE	NE	NE	NE	NE	NE	NE	6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1	50	NE	NE	NE	NE	NE	NE	NE	1	NE	NE	NE
Water USEPA Region 9 PRG [tap water]		0.092	NE	0.92	150,000	110,000	NE	0.01	4.8	7,300	9.2	0.0092	12	29,000	360,000	3,600	1,500	1,500	240	0.86	0.042	220	4.8	0.092	71	6.2	3.4	0.0096	14	0.56	NE	11,000	180
Water USEPA RSL (tap water)		0.029	NE	0.29	150,000	3,700	110	0.01	4.8	35	2.9	0.0056	37	29,000	NE	3,700	NE	1,500	1,500	0.86	0.042	220	4.8	0.029	71	0.14	0.12	0.0096	14	0.17	NE	11,000	1,100
USEPA Test Method		**SW8270**																																

Notes:

Bold results exceed USEPA RSL and Region 9 PRG

Bold and Italic results exceed USEPA RSL, Region 9 RSL, Arizona AWQs and USEPA MCL

Italic results exceed USEPA RSL, Region 9 PRG and USEPA MCL

Results exceed USEPA RSL

NE = Not established

SVOCs = Semi-Volatile Organic Compounds

AWQS = Aquifer Water Quality Standards

USEPA = United States Environmental Protection Agency

MCL = Maximum Contaminant Level

RSL = Regional Screening Level

EB = Equipment blank sample

R = The sample results are unusable.

PRG = Preliminary Remediation Goal

< = less than

ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 13
SASFS PHASE II EXPLOSIVES
ANALYTICAL RESULTS FOR WATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in micrograms per Liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME													
		1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Amino-4,6-dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Amino-2,6-dinitrotoluene	4-Nitrotoluene	HMX	Nitrobenzene	RDX	Tetryl
SASFS-NT1101-03052009	3/5/2009	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.21	**< 0.54**	< 0.54	< 0.11	< 0.54	0.43	< 0.11	< 0.11	< 0.11
Water Arizona AWQS		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Water USEPA MCL		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
Water USEPA Region 9 PRG (tap water)		1,100	3.6	2.2	73	36	NE	0.049	120	NE	0.66	1,800	3.4	0.61	360
Water USEPA RSL (tap water)		1,100	3.7	2.2	0.22	37	73	0.31	3.7	73	4.2	1,800	0.12	0.61	150
USEPA Test Method		**SW8330**													

NOTES:

Bold results exceed USEPA RSL and Region 9 PRG

Detected result less than ARARs.

NE = Not established

SVOCs = Semi-Volatile Organic Compounds

AWQS = Aquifer Water Quality Standards

USEPA = United States Environmental Protection Agency

MCL = Maximum Contaminant Level

RSL = Regional Screening Level

PRG = Preliminary Remediation Goal

< = less than

ARARs - Applicable or Relevant and Appropriate Requirement

TABLE 14
SASFS PHASE II METALS
ANALYTICAL RESULTS FOR WATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in milligrams per Liter (mg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium metal	Chromium (Total)	Cobalt	Copper	Hexavalent Chromium	Iron	Lead	Magnesium	Manganese	Mercury
SASFS-EB1-03042009	3/4/2009	< 0.20	***< 0.040***	***< 0.10***	< 0.010	< 0.0010	< 0.20	< 0.0010	< 2.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.050	< 0.015	< 2.0	< 0.010	< 0.00050
SASFS-NT1101-03052009	3/5/2009	< 0.20	***< 0.040***	***< 0.10***	0.058	< 0.0010	0.74	< 0.0010	130	< 0.010	< 0.010	< 0.010	< 0.010	0.21	< 0.015	49	< 0.010	--
SASFS-EB1-10092009	10/9/2009	< 0.20	***< 0.040***	***< 0.10***	< 0.010	< 0.0010	< 0.20	< 0.0010	< 2.0	< 0.010	< 0.010	< 0.010	<0.005	<0.036	<0.006	<0.04	<0.0012	<0.000089
SASFS-EB1-120309	12/4/2009	< 0.20	***< 0.040***	***< 0.10***	< 0.10	< 0.0010	< 0.20	< 0.0010	< 2.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.050	< 0.015	< 2.0	< 0.010	--
Water Arizona AWQS		NE	0.006	0.05	2	0.004	NE	0.005	NE	0.1	NE	NE	NE	NE	0.05	NE	NE	NE
Water USEPA MCl		NE	0.006	0.01	2	0.004	NE	0.005	NE	0.1	NE	1.3	NE	NE	0.015	NE	NE	NE
Water USEPA Region 9 PRG (tap water)		36	0.015	0.000045	2.6	0.073	7.3	0.018	NE	NE	0.73	1.5	0.11	11	NE	NE	0.88	NE
Water USEPA RSL (tap water)		37	0.015	0.000045	7.3	0.073	7.3	0.018	NE	NE	0.011	1.5	0.000043	26	NE	NE	0.88	NE
USEPA Test Method		**E200.7**																

Results reported in milligrams per Liter (mg/L)

Sample Identification	Sample Date	CONSTITUENT NAME											
		Molybdenum	Nickel	Potassium	Selenium	Silica (Silicon dioxide-SiO2)	Silver	Sodium	Thallium	Total Cyanide	Vanadium	Zinc	Uranium
SASFS-EB1-03042009	3/4/2009	< 0.010	< 0.010	< 2.0	< 0.10	< 0.21	< 0.010	< 2.0	***< 0.10***	< 0.0080	***< 0.010***	< 0.050	< 0.0010
SASFS-NT1101-03052009	3/5/2009	< 0.010	< 0.010	28	< 0.10	21	< 0.010	180	***< 0.10***	< 0.0080	***< 0.010***	< 0.050	--
SASFS-EB1-10092009	10/9/2009	<0.0019	<0.0013	<0.12	<0.037	<0.049	<0.0038	<0.65	***<0.033***	<0.004	<0.0008	<0.027	--
SASFS-EB1-120309	12/4/2009	< 0.010	< 0.010	<0.12	<0.037	<0.013	<0.0038	<0.65	--	<0.0047	<0.0008	<0.027	--
Water Arizona AWQS		NE	0.1	NE	0.05	NE	NE	NE	0.002	0.2	NE	NE	NE
Water USEPA MCL		NE	NE	NE	0.05	NE	NE	NE	0.002	0.2	NE	NE	NE
Water USEPA Region 9 PRG (tap water)		0.18	0.73	NE	0.18	NE	0.18	NE	0.0024	0.73	0.036	11	NE
Water USEPA RSL (tap water)		0.18	0.73	NE	0.18	NE	0.18	NE	NE	0.73	0.0026	11	0.11
USEPA Test Method		**E200.7**											

Notes:

Bold results exceed the USEPA RSL

Bold and Italic results exceed USEPA RSL, Region 9 PRG, Arizona AWQs and USEPA MCL

Exceeds Arizona AWQS and USEPA MCL

Detected result less than ARARs.

USEPA = United States Environmental Protection Agency

PRG = Preliminary Remediation Goal

NE = Not established

-- = sample not analyzed

EB = Equipment blank sample

RSL = Regional Screening Level

PRG = Preliminary Remediation Goal

AWQS = Aquifer Water Quality Standards

USEPA = United States Environmental Protection Agency

MCL = Maximum Contaminant Level

< = less than

ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 15A
SASFS SLAB DEMOLITION AND REMOVAL INVESTIGATION
ANALYTICAL RESULTS FOR LIQUID SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

	Volatile Organic Compounds [µg/L]							Total Metals [mg/L]												
Sample Identification	2-Butanone (MEK)	Acetone	Benzene	Toluene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	4-Methyl-2-pentanone (MIBK)	Barium	Boron	Calcium	Chromium	Copper	Iron	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Silica	Sodium	Vanadium
Bd2-05112009	---	---	---	---	---	---	---	---	---	---	0.029	---	---	---	---	---	---	---	---	---	---
Bld 1 Tank-08212009	<5.0	280	**<1.0**	<1.0	<1.0	<1.0	<5.0	0.079	0.29	88	<0.010	0.012	0.32	9.1	0.017	0.011	0.01	33	18	53	0.011
Bldl-47-09012009	31	100	**0.57 J**	<1.0	0.67 J	0.39	2.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
USEPA MCL	NE	NE	5	1,000	NE	NE	NE	2	NE	NE	0.1	1.3	NE	NE	NE	NE	NE	NE	NE	NE	NE
Arizona AWQS	NE	NE	5	1,000	NE	NE	NE	2	NE	NE	0.1	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE
USEPA Region 9 PRG (Tap Water)	7,000	5,500	0.35	720	1,300	12	NE	2.6	7.3	NE	NE	1.5	11	NE	0.88	0.18	0.73	NE	NE	NE	0.036
Water USEPA RSL (tap water)	7100	22000	0.41	2300	2300	15	2000	7.3	7.3	NE	NE	1.5	26	NE	0.88	0.18	0.73	NE	NE	NE	0.0026
USEPA Test Method	8260B							E200.7													

Notes:
Bold results exceed USEPA RSL and Region 9 PRG
AWQS - Arizona water quality standard
NE = Not established
--- = sample not analyzed
MCL - maximum contaminant level
mg/L - milligrams per liter
PRG - preliminary remediation goal
RSL - Regional Screening Levels
µg/L - migrograms per liter
USEPA - United States Environmental Protection Agency
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

TABLE 16A
SGI PHASE I VOCs ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in microgram per kilogram (μg/kg)

Sample Identification	Sample Date	CONSTITUENT NAME					
		1,2,3-Trichlorobenzene	2-Butanone (MEK)	1,3-Dichloropropane	Methylene Chloride	Trichloroethene	Toluene
AB4-10-121509	12/15/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB4-20-121509	12/15/2009	< 20.00	< 220.00	< 15.00	< 35.00	< 23.00	< 17.00
AB4-30-121509	12/15/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB4-40-121509	12/15/2009	< 26.00	< 280.00	< 19.00	< 45.00	< 30.00	< 21.00
AB4-40-121509 DUP	12/15/2009	< 25.00	< 270.00	< 19.00	< 43.00	< 29.00	< 21.00
AB4-50-121509	12/15/2009	< 25.00	< 280.00	< 19.00	< 44.00	< 29.00	< 21.00
AB4-60-121509	12/15/2009	< 26.00	< 290.00	< 20.00	< 46.00	< 31.00	< 22.00
AB4-70-121509	12/15/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB4-80-121509	12/15/2009	< 22.00	< 250.00	< 17.00	< 39.00	< 26.00	< 19.00
AB4-90-121609	12/16/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB5-10-121709	12/17/2009	< 32.00	410 U	< 24.00	< 56.00	< 38.00	< 27.00
AB5-20-121709	12/17/2009	< 30.00	< 330.00	< 22.00	< 52.00	< 35.00	28 J
AB5-30-121709	12/17/2009	< 29.00	< 320.00	< 22.00	< 51.00	< 34.00	31 J
AB5-40-121709	12/17/2009	< 23.00	< 250.00	< 17.00	< 40.00	< 26.00	< 19.00
AB5-50-121709	12/17/2009	< 25.00	< 270.00	< 19.00	< 43.00	< 29.00	< 20.00
AB5-60-121709	12/17/2009	< 18.00	220 U	< 14.00	< 32.00	< 21.00	< 15.00
AB5-70-121709	12/17/2009	< 21.00	< 230.00	< 16.00	< 37.00	< 25.00	< 18.00
AB5-80-121709	12/17/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB6-10-121809	12/18/2009	< 23.00	< 250.00	< 17.00	< 40.00	< 26.00	< 19.00
AB6-30-121809	12/18/2009	< 21.00	< 230.00	< 16.00	< 36.00	< 24.00	< 17.00
AB6-40-121809	12/18/2009	< 26.00	310 J	< 20.00	< 46.00	< 31.00	< 22.00
AB6-60-121909	12/19/2009	< 25.00	< 280.00	< 19.00	47 U	< 29.00	< 21.00
AB6-70-121909	12/19/2009	< 18.00	< 200.00	< 14.00	< 32.00	< 21.00	< 15.00
AB6-70-121909 DUP	12/19/2009	36.00	< 270.00	< 18.00	< 43.00	< 28.00	< 20.00
AB6-80-121909	12/19/2009	< 22.00	250 J	< 16.00	< 38.00	< 25.00	< 18.00
Soil Arizona Non-Residential SRL		NE	3.4E+07	3.6E+05	2.1E+05	6.5E+04	6.5E+05
Soil Region 9 PRG		NE	1.1E+08	3.6E+05	2.1E+04	1.1E+02	5.2E+05
Soil USEPA RSL (Industrial)		4.9E+05	2.0E+08	2.0E+07	5.3E+04	1.4E+04	4.5E+07
USEPA Test Method		**8260B**					

Notes:
Detected result less than ARARs.
NE = not established
USEPA = United States Environmental Protection Agency
SRL = Soil Remediation Level
RSL = Regional Screening Level
VOCs = Volatile Organic Compounds
< = less than
PRG = Preliminary Remediation Goal
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U - concentration is considered nondetect due to analyte detection in associated equipment blank
ARARs = Applicable or Relevant and Appropriate Requirements

TABLE 16B
SGI PHASE I VOCs ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results are presented in parts per billion volume (ppbv)

Sample Identification	Sample Date	CONSTITUENT NAME															
		2-Butanone (MEK)	Vinyl Acetate	Acetone	Benzene	Carbon Tetrachloride	Cyclohexane	Chloroform	Ethyl Acetate	1,1-Dichloroethene	Ethylbenzene	2-Hexanone	Methylene Chloride	Toluene	Tetrachloroethene	Trichloroethene	1,2,4-Trimethylbenzene
AB4-10-121509	12/15/009	9.008	<5.46	343.25	**0.95**	< 0.31	< 1.12	< 0.39	< 1.07	< 0.49	< 0.44	1.12	< 0.55	3.16U	< 0.28	**0.53**	< 0.39
AB4-20-121509	12/15/009	16.153	<5.72	200.55	**4.30**	**0.50**	< 1.14	< 0.41	< 1.09	< 0.51	**0.68**	1.27	< 0.58	6.56	< 0.30	**0.84**	< 0.41
AB4-20-121509 DUP	12/15/010	15.53	< 5.98	185.12	**4.30**	**0.52**	< 1.22	< 0.43	< 1.17	< 0.53	**0.72**	1.36	< 0.61	6.81	< 0.31	**0.82**	< 0.43
AB4-30-121509	12/15/009	37.276	<5.46	462.81	**4.88**	< 0.31	< 1.14	< 0.39	< 1.09	< 0.49	**0.65**	2.68	< 0.55	8.51	< 0.28	< 0.36	< 0.39
AB4-40-121509	12/15/009	10.562	<5.72	732.78	**1.72**	< 0.32	< 1.17	**0.81**	< 1.12	< 0.51	**0.65**	1.79	< 0.58	9.24	< 0.30	**1.55**	< 0.41
AB4-50-121509	12/15/009	15.84	<5.72	1041.32	**2.49**	< 0.32	< 1.20	**0.92**	< 1.14	< 0.51	**0.72**	2.91	< 0.58	9.97	< 0.30	**2.22**	< 0.41
AB4-60-121509	12/15/009	17.40	<5.98	848.48	**2.27**	< 0.33	< 1.22	**4.32**	< 1.17	< 0.53	**0.82**	1.83	< 0.61	10.94	< 0.31	**17.05**	< 0.43
AB4-70-121509	12/15/009	13.98	<5.46	300.83	**2.87**	< 0.31	< 1.14	**4.69**	< 1.09	< 0.49	**0.78**	1.59	< 0.55	10.70	< 0.28	**28.98**	< 0.39
AB4-80-121509	12/15/009	<46.59	<39.02	539.94	**10.90**	< 2.18	< 7.98	**5.44**	10.17	36.97	< 3.17	< 3.35	< 3.96	13.86	< 2.03	**1500.15**	< 2.80
AB4-90-121609	12/16/2009	<236.08	<197.74	<293.11	<21.79	< 11.07	< 39.91	< 14.26	< 38.14	23.11	< 16.04	< 17.00	< 20.04	< 18.48	< 10.27	**2045.66**	< 14.16
AB4-90-121609 DUP	12/16/2009	< 236.08	< 197.75	< 293.11	< 21.79	< 11.07	< 39.91	< 14.26	< 38.14	22.64	< 16.04	< 17.00	< 20.04	< 18.48	< 10.27	**1875.19**	< 14.16
AB5-10-121709	12/17/2009	<6.83	<5.72	192.84	**0.95**	< 0.32	< 1.20	< 0.41	< 1.14	< 0.51	< 0.46	1.03	< 0.58	3.16	< 0.30	**0.58**	< 0.41
AB5-20-121709	12/17/2009	8.70	<5.46	327.82	**2.64**	< 0.31	< 1.14	< 0.39	< 1.09	< 0.49	**0.53**	1.21	< 0.55	5.35	< 0.28	**1.36**	< 0.39
AB5-30-121709	12/17/2009	14.60	<5.46	312.40	**5.45**	< 0.31	< 1.14	< 0.39	< 1.09	< 0.49	**0.70**	1.83	< 0.55	7.78	< 0.28	**0.66**	< 0.39
AB5-40-121709	12/17/2009	26.71	6.50 J	377.96	**5.16**	< 0.32	< 1.17	< 0.41	< 1.12	< 0.51	**0.82**	4.03	< 0.58	8.02	< 0.30	**2.22**	< 0.41
AB5-40-121709 DUP	12/17/2009	25.47	< 5.72	374.10	**5.16**	< 0.32	< 1.17	< 0.41	< 1.12	< 0.51	**0.78**	3.58	< 0.58	8.02	< 0.30	**2.05**	< 0.41
AB5-50-121709	12/17/2009	24.85	<5.98	848.48	**4.30**	< 0.33	< 1.25	**0.83**	< 1.20	< 0.53	**0.65**	2.68	< 0.61	9.72	< 0.31	**1.70**	< 0.43
AB5-60-121709	12/17/2009	49.70	10.14 J	694.21	**15.20**	< 0.33	< 1.20	**0.94**	< 1.14	< 0.53	**0.65**	3.35	< 0.61	14.83	< 0.31	**2.05**	< 0.43
AB5-70-121709	12/17/2009	46.60	15.09 J	964.19	**14.05**	< 0.33	< 1.22	**0.69**	< 1.17	< 0.53	**0.74**	3.58	< 0.61	13.37	< 0.31	**13.13**	< 0.43
AB5-80-121709	12/17/2009	86.98	<23.41	**1,658.40**	**31.55**	< 1.31	< 4.79	**1.73**	< 4.58	4.16	< 1.90	4.25	< 2.37	13.37	< 1.22	**155.13**	< 1.68
AB6-10-121809	12/18/2009	<114.93	<96.27	617.08	<21.22	< 10.78	< 19.69	< 13.89	< 18.81	< 17.10	< 15.61	< 16.55	< 19.52	< 17.99	< 10.00	< 12.61	< 13.79
AB6-20-121809	12/18/2009	<114.93	<96.27	181.27	<21.51	< 10.92	< 19.96	< 14.07	< 19.07	< 17.33	< 15.83	< 16.77	< 19.78	< 18.23	< 10.13	< 12.79	< 13.98
AB6-20-121809 DUP	12/18/2009	< 118.04	< 98.87	188.98	< 21.51	< 10.92	< 19.96	< 14.07	< 19.07	< 17.33	< 15.83	< 16.77	< 19.78	< 18.23	< 10.13	< 12.79	< 13.98
AB6-30-121809	12/18/2009	<245.40	<205.55	**1,388.43**	<45.88	< 23.30	< 42.58	< 30.02	< 40.68	< 36.97	< 33.76	< 35.78	< 42.20	< 38.90	< 21.61	< 27.28	< 29.82
AB6-40-121809	12/18/2009	<114.93	<96.27	655.65	<20.93	< 10.63	< 19.43	< 13.70	< 18.56	< 16.87	< 15.40	< 16.33	< 19.25	< 17.75	< 9.86	< 12.44	< 13.60
AB6-50-121909	12/19/2009	<7.14	<5.98	385.67	**2.29**	< 0.67	3.19	< 0.86	< 1.17	< 1.06	**1.16**	< 1.03	< 1.21	7.29	< 0.62	< 0.78	< 0.86
AB6-60-121909	12/19/2009	55.91	<5.98	424.24	**12.04**	< 0.67	1.70	< 0.86	< 1.17	< 1.06	< 0.97	3.35	< 1.21	14.10	< 0.62	< 0.78	< 0.86
AB6-70-121909	12/19/2009	11.80	<6.50	362.53	<1.46	< 0.74	< 1.36	< 0.96	< 1.30	< 1.18	< 1.08	< 1.14	< 1.35	6.08	< 0.69	< 0.87	< 0.95
AB6-80-121909	12/19/2009	24.54	<5.98	385.67	**9.75**	< 0.33	< 1.22	**0.56**	< 1.17	< 0.53	**0.65**	1.95	< 0.61	8.27	< 0.31	**2.73**	< 0.43
Air USEPA Region 9 RSL (Residential)		1.76E+03	5.96E+01	1.35E+04	9.70E-02	6.52E-02	1.83E+03	2.25E-02	NE	5.30E+01	2.23E-01	NE	1.50E+00	1.38E+03	6.04E-02	2.23E-01	1.49E+00
USEPA Test Method		**TO-15**															

TABLE 16B
SGI PHASE I VOCs ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results are presented in parts per billion volume (ppbv)

Sample Identification	Sample Date	CONSTITUENT NAME															
		4-Methyl-2-pentanone (MIBK)	n-Hexane	Propene	Dichlorodifluoromethane (CFC 12)	Chloromethane	1,3-Butadiene	2-Propanol (Isopropyl Alcohol)	Trichlorofluoromethane	Trichlorotrifluoroethane	Carbon Disulfide	Tetrahydrofuran (THF)	Bromodichloromethane	2,2,4-Trimethylpentane (Isooctane)	n-Heptane	m,p-Xylenes	o-Xylene
AB4-10-121509	12/15/009	< 0.47	1.14	26.62	0.41 U	< 0.93	**2.57**	< 1.57	< 0.34	< 0.25	< 0.62	< 0.65	< 0.29	< 0.41	0.64	< 0.89	< 0.44
AB4-20-121509	12/15/009	< 0.49	5.46	127.76	0.41 U	4.26	**10.77**	< 1.60	1.43	< 0.26	< 0.65	< 0.68	< 0.30	< 0.43	2.51	1.41	0.51
AB4-20-121509 DUP	12/15/010	< 0.51	5.46	117.11	< 0.43	4.08	**10.77**	< 1.71	1.47	< 0.27	< 0.68	< 7.15	< 0.31	< 0.45	2.51	1.52	0.55
AB4-30-121509	12/15/009	0.67	10.41	415.21	< 0.39	1.06	**24.43**	4.84	1.96	< 0.25	7.94	< 0.65	< 0.29	0.57	4.24	1.35	0.49
AB4-40-121509	12/15/009	< 0.49	2.86	74.52	0.43 U	< 0.98	**7.04**	1.64	3.75	< 0.26	< 0.65	< 0.68	< 0.30	< 0.43	1.79	1.54	0.53
AB4-50-121509	12/15/009	0.56	5.46	154.37	< 0.41	< 0.98	**10.77**	2.27	3.10	< 0.26	< 6.47	< 0.68	< 0.30	< 0.43	3.28	1.75	0.61
AB4-60-121509	12/15/009	< 0.51	3.12	40.99	< 0.43	< 1.02	**4.97**	2.46	1.58	0.35	< 6.77	< 0.71	< 0.31	< 0.45	2.31	2.00	0.70
AB4-70-121509	12/15/009	< 0.47	3.38	58.56	< 0.39	< 0.93	**7.87**	1.68	0.51	0.94	< 6.18	< 0.65	< 0.29	< 0.41	2.89	1.86	0.65
AB4-80-121509	12/15/009	< 3.35	8.33	244.87	< 2.78	< 6.65	**28.16**	< 11.18	< 2.45	4.30	< 44.13	< 4.66	< 2.05	< 2.94	4.82	< 6.33	< 3.17
AB4-90-121609	12/16/2009	< 17.00	< 19.77	500.38 J	< 14.08	< 33.72	< 31.47	< 55.90	< 12.39	< 9.09	< 223.59	55.92 J	< 10.39	< 14.90	< 14.66	< 31.65	< 16.04
AB4-90-121609 DUP	12/16/2009	< 17.00	< 19.77	468.44 J	< 14.08	< 33.72	< 31.47	< 55.90	< 12.39	< 9.09	< 223.59	< 23.61	< 10.39	< 14.90	< 14.66	< 31.65	< 16.04
AB5-10-121709	12/17/2009	< 0.49	1.48	15.97	0.44 U	< 0.98	**1.33**	< 1.68	0.38	< 0.26	< 6.47	< 0.68	< 0.30	1.00	0.73	< 0.95	< 0.46
AB5-20-121709	12/17/2009	< 0.47	4.68	122.43	0.43 U	< 0.93	**12.42**	< 1.60	1.63	< 0.25	< 6.18	< 0.65	< 0.29	0.67	2.12	1.10	< 0.44
AB5-30-121709	12/17/2009	0.54	9.37	303.42	0.43 U	< 0.93	**28.99**	3.28	1.37	< 0.25	< 6.18	< 0.65	< 0.29	0.75	3.86	1.31	0.46
AB5-40-121709	12/17/2009	0.89	14.05	521.67	0.50 U	< 0.98	**28.99**	2.46	1.26	< 0.26	< 6.47	0.71 U	< 0.30	0.65	4.24	1.77	0.65
AB5-40-121709 DUP	12/17/2009	0.76	14.05	516.35	0.43	< 0.98	**28.99**	2.16	1.19	< 0.26	< 6.47	0.81	< 0.30	0.67	4.24	1.67	0.61
AB5-50-121709	12/17/2009	0.69	14.31	457.79	< 0.43	1.51	**30.23**	3.06	0.75	< 0.27	< 6.77	0.81 U	< 0.31	< 0.45	4.82	1.58	0.57
AB5-60-121709	12/17/2009	0.92	19.25	638.78	< 0.43	1.24	**70.40**	4.47	0.51	0.29	< 6.77	0.71 U	< 0.31	1.26	7.13	1.56	0.59
AB5-70-121709	12/17/2009	1.03	8.59	372.62	< 0.43	< 1.02	**49.69**	5.96	< 0.38	2.15	< 6.77	1.06 U	< 0.31	< 0.45	3.86	1.81	0.65
AB5-80-121709	12/17/2009	< 2.01	23.15	904.94	< 1.67	< 3.99	**132.52**	8.57	< 1.47	11.24	< 26.48	<2.8	< 1.23	2.55	7.33	< 3.80	< 1.90
AB6-10-121809	12/18/2009	< 16.55	< 19.25	< 39.39	< 13.71	< 32.83	< 30.65	< 27.58	**1,793.70**	< 8.85	< 108.85	< 22.99	< 10.12	< 14.51	< 14.27	< 15.61	< 15.61
AB6-20-121809	12/18/2009	< 16.77	< 19.51	308.75	< 13.89	< 33.27	< 31.06	< 27.95	**750.09**	< 8.97	< 108.85	< 23.30	< 10.25	< 14.71	< 14.46	< 15.82	< 15.83
AB6-20-121809 DUP	12/18/2009	< 16.77	< 19.51	308.75	< 13.89	< 33.27	< 31.06	< 27.95	**766.40**	< 8.97	< 111.79	< 23.30	< 10.25	< 14.71	< 14.46	< 15.82	< 15.83
AB6-30-121809	12/18/2009	< 35.78	< 41.63	420.53	< 29.64	< 70.98	< 66.26	< 59.62	**1,956.76**	< 19.13	< 232.41	< 49.71	< 21.88	< 31.38	< 30.85	< 33.76	< 33.76
AB6-40-121809	12/18/2009	< 16.33	22.63	958.17 J	< 13.52	< 32.39	**36.86**	< 27.20	**1,793.70**	< 8.73	< 108.85	< 22.68	< 9.98	< 14.32	< 14.08	< 15.40	< 15.40
AB6-50-121909	12/19/2009	< 1.03	4.94	10.65	< 0.85	< 2.04	< 1.90	1.98	2.61	< 0.55	< 6.77	< 1.43	< 0.63	5.88	1.18	3.16	1.22
AB6-60-121909	12/19/2009	< 1.03	15.35	180.99	< 0.85	< 2.04	**22.36**	6.34	5.54	< 0.55	< 6.77	< 1.43	< 0.63	1.61	14.66	1.10	< 0.97
AB6-70-121909	12/19/2009	< 1.14	2.19	69.20 J	< 0.94	< 2.26	**6.63**	< 1.90	3.59	< 0.61	< 7.35	< 1.58	< 0.70	< 1.00	1.21	1.16	< 1.08
AB6-80-121909	12/19/2009	0.72	20.81	1,011.41	< 0.43	1.95	**91.11**	1.98	9.95	< 0.27	< 6.77	1.18	< 0.31	0.51	5.21	1.62	0.61
Air USEPA Region 9 RSL (Residential)		7.57E+02	2.07E+02	1.72E+03	4.25E+01	4.55E+01	3.66E-02	NE	1.30E+02	NE	2.34E+02	NE	9.85E-03	NE	NE	1.68E+02	1.68E+02
USEPA Test Method		**TO-15**															

Notes:

Bold results exceed USEPA RSL
Detected result less than ARARs.
ARARs = Applicable or Relevant and Appropriate Requirements
RSL = Regional Screening Level
NE = Not established
USEPA = United States Environmental Protection Agency
< = less than
J - concentration is estimated
U - concentration is considered nondetect due to analyte detection in associated equipment blank

TABLE 16C
SGI PHASE I VOCS ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in micrograms per liter (µg/L)

Sample Identification	Sample Date	CONSTITUENT NAME																			
		2-Butanone (MEK)	Acetone	Benzene	n-Butylbenzene	Chloroform	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,2-Dichloropropane	Ethylbenzene	2-Hexanone	Methylene Chloride	n-Propylbenzene	Toluene	Tetrachloroethene	Trichloroethene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	4-Methyl-2-pentanone
AB4-101-121609	12/16/2009	7.9 J	<3.8	<0.15	<0.17	**0.23 U**	<0.12	<0.18	<0.23	<0.15	<0.16	1.3	<0.50	<0.18	0.46	<0.23	***54***	<0.27	<0.18	<0.13	<0.43
AB4-110-121609	12/16/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	***14***	<0.27	<0.18	<0.13	<0.43
AB4-110-121609 DUP	12/16/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	***15***	<0.27	<0.18	<0.13	<0.43
AB4-120-121609	12/16/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	***9.3***	<0.27	<0.18	<0.13	<0.43
AB5-98-121709	12/17/2009	4.1 J	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	3.2 J	<0.50	<0.18	0.40 J	<0.23	**2.0 U**	<0.27	<0.18	<0.13	<0.43
AB5-110-121709	12/17/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	0.25 J	<0.31	<0.50	0.21 J	<0.35	<0.23	***11***	<0.27	<0.18	<0.13	<0.43
AB5-110-121709 DUP	12/17/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	0.66 J	<0.23	***12***	<0.27	<0.18	<0.13	<0.43
AB5-120-121809	12/18/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	<0.19	<0.27	<0.18	<0.13	<0.43
AB6-90-121909	12/19/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	<0.19	<0.27	<0.18	<0.13	<0.43
AB6-90-121909 DUP	12/19/2009	<1.8	<3.8	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	<0.19	<0.27	<0.18	<0.13	<0.43
AB6-105-121909	12/19/2009	3.8 J	15 U	<0.15	<0.17	<0.16	<0.12	<0.18	<0.23	<0.15	<0.16	<0.31	<0.50	<0.18	<0.35	<0.23	**2.7**	<0.27	<0.18	<0.13	<0.43
Water Arizona AWQS		NE	NE	5	NE	NE	NE	NE	7	NE	700	NE	NE	NE	1,000	5	5	NE	70	NE	NE
Water USEPA MCL		NE	NE	5	NE	80	600	70	7	5	700	NE	NE	NE	1,000	5	5	NE	70	NE	NE
Water USEPA Region 9 PRG (tap water)		7,000	5,500	0.35	240	0.17	370	61	340	0.16	1,300	NE	4.3	240	720	0.1	0.028	NE	7.2	12	NE
Water USEPA RSL (tap water)		7,100	22,000	0.41	NE	0.19	370	73	340	0.39	1.5	NE	4.8	1,300	2,300	0.11	2	29	2.3	15	2,000
USEPA Test Method		**8260B**																			

Notes:

Bold results exceed USEPA RSL and Region 9 PRG
Bold and Italic results exceed USEPA RSL, Region 9 PRG, Arizona AWQs and USEPA MCL
Detected result less than ARARs.
VOCs = Volatile Organic Contaminants
MCL = Maximum Contaminant Level
RSL = Regional Screening Level
NE = Not established
AWQS = Aquifer Water Quality Standards
USEPA = United States Environmental Protection Agency
PRG = Preliminary Remediation Goal
< = less than
ARARs = Applicable or Relevant and Appropriate Requirements
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted contract required quantitation limit (CRQL) for sample and method.

TABLE 17
SASFS PHASE II VOCs
ANALYTICAL RESULTS FOR SOIL GAS SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Results reported in parts per billion by volume (ppbv)

Sample Identification	Sample Date	CONSTITUENT NAME																																		
		1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,2-Dichlorotetrafluoroethane (114)	1,3,5-Trimethylbenzene	1,3-Butadiene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,2,4-Trimethylpentane	2-Butanone	2-Phenylbutane	4-Ethyl Toluene	4-Methyl-2-pentanone	Acetone	Allyl chloride	Benzene	Benzyl Chloride	Bromodichloromethane	Bromoethene(Vinyl Bromide)	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene
SASFS-PDS2-30-08172010	8/17/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.7	< 0.50	< 0.50	< 1.0	17	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.52	1.2
SASFS-PDS2-60-08172010	8/17/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.84	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	5.7	< 0.50	< 0.50	< 1.0	24	< 0.50	< 0.50	< 2.0	< 0.50	< 0.50	< 0.50	0.75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.66	< 0.50
SASFS-PDS1-30-08192010	8/19/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.79	25 J	< 0.50	< 0.50	1.5 J	76 J	< 0.50	1.6	< 2.0	< 0.50	< 0.50	< 0.50	4.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50
SASFS-PDS1-30-08192010DUP	8/19/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	44 J	< 0.50	< 0.50	3.1 J	110 J	< 0.50	1.9	< 2.0	< 0.50	< 0.50	< 0.50	4.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50
SASFS-PDS1-60-08192010	8/19/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 0.50	< 0.50	5.4	< 0.50	< 0.50	< 1.0	16	< 0.50	0.86	< 2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 0.50
Air USEPA Region 9 RSL (Residential)		9.53E+02	6.12E-03	4.04E+03	2.75E-02	2.32E-02	5.30E+01	2.83E-01	1.49E+00	3.49E+01	2.37E-02	5.19E-02	NE	NE	3.66E-02	NE	3.66E-02	NE	1.76E+03	NE	NE	7.57E+02	1.35E+04	1.31E-01	9.70E-02	9.66E-03	9.85E-03	1.74E-02	1.34E+00	2.34E+02	6.52E-02	1.13E-01	NE	3.79E+03	2.25E-02	4.55E+01	NE
USEPA Test Method		TO-15																																		

Results reported in parts per billion by volume (ppbv)

Sample Identification	Sample Date	CONSTITUENT NAME																																		
		cis-1,3-Dichloropropene	Cyclohexane	Dichlorodifluoromethane	Ethyl Acetate	Ethylbenzene	Ethylene dibromide	Hexachloro-1,3-butadiene	Hexane	Isopropanol	Isopropylbenzene	Methyl n-butyl ketone	Methyl tert-butyl ether	Methylene Chloride	Naphthalene	n-Butylbenzene	n-Heptane	n-Nonane	n-Octane	n-Propylbenzene	o-Xylene	Propene	Styrene	tert-butyl benzene	Tetrachloroethene	Tetrahydrofuran	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Tribromomethane	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride	Xylenes, m-p
SASFS-PDS2-30-08172010	8/17/2010	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	0.70	5.5	< 0.50	< 1.0	< 1.0	1.2	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 0.50	0.81	< 2.0	1.1	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
SASFS-PDS2-60-08172010	8/17/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	0.84	< 2.0	< 0.50	< 1.0	< 1.0	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0	0.64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
SASFS-PDS1-30-08192010	8/19/2010	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.50	< 1.0	6.3 J	< 2.0	< 0.50	2.4 J	< 1.0	< 0.50	< 5.0	< 0.50	< 0.50	0.67	< 0.50	< 0.50	< 0.50	20 J	< 0.50	< 0.50	< 0.50	< 2.0	2.0	< 0.50	< 0.50	< 0.50	< 0.50	1.3 J	< 0.50	< 0.50	< 0.50	< 1.0
SASFS-PDS1-30-08192010DUP	8/19/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	8.9 J	< 2.0	< 0.50	7.1 J	< 1.0	< 0.50	< 5.0	< 0.50	< 0.50	0.78	< 0.50	< 0.50	< 0.50	28 J	< 0.50	< 0.50	< 0.50	< 2.0	1.8	< 0.50	< 0.50	< 0.50	< 0.50	2.3 J	< 0.50	< 0.50	< 0.50	< 1.0
SASFS-PDS1-60-08192010	8/19/2010	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 2.0	< 0.50	< 1.0	< 1.0	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	< 0.50	< 0.50	< 0.50	< 2.0	0.58	< 0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
Air USEPA Region 9 RSL (Residential)		1.34E-01	1.83E+03	4.25E+01	NE	2.23E-01	5.47E-01	1.03E-02	2.07E+02	2.97E+03	7.65E+01	7.57E+00	2.61E+00	1.50E+00	1.37E+02	NE	NE	4.00E+01	NE	2.03E+02	1.68E+02	1.72E+03	3.13E+02	NE	6.04E-02	NE	1.38E+03	1.59E+01	1.34E-01	2.13E-01	2.23E-01	1.30E+02	5.96E+01	6.26E-02	1.68E+02
USEPA Test Method		TO-15																																		

Notes:

Constituent detected.

VOCs = Volatile Organic Contaminants
USEPA = United States Environmental Protection Agency
RSL = residential regional screening level, reported in ppbv
NE = not established
< = less than

J - concentration is estimated

TABLE 18
SUMMARY OF RADIONUCLIDE
ANALYTICAL RESULTS FOR SOIL SAMPLES
Phoenix-Goodyear Airport-North Superfund Site
Goodyear, Arizona

Sample Identification	Sample Date	Gross Alpha Activity	Gross Beta Activity	Gross Gamma Activity		
				Cesium-134	Cesium-137	Cobalt-60
		pCi/gram				
USEPA Test Method		900.0	900.0	901.1	901.1	901.1
SASFS Potential Source Area (PSA) - S samples						
SASFS-PSAS-B1-12-062410	6/24/2010	53.0 ± 4.0	28.9 ± 1.8	<0.039	<0.034	<0.034
SASFS-PSAS-B2-12-062410	6/24/2010	38.0 ± 3.1	27.4 ± 1.5	<0.038	<0.036	<0.035
SASFS-PSAS-B3-12-062410	6/24/2010	12.6 ± 1.5	23.9 ± 1.2	<0.037	<0.032	<0.031
SASFS-PSAS-B4-12-062410	6/24/2010	32.6 ± 2.4	30.8 ± 1.4	<0.037	<0.035	<0.035
Radionuclide background samples						
SASFS-RBS1-3-082510	8/25/2010	9.4 ± 2.8	12.7 ± 2.3	<0.019	<0.016	<0.017
SASFS-RBS2-3-082510	8/25/2010	13.3 ± 2.8	16.7 ± 2.1	<0.023	<0.020	<0.022
SASFS-RBS3-3-082510	8/25/2010	15.5 ± 2.7	19.0 ± 1.9	<0.022	<0.020	<0.021
SASFS-RBS4-3-082510	8/25/2010	19.9 ± 2.9	18.7 ± 1.8	<0.025	<0.022	<0.022
SASFS-RBS5-3-082510	8/25/2010	16.2 ± 2.3	22.4 ± 1.5	<0.028	<0.024	<0.025
SASFS-RBS6-3-082510	8/25/2010	13.1 ± 2.1	23.4 ± 1.5	0.028 ± 0.008	<0.024	<0.023

Notes:
SASFS = Source Areas, Soils and Facility Structures
< = less than
USEPA = United States Environmental Protection Agency
NA = Sample not analyzed for listed constituent
pCi/gram = Picocurie per gram

FIGURES

0 1500 3000

APPROXIMATE SCALE IN FEET

N

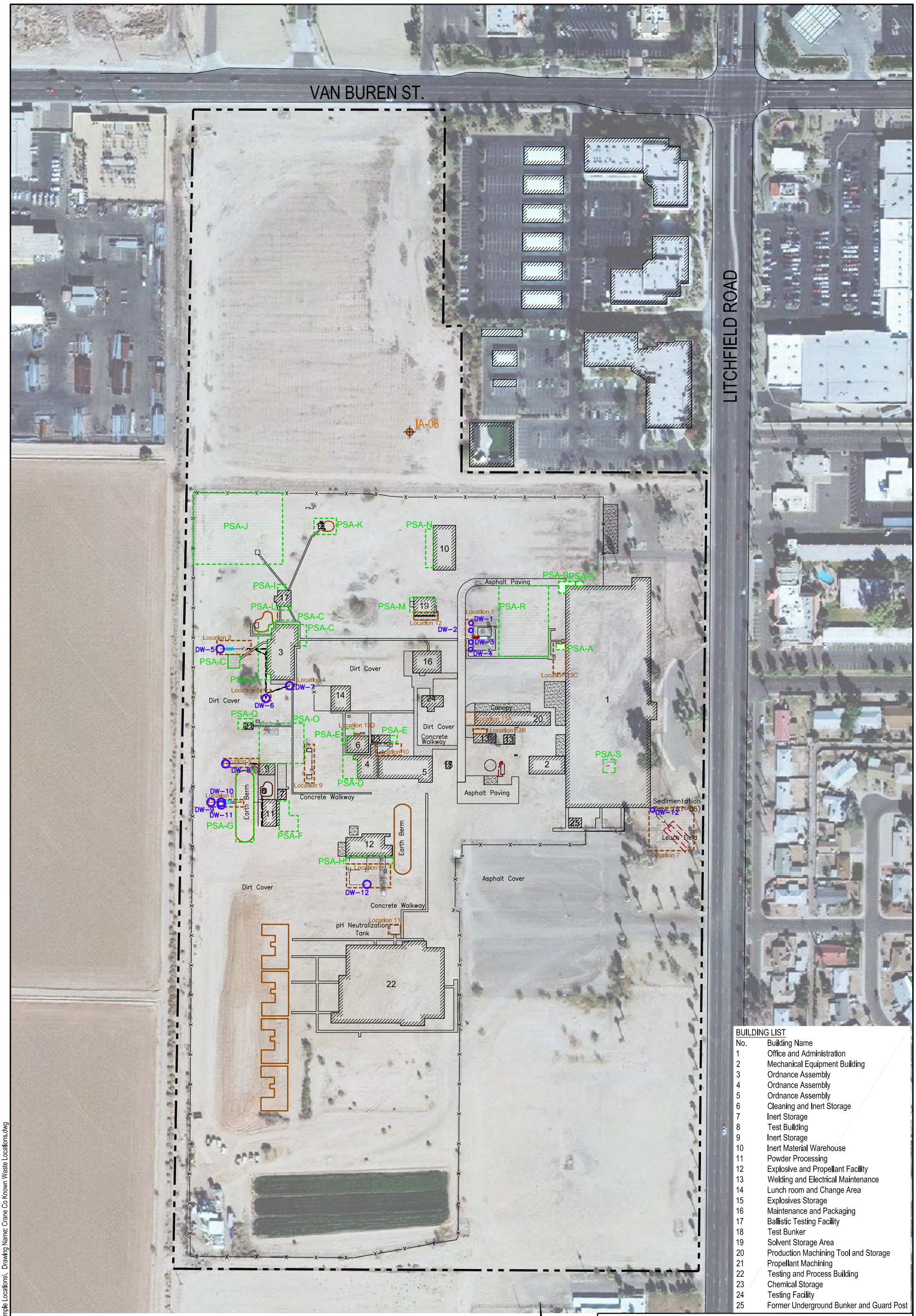
Base map aerial modified from 2006 NAIP Aerial Photogrpahy from United States Department of Agriculture geospatial data gateway website (http://datagateway.nrcs.usda.gov/GatewayHome.html)

SITE LOCATION MAP

Phoenix-Goodyear Airport North Superfund Site
Goodyear, Arizona

By: ld	Date: 10/25/10	Project No. 14682
AMEC Geomatrix		Figure 1

Plot Date: 10/25/10 - 7:33pm, Plotted by: LineDesign
Drawing Path: N:\Geomatrix\Crane Co\Figures\Sample Locations\, Drawing Name: Crane Co Site Location.dwg



BUILDING LIST

No.	Building Name
1	Office and Administration
2	Mechanical Equipment Building
3	Ordnance Assembly
4	Ordnance Assembly
5	Ordnance Assembly
6	Cleaning and Inert Storage
7	Inert Storage
8	Test Building
9	Inert Storage
10	Inert Material Warehouse
11	Powder Processing
12	Explosive and Propellant Facility
13	Welding and Electrical Maintenance
14	Lunch room and Change Area
15	Explosives Storage
16	Maintenance and Packaging
17	Ballistic Testing Facility
18	Test Bunker
19	Solvent Storage Area
20	Production Machining Tool and Storage
21	Propellant Machining
22	Testing and Process Building
23	Chemical Storage
24	Testing Facility
25	Former Underground Bunker and Guard Post

EXPLANATIONS

- Building
- Pavement
- Fence
- Property line
- IA-06 — Historic injection well
- DW-10 — Dry well location
- PSA-D — Potential source area
- Location 6 — Known waste location

N

0 100 200

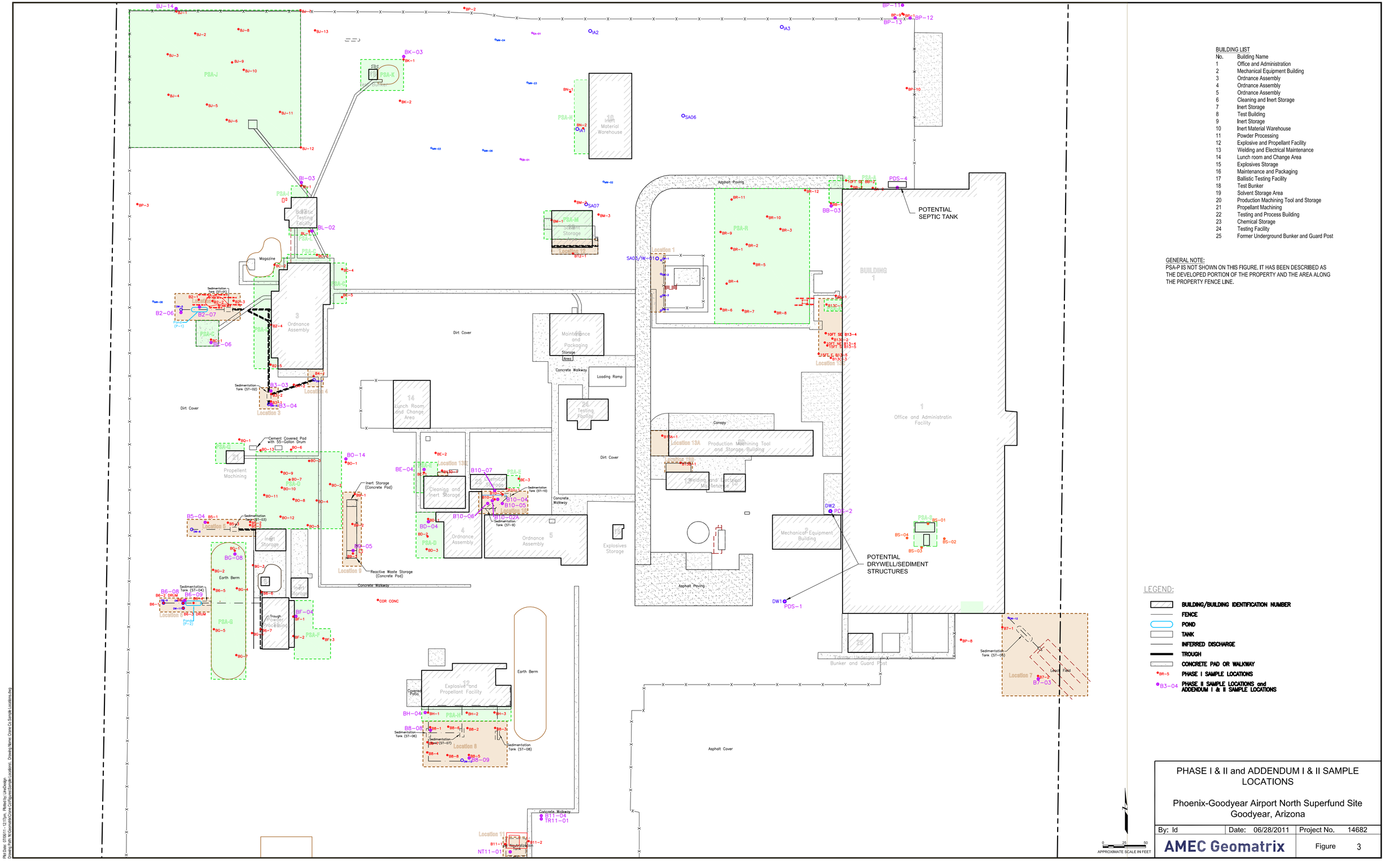
APPROXIMATE SCALE IN FEET

KNOWN WASTE LOCATIONS and POTENTIAL SOURCE AREAS

Phoenix Goodyear Airport North Superfund Site
Goodyear, Arizona

By: ld	Date: 10/25/2010	Project No. AZ004978.0022
AMEC Geomatrix		Figure 2

Plot Date: 10/25/10 - 7:36pm, Plotted by: LineDesign
Drawing Path: N:\Geomatrix\Crane Co\Figures\Sample Locations\, Drawing Name: Crane Co Known Waste Locations.dwg


BUILDING LIST
No. Building Name
1 Office and Administration
2 Mechanical Equipment Building
3 Ordnance Assembly
4 Ordnance Assembly
5 Ordnance Assembly
6 Cleaning and Inert Storage
7 Inert Storage
8 Test Building
9 Inert Storage
10 Inert Material Warehouse
11 Powder Processing
12 Explosive and Propellant Facility
13 Welding and Electrical Maintenance
14 Lunch room and Change Area
15 Explosives Storage
16 Maintenance and Packaging
17 Ballistic Testing Facility
18 Test Bunker
19 Solvent Storage Area
20 Production Machining Tool and Storage
21 Propellant Machining
22 Testing and Process Building
23 Chemical Storage
24 Testing Facility
25 Former Underground Bunker and Guard Post
GENERAL NOTE:
PSA-P IS NOT SHOWN ON THIS FIGURE, IT HAS BEEN DESCRIBED AS THE DEVELOPED PORTION OF THE PROPERTY AND THE AREA ALONG THE PROPERTY FENCE LINE.
POTENTIAL SEPTIC TANK
POTENTIAL DRYWELL/SEDIMENT STRUCTURES
LEGEND:
BUILDING/BUILDING IDENTIFICATION NUMBER
FENCE
POND
TANK
INFERRED DISCHARGE
TROUGH
CONCRETE PAD OR WALKWAY
PHASE I SAMPLE LOCATIONS
PHASE II SAMPLE LOCATIONS and ADDENDUM I & II SAMPLE LOCATIONS
APPROXIMATE SCALE IN FEET
PHASE I & II and ADDENDUM I & II SAMPLE LOCATIONS
Phoenix-Goodyear Airport North Superfund Site
Goodyear, Arizona
By: ld
Date: 06/28/2011
Project No. 14682
AMEC Geomatrix
Figure 3
Plot Date: 07/06/11 - 12:17pm Plotted by: LeaDesign
Drawing Path: N:\Geomatrix\Drawing Cor\Figures\Sample Locations\ Drawing Name: Cover Or Sample Locations.dwg

VAN BUREN ST.

LITCHFIELD ROAD

RBS-1

RBS-2

RBS-3

RBS-4

RBS-5

RBS-6

AB-1

AB-2

AB-3

AB-4

AB-5

AB-6

IA-06

PSA-A

PSA-B

PSA-C

PSA-D

PSA-E

PSA-F

PSA-G

PSA-H

PSA-I

PSA-J

PSA-K

PSA-L

PSA-M

PSA-N

PSA-O

PSA-Q

PSA-R

PDS-1

PDS-2

BS-01

BS-02

BS-03

BS-04

PSA-S

DW-1

DW-2

DW-3

DW-4

DW-5

DW-6

DW-7

DW-8

DW-9

DW-10

DW-11

DW-12

Location 1

Location 2

Location 3

Location 4

Location 6

Location 7

Location 9

Location 10

Location 11

Location 12

Location 13A

Location 13B

Location 13C

Location 13D

Asphalt Paving

Asphalt Cover

Concrete Walkway

Dirt Cover

Canopy

Earth Berm

Leach Field

Sedimentation Tank (ST-05)

pH Neutralization Tank

BUILDING LIST

No.	Building Name
1	Office and Administration
2	Mechanical Equipment Building
3	Ordnance Assembly
4	Ordnance Assembly
5	Ordnance Assembly
6	Cleaning and Inert Storage
7	Inert Storage
8	Test Building
9	Inert Storage
10	Inert Material Warehouse
11	Powder Processing
12	Explosive and Propellant Facility
13	Welding and Electrical Maintenance
14	Lunch room and Change Area
15	Explosives Storage
16	Maintenance and Packaging
17	Ballistic Testing Facility
18	Test Bunker
19	Solvent Storage Area
20	Production Machining Tool and Storage
21	Propellant Machining
22	Testing and Process Building
23	Chemical Storage
24	Testing Facility
25	Former Underground Bunker and Guard Post

EXPLANATION

- AB-1 Soil gas boring location
- Building
- Pavement
- Fence
- Property line
- IA-06 Historic injection well
- DW-10 Dry well location
- RBS-5 Radionuclide background sample
- PDS-1 Potential drywell soil gas boring
- BS-01 PSA-S radionuclide sample location

0 100 200

APPROXIMATE SCALE IN FEET

N

SOIL GAS BORING LOCATIONS and RADIONUCLIDE SAMPLE LOCATIONS

Phoenix Goodyear Airport North Superfund Site
Goodyear, Arizona

By: ld	Date: 10/25/2010	Project No. AZ004978.0022
AMEC Geomatrix		Figure 4

Plot Date: 10/25/10 - 8:10pm, Plotted by: LineDesign
Drawing Path: N:\Geomatrix\Crane Co\Figures\Sample Locations\, Drawing Name: Crane Co RBS Sample Locations.dwg

VAN BUREN ST.

LITCHFIELD ROAD

AB-1
AB-2
AB-3
AB-4
AB-5
AB-6

PSA-A
PSA-B
PSA-C
PSA-D
PSA-E
PSA-F
PSA-G
PSA-H
PSA-I
PSA-J
PSA-K
PSA-L
PSA-M
PSA-N
PSA-O
PSA-Q
PSA-R
PSA-S

Location 1
Location 2
Location 3
Location 4
Location 5
Location 6
Location 7
Location 8
Location 9
Location 10
Location 11
Location 12
Location 13A
Location 13B
Location 13C
Location 13D

DW-1
DW-2
DW-3
DW-4
DW-5
DW-6
DW-7
DW-8
DW-9
DW-10
DW-11
DW-12

Asphalt Paving
Concrete Walkway
Dirt Cover
Asphalt Cover
Canopy
Earth Berm
Leach Field
Sedimentation Tank (ST-05)
pH Neutralization Tank

COOLING TOWER SUMP

COOLING TOWER SUMP (~5'x5')
CTS-01
CTS-02
CTS-03
CTS-04

BUILDING LIST

No.	Building Name
1	Office and Administration
2	Mechanical Equipment Building
3	Ordnance Assembly
4	Ordnance Assembly
5	Ordnance Assembly
6	Cleaning and Inert Storage
7	Inert Storage
8	Test Building
9	Inert Storage
10	Inert Material Warehouse
11	Powder Processing
12	Explosive and Propellant Facility
13	Welding and Electrical Maintenance
14	Lunch room and Change Area
15	Explosives Storage
16	Maintenance and Packaging
17	Ballistic Testing Facility
18	Test Bunker
19	Solvent Storage Area
20	Production Machining Tool and Storage
21	Propellant Machining
22	Testing and Process Building
23	Chemical Storage
24	Testing Facility
25	Former Underground Bunker and Guard Post

EXPLANATION

- AB-1 — Soil gas boring location
- Building
- Pavement
- Fence
- Property line
- DW-10 — Dry well location
- CTS-01 — Soil boring location

0 100 200
APPROXIMATE SCALE IN FEET

N

LIMITED ADDITIONAL SOIL SAMPLING LOCATIONS

Phoenix Goodyear Airport North Superfund Site
Goodyear, Arizona

By: ld	Date: 06/28/2011	Project No. AZ004978.0022
AMEC Geomatrix		Figure 5

Plot Date: 06/28/11 - 12:32pm, Plotted by: LineDesign
Drawing Path: N:\Geomatrix\Crane Co\Figures\Sample Locations\, Drawing Name: Crane Co Limited Additional Sample Locations.dwg